
The 48th Congress of the European Society for Surgical Research

May 29 – June 1, 2013, Istanbul, Turkey

CONGRESS ORGANIZING COMMITTEE

Osman Yüksel, Congress President
Gökhan Yağcı, Congress Vice President
Mehmet Fatih Can, General Secretary

The abstracts are available online, free of charge, under
http://www.karger.com/esr_50_s1_2013

S. Karger
Medical and Scientific Publishers
Basel · Freiburg · Paris · London · New York ·
New Delhi · Bangkok · Beijing · Tokyo ·
Kuala Lumpur · Singapore · Sydney

Disclaimer

The statements, opinions and data contained in this publication are solely those of the individual authors and contributors and not of the publisher and the editor(s). The appearance of advertisements in the journal is not a warranty, endorsement, or approval of the products or services advertised or of their effectiveness, quality or safety. The publisher and the editor(s) disclaim responsibility for any injury to persons or property resulting from any ideas, methods, instructions or products referred to in the content or advertisements.

Drug Dosage

The authors and the publisher have exerted every effort to ensure that drug selection and dosage set forth in this text are in accord with current recommendations and practice at the time of publication. However, in view of ongoing research, changes in government regulations, and the constant flow of information relating to drug therapy and drug reactions, the reader is urged to check the package insert for each drug for any change in indications and dosage and for added warnings and precautions. This is particularly important when the recommended agent is a new and/or infrequently employed drug.

All rights reserved.

No part of this publication may be translated into other languages, reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, microcopying, or by any information storage and retrieval system, without permission in writing from the publisher or, in the case of photocopying, direct payment of a specified fee to the Copyright Clearance Center (see 'General Information').

© Copyright 2013 by S. Karger AG,
P.O. Box, CH-4009 Basel (Switzerland)
e-ISBN 978-3-318-02474-6

KARGER

E-Mail karger@karger.com
www.karger.com

Abstracts

Walter Brendel

WB 01

Effects of Methane on the Functional and Morphological Consequences of Experimental Mesenteric Ischemia and Reperfusion

András Tamás Mészáros, Tamás Büki, Gabriella Varga, Tünde Tókécs, József Kaszaki, Mihály Boros

Institute of Surgical Research, University of Szeged, Szeged, Hungary

Introduction: Previously we have demonstrated that methane (CH₄) has anti-inflammatory potential and reduces the biochemical consequences of the inflammatory response during experimental ischemia-reperfusion (I/R) (Crit Care Med 2012), but the possible therapeutic effects of CH₄ administration on hypoxic tissue damage are unknown.

Objectives: Our goal was to investigate the functional and structural changes of the mucosa in a rodent model of intestinal I/R with or without CH₄ treatments.

Material/Patients and Methods: We have monitored the effects of a 45-min ischemia followed by 60-min reperfusion in anesthetized rats. Control, I/R, I/R with CH₄ treatment (I/R+Met) groups were used (n=9 each); in I/R+Met animals artificial air containing 2.5% CH₄ was administered in the last 5 min of ischemia and for 10 min during reperfusion. We have analysed the dynamics of morphological changes of the mucosa with in vivo fluorescent confocal laser scanning endomicroscopy. Functional changes were evaluated by intraluminal fluorescent dextran, and iv-administered Evans blue to quantify epithelial permeability (EP) and vascular permeability (VP) indices, respectively.

Results: Increased epithelial shedding was observed in I/R group with a 50-fold increase of the EP index (I/R:M=53.9±19.3 vs control:M=0.9±0.2) and VP index (I/R:M=0.34±0.14 vs control:M=0.09±0.02), as compared to the control group. the CH₄ inhalation therapy prevented the loss of the epithelium and significantly decreased the EP (I/R+Met:M=13.1±5.0) and VP (I/R+Met:M=0.13±0.02) indices, respectively.

Conclusion: Normoxic CH₄ inhalation has significant therapeutic advantages, prevents reperfusion damage, and the loss of barrier function of the small intestinal epithelium during experimental I/R. Supported by OTKA K75161, TÁMOP-4.2.2/B-10/1-2010-0012.

WB 02

Blockade of Rage Ameliorates Hepatic Microcirculation in Experimental Endotoxemic Liver Failure

Johannes Norden, Angela Kuhla, Kerstin Abshagen, Brigitte Vollmar

Institute for Experimental Surgery, University of Rostock, Germany

Introduction: Ligand binding to the receptor for advanced glycation endproducts (RAGE), which is a member of pattern-recognition-receptors (PRRs), causes sustained activation of multiple inflammatory pathways. Therefore, RAGE has potential as a new therapeutic target in sepsis.

Objectives: the aim of this study was to analyse in vivo whether RAGE blockade prevents microcirculatory dysfunction and subsequent tissue injury in endotoxemic liver failure.

Material/Patients and Methods: Hepatic microcirculation in murine livers exposed to galactosamine/lipopolysaccharide (G/L) and treated with an anti-RAGE antibody (abRAGE) either 12 h before or 1 h after G/L exposure was analysed using intravital fluorescence microscopy. Afterwards blood samples and liver tissue were harvested for analysis of leukocyte tissue infiltration, apoptotic and necrotic damage as well as RAGE downstream signalling pathway.

Results: Sinusoidal perfusion failure in G/L-exposed livers (70±3%) could significantly be reduced by both pre- and posttreatment with abRAGE (40±5 and 36±4%). Hepatic inflammation upon G/L exposure was also attenuated via abRAGE administration, as given by a 55% reduction of sinusoidal leukocyte stasis, by a 65% decrease of venular leukocyte rolling and adhesion and by a 85% reduction of leukocyte tissue infiltration. Treatment with abRAGE markedly reduced hepatocellular apoptosis and necrosis in G/L-exposed livers and caused a limited rise of plasma HMGB1 levels. Finally, G/L-induced activation of the MAPK cascade was also significantly reduced by blockade of RAGE.

Conclusion: the main findings of the study underline the important role of RAGE in mediating endotoxemic liver damage and the potential therapeutic value of blockade of this PRR by abRAGE.

WB 03

Activation of Nrf2 Suppresses Oxidative Stress and Inflammatory Response During hepatic Ischemia-reperfusion Injury

Kazuhiro Kudoh, Hiroshi Uchinami, Yuzo Yamamoto

Department of Gastroenterological Surgery, Akita University Graduate School of Medicine, Akita, Japan

Introduction: We have reported that transcription factor—Nrf2—protected the liver from ischemia-reperfusion injury by inducing oxidative genes. However, precise mechanism of this protection was not clarified.

Objectives: in this study, we investigated whether Nrf2 activation suppressed oxidative stress and inflammatory response during hepatic ischemia-reperfusion.

Material/Patients and Methods: C57BL/6 mice (WT) and Nrf2 knockout mice (KO) received an intravenous injection of 15-deoxy- Δ 12,14-prostaglandin J2 (15d-PGJ2)—Nrf2 activator—or vehicle. Three hours after the injection, mice were subjected to a 60-min partial hepatic ischemia followed by reperfusion. Oxidative stress was evaluated by measuring GSH/GSSG ratio and Malondialdehyde (MDA) concentration in the liver tissue. Hepatic expression of TNF- α mRNA was analyzed by real-time RT-PCR.

Results: Before ischemia, there were no differences in hepatic GSH/GSSG ratio and MDA level. in comparison to WT, GSH/GSSG ratio was significantly decreased and MDA level was markedly increased after the reperfusion in KO. by the treatment with 15d-PGJ2, decreased GSH/GSSG ratio and increased MDA level after reperfusion were significantly suppressed in WT, but not in KO. the elevation of TNF- α expression after reperfusion was significantly enhanced in KO, but was suppressed in 15d-PGJ2-pretreated WT.

Conclusion: Nrf2 activation, inducing the expression of antioxidant genes, was effectively suppressed oxidative stress and inflammatory response during hepatic ischemia-reperfusion. This suppression might be one of the protective mechanisms of Nrf2 activation against hepatic ischemia-reperfusion injury.

WB 04

Atp-dependent Potassium Channels Block the Effects of Erythropoietin in Renal Cells

Tongu Utku Yilmaz¹, Nuray Yazihan², Aydin Dalgiç³, Ezgi Ermiş Kaya², Bülent Salman³

¹Kocaeli University, School of Medicine, Department of General Surgery, Turkey

²Ankara University, School of Medicine, Molecular Biology and Technology Research and Development Unit, Turkey

³Gazi University, School of Medicine, Department of General Surgery, Turkey

Introduction: Erythropoietin (EPO) has cytoprotective and anti-apoptotic effects in hypoxia and ischemia-reperfusion injury. One target to protect against injury is ATP-dependent potassium (KATP) channels which could be involved in EPO induced ischemic preconditioning like a protective effect.

Objectives: We evaluated the cell cytoprotective effects of EPO in relation to KATP channel activation in the renal tubular cell culture model under hypoxic/normoxic conditions.

Material/Patients and Methods: Dose and time dependent effects of EPO, KATP blocker glibenclamide and KATP opener diazoxide on cellular death and proliferation were evaluated by colorimetric assay MTT under normoxic and hypoxic conditions in a renal tubular cell line. Evaluation of the dose and time dependent effects of EPO, glibenclamide and diazoxide on apoptosis was measured by caspase-3 levels. HIF-1 α mRNA levels were measured by RT-PCR.

Results: Glibenclamide treatment decreased the number of living cells in a time and dose dependent manner, whereas EPO and diazoxide treatments increased. Glibenclamide (100 μ M) treatment significantly blocked the antiapoptotic effects of EPO (10 IU/mL) under both normoxic and hypoxic conditions. EPO and diazoxide (100 μ M) treatments significantly increased HIF-1 α mRNA expression. Glibenclamide decreased. Glibenclamide significantly decreased EPO induced and hypoxia induced factor-1 α mRNA expression when compared with the EPO alone group.

Conclusion: The cell proliferative, cytoprotective and anti-apoptotic effects of EPO are associated with KATP channels in the renal tubular cell culture model under hypoxic/normal conditions.

WB 05

Determination of the Optimal Conditions for Isolated Perfusion of Porcine Kidneys

Elina Mancina¹, Julia Kalenski¹, Pascal Paschenda¹, Christian Beckers², Christian Bleilevens², Benedict Doorschodt¹, Rene Tolba¹

¹Institute for Laboratory Animal Science & Experimental Surgery, Rwth-aachen University, Aachen, Germany

²Department of Anesthesiology, Rwth-aachen University, Aachen, Germany

Introduction: the Isolated Perfused Porcine Kidney model (IPPK) has been the method of choice for early pre-clinical evaluation of kidney graft preservation techniques. However, the optimal reperfusion conditions have not yet been determined.

Objectives: This study examined the effects of pressure- or flow-driven perfusion as well as oxygenation by 100% oxygen or carbogen (95%O₂/5%O₂) on normothermic reperfusion (NR).

Material/Patients and Methods: After retrieval, porcine kidneys were cold stored for 24h in HTK solution and reperfused for 1h with normothermic whole blood/Krebs-Henseleit Buffer medium (20/80%) for assessment of renal function and damage. NGAL and HIF-1 levels were analyzed

via ELISA. Kidneys (n=5/group) were flow-driven reperfused with pure oxygen (1ml/min/gram, NRFO) or pressure-driven reperfused (85 mmHg mean pressure) and oxygenated with pure oxygen (NRPO) or carbogen (NRPC).

Results: Pressure-driven reperfusion with carbogen (NRPC) demonstrated significantly higher urine production compared to flow-driven oxygenated reperfusion (NRFO), mean \pm SEM: 483 \pm 62 vs. 363 \pm 72 vs. 239 \pm 111 ml at 1h reperfusion resp. Urine protein concentration was lower with NRPC compared to both NRPO and NRFO (62 \pm 21 vs. 561 \pm 61 vs. 3429 \pm 902 mg/dl) as was fractional excretion of sodium (50 \pm 7% vs. 59 \pm 9% vs. 89 \pm 2%). Also NGAL and HIF-1 levels were lower with NRPC compared to NRPO and NRFO (26 \pm 7 vs. 46 \pm 9 vs. 309 \pm 75 ng/ml and 46 \pm 7 vs. 62 \pm 5 vs. 164 \pm 43 pg/ml resp.). NRPC was also associated with better acid-base homeostasis and improved renal hemodynamics.

Conclusion: Application of pressure-driven perfusion with carbogen oxygenation in the IPPK model maintains physiological renal function thus providing optimal conditions for ex-vivo evaluation of organ preservation quality.

WB 06

Fasting Protects Against the Adverse Side Effects of Chemotherapy But Does Not Abrogate Anti-tumor Activity

Sander Huisman, Sandra Van Den Engel, Henk Roest, Wendy Bijman-lachger, Jan Ijzermans, Ron De Bruin

Erasmus Medical Centre, Rotterdam, The Netherlands

Introduction: In previous work we have shown that fasting leads to increased expression of cytoprotective and antioxidant genes.

Objectives: Here we have examined the effects of fasting prior to administration of a high dose of irinotecan on the occurrence of adverse events and anti-tumor effect in C26 coloncarcinoma bearing mice.

Material/Patients and Methods: Male BALB/c mice were subcutaneously implanted with C26 coloncarcinoma (n=6/group). Ten days after implantation, 2 groups were fasted for 72 hours and 2 groups were fed ad libitum. One ad libitum group and one fasting group were treated with a cumulative dose of 400 mg/kg irinotecan intraperitoneally on days 0, 2 and 4 relative to fasting. Tumor growth and adverse side effects were recorded daily. Leukocytes were counted on day 8. Tumors were resected, measured and weighed at the end of the experiment.

Results: In the ad libitum fed group mice showed weight loss from the first injection, from day 4 they displayed different behaviour, reduced mobility, had ruffled hair, a hunched posture and diarrhea. The fasted mice gained weight, showed no visible adverse side effects and had significantly less leukopenia compared to the ad libitum fed animals (6.5*10⁶/mL vs. 3.2*10⁶/mL, p<0.001). Fasting alone had no effect on tumor growth. Irinotecan significantly suppressed tumor growth in both the fasted and ad libitum fed groups compared to untreated controls (1286 and 1278 mg vs. 2106

mg, p<0.001).

Conclusion: Our data demonstrate that 72 hours of fasting prior to treatment with a high dose of irinotecan prevents the occurrence of adverse events, while antitumor activity is not affected.

Young Investigator

YI 01

Fate of Research Abstracts Submitted to a Scientific Surgical Meeting

V.e. De Meijer, S.p. Knops, Joris Van Dongen, B.m. Eyck, W.j. Vles

Department of Surgery, Ikazia Hospital Rotterdam, The Netherlands

Introduction: Abstracts submitted to scientific conferences are not subjected to the same critical peer review process as published manuscripts. Despite this limited scrutiny presented abstracts often influence clinical thinking and practice. Consequently the peer reviewed publication rate of abstracts becomes critical in judging the quality of this research.

Objectives: the aim of this study was to investigate the presentation and publication rate of abstracts submitted to the biannual Dutch Surgical Society meetings and determine its scientific impact.

Material/Patients and Methods: All abstracts submitted to the conference from 2007-2012 were retrieved and reviewed for publication in PubMed. Impact factor, Eigenfactor, Article Influence score, as well as the publication rates and the time to publication were investigated.

Results: of 2174 submitted abstracts, 1305 (60%) were accepted for presentation. of these, 707 (54.2%) were successfully published after 16.9 \pm 0.4 months. of 869 abstracts rejected for presentation, 411 (47.3%) were nonetheless published after 16.8 \pm 0.6 months (χ^2 9.886, df1, P=0.002). Scientific articles resulting from presented abstracts had a significantly higher Impact factor (4.6 \pm 0.2 versus 3.5 \pm 0.1; P<0.001), Eigenfactor (0.049 \pm 0.004 versus 0.028 \pm 0.002; P<0.001) and Article Influence score (1.64 \pm 0.09 versus 1.19 \pm 0.06; P=0.001), compared to articles resulting from rejected abstracts.

Conclusion: with a presentation rate of 60% and a publication rate of 51%, a significant proportion of submitted abstracts was never subjected to or had failed critical peer review process. Scientific articles resulting from abstracts accepted for presentation were published in journals with a significantly higher impact. These observations should be considered when deciding whether to incorporate the findings of abstracts into clinical practice.

YI 02

Endothelial-leukocyte Interactions Induced by the Activation of Trpv1-expressing Sensory Nerves in the Rat Urinary Bladder

Dénes Garab¹, Péter Járomi³, Petra Hartmann¹, Péter Sántha², Dóra Bodnár¹, Mihály Boros¹, Gábor Jancsó², and Rea Szabó¹

¹Institute of Surgical Research, University of Szeged, Szeged, Hungary

²Department of Physiology, University of Szeged, Szeged, Hungary

³Department of Urology, County Hospital of Kecskemét, Kecskemét, Hungary

Introduction: Some human urinary diseases like interstitial cystitis have been linked to neurogenic inflammation. This can be triggered by activation of afferent nerves expressing the transient receptor potential vanilloid-1 (TRPV1) receptor. Selective activation of these sensory fibers by capsaicin evokes the release of vasoactive neuropeptides (SP, CGRP) resulting in local vasodilatation and increase in microvascular permeability (neurogenic inflammation).

Objectives: Our aim was to examine leukocyte-endothelial interactions that have not been studied, yet.

Material/Patients and Methods: the effects of a topically applied TRPV1 agonist, capsaicin (50µM, 15min) were examined on endothelial-leukocyte interactions in the urinary bladder of anesthetized adult male rats using fluorescence intravital microscopy (n=12). The experiments were repeated following the selective depletion of TRPV1-positive neurons by neonatal capsaicin treatment (n=8), or in the presence of capsazepine, a TRPV1 receptor antagonist (200µM, n=5). CGRP8-37 (10µM, n=5) and RP67580 (10µM, n=7) were used as CGRP and NK-1 receptor antagonists, respectively.

Results: Capsaicin treatment resulted in a significant increase in leukocyte rolling and sticking during the entire examination period of 45min, and an elevation in tissue myeloperoxidase activity, but had no effect on CD11b expression as assessed with flow cytometry. These reactions were significantly attenuated by neonatal capsaicin treatment and TRPV1 receptor antagonism, whereas CGRP8-37 influenced leukocyte rolling, and RP67580 inhibited sticking.

Conclusion: Selective activation of bladder afferents by capsaicin enhanced leukocyte-endothelial interactions in postcapillary venules, and resulted in an accumulation of leukocytes in the rat urinary bladder. These changes may be explained by endothelial activation involving both CGRP and SP. Supported by TÁMOP-4.2.2.A-11/1/KONV

YI 03

IL-4 Independent M2 Macrophage Differentiation May Ameliorate Adhesion Formation After Abdominal Surgery

Gun-soo Hong, Timo Schwandt, Kathy Stein, Sven Wehner, Susann Kostmann, Jörg Kalff

Department of Surgery, University of Bonn, Germany

Introduction: Peritoneal adhesion emerge in up to 93% after abdominal surgery. This can lead to obstruction, chronic abdominal pain, and other complications. Macrophages are supposed to be involved during adhesion formation. Macrophages can be subdivided into proinflammatory M1 macrophages or anti-inflammatory M2 macrophages. They can have various and even opposing roles due to their differentiating status.

Objectives: Characterizing macrophages during adhesion formation after abdominal surgery.

Material/Patients and Methods: Peritoneal adhesions were induced by placing four ischemic buttons (IB) in the peritoneum of mice and scored at different time points. Infiltrating monocytes in the peritoneal cavity were detected and characterized via flow cytometric analysis and verified by immunohistochemical staining of surface F4/80 via immunohistochemical staining of ischemic buttons with or without adhesions. Gene expression of M1 macrophage markers (TNF-alpha, IL-6), M2 macrophage markers (TGF-β, YM1, MR-1) and IL-4 expression were quantified by RT PCR. Arginase1 was measured via an arginase assay.

Results: Adhesions developed in about 2/3 of ischemic buttons from day one and increased to day seven gradually. After surgery, monocytes infiltrated the peritoneal cavity and differentiated into tissue macrophages, expressing F4/80 antigen. M1 macrophages marker were not significantly elevated, but in contrast expression of M2 Markers was significantly upregulated in ischemic buttons without adhesions compared to ischemic button with adhesions.

Conclusion: Our data suggest a key role of macrophages in peritoneal adhesion formation. Maintenance or induction of macrophages M2 differentiation is associated with less adhesion formation and may be a promising strategy in prevention of adhesion formation.

YI 04

Hydroxyectoine Ameliorates Cold Ischemic Preservation Injury in Deceased After Cardiac Death Donors in Rat Livers

Pramod Kadaba Srinivasan¹, Ngwi Fet¹,
Christian Bleilevens³, Mamdouh Afify¹,
Shintaro Yagi², Benedict Doorschodt¹,
Gerhild Van Echten-deckert⁴, RenÉ Tolba¹

¹Institute for Laboratory Animal Science, University Hospital Rwth Aachen, Aachen, Germany

²Department of Hepatobiliary, Pancreatic and Transplant Surgery, Kyoto University, Kyoto, Japan

³Department of Anaesthesia, University Hospital Rwth Aachen, Aachen, Germany

⁴Kekulé Institute, Limes Membrane Biology and Lipid Biochemistry Unit, University of Bonn, Bonn, Germany

Introduction: Due to the drastic shortage of organ donors, surgeons are reconsidering deceased after cardiac death donors (DCD). Compatible solutes like Ectoine and Hydroxyectoine are produced by extremophilic bacteria as a cell protectant to survive in harsh environments.

Objectives: We hypothesized that the addition of Hydroxyectoine to HTK could ameliorate the injury associated with cold-ischemic preservation of DCD livers.

Material/Patients and Methods: Rat livers were harvested without or with 30 minutes warm ischemia (WI) induced by cardiac arrest. We studied 3 experimental groups (n=5, respectively) (1) Control: No WI, cold static storage (CS) in HTK for 24 hours, (2) DCD: 30 minutes WI followed by 24 h CS in HTK, (3) DCD+HE: 30 m WI and 24 h CS in HTK+HE. Viability of the livers was assessed after 24 h of preservation by isolated liver perfusion for 45 minutes with oxygenated Krebs-Henseleit-buffer.

Results: (mean±SEM) (Control vs. DCD vs. DCD+HE) Parenchymal enzyme (AST) release throughout reperfusion was significantly lower in DCD+HE compared to DCD (6.1±1.24; 38.2±7.21; 17.45±5.57 U/L). Bile production at the end of 45 minutes of reperfusion was significantly higher in DCD+HE (69.20±20.05; 20.4±4.79; 163.6±30.68 µL/45 minutes). Malondialdehyde values were significantly lower in DCD+HE (0.58±0.08, 0.88±0.1, 0.65±0.04 nmol/mL). Intercellular adhesion molecule-1 shows significantly lower values in DCD+HE (242.0±46.22, 403.6±39.61 pg/mL, 205.2±37.71 pg/mL). Portal venous pressure was lower compared to DCD (20.41±0.12, 27.47±0.45, 22.08±0.78 mmHg).

Conclusion: in conclusion, our data demonstrates the beneficial role of Hydroxyectoine with HTK in preservation of DCD livers compared to HTK alone.

YI 05

Intestinal Postconditioning Influences Innate Immune Response Via Tlr Expression

Peter Onody¹, Oliver Rosero¹, Tibor Kovacs¹,
Erna Sziksz², Gabor Lotz³, Attila Szijarto¹

¹Semmelweis University, 1st Department of Surgery, Budapest, Hungary

²Semmelweis University, 1st Department of Pediatrics, Budapest, Hungary

³Semmelweis University, 2nd Department of Pathology, Budapest, Hungary

Introduction: Ischemic-reperfusion (IR) injury of the small intestine can occur as a result of superior mesenteric artery occlusion. As part of the innate immune system, toll-like receptors (TLRs) interact in the pathophysiology of organ damage after ischemic-reperfusion.

Objectives: the aim of our study was to investigate the effect of postconditioning on the redox homeostasis, the morphological changes, the expression of TLRs and the subsequent inflammatory response.

Material/Patients and Methods: Male Wistar rats underwent 60 minutes of superior mesenteric artery occlusion and 6 hours of reperfusion. Postconditioning was performed immediately at the onset of reperfusion. Blood and tissue samples were collected at the end of reperfusion. Small intestine histological sections, prooxidant-antioxidant balance and TLRs mRNA expression were investigated. Serum IL-6 and TNF-α levels were measured.

Results: Milder histological alterations observed in the postconditioned group correlated with significantly higher (p<0.05) TLRs mRNA expression of the most injured intestinal segments. This was accompanied by significantly lower IL-6 (p=0.049), and TNF-α (p=0.027) levels compared to the IR-group. Postconditioning substantially improved mucosal antioxidant status and reduced free radical stress.

Conclusion: The protective effect of postconditioning was reflected in a positive antioxidant status, decreased formation of free radicals, favorable expression of intestinal TLRs mRNA and lower inflammatory cytokine concentrations.

YI 06

A Novel Model of Murine Ascending Thoracic Aorta Aneurysm

Giacomo Bianchi¹, Angela Pucci³, Mattia Glauber²,
Vincenzo Lionetti¹

¹ Scuola Superiore Sant'anna, Settore Di Scienze
Mediche, Pisa, Italy

² Istituto Ospedaliero E Di Ricerca Creas Ifc Cnr - Massa
- Ospedale Del Cuore "g. Pasquinucci", Italy

³ Histopathology Department – Pisa University Hospital
– Pisa - Italy

Introduction: Abdominal and descending thoracic aneurysmal disease has been extensively investigated with dedicated animal models. Since ascending thoracic aorta has different embryological origin and pathophysiology as well, an established model of ascending thoracic aorta aneurysm (ATAA) in small animal is still lacking.

Objectives: To develop a murine model of ascending thoracic aorta aneurysm.

Material/Patients and Methods: Adult male C57BL/6J mice (n=10) were anesthetized, mechanically ventilated and the ascending aorta exposed through a partial upper sternotomy. Calcium chloride (0.5M) was applied on the aortic surface for 15 minutes. Five animals underwent sham operation and 5 were used as controls. Echocardiography was performed at baseline, 1 week and 4 weeks after the procedure. After 4 weeks, the perfusion-fixed ascending aortas and thoracic aortas were harvested. Wall thickness, cellularity and elastic lamellae content were assessed by histology.

Results: Echocardiography showed a progressive increase of lumen diameter (0.7±0.1 vs. 1.2±0.1, baseline vs. 4 weeks; p<0.001). Ascending aortic wall thickness was 53±8 µm in control group and 28±8 µm in CaCl₂ treated group (-47%; p<0.05). the diameter and wall thickness of the ascending aorta of sham group and thoracic aorta (used as an internal control) were not significantly different between groups. Weigert stain showed a decrease in elastic lamellae content in CaCl₂ group (6±1 vs. 3±1, control vs. treated; p<0.01).

Conclusion: We developed a model of ATAA in a murine model that demonstrates vessel enlargement, decreased wall cellularity and disruption of the elastic fiber layer; to date this is the first model described in mouse ascending aorta.

Best Clinical Research

BC 01

The Value of Golgi Protein 73 As a Marker for Differentiating Between Solid Benign and Malignant Liver Tumours

Mirelle Bröker, Jan Ijzermans, Caroline Witjes,
Hanneke Van Vuuren, Robert De Man

Erasmus Medical Center, The Netherlands

Introduction: Good diagnosis is essential in primary focal solid liver lesions, as the differential diagnosis consists of benign liver tumours such as Hepatocellular adenoma (HCA) and Focal Nodular Hyperplasia (FNH), but also of malignant tumours such as Hepatocellular Carcinoma (HCC). a promising new marker is Golgi Protein 73 (GP73). While several studies have described GP73 as being specific for patients with HCC, they only included patients with liver cirrhosis and/or healthy people as controls.

Objectives: We determined the predictive value of GP73 in differentiating between solid benign and malignant liver tumours.

Material/Patients and Methods: the 252 patients in this study included 84 patients with HCC, 84 with HCA, and 84 with FNH. We collected a blood sample from each patient, used a quantitative ELISA assay to measure GP73 levels, and compared GP73 levels in the HCC patients with those in patients with benign liver tumours. the received operating curve (ROC), sensitivity and specificity of GP73 were calculated and compared with those of Alpha-fetoprotein (AFP).

Results: with regard to their ability to differentiate between HCC-patients from patients with an HCA and FNH, the area under ROC was 0.701 and 0.912 for AFP. Sensitivity was 60% for GP73 and 65 % for AFP; specificity was 77% and 96%.

Conclusion: Although the literature suggests that GP73 is a valuable serum marker in patients with HCC, it is sometimes increased in benign liver tumours. This makes it unsuitable for a good discriminating between malignant and benign tumours.

BC 02

A Predictive Factor of Insufficient Liver Regeneration After Preoperative Portal Vein Embolization

Kisyo Mihara, Teiichi Sugiura, Yukiyasu Okamura, Hideyuki Kanemoto, Takashi Mizuno, Katsuhiko Uesaka

Division of Hepato-biliary-pancreatic Surgery, Shizuoka Cancer Center Hospital, Japan

Introduction: Even after preoperative portal vein embolization (PVE), some patients drop off from surgery due to insufficient future remnant liver function (FRLF) and volume.

Objectives: We sought to evaluate the predictor of insufficient FRLF after PVE for extended hepatectomy.

Material/Patients and Methods: This study involved 172 patients undergoing PVE before extended hepatectomy. Total liver function was evaluated by measuring indocyanine green clearance (KICG). CT volumetry was conducted to evaluate future remnant liver volume (FRLV). KICG of future remnant liver (remK) was calculated by $KICG \times \% FRLV$. The safety margin for hepatectomy was set at $remK > 0.05$.

Results: One hundred sixty-two patients underwent hepatectomy (Hx) and 10 patients could not for insufficient FRLF (non-Hx). In the Hx patients, KICG did not change after PVE (mean, 0.145 to 0.143, NS), but $\%FRLV$ and remK increased significantly (34.0 to 42.4%, $p < 0.001$, and 0.0484 to 0.0597, $p < 0.001$, respectively). Whereas, in non-Hx patients, KICG decreased significantly (0.126 to 0.110, $p < 0.001$) and $\%FRLV$ did not change markedly (29.3% to 34.9%, $p = 0.053$). As a result, remK did not increase significantly (0.0360 to 0.0390, $p = 0.333$). In multivariate analysis, only pre-PVE remK was independent risk predictor for non-Hx patients. An ROC curve demonstrated pre-PVE remK value of 0.0398 was the optimal cutoff point to detect non-Hx patients (sensitivity 80% and specificity 80%).

Conclusion: Non-Hx patients could not gain sufficient liver regeneration after PVE because of significant decrease of KICG and insufficient increase of $\%FRLV$. A pre-PVE remK value of less than 0.0398 may be a useful predictor of insufficient liver regeneration.

BC 03

Prediction of Remnant Liver Hypertrophy Ratio After Preoperative Portal Vein Embolization

Yosuke Kasai¹, Etsuro Hatano¹, Kojiro Taura¹, Satoru Seo¹, Kohta Iguchi¹, Shiro Tanaka², Shinji Uemoto¹

¹Department of Surgery, Graduate School of Medicine, Kyoto University, Japan

²Department of Pharmacoepidemiology, Graduate School of Medicine and Public Health, Kyoto University, Japan

Introduction: Portal vein embolization (PVE) is considered to improve safety of major hepatectomy. Various conditions might affect remnant liver hypertrophy after PVE.

Objectives: The aim of this study is to clarify what affects remnant liver hypertrophy and to establish the prediction formula for hypertrophy ratio.

Material/Patients and Methods: Fifty-nine patients undergoing preoperative PVE for cholangiocarcinoma in 39 patients, metastatic carcinoma in 10, hepatocellular carcinoma in 8 and the others in 2 were enrolled in this study. For prediction of hypertrophy ratio, the prediction formula was set up with step-wise multiple regression analysis using following parameters: age, gender, future liver remnant ratio (FLR%), ICGk, platelet count, prothrombin activity, serum total bilirubin at the time of PVE and the maximum before PVE (Max Bil), and history of cholangitis, diabetes mellitus and chemotherapy.

Results: Mean hypertrophy ratio was 28.8%. Five parameters were selected as predictive factors: age ($P = 0.024$), FLR% ($P < 0.001$), ICGk ($P = 0.065$), Max Bil ($P < 0.001$), and history of chemotherapy ($P = 0.009$). Prediction formula was $92.3 - 0.69 \times \text{Age} - 0.86 \times \text{FLR}\% + 147 \times \text{ICGk} - 1.45 \times \text{Max Bil (mg/dL)} - 18.7 \times \text{Chemotherapy}$, significantly correlated with actual value ($r = 0.72$, $P < 0.001$). Ten-fold cross validation also showed significant correlation ($r = 0.59$, $P < 0.001$), and hypertrophy ratio $< 20\%$ was predictable with sensitivity of 91.7% and specificity of 90.6%. Moreover, ^{99m}Tc-GSA scintigraphy showed significantly less increase of remnant liver count ratio in patients with prediction value $< 20\%$ than $\geq 20\%$ (6.8% vs. 20.8%, $P = 0.030$).

Conclusion: This prediction formula can predict hypertrophy ratio after PVE, which may provide a new therapeutic strategy for major hepatectomy.

BC 04

First Human Trial of Ischemic Postconditioning in Kidney Transplantation From Donations After Cardiac Death

Eline K Van Den Akker¹, Dennis A Hesselink², Olivier C Manintveld³, Jeff A Lafranca¹, Willem Weimar², Jan N M Ijzermans¹, Frank Jmf Dor¹

¹Erasmus Mc, Division of Transplant Surgery, The Netherlands

²Erasmus Mc, Division of Nephrology and Renal Transplant, The Netherlands

³Erasmus Mc, Heart Transplant Unit, The Netherlands

Introduction: Ischemic postconditioning (IPoC) may improve outcome after kidney transplantation.

Objectives: We performed the first human study to investigate the feasibility and safety of IPoC in deceased-after-cardiac death kidney transplantation (KT).

Material/Patients and Methods: The IPoC algorithm consisted of three times 1 minute reperfusion followed by 1 minute of ischemia. Complications were listed. Primary outcome was the incidence of delayed graft function (DGF).

Secondary outcome was renal function at 3 months. Data were compared to a historical control group (n=40). Follow-up was 3 months. We also performed a comparison with the contralateral kidney of the same donor.

Results: 20 patients were included. Mean donor age and serum creatinine were higher in the experimental than in the historical control group: 61 yr (interquartile range 11) versus 51.5 yr (15) ($p < 0.05$) and $79 \mu\text{mol/l} \pm 34.2$ versus $63.8 \mu\text{mol/l} \pm 23.4$ ($p < 0.05$), respectively. In the experimental group, more kidneys had massive atherosclerosis: 25% vs 2.5% ($p < 0.05$). Incidence of DGF was 85% vs 62.5% ($p = 0.07$). Renal function was comparable between groups at 3 months after transplantation: $166 \mu\text{mol/l}$ (55) vs $159 \mu\text{mol/l}$ (161) ($p = 0.71$). In the paired kidney analysis, DGF was 72.2% vs 54.5% ($p = 0.66$), with no difference in renal function ($169 \mu\text{mol/l}$ (68) vs $157 \mu\text{mol/l}$ (127), $p = 0.76$). Complications due to IPoC were rare.

Conclusion: We demonstrate for the first time that IPoC is feasible and appears to be safe in human KT. However, no benefit in terms of reduced DGF or better renal function was observed as a result of IPoC. This may have been caused by poorer donor organ quality.

BC 05

Methane Release in Humans Under Oxidoreductive Stress Conditions

Eszter Tuboly¹, Barna Babik², Gábor Bartha¹, Vilmos Serédi², Árpád Mohácsi³, Anna Szabó³, Gábor Szabó³, Mihály Boros¹

¹ Institute of Surgical Research, University of Szeged, Szeged, Hungary

² Department of Anaesthesiology and Intensive Therapy, University of Szeged, Szeged, Hungary

³ Department of Optics and Quantum Electronics, University of Szeged, Szeged, Hungary

Introduction: Recently we have demonstrated significant methane (CH₄) production in eukaryotic cells in oxidoreductive stress conditions (Cell Physiol Biochem 2008).

Objectives: Our aim was to investigate the possibility of non-bacterial methanogenesis in humans, and to identify the CH₄-producing capacity of transient suspension of the cardiac action in patients exposed to heart surgery.

Material/Patients and Methods: Breath samples were taken from the ventilator or the mechanical pump-oxygenator outputs in 10 patients during heart surgery, the exhaled CH₄ production was analyzed with a newly-developed online gas detection method based on photoacoustic spectroscopy. During surgeries, systemic hemodynamics and blood pO₂, pCO₂ and pH values were regularly monitored. Control breath samples were taken in matching group of 15 healthy individuals.

Results: Right after artificial cardiac arrest the breath CH₄ concentration elevated promptly (10.75 ± 3.06 ppm) in comparison with the baseline values (8.725 ± 2.71 ppm), independently from blood gases, age, sex, or the cause that

required surgery. During identical time frame change in methane output was not detected in healthy control population (baseline: 12.22 ± 5.72 ppm; end values: 12.46 ± 5.717 ppm).

Conclusion: Transient myocardial hypoxia, caused by the administration of cardioplegic solution, resulted in increased exhaled CH₄ concentrations. CH₄ release might be indicator of an acute oxidoreductive stress episode accompanied by transient mitochondrial dysfunction. Detection of CH₄ may be diagnostic tool in pathological states, where hypoxic stress is involved. Supported by OTKA K75161, OTKA K104656, TÁMOP-4.2.2/B-10/1-2010-0012

BC 06

Can the Development of Bone Fracture Be Predicted in Breast Cancer Patients with Isolated Bone Metastasis?

Cengiz Dibekoglu¹, Sevim Turanli², Kazim Caglar Ozcelik², Niyazi Karaman²

¹ Istanbul Florence Nightingale Hospital, department of General Surgery, Istanbul, Turkey

² Ankara Oncology Education and Research Hospital, department of General Surgery, Ankara, Turkey

Introduction: Bone metastasis is very frequent in breast cancer.

Objectives: Can the development of bone fracture in hormone sensitive breast cancer patients with isolated bone metastasis be predicted and do the fractures affect the survival?

Material/Patients and Methods: Between 1993-2006, 108 breast cancer patients with isolated bone metastasis were examined. 71 patients received hormone therapy and 37 patients received chemotherapy followed by hormone therapy. Only two patients received trastuzumab as the first line. All patients received systemic bisphosphonates. Patients with pathologic fractures or operated or/and irradiated because of high suspicion of compression fractures, were defined as fracture developed patients

Results: Fractures were developed in 21 patients (19.4%) during median 44 months follow-up period. Synchronous bone metastasis was detected in 32.4% of patients and the median onset age was 51. Development time of bone metastasis was not affected fractures rate ($p = 0.34$). High serum CA 15-3 levels were present at the time of metastasis in 72.6% of fractured and 56.3% of non-fractured patients ($p = 0.09$). Fracture risk was high in Her2-neu positive patients ($p = 0.009$). Fracture development rate was 57.5% in patients with high serum CA 15-3 level and positive Her2-neu and, was 15.9% in high CA 15-3 level or positive Her2-neu patients and, 4.5% in patients with negativity of both parameters ($p = 0.001$). Median survival was 39 and 46 months in fractured and nonfractured patients respectively ($p = 0.18$).

Conclusion: High CA 15-3 levels and positive Her2-neu status are the serious risk of development of bone fractures. Survival is not significant in patients with and without bone fractures.

B. Braun

BB 01

The Bovine Pericardium Patch Wrapping Intestinal Anastomosis Improves Healing Process and Prevents Leakage. A Randomized Controlled Study in the Pig.

Angela Gurrado¹, Giuseppe Piccinni¹, Germana Lissidini¹, Piero Portincasa², Salvatore Scacco³, and Rea Marzullo⁴, Giovanni Luigi Greco⁵, Mario Testini¹

¹ Department of Biomedical Sciences and Human Oncology; Unit of Endocrine, Digestive, and Emergency Surgery. University Medical School "aldo Moro" of Bari, Italy

² Department of Biomedical Sciences and Human Oncology; Unit of Medicine "a. Murri"; University Medical School "aldo Moro" of Bari, Italy

³ Department Basic Medical Sciences; University Medical School "aldo Moro" of Bari, Italy

⁴ Department of Emergency Surgery and Organ Transplantation; Unit of Pathology; University Medical School "aldo Moro" of Bari, Italy

⁵ Department of Emergency Surgery and Organ Transplantation; Unit of General Surgery and Liver Transplantation. University Medical School "aldo Moro" of Bari, Italy

Introduction: Failure of intestinal anastomosis is a major complication following abdominal surgery. Biologic materials have been introduced as reinforcement of abdominal wall hernia in contaminated setting. An innovative application of biologic patch is the use as reinforcement of gastrointestinal anastomosis.

Objectives: Aim of study was to verify if bovine pericardium patch improves the healing of anastomosis, when in vivo wrapping the suture line of pig intestinal anastomosis, avoiding the leakage in case of deliberately incomplete suture.

Material/Patients and Methods: 43 pigs were randomly divided: Group 1 (control, n=14): hand-sewn ileo-ileal and colo-colic anastomosis; Group 2 (n=14): standard anastomosis wrapped by pericardium bovine patch; Group 3 (n=1) and 4 (n=14): one suture was deliberately incomplete and also wrapped by patch in the last one. Intraoperative evaluation, histological, biochemical, tensiometric and electrophysiological studies of intestinal specimens were performed at 48h, 7 and 90 days after.

Results: in groups 2 and 4, no leak, stenosis, abscess, peritonitis, mesh displacement and shrinkage were found and adhesions rate decreased compared to control. Biochemical studies show mitochondrial functions improvement in colic wrapped anastomosis. Tensiometric evaluations suggest that the patch preserves the colic contractility similar to the

controls. Electrophysiological results suggest that the patch also improves the mucosal function restoring the almost normal transport properties.

Conclusion: Use of pericardium bovine patch as reinforcement of intestinal anastomosis is safe and effective, significantly improving healing process. Data of prevention of acute peritonitis and leakage in cases of iatrogenic perforation of anastomoses covered with patch, is unpublished.

BB 02

Single Incision Thoracoscopic Surgery for Spontaneous Pneumothorax by Using Multi Degrees of Freedom Forceps

Hitoshi Igai, Mitsuhiro Kamiyoshitara, Takashi Ibe, Kimihiro Shimizu

Maebashi Red Cross Hospital

Introduction: in comparison with single-incision laparoscopic surgery, only a few reports have described the use of single-incision thoracoscopic surgery (SITS), despite progress in endoscopic surgical techniques and the need for minimal invasiveness.

Objectives: the objective of this study was to assess the perioperative results of a single-incision approach for spontaneous pneumothorax, in comparison with the traditional 3-port approach.

Material/Patients and Methods: Between May 2012 and March 2013, 44 patients with spontaneous pneumothorax underwent SITS, and their clinical characteristics and perioperative results were evaluated. We then selected patients who were <40 years old, without underlying pulmonary disease or previous pulmonary surgery, and compared those who had undergone SITS with those who had undergone traditional 3-port surgery before the study period. In the SITS group, we used multi-degrees of freedom (DOF) forceps to manipulate bullae or blebs.

Results: the two groups were similar in terms of median patient age and pneumothorax laterality (p=0.72, 0.22), but the proportion of male patients was higher in the 3-port group than in the SITS group (p=0.012). Operation time was longer in the SITS group than in the 3-port group (p<0.0001). The duration of postoperative drainage and hospital stay did not differ significantly between the groups (p=0.10, 0.16). Although 11 of the 44 SITS patients showed mild adhesion in the pleural cavity, none required conversion to a 3-port approach. The bullous region in two or three lobes was resected in 19 patients.

Conclusion: SITS using multi-DOF forceps is a useful approach for treatment of spontaneous pneumothorax in selected patients.

BB 03

Comparison of Two Natural Resorbable Scaffolds Containing Autologous Mesenchymal Stem Cells for Bone Regeneration in Sheep

Adeline Decambon¹, Mathieu Manassero¹,
Morad Bensidhoum², Hervé Petite², Véronique Viateau¹

¹Ecole Nationale Vétérinaire D'alfort, Maisons-alfort, France

²B2oa Umr 7052, Paris, France

Introduction: Tissue constructs containing mesenchymal stem cells (MSCs) are appealing strategies for repairing large segmental bone defects. However, their effectiveness does not match autologous bone grafts that allow consistent bone healing. Early scaffold resorption was identified as a cause of failure.

Objectives: in our study, osteogenic potentials of 2 fully-resorbable constructs of similar chemical composition but different resorption rates loaded with autologous MSCs were compared. Our hypothesis was that scaffold with slower resorption would allow more consistent healing.

Material/Patients and Methods: 15 sheep underwent a 25mm metatarsal osteotomy stabilized by plate. Bone defects were replaced with MSCs-Acropora (n=7), MSCs-Porites constructs (n=6), or autograft (n=2). After 4 months, bone formation and coral resorption were documented by radiography, histology and microCT.

Results: Results were highly variable in both groups: non-union occurred in half cases; in the other half, abundant bone formation was observed, allowing full bone regeneration in 2 animals from the Acropora group and 1 from the Porites group. MicroCT analysis confirmed great variations in bone volumes (1437±1089mm³ and 782±507mm³ for Acropora and Porites groups, respectively) with no statistically difference between groups. In two Acropora-filled defects, bone volumes were similar to autograft-filled defects. The resorption was slower in Acropora compared to Porites scaffolds. Bone formation was not statistically correlated with coral resorption.

Conclusion: Bone regeneration which matches the efficacy of autograft is achievable using only MSCs and resorbable scaffold. The 2 scaffolds osteogenic capacities are similar, despite their different resorption rates, suggesting that improving ultimate performance of constructs cannot be limited to optimize resorption.

BB 04

Icg with Pde Camera and Blue Dye for Sentinel Lymph Node Biopsy in Early Breast Cancer

Vassilis Pitsinis¹, John Benson³, Gordon Wishart²

¹Cambridge Breast Clinic, Mediterraneo Hospital, Athens, Greece

²Faculty Of Health, Social Care & Education, Anglia Ruskin University, Cambridge, UK

³Cambridge Breast Unit, Cambridge University Hospitals, Cambridge, UK

Introduction & Aim: Sentinel lymph node biopsy for breast cancer in Europe is mainly guided by blue dye +/- radioisotope. We describe a new method using a fluorescent dye called indocyanine green (ICG) and a PhotoDynamic Eye or PDE camera

Technical Description : In the video we see intradermal and subcutaneous injection of ICG and blue dye adjacent to the nipple. The PDE camera is then used to visualize the fluorescence from subcutaneous lymphatics passing from the injection site to the axilla. By looking at the monitor, the exact path of the lymphatics can be traced on the skin using a marker pen from the nipple to the axilla. The lymphatics usually converge towards a single duct that stops 1-2 cm from the axillary crease and this can be used to guide the exact location of the axillary incision. The dissection continues until the blue dye is identified in line with the fluorescent marking on the skin. The tissue close to the blue lymphatic is dissected until the first and subsequent lymph nodes are identified in sequence. At the same time, the PDE camera shows on the monitor that the blue lymph node is also intensely fluorescent.

Conclusion: The combination of ICG and blue dye has a high combined sensitivity which facilitates a dual approach to SLN biopsy for early breast cancer that avoids use of radioisotopes which can be expensive, hazardous and sometimes unavailable

BB 05

Modelling the Recovery of Colon After a Mechanical Stress Application

Jenifer Barrie¹, Zahra Ehshetami¹, Safiya Hafeji¹,
Peter. R Culmer¹, Anne Neville¹, David. G Jayne²

¹School of Mechanical Engineering, University of Leeds, UK

²Academic Surgical Unit, St James' University Hospital, Leeds, UK

Introduction: Laparoscopic surgery involves instrumented grasping of colon with the risk of iatrogenic injury. Recovery after manipulation has not been quantified or correlated to mechanical tissue models.

Objectives: Quantify relaxation of colon after application of mechanical stresses equivalent to laparoscopic grasping, fit this to mechanical models and correlate with histological damage.

Material/Patients and Methods: Indentation stresses of 50, 160 and 255kPa were applied to the serosal surface of ex vivo porcine colon for 5, 30 or 60 seconds. Tissue relaxation (ΔF) was fitted to two mechanical models; the simple Maxwell and complex Wiechert model, which corresponds to the histological colon structure. Percentage reduction in the histological thickness of each layer was recorded.

Results: Mean ΔF increased over 5, 30 and 60 second durations (221 vs 349 vs 497 for 255kPa magnitude) at all stresses. the Maxwell model was a better fit than the Wiechert model for 5 second indentations at 50kPa (mean residual fit 18.4 vs 34). the Wiechert model was a better fit for all other variables. Histological analysis showed reduction in thickness of the submucosal layer even at 50kPa (15% decrease at 5s vs 44% at 60s).

Conclusion: Stresses, equivalent to those in laparoscopic grasping, result in microscopic changes to the colon, with the submucosa most markedly affected. the Maxwell model is the simplest model that exhibits viscoelastic behaviour, but refining this model and linking this to the anatomical tissue structure provides a better fit.

BB 06

Islet Survival and Function Following Intramuscular vs . Intraportal Autotransplantation in the Minipig

Laurence Quintane¹, Adrien Sterkers², Thomas Hubert¹, Valery Gmyr¹, Marie-christine Vantyghem³, Julie Kerr-conte¹, Robert Caiazzo², Françoise Pattou²

¹ Umr 859 Biotherapies for Diabetes, Inserm, 59000 Lille, France

² General and Endocrine Surgery, Chru Lille, 59000, Lille, France

³ Endocrinology and Metabolism, Chru Lille, 59000, Lille, France

Introduction: Islet transplantation is an efficient therapy of the diabetes mellitus. the classic intraportal way may not be optimal due to an instant blood-mediated inflammatory response (IBMIR), and low revascularization of islets. Therefore, intramuscular islet transplantation (IMIT) offers an attractive alternative, based on its simplicity, easier access for graft imaging and cell explantation.

Objectives: the aim of our work was to compare survival and function of intramuscular and intraportal autotransplanted islets in the minipig.

Material/Patients and Methods: Using the intramuscular injection technique in the minipig (n=30), we demonstrated, by histological evidence, the rapid revascularization of islets autotransplanted into the gracilius muscle. Islet survival assessment was performed using immunohistochemistry staining for insulin and glucagon up to a period of 6 months. Furthermore, we showed the crucial role of minimizing mechanical trauma to the myofibers and limiting exocrine contamination. Graft function was confirmed by documenting

the acute insulin response (AIR) to intravenous glucose in 5/11 totally pancreatectomized animals.

Results: Graft function after IMIT remained however significantly lower than the function measured in 12/18 minipigs who received a similar islet volume in the liver. the mean AIR observed after IMIT was significantly inferior to the level observed after intraportal islet transplantation (2.8 +/- 1.7 mU/L vs 6.2 +/- 1.3 mU/L, p=0.02). As expected, AIR was lowered in both groups when compared to the levels observed in healthy controls (35.9 +/- 9.1 mUI/L, p<0.01 vs intramuscular and intraportal islet recipients).

Conclusion: Collectively, these results suggest, in a clinically relevant preclinical model, that IMIT can become a promising alternative to intraportal infusion.

BB 07

Effect of Port Number To Tumor Growth At Laparoscopic Tumor Surgery

Ebru Esen¹, Ethem GeÇim¹, Tevfik Eker¹, Fikret Şahin², Özlem Küçük³, Mustafa Ertek⁴, Mustafa Filik³, Atilla Elhan⁵

¹ Ankara University Medical Faculty General Surgery Department, Ankara, Turkey

² Ankara University Medical Faculty Medical Microbiology Department, Ankara, Turkey

³ Ankara University Medical Faculty Nuclear Medicine Department, Ankara, Turkey

⁴ Diskapi Yildirim Beyazit Eğitim Arastırma Hastanesi Klinik Mikrobiyoloji Ve Enfeksiyon Hastalıkları, Ankara, Turkey

⁵ Ankara University Medical Faculty Medical Biostatistics Department, Ankara, Turkey

Introduction: Laparoscopic surgery is using for some benign diseases' treatment, as well as, it is using for some cancers' treatment like;colorectal carcinoma.

Objectives: Open surgery is believed to suppress the immune system more than laparoscopic surgery during the early postoperative period. If this is true, the residual tumor cells after surgery should have been growing faster after open surgery in comparison to laparoscopy. the aim of this study is to investigate the effects of laparoscopic and open surgery to tumor growth and activity in a mouse model.

Material/Patients and Methods: Thirty, 6 weeks- old female, BALB/C mice were used for this study. 2.5x10⁷ CT-26 tumor cells were inoculated subcutaneously in the dorsal flank of the mice. the mice were divided in three groups of ten.1st group; controls, 2nd group ; open surgery model, 3. group; three port laparoscopy model. Control group received anesthesia only and no surgery was done. in the 2nd. group, entire midline laparotomy was made and waited open for 20 minutes then skin and fascia closed. in the 3rd. group, 18 gauge needle inserted to abdomen right in the middle of the abdomen and CO₂ pneumoperitoneum was created, then 2 more 18 gauge needles were inserted at the sides. for 15 minutes an intraabdominal pressure of 2 to 4 mmHg was

maintained. At fifteenth minute 5 mm mini midline incision was made, waited for 5 minutes and then skin and fascia closed. At the fourteenth postoperative day visible tumor nodules grew up. Tumor dimensions were measured. At the third week, all animals had a PET scan, then scarified for harvesting the tumor to weigh and measure the dimensions. the experiment was repeated three times for reproducibility.

Results: There was no statistically significant difference between tumor weights of all groups. There was also no statically significant difference of dimensions and the SUVmax values between the surgery groups however the dimensions and SUVmax values of both were significantly higher than the control group.

Conclusion: There was no significant difference for SUVmax values, weight and tumor size between laparoscopy and laparotomy groups. the postoperative changes whatsoever, may lead to greater tumor activity compared to controls however, this activity does not show any difference between the open and laparoscopical surgery groups when detected by PET scan.

Oral Presentations

OP 01

Impact of Sleeve Gastrectomy and Roux-en-y Gastric Bypass Surgery on Type 2 Diabetes Mellitus in Severe or Morbidly Obese Patients; the 1-year Result in a Single Center

Fahrettin Acar, Mustafa Şahin, Hüseyin Yılmaz, Hüsnü Alptekin, M. Ertuğrul Kafalı, Gökse Sürücü

Selcuk University, School of Medicine,
Department of General Surgery, Turkey

Introduction: Gastric bypass (GBP) has proved its efficacy 30 years ago in the management of diabetes mellitus (T2DM) for morbidly obese patients.

Objectives: This study aimed to compare the efficacy of SG and gastric bypass GBP for glucose homeostasis in morbidly obese patients with T2DM.

Material/Patients and Methods: Between 2009 and 2011, our center have retrospectively collected the data of T2DM patients treated by GBP or SG. Effects on hemoglobin A1c, pharmacological treatment and excess weight loss after 1 year of surgery have been analyzed.

Results: All patients (18 GBP and 14 SG) were treated with oral anti-diabetics (OAD) or insulin before surgery (12 OAD and 6 insulin in GBP group and 9 OAD and 5 insulin in SG group). the average body mass index (BMI) in the GBP group was 52.9 and 46.8 kg/m² in the SG group. At 1 year after surgery, the average HbA1c lost was 2,45 in the GBP group and 2,75 in the SG group. T2DM had resolved in 70% of the GBP group and 75.8% of the SG group. Reduced use

of pharmacological therapy was noted in 30.42% of the GBP group and 25.15% of the SG group. Percentage excess weight loss and BMI lost were 56.35% and 31.75% in the GBP group and 60.11% and 29.80% in the SG group, respectively.

Conclusion: During short-term follow-up, the impact on regulation of HbA1c blood level of GBP or SG is important. At 1 year after surgery, SG seems to be as effective as GBP for the management of T2DM in morbidly obese patients.

OP 02

The Effect of Papaverin on Healing Ischemic Colon Anastomosis

Salim Ilksen Basceken¹, Atil Cakmak¹, Cihangir Akyol¹, Erkinbek Orozakunov¹, Ozge Tugce Pasaoglu², Volkan Genc¹, Hatice Pasaoglu²

¹Ankara University School of Medicine
Department of Surgery, Turkey

²Gazi University, School of Medicine, Department
of Biochemistry, Turkey

Introduction: Although the technological improvements in surgical technique, anesthesia, preoperative preparation and postoperative care; the anastomotic leak result with high mortality and morbidity rates. Especially in colonic ischemia and mesenteric ischemia setting, this risk becomes higher because of the ill effects of ischemia-reperfusion injury on the healing process.

Objectives: the aim of this study is to investigate the effects of papaverine on healing colon anastomosis and intraabdominal adhesions.

Material/Patients and Methods: Forty female, Wistar-Albino rats were used for this study. the rats were randomised in four groups, every group included ten animals. Group 1: Control group (Colonic transection and anastomosis) Group 2: Ischemia-reperfusion and anastomosis Group 3: Ischemia-reperfusion and anastomosis + intraperitoneal one dose papaverine Group 4: Ischemia-reperfusion and anastomosis + intraperitoneal daily (ten days) papaverine After ten days, relapapatomy was done and intraabdominal adhesions were scored according to Nair Scores. All rats were sacrificed and anastomotic bursting pressures were measured. the hydroxyproline measurement was made from the parts of the anastomosis

Results: There was statically significant difference in group three and four from group two for anastomotic bursting pressures, hydroxyproline measurements and adhesion scores. There was no statically significant difference in group three from group four except hydroxyproline measurements.

Conclusion: in conclusion, there was significant good effects of papaverine on healing of anastomosis after ischemia-reperfusion injury and preventing from peritoneal adhesions. in later periods, with larger groups and more parameters, experiments will provide clearer and more reliable results.

OP 03

Effect of Duodeno-jejunal Exclusion on Glp-1 Secretion in Mini-pig Model.

Boris Trechot², Magalie Devienne², Romain Verhaeghe¹, Thomas Hubert², Valéry Gmyr², Julie Kerr-conte², François Pattou¹, Robert Calazzo¹

¹Endocrine Surgery, Chru Lille, France

²U859, Biothérapies Du Diabète, Inserm, France

Introduction: Gastric Bypass improves glycaemic control in obese patients with T2DM. Various types of anatomic rearrangement of the gastrointestinal tract may stimulate secretion of biologically active peptides named incretines. the role of duodenal exclusion is still controversial.

Objectives: To analyse the impact of duodeno-jejunal exclusion on GLP-1 and insulin secretion.

Material/Patients and Methods: We compared two groups of minipigs who had an omega loop gastric bypass (OLGBP, n=8) or a simple gastro-enteroanastomosis (GEA, n=8) which correspond to the same procedure but without duodenal exclusion. the animals, neither obese nor diabetic before the intervention, were monitored the evolution of glycemia, insulinemia and GLP-1 after standardized test meal, before and 10 ± 3 days after surgery. We investigated postoperative fistulas by performing gastrointestinal upper opacification at least at day 3. the study was approved by the local animal ethical committee.

Results: During our study, 7 animals died (4 in the group OLGBP, 3 in the group GEA) before day 30 (small bowel obstruction =3, mesenteric ischemia =3, endocarditis =1). Preoperative evolution of glycemia, insulin or GLP1 after test meal was similar in GEA and OLGBP group (AUC glycemia: p=0,313; AUC insulinemia: p=0,742; AUC GLP-1: p=0,250). Insulin and GLP-1 secretion significantly increased after surgery (insulin: p<0,001; GLP-1: p<0,001). We did not find any significant difference between the surgical procedures (OLGBP, AUC insulinemia: p=0,250; AUC GLP-1: p=0,008; GEA, AUC insulinemia: p=0,008; AUC GLP-1: p=0,109).

Conclusion: Duodeno-jejunal exclusion did not influence GLP-1 and insulin secretion after test meal in the mini-pig.

OP 04

Is Obesity Associated with Poor Surgical Morbidity in Colorectal Cancer Patients?

M. J Akbar, Talal Altayab, Sajid Mehmood, R.k Patel, I.a Hunter, John Hartley

University of Hull, UK

Introduction: Obesity represents a major public health problem; the financial burden on the National Health Service (NHS) is estimated to be £5.1 billion a year. Obesity is generally considered to result in poor outcomes after surgery.

Objectives: We aimed to determine the impact of obesity

on the incidence of post operative complications in patients undergoing colorectal cancer surgery.

Material/Patients and Methods: We performed a retrospective review of a prospectively maintained data base of patients undergoing surgery for colorectal cancer at our unit from 2006-2011, Obesity was defined as a body mass index (BMI) greater than 30 as per WHO definition.

Results: a total of 945 consecutive patients with a median age of 72 years were analysed. a quarter of our patients (n=220, 23%) were obese. Anterior resection was the most common procedure (n=364) followed by right hemicolectomy (n=359), Hartman's procedure (n=69), extended right hemicolectomy (n=53), and miscellaneous (n=100). Analysis of common surgical morbidities was as follows: Post operative infective complications n= 49, 5% (Obese 12 vs. Non obese 37, p vale= 0.86230), Stoma related complications n= 14, 1.4% (Obese 5 vs. non obese 9, p value= 0.335), Anastomotic dehiscence n= 55, 5.8% (obese 11 vs. non obese 44, p value=0.5105), total number of any complications n=262, 27.7% (obese 55 vs. non obese 207, p value = 0.3443).

Conclusion: Obesity as defined by BMI greater than 30 is not associated with worse surgical morbidity in patients undergoing colorectal cancer resection in our unit. Other markers of obesity such as visceral obesity should be evaluated.

OP 05

A Comparative Clinical Evaluation of Single Incision Laparoscopic Cholecystectomy with Single and Multiport Access Versus Conventional Multi-port Laparoscopic Cholecystectomy

Bhupinder Singh Pathania

Chintpurni Medical College Punjab, India

Introduction: Single incision laparoscopic cholecystectomy (SILC) is a relatively new technique and despite the enthusiasm of surgeons around the world for its application, data that can prove its superiority over the conventional multi-port cholecystectomy are scant.

Objectives: 1) the aim of this study was to compare safety and efficacy and compare results of the new surgical strategy of single incision laparoscopic cholecystectomy using single and multiport access versus conventional multiport laparoscopic cholecystectomy.

Material/Patients and Methods: Eighty patients were randomly and equally divided into two groups of 40 patients each.. in one group, we performed single incision laparoscopic cholecystectomy using single port access X-cone in 20 patients and single incision with multiport access in another 20 patients .In other group, conventional multiport laparoscopic cholecystectomy was performed. .

Results: Mean operating time of 114 minutes of SILC. was reduced to 70 minutes in subsequent patients. Extra umbilical rescue device 2.3mm mini-laparoscopic instrument was necessary in 6 patients due to chronic inflammation and

two additional ports were essential to suture 1 to 2mm CBD injury in SILC. No analgesics were needed even on demand in any patient beyond one week. in SILC. Cosmetic appearance and satisfaction with body image was found very good in SILC.

Conclusion: the study has proved SILC is feasible and it is as safe. Learning curve in restriction and clashing of instruments. for safety of patients, surgeon should have fewer thresholds for using additional devices wherever required for viewing critical angle of safety. It is patient demanding with less postoperative pain, earlier return to work, excellent cosmetic and satisfaction with body image.

OP 06

The Type of Peritoneal Dialysis Catheter Has Little Influence on Complication Rate and Catheter Survival. A Systematic Review and Meta-analysis

Sander M Hagen , Jeffrey a Lafranca ,
Jan Nm Ijzermans , Frank Jmf Dor

Erasmus Mc, University Medical Center Rotterdam, the Netherlands

Introduction: Peritoneal dialysis (PD) is an effective treatment for end-stage renal disease. There are several configurations of the PD catheter that may have great influence on catheter function, such as the shape of the intraperitoneal segment, the number of cuffs, and a permanent bend or straight catheter.

Objectives: This review and meta-analysis was carried out to investigate whether there is evidence for a preference for one of the catheters.

Material/Patients and Methods: Comprehensive searches were conducted in MEDLINE, Embase and CENTRAL (the Cochrane Library 2012, issue 10). the methodology was in accordance with the Cochrane Handbook for interventional systematic reviews.

Results: the initial search yielded 682 hits. Fourteen randomized controlled trials and two prospective cohort studies were identified. Outcomes of interest were: drainage dysfunction, migration, leakage, exit-site infections, peritonitis, catheter removal and one- and two-year catheter survival. Comparing straight versus swan-neck catheters, no differences were found when pooling the results of six studies. the data of nine studies could be used for the comparison of straight tip versus coiled tip catheters; the survival at two years after insertion was significantly different in favor of straight catheters (OR 0.24, 95% CI 0.12 - 0.46, P < 0.0001). Two studies compared single and double-cuffed catheters, and again no differences could be demonstrated.

Conclusion: This meta-analysis clearly demonstrates that catheter type has no influence on outcome of PD, except for long-term catheter survival. in our opinion, the presence of a dedicated team and their preference are more important factors, which may contribute to better catheter outcome.

OP 07

Evaluation of the Viability of Protoscolices Sprayed on Scolicidal Agent Soaked Sponges and Effects of Scolicidal Agents on Daughter Cysts

Ali Kagan Gokakin ¹, Omer Topcu ¹,
Coskun Avci ¹, Mustafa Atabey ¹, Boran Cihat Karakus ¹,
Zeynep Sumer ²

¹ Department of General Surgery, Cumhuriyet University, Faculty of Medicine, Turkey

² Department of Microbiology, Faculty of Medicine, Cumhuriyet University, Turkey

Introduction: Instillation of a scolicidal agent is not suitable for large cysts with multiple daughter cysts and cystobiliary communication. To avoid fluid spillage, protecting the pericystic area with scolicidal agent soaked sponges is recommended.

Objectives: the aim of this study was to evaluate the viability of protoscolices sprayed on scolicidal agent soaked sponges and the efficacy of scolicidal agents on daughter cysts.

Material/Patients and Methods: Small (1 x 1 cm) pieces of sponge were cut and soaked in 0.04% chlorhexidine gluconate (Chx-Glu), 0.5% silver nitrate (SN), 10% polyvinylpyrrolidone iodine (PVP-I), and 0.9% saline as a control. a drop of protoscolices rich sediment was sprayed on each sponge. After 15 and 30 min, protoscolices were examined microscopically for viability. in the second part of study, 60 ml from each scolicidal agent and 0.9% saline were put into sterile glass bottles and daughter cysts were added. After 5, 15, 30, and 60 min, 5 daughter cysts from each group were punctured and the contents assessed for protoscolices viability under light microscopy with a vital staining technique. the integrity of the walls was denoted.

Results: Chx-Glu (0.04%) were the most effective scolicidal agent and killed all the protoscolices on sponges after 15 min. SN (0.5%) and PVP-I (10%) did not kill 100% of the protoscolices after 15 min and 30 min. None of the agents were effective on daughter cysts.

Conclusion: Use of sponges soaked with scolicidal agent may provide both mechanical and chemical barriers if the correct agent (0.04% Chx-Gu) is chosen.

OP 08

Factors Associated with Unplanned Overnight Admissions After Elective Laparoscopic Cholecystectomy in a Rural Scottish Hospital

Michelle Ting , Lisa Johnstone , Sarah Prince

Belford Hospital, Fort William, Inverness, UK

Introduction: in the UK, with improving technical and surgical competencies, elective laparoscopic

cholecystectomies (LC) are now established as a day case procedure. Less than 10% unplanned overnight admissions (UOA) are considered acceptable. Early discharge is cost-effective and also reduces the risk of hospital-acquired diseases. However, rushed discharges, particularly in rural areas can be dangerous due to distance to healthcare facilities.

Objectives: We aim to identify the prevalence and causes of UOAs in our cohort of LC patients and review other demographical, surgical and anaesthetic factors which may be associated with UOAs in our hospital

Material/Patients and Methods: 44 case notes of LC cases in 2012 were reviewed. Data was extracted into Excel and analysed. Data was expressed as mean/SD

Results: Prevalence of UOA was 31.8%. Increasing age (60.9 vs. 55.7) and ASA score, length of surgery (125.4 vs. 109.8) and intra-operative complications (6 vs. 0) were positively associated with UOAs. Commonly reported causes for UOAs included severe nausea and vomiting and pain. Other causes included patient wishes and living alone.

Conclusion: with adequate pain and nausea control, the number of UOA may be reduced. Patient education and motivation are important factors in ensuring timely and safe discharge. Social circumstances are crucial considerations when discharging patients on the same day.

OP 9

The Effects of Glutamine on Experimental Acute Necrotizing Pancreatitis in Rats

Etem Alhan¹, Serdar Türkyilmaz¹, Birgül Kural², Cengiz Ercin³

¹Karadeniz Technical University, School of Medicine, Department of General Surgery, Turkey

²Karadeniz Technical University, School of Medicine, Department of Biochemistry, Turkey

³Kocaeli University, School of Medicine, Department of Pathology, Turkey

Introduction: the effects of the glutamine on the course of acute pancreatitis are controversial. In those studies, glutamine was used as a supplement to enteral or parenteral nutrition.

Objectives: the aim of this study was to investigate the influence of single glutamine on the acute necrotizing pancreatitis (ANP) in rats.

Material/Patients and Methods: Rats were divided into six groups as sham + saline, sham+glutamine, ANP + saline, ANP + glutamine ANP was induced by the infusion of glycodeoxycholic acid into the biliopancreatic duct with the subsequent parenteral administration of Cerulein. The following parameters were then investigated during the illness: mortality, systemic cardiovascular correlates, functional capillary density, renal and hepatic functional tests, some enzyme markers in the pancreatic and lung tissues, serum IL-6, and the extent of pancreatic acinar cell injury by histopathology.

Results: ANP resulted in a significant increase in the

mortality rate and pancreatic necrosis; serum amylase, alanine aminotransferase, IL-6, urea; lactate dehydrogenase in the bronchoalveolar lavages; tissue activities of myeloperoxidase and malondialdehyde in the pancreas and lungs. There was a significant reduction in serum calcium concentration, blood pressure, urine excretion, pO₂, and functional capillary density. Administration of glutamine improved these alterations significantly.

Conclusion: These results demonstrate that glutamine is suited to the treatment of acute necrotizing pancreatitis.

OP 10

Preconditioning Effect of Levosimendan Against Liver Ischemia-reperfusion Injury

Andras Fulop¹, Rita Stangl¹, Peter Onody¹, Zsolt Turoczi¹, Oliver Rosero¹, David Garbaisz¹, Zoltan Rakonczay², Attila Szijarto¹

¹1st Department of Surgery, Semmelweis University, Budapest, Hungary

²1st Department of Internal Medicine, University of Szeged, Szeged, Hungary

Introduction: Temporary occlusion of the hepatoduodenal ligament leads to ischemic-reperfusion (IR) injury of liver. Levosimendan is capable to induce preconditioning-like adaptive mechanisms.

Objectives: the aim of the present study was to examine protective effects of levosimendan in a hepatic IR model.

Material/Patients and Methods: Male Wistar rats, in two subgroups – early or late – underwent levosimendan pretreatment before 60 minutes of segmental liver ischemia. The microcirculation of the liver was monitored by laser Doppler flowmeter. After 24 hours of reperfusion, liver and blood samples were taken for histology, immuno- and enzyme-histochemistry (TUNEL; PARP; NADH-TR) and laboratory tests. Furthermore liver antioxidant state and HSP72 expression were measured.

Results: in both levosimendan pretreatment groups significant improvement (p<0.05) of hepatic microcirculation was observed compared to the analogous IR groups. Severity of histological damage was also reduced. This observation was supported by the significantly lower level of serum ALT (pearly=0.02; plate=0.005), AST (pearly=0.02; plate=0.004) and by the moderate DNA damage indicating TUNEL (pearly=0.05; plate=0.034) and PAR positivity (pearly=0.02; plate=0.04). Levosimendan pretreatment resulted in significant improvement of liver redox homeostasis. Furthermore, significantly better mitochondrial function was detected in the late pretreatment animals (p=0.003).

Conclusion: Levosimendan pretreatment can induce hepatoprotection and application in the future would be proposed before extensive liver resections.

OP 11

Comparison of the Effects of Epidural Bupivacaine on Hepatic Injury in a Rat Model of Ischemia and Reperfusion

Zehra Sarikus¹, Nurdan Bedirli¹, Guldal Yilmaz², Emin Umit Bagriacik³, Fusun Bozkirli¹

¹Gazi University, School of Medicine, Department of Anesthesiology, Turkey

²Gazi University, School of Medicine, Department of Pathology, Turkey

³Gazi University, School of Medicine, Department of Immunology, Turkey

Introduction: Gastrointestinal perfusion is important in surgical procedures as the splanchnic hypoperfusion may cause endotoxemia, increase in mucosal permeability and even organ failure. Although the exact mechanism on splanchnic blood flow is obscure, TEA may be protective against splanchnic hypoperfusion.

Objectives: This study is designed to evaluate the protective effects of epidural bupivacaine on hepatic ischemia reperfusion injury in rats

Material/Patients and Methods: Eighteen rats were randomly divided into 3 groups: Group K (n=6, Sham), Group S (n=6, 20 mcg/kg/h 0.9% NaCl via epidural catheter) and Group B (n=6, 20 mcg/kg/h bupivacaine via epidural catheter). Liver tissue was harvested for MDA analysis, apoptosis and histopathological examination after 60 minutes of ischemia followed by 360 minutes of reperfusion. Blood samples were also collected for TNF- α , IL-1 β , AST and ALT analysis.

Results: Rats in Sham Group had lower AST/ALT levels compared to rats in the Saline and Bupivacaine groups. IL-1 and TNF- α levels significantly decreased in bupivacaine group compared to both groups. MDA levels did not show any significant differences within the groups. Bupivacaine group apoptotic cells significantly increased compared to both groups.

Conclusion: Epidural bupivacaine is ineffective in preventing inflammatory response and lipid peroxidation caused by ischemia/reperfusion in this model.

OP 12

A Retrospective Review and Audit of Post-operative Nausea and Vomiting in Laparoscopic Cholecystectomy Patients in a Scottish Rural Hospital

Michelle Ting, Dora Paal, Sarah Prince

Belford Hospital, Fort William, Inverness, UK

Introduction: Post-operative nausea and vomiting (PONV) is nausea and/or vomiting within 24 hours post surgery. It is unpleasant and can lead to dehydration, aspiration pneumonia, electrolyte abnormalities and delays

to discharge. the prevalence of PONV post-laparoscopic cholecystectomies (LC) range from 25-75%. This varies, and there is no severity classification or consensus on treatment

Objectives: We aim to identify factors associated with PONV in our LC patients, develop a PONV severity score and assess compliance to international guidelines on the management of high risk PONV patients at Belford Hospital, a Scottish rural hospital in the highlands.

Material/Patients and Methods: Forty four case notes of patients having undergone LC in 2012 were reviewed. Nausea was present when documented in the notes or antiemetic prescribed. Our compliance with international recommended guidelines for management of high-risk PONV was reviewed

Results: a severity scale, termed "Belford PONV Severity Score (BPSS)" was developed, with BPSS 1 being mild and BPSS 3 being severe PONV. 29(66%) had PONV. 45.4% had BPSS of 3. Severity of PONV correlated with individual items on Apfel's Predictive Risk. Non-smokers and opiate-use was associated with a three-time increased prevalence of PONV. 33% of high-risk patients were not prescribed intraoperative anti-emetic as recommended. 9 were not prescribed ondansetron (recommended first line); out of which 8 had BPSS of 3.

Conclusion: There is a need to identify high-risk patients pre-operatively, which should be administered intraoperative antiemetic. Adequate analgesia may minimize PONV. 5HT-antagonist should be the first-line antiemetic in all PONV cases.

OP 13

An Animal Model for Combining Sps Induction and Liver Resection

Jafari Azin, Kalff J.c., Manekeller Steffen

Klinik Und Poliklinik Für Allgemein-, Viszeral-, Thorax- Und Gefäßchirurgie Der Universität Bonn, Germany

Introduction: Reviewing the last years, multimodal treatment has led to an increase of survival time of patients with colorectal liver metastases. This is particularly attributed to new perioperative chemotherapy regimens. 20-60% of the patients treated with Oxaliplatin (OX) develop a sinusoidal obstruction syndrome (SOS) with high peri- and postoperative morbidity and mortality. Inducing SOS in animal model with Oxaliplatin has not been successful, therefore the administration of Monocrotaline (MCT) for generating this according to Deleve et al. was established. Yet, there is no model described in literature, which combines liver resection with/ without portal triad clamping with an existing SOS. Here, we would like to present our findings

Objectives: SOS induction with MCT and Liver resection

Material/Patients and Methods: Male Sprague-Dawley rats (180-200g) were gavaged with MCT, some were fasted before [12 hours (Gr. A: 160mg/kg BW, Gr. B: 100mg/kg BW, Gr. C: 90mg/kg BW)}. a 70% liver resection (Method of Higgins and Anderson) was performed either on day 2 or 4. the follow-up lasted 7 days

Results: Highest SOS induction rate (67%) was seen, when 90mg/kg BW were administered to fasted animals after 4 days. the mortality of animals with severe SOS was 100% within 48 hours after resection, whereas animals with moderate SOS showed a better outcome, especially when clamping time is shortened to 15 minutes

Conclusion: Administration of MCT does not principally induces SOS, efficiency can be improved by fasting, the doseage influences impairment of animals' general condition. If clamping trial is required, survival rate can be ameliorated by reducing the ischemic time.

OP 14

Surgery for Colorectal Cancer in the Nonagenarian Population

M. J Akbar , Talal Altayab , Shahid Seedat ,
R.k Patel , Sajid Mehmood , I.a Hunter , John Hartley

University of Hull, UK

Introduction: There are currently 1.4 million people aged greater than 85 years in United Kingdom. This is projected to be almost double by 2035 and accounting for 5 % of general population. Surgery for Colorectal cancer for these patients poses a significant challenge due to the high incidence of co-morbidities and limited functional reserve. Although, we would like to offer the best curative treatment, a concern is that we are exposing the elderly to excessive risk.

Objectives: Our aim was to assess the outcome of surgery for colorectal cancer undertaken in an nonagenarian population.

Material/Patients and Methods: We performed a retrospective review of a prospectively maintained database in order to identify nonagenarians undergoing treatment for colorectal cancer in our unit from 2006 to 2011.

Results: a total of 31 consecutive patients with a median age of 92 years were analysed. Colorectal cancer resection was performed in 24 (78%) patients. Median survival in this group was 23 months. Surgery was not performed in 7 (22%) patients due personal or medical reasons; their median survival was 5 months. Sub group analysis of median survival (months) between resection and non-resection groups according to Dukes classification was as follows: Dukes A (resection 31 vs. non resection 18); Dukes B (resection 25 vs. non resection 18); Dukes C (resection 27 vs. non resection 3); Dukes D (resection 4 vs. non resection 4)

Conclusion: in selected patients of nonagenarian population surgery for Colorectal cancer offers reasonable survival benefit. Age alone should not be a barrier to cancer resection in the treatment of colorectal cancer.

OP 15

Effects of Rikkunshito, a Kampo Medicine, on Qol After Proximal Gastrectomy

Shugo Ueda , Shutaro Gunji , Masahiro Yoshida ,
Michiyuki Kanai , Hiroaki Terajima ,
Arimichi Takabayashi

Department of Gastroenterological Surgery and
Oncology, Tazuke Kofukai Medical Research Institute,
Kitano Hospital, Osaka, Japan

Introduction: the loss of the gastroesophageal junction after proximal gastrectomy (PG) induces various gastrointestinal symptoms, such as regurgitation, anorexia, and body weight loss, leading to impairment of the postoperative quality of life (QOL). Rikkunshito, a traditional Japanese medicine (Kampo medicine), was reported to improve gastric emptying and to increase appetite via stimulation of ghrelin secretion.

Objectives: in this study, we investigated the long-term QOL and the effects of rikkunshito on gastrointestinal symptoms and plasma ghrelin levels in gastric cancer patients who underwent PG.

Material/Patients and Methods: Nineteen patients who underwent PG more than 6 months before entry into this study were enrolled. Plasma ghrelin levels, body weight, appetite, and Gastrointestinal Symptom Rating Scale (GSRS) scores were examined before and after the 4-week administration of rikkunshito. Subgroup analysis was performed in patients showing a GSRS score ≥ 2 before the treatment, indicating the presence of gastrointestinal symptoms.

Results: Body weight significantly increased after the administration of rikkunshito. Neither appetite nor plasma acylated and desacylated ghrelin levels were significantly affected. in the subgroup analysis, the mean total GSRS score significantly improved from 2.6 ± 0.6 before administration of rikkunshito to 1.9 ± 0.7 after administration because of significant improvement in the subscale scores for abdominal pain, acid reflux, diarrhea, and constipation.

Conclusion: Long-term QOL was well preserved in patients who underwent PG at our hospital. in patients with a baseline GSRS score ≥ 2 , rikkunshito significantly improved symptoms of postgastrectomy syndrome, and its effect was possibly independent of plasma ghrelin levels.

OP 16

Evidence-based Value of Preoperative Oral Carbohydrate Loading

Mehmet Fatih Can , Birgül Dağ , Hülya Şafak ,
Erkan öztürk , Gökhan Yağcı

Gülhane Military Medical Academy Department of
General Surgery, Ankara, Turkey

Introduction: the old tradition of overnight fasting before

surgery has largely been replaced by more liberal feeding regimens. Preoperative oral carbohydrate loading (CHO) has been proposed as a means of alleviating surgical stress and prolonged starvation related metabolic derangements

Objectives: To reveal evidence-based value of preoperative oral carbohydrate loading.

Material/Patients and Methods: a search of Index-Medicus Medline was performed using keywords “preoperative”, “oral”, “carbohydrate loading”, “carbohydrate drink”, “high-carbohydrate beverage” for the years 1970-2013. the evidence level of each article retrieved was classified according to the Centre for Evidence Based Medicine of Oxford University.

Results: Some 50 articles were found to be relevant and included in the detailed analysis. of these, 22 were laboratory-based studies, 13 were clinical studies. Ten studies included both laboratory and clinical parameters. the numbers of level 1a, 1b, 2a, 2b and 5 studies were 2, 10, 1, 33 and 4, respectively. the remaining 5 articles reported on the safety of the application solely. There was a consensus that CHO improved patient comfort by improving subjective measures of wellbeing such as diminished thirst, anxiety and fatigue. CHO was not clinically superior to placebo in terms of complication rate and length of hospital stay.

Conclusion: CHO treatment improves subjective wellbeing perioperatively. However, benefits attributed to the application by diminished insulin resistance have not been shown clinically.

OP 17

Surgical Intervention for Localized Encapsulating Peritoneal Sclerosis

Sander M Hagen¹, S Meelad Habib¹, Mario R Korte², Robert Zietse¹, Michiel Gh Betjes¹, Frank Jmf Dor¹

¹Erasmus Mc, University Medical Center Rotterdam, the Netherlands

²Albert Schweitzer Hospital, Dordrecht, the Netherlands

Introduction: Encapsulating peritoneal sclerosis (EPS) is a rare complication of peritoneal dialysis (PD). It is characterized by generalized encapsulation of the bowel.

Objectives: Our objective was to investigate and report on patients with localized EPS.

Material/Patients and Methods: Between July 2002 and December 2011, 9 EPS patients were referred for a diagnostic laparotomy. Three cases showed localized encapsulation of the bowel and were enrolled in this series.

Results: All three patients presented with an acute inflammatory state and symptoms of bowel obstruction. in two patients, EPS manifested after kidney transplantation and the third was diagnosed while on hemodialysis. They all shared a history of PD ranging from 31 to 101 months (cumulative duration). in none of the patients radiologic findings were conclusive. in each case, EPS was confirmed during laparotomy; a thickened peritoneal membrane became apparent predominantly covering the ileocecal

region of the intestine. Moreover, a constrictive membrane at the level of the terminal ileum was noted. Two cases underwent enterolysis and dissection of the constricting fibrotic membrane. the third case was managed by parenteral nutrition and tamoxifen. the post-operative course in one patient was complicated by infected ascites that resolved with antibiotic treatment. Eventually, all patients were doing well with adequate oral intake without the need for re-operations.

Conclusion: Localized EPS has a predilection for the level of the terminal ileum. an elective diagnostic laparotomy should be considered early; it offers both diagnostic opportunities as well as therapeutical options, as localized EPS cases may benefit most from enterolysis and peritonectomy.

OP 18

Implementation of Enhanced Recovery After Surgery (eras) Protocol in Gastric Surgery: a Review of Published Evidence

Mehmet Fatih Can¹, Mustafa Tanriseven², Erkan Ozturk¹, Semih Gorgulu¹, Gokhan Yagci¹

¹Gulhane Military Medical Academy, Department of General Surgery, Turkey

²Diyarbakir Military Hospital, Department of General Surgery, Turkey

Introduction: the enhanced recovery after surgery (ERAS) protocol is a set of evidence-based care guidelines that help improve perioperative outcomes as well as reduce healthcare costs. While it has proved to have a value in colorectal surgery, its usefulness in gastric surgery remains uncertain.

Objectives: the aim of this study was to explore published evidence investigating the use of ERAS protocol in gastric surgery.

Material/Patients and Methods: Medline and Web of Science search was undertaken to identify relevant articles using terms “enhanced recovery after surgery” and “gastric”. This first search retrieved 27 articles of which abstracts were reviewed to identify relevant studies. Two articles related directly with the use of ERAS protocol in gastric surgery were reviewed in detail.

Results: the first day of oral intake, oral intake recovery, and the first flatus and defecation were significantly earlier in the ERAS groups of the articles. Patients in the ERAS groups reported less pain evaluated on a visual analog scale and a reduced number of on-demand analgesics. the ratio of the postoperative body weight at first week to the preoperative body weight was significantly higher in patients managed using ERAS protocol.

Conclusion: the ERAS protocol seems to be of value in gastric surgery though high-quality randomized trials are needed to confirm our results.

OP 19

Identification of Bleeding Site of the Small Intestine During Surgery with the Help of a Guidewire

Bulent Unal¹, Ramazan Kutlu², Cemalettin Aydin¹,
Cuneyt Kayaalp¹

¹Department of Surgery, Inonu University, Turkey

²Department of Radiology, Inonu University, Turkey

Introduction: Angiography is helpful to detect the site of overt gastrointestinal bleeding. However, angiography itself cannot help to point out the exact bleeding site during surgery particularly at small bowel.

Objectives: We aimed to perform an angiography-directed preoperative guidewire placement for localization of the bleeding during laparotomy.

Material/Patients and Methods: Forty-five years old woman admitted with severe hematochezia and mild abdominal pain. Colonoscopy showed active bleeding, but proximal part of the transverse colon could not be visualized due to ongoing massive hemorrhage. Selective superior mesenteric artery angiography showed active blood extravasation from a nodular lesion fed by ileocolic artery located in a small bowel segment in the right lower abdomen. To localize the bleeding lesion during operation, a 0.035-inch hydrophilic guidewire was superselectively placed into the bleeding artery. The angiography catheter which had been inserted from the right femoral artery was removed but the guidewire was kept in place. The guidewire was fixed to skin by sutures to prevent migration during patient transportation to operating room.

Results: After laparotomy, the guidewire was palpated in the small bowel mesentery. The tip of the guidewire was pointing out the bleeding bowel segment that had an intussusception. Segmental ileal resection and end-to-end anastomosis was performed. Her gastrointestinal bleeding ceased immediately, postoperative period was uneventful and she was discharged on day 6.

Conclusion: Preoperative angiography-directed placement of a guidewire to the bleeding site made easy to find the bleeding small bowel segment during laparotomy. The method was simple and effective.

OP 20

Fluid Collection in Patients Who Underwent Laparoscopic Cholesistectomy

Erol Dikili, Ahmet Gurer, Nuraydin Ozlem

Atatürk Research and Training Hospital, General Surgery Department, Ankara, Turkey

Introduction: the observation of parameters regarding the existence and progress of fluid collection observed in post operative hepatobiliar ultrasound of patients that underwent

laparoscopic cholestectomy in Ankara Atatürk Eğitim and Araştırma Hospital's 1. general surgery clinic.

Objectives: 250 cases that underwent laparoscopic cholestectomy were prospectively studied.

Material/Patients and Methods: in the study of medical records following characteristics of cases were noted: age, gender, the story of cholestectomic attack, complications that arose during surgery application of drain, in drain applications the length of drains existence and cases time of hospital admittance. in hepatobiliar ultrasounds performed 1.st and 30.th days after operation the existence and progress of fluid collection was examined.

Results: in 250 cases whose medical records was studied, postoperative 1.st day hepatobiliar ultrasound in 67 cases (26.8%) were found to have collection of fluid. the average collection volume was calculated to be 8.8±5.2cc. in cases with post operative 1.st day collection, ultrasounds taken on 30.th post operative day show only 2 cases of continuing collection both under 5 cc. First day readings of these two cases were 19cc and 9.1 cc respectively.

Conclusion: Fluid collection found in post operative hepatobiliar ultrasound of patients that underwent laparoscopic cholestectomy has no correlations with patients age, gender or the existence of cholestectomic attack story. in cases of laparoscopic cholestectomy with suspected subhepatic collection with ultrasound evaluation made in early post operative term that shows levels below 10 cc, no need for further ultrasound follow up is necessary whereas its feasible to do so in cases over 10 cc of collection levels.

OP 21

Targeted Anticoagulation Using Novel Fusion Proteins for Thrombosis Prevention in Renal Transplantation

Karim Hamaoui¹, Sally Gowers³, Richard Smith²,
Terry Cook⁴, Anthony Dorling², Ara Darzi¹,
Vassilios Papalois⁴

¹Department of Surgery, Imperial College London, UK

²Mrc Centre for Transplantation, Kings College London, UK

³Department of Bioengineering, Imperial College London, UK

⁴Imperial Renal and Transplant Centre, Hammersmith Hospital, London, UK

Introduction: Kidney transplantation is an established procedure. Allograft thrombosis however is implicated in 2-7% of early adult-graft loss, and ~35% in children; the pathogenesis related to preservation, recipient/donor factors, with 'marginal' kidneys at higher risk. the only preventative measure is systemic anti-coagulation, conferring bleeding risks. an ideal more effective solution would be localised anticoagulation directly within allograft.

Objectives: We have developed a series of novel endothelial binding hirudin-anticoagulant fusion-

proteins(FP). We hypothesise kidney pretreatment with FP will ameliorate deteriorations in perfusion seen in an established porcine ex-vivo renal thrombosis model at our unit. We report our pre-clinical results.

Material/Patients and Methods: Fourteen kidneys were retrieved from cadaveric pigs (WIT=15mins, StaticCIT=4-8h). Kidneys were machine perfused on a Waters Medical(RM3) perfusion machine, with 4oC UW solution(4h), then with either unmodified (Thrombosis Group,TG=7) or FP treated (Protein Group,PT=7) perfusate. All kidneys then underwent autologous whole-blood normothermic perfusion(6h).

Results: Kidneys demonstrated similar perfusion dynamics during initial UW perfusion. During the normothermic phase there was less deterioration of perfusion in PG.vs.TG kidneys, with declines in flow rates of 14.1%.vs.33.5%(PG.vs.TG,p<0.03); and superior flow (28. vs.24ml/min/100g) and Perfusion Indices (0.44.vs.0.33ml/min/100g/mmHg) [PTvsTC,p=0.02 and p=0.04 respectively] in PG kidneys. Perfusate D-DIMER analysis demonstrated significantly(p<0.05) less fibrin generation in PG.vs.TG correlating with perfusion results.

Conclusion: We demonstrate that kidney preconditioning with anticoagulant proteins allows amelioration of deterioration in perfusion dynamics seen in ex-vivo thrombosis perfusion. There is potential for development of an applicable strategy to target locally-active anti-coagulants directly within the allograft and decrease the incidence of thrombosis. Work continues to delineate: optimal dosage, pharmacokinetics, and histological outcomes.

OP 22

Viability Assessment During Organ Preservation Using Real-time Micro-dialysis – a Promising Tool for Marginal Organs?

Karim Hamaoui¹, Sally Gowers², Nick Bullock¹, Martyn Boutelle², Ara Darzi¹, Vassilios Papalois³

¹Department of Surgery, Imperial College London, UK

²Department of Bioengineering, Imperial College London, UK

³Imperial Renal and Transplant Centre, Hammersmith Hospital, London, UK

Introduction: Viability assessment during the preservation period is imperative to avoid unnecessary discarding of marginal organs and maximising graft outcomes. To address this need, we have developed a novel system based on a rapid-sampling microdialysis analyser that allows continuous tissue monitoring and measurement of the metabolic markers of ischaemia.

Objectives: Our aim is to develop a tool that allows for accurate organ viability assessment during the preservation period. We report the results from our ongoing study.

Material/Patients and Methods: Twenty-two kidneys were retrieved from cadaveric pigs, flushed and transported to the laboratory(WIT=15min, TransportCIT=4-5hours).

10 kidneys underwent 24hours of static-cold-storage(SCS); 12 underwent 10hours of hypothermic machine perfusion(HMP,Waters Medical Systems[RM3]). Kidneys were monitored for tissue-lactate throughout by tunnelling a probe superficially into the parenchyma of the lateral cortex; online measurements of lactate concentrations were made every 60sec. Following preservation monitoring continued while tissue temperature increased passively to ambient temperature.

Results: on commencement of monitoring quantifiable lactate concentrations were successfully detected within 15mins. Lactate concentrations were similar during SCS(95microM) and HMP(130microM) during initial 1.5hours(p>0.05). Lactate concentrations were however lower after 10hours of SCS preservation compared with HMP(71microM vs 225microM, p<0.01). Overall lactate during SCS remained low and stable during preservation while in HMP lactate increased between 1.5-10hours from 130 to 225microM(p<0.01). Warming data suggests a resilience of HMP kidneys to subsequent increases in tissue temperature compared to SCS kidneys.

Conclusion: This preliminary work provides the baseline ischaemic profile for porcine kidneys whilst validating the technique of microdialysis as a tool for organ viability assessment during preservation with potential for clinical application. Importantly data here may help elucidate why HMP is clinically superior to SCS, and allow development of further interventions to augment these benefits.

OP 23

Delaying Liver Transplantation Operation (the Awakening Protocol) Does Not Impair Graft and Recipient Outcome

Agnaldo S Lima, Leandro R N Amado, João R M Zocrato, Maria Eva C Zocrato, Malvina M F Duarte

Alfa Institute of Gastroenterology; Hospital of Clinics, Universidade Federal De Minas Gerais, Brazil

Introduction: Liver Transplantation (Tx) is a procedure performed on an emergency basis owing to the need to keep short the cold ischemia time (CIT). the possibility of extend the CIT when harvesting occurs at night is beneficial to provide an appropriate length of time to prepare the institution for the transplant, to transport organs and candidates from great distances.

Objectives: To analyze mortality (7 days) or graft loss in liver Tx performed within the Awakening Protocol (AP) compared to sequential Tx.

Material/Patients and Methods: Retrospective analysis of 243 liver tx (230 patients), divided into sequential tx or delayed surgery to early in the morning (Awakening Protocol - AwP) to compare graft loss or death (7 days). Significant differences at p <0.05. Acute hepatic failure and moderate to highly steatotic livers were excluded.

Results: the AwP was adopted in 32.5% of tx. CIT ($p < 0.01$) and the interval until transplantation ($p < 0.01$) were significantly different. Age of the donor and recipient, Donor Risk Index, MELD score, and donor Base Excess, sodium, creatinine and glucose were not different between groups. Abdominal previous surgery were risk factors for early mortality, but were equally distributed between the groups. There was no difference in mortality or graft loss within 7 days ($p = 0.521$)

Conclusion: the adoption of AwP, to start tx the morning when harvesting occurs after 10p.m. did not result in worse patient and graft survival. Transplant patients with fulminant hepatic failure and high-risk grafts and donors do not apply to this surgical tactics.

OP 24

Urological Complications After Deceased Donor Kidney Transplantation

Inez Slagt, Jan Ijzermans, Laurents Visser, Willem Weimar, Joke Roodnat, Türkan Terkivatan

Erasmus Medical Center, the Netherlands

Introduction: the incidence of urological complications after kidney transplantation varies from 2.5 to 30%. Major urological complications related to the ureteroneocystostomy, like leakage or stenosis, often require surgical revision with additional morbidity and mortality.

Objectives: Our aim was to assess risk factors for major urological complications in deceased donor kidney transplantation.

Material/Patients and Methods: From January 2000 to December 2011, a total of 566 kidney transplantations were performed from deceased donors. Recipients' hospital charts and surgical reports were reviewed retrospectively. Urological complications were defined as percutaneous nephrostomy placement or revision of the ureteroneocystostomy. a uni- and additional multivariate analysis was performed.

Results: More urological complications were seen in male donor ($p=0.040$) and recipient ($p=0.002$), transplanted pre-emptively ($p=0.007$). Arterial reconstruction of the donor graft was significant ($p=0.003$) to develop urological complications. Significant more lymphoceles ($p<0.001$) and surgical site infections ($p=0.042$) were seen in the urological complicated group. a multivariate analysis showed significance in patient gender ($p=0.004$), pre-emptive transplantation ($p=0.021$) and arterial graft reconstruction ($p=0.015$). Kaplan-Meier curve showed no significance ($p=0.707$) in graft survival between the urological complicated and uncomplicated group.

Conclusion: Our multivariate analysis showed an increased amount of major urological complications in male recipients who are pre-emptively transplanted with an arterial reconstruction of a deceased donor graft. Nevertheless, these complications do not influence graft or recipient survival.

OP 25

Treatment of Acute Liver Failure by Transplantation of Liver Cells and Multipotent Mesenchymal Stromal Cells

Murat Shagidulin¹, Nina Onishchenko¹, Mikhail Krasheninnikov¹, Igor Ilijinsky¹, Eugeni Nemetc¹, Nadezda Perova¹, Viktor Sevastjanov¹, Sergei Gautier¹

¹Federal V.shumakov Research Center of Transplantology and Artificial Organs, Russia
²I.m.setchenov Moscow State Medical University. Moscow. Russia

Introduction: Treatment of acute liver failure (ALF) is an important problem in surgery and using of new technologies in ALF-treatment is an actual aim.

Objectives: for this reason, there is great interest in cell transplantation as a method of supporting and stimulating therapy at ALF.

Material/Patients and Methods: ALF was modeled on Wistar rats by resection of 70% of liver. Isolated liver cells (LC) and multipotent mesenchymal stromal cells (MMSC) were obtained by standard procedure. Suspension of LC ($2,5-4,0 \times 10^6$ cells/cm³) and MMSC ($0,5-0,8 \times 10^6$ cells/cm³) was immobilized on biodegradable matrixes ElastoPOB@-3D: group 1 ($n=25$) and applied on biodegradable matrixes «Sphero@GEL»: group 2 ($n=25$). Formed biounits were transplanted into mesentery of the animals. in control group 3 ($n=15$) were injected saline. Dynamics reduction of liver failure; liver and biounits morphology were investigated within 180 days after transplantation.

Results: Mortality after resection was 25%. ALF was characterized by ALT, AST, ALP, GGT, bilirubin, lactate rising and decreasing of synthetic (albumin) liver function. We have shown vacuolization and necrosis, progressive or total fat and hydropic dystrophy of hepatocytes. Into surviving animals in groups 1-2 all biochemical indices returned to normal levels on the 7th day after transplantation. in group 3, only after 18-21 days. After 180 days cell transplantation we have shown viable LC in biounits, single hepatocytes with hydropic dystrophy, some of them were dual-core. We have detected neogenic plethoric vessels, growing through matrixes.

Conclusion: Our studies have shown that the proposed method is effective for correction and treatment ALF and can be used in clinical practice.

OP 26

Cumulative Dose of Prednisone Is Associated with Decrease of Energy Metabolism in Patients Undergoing Liver Transplantation

Livia G Ferreira, Lais F Santos,
Lucilene R Anastácio, Agnaldo S Lima,
Maria Isabel T D Correia

Alfa Institute of Gastroenterology; Hospital of Clinics,
Universidade Federal De Minas Gerais, Brazil

Introduction: the liver is a primary site of human metabolism, and the lost of hepatic innervations after liver transplantation (LTx), might affect metabolic functions and contribute to weight gain after LTx.

Objectives: the aim of this study was to assess the resting energy expenditure (REE) during the first year after the LTx and to identify predictors for it.

Material/Patients and Methods: the REE was measured by indirect calorimetry, 30, 90, 180, 270 and 365 days after LTx. Age, sex, etiology of liver disease, immunosuppressive therapy and changes in nutritional status were researched as possible associated with REE. Multiple regression analyses by Generalized Estimating Equation was used ($p < 0.05$).

Results: Seventeen patients were enrolled in this study (median age of 52 years, 70.6% men). the major indications for LTx were alcoholic (41.2%) and C virus cirrhosis (23.5%). REE was elevated at 30 days and reduced from 6 months at the end of study (30 days: $1,770.4 \pm 481.3$ kcal and 365 days: $1,601.0 \pm 509.3$ kcal; $p < 0.05$). There were increase in body weight [$+5.3$ kg (-12.5 – 19.0)] and fat mass [$+2.8$ kg (-3.6 – 17.6)] analyzing 30 to 365 days after LTx. All patients were using tacrolimus and cumulative dose of prednisone at the end of study was 3.2 ± 0.7 g. the REE before LTx and the fat accumulation by triceps skinfold thickness were directly associated and cumulative dose of prednisone was inversely associated with REE, after multivariate analyses ($p < 0.05$).

Conclusion: Nutritional guidance and discontinued use of prednisone in suitable time, is mandatory in patients undergoing LTx, to avoid the increase weight after surgery.

OP 27

Hepatic Artery Thrombosis Is Related To the Age of the Liver Donor.

Agnaldo S. Lima, Leandro R N Amado,
João R M Zocrato, Maria Eva C Zocrato, Luciana C Faria

Alfa Institute of Gastroenterology; Hospital of Clinics,
Universidade Federal De Minas Gerais, Brazil

Introduction: Although the incidence of hepatic artery complications (ATC) remains low, its devastating consequences for liver transplantation (LTx) recipients justifies the search for a thorough knowledge of associated risk factors.

Objectives: To identify risk factors associated to ATC in a LTx cohort.

Material/Patients and Methods: We retrospectively studied 288 out of 369 patients transplanted from January 2007 to July 2012. Subjects were men in 69.4%, median age 55y (18-74y), MELD 20 (9-48), attained by hepatic viral (28.1%), alcoholic (23.3%), cryptogenic (17%) or autoimmune based (14.2%) diseases. Donors were male in 61.5%, median of age 37y (8-63y), cold ischemic time (CIT) 504 minutes (255-924min), preserved in UW (45.6%), HTK (38.6%), Celsior (10.9%) or IGL1 (4.9%) solutions. Appropriated statistical tests considered significance at $p < 0.05$.

Results: ATC occurred in 5.2%, 3.5%-needed retransplantation. Hepatic artery anatomy was standard in 75% of cases, replaced right artery in 4.5%, left hepatic artery from gastric artery in 14.4% and both in 2,5%. Arterial variations were not implicated in ATC ($p = 0.24$). Older donors were more prone to be associated with ATC ($p = 0.018$), specially after 50y ($p = 0.05$). Hepatic disease was not linked to ATC, but there was a trend in cases associated with liver tumor. ATC was not related to recipient age and the recipient-donor difference in age, preservation solution, CIT, donor-recipient sex and weight mismatch.

Conclusion: Older donors are implicated in greater incidence of ATC. in scarcity times, this risk do not justify organ refusal, but special prevention actions must be practiced when donor is older than 50.

OP 28

Vascular Injuries on the Tactical Field: a 2-year Experience From a Combat Support Hospital

Aytekin ünü¹, Murat Urkan¹, Mehmet Fatih Can¹,
Ahmet Ziya Balta², Ramazan Yildiz¹, Patrizio Petrone³

¹ Department of General Surgery, Gülhane Military Medical Academy Ankara, Turkey

² Department of Surgery, Gulhane Military Medical Academy Haydarpaşa Training Hospital, Istanbul, Turkey

³ University of Southern California, Department of Trauma and Emergency Surgery, Los Angeles, Ca, USA

Introduction: Hemorrhage due to vascular injuries is the leading cause of combat related mortality and morbidity.

Objectives: Nonetheless, effective and expedited prehospital trauma care and hospital capability with expertise are sine qua non for the management of these casualties.

Material/Patients and Methods: We retrospectively reviewed our vascular injury data from January 2005 through 2007 at our combat support hospital. We also analyzed the casualty outcomes through echelons of care and follow up charts until March, 2012.

Results: Out of 163 casualties, eight (5%) had vascular injuries. All vascular injuries underwent surgery at our hospital. Gunshot wounds and improvised explosives were the mechanisms of injury. the data revealed two subclavian vein, two brachial artery, two popliteal artery, one femoral artery and one anterior tibial artery injuries. We routinely

used saphenous vein graft for vascular reconstruction except in one case with injury to the popliteal artery that was repaired primarily. None of the casualties inflicted limb loss.

Conclusion: Widely available advanced weapon systems and high explosives have led to an increase in combat related vascular injuries. Our vascular injury rate and outcomes we report here are similar to recently published reports.

OP 29

Short Term Outcome After Emergency Surgery for Obstructed Colorectal Cancer

Nuraydin Ozlem , Kadir Yildirim , M Sencer Ozsoy , Umüt Yilmazyildirim , Sadik Kesmer

Samsun Education and Research Hospital, General Surgery Department, Turkey

Introduction: Emergency presentation of colorectal cancer is associated with an increased postoperative morbidity and mortality rate.

Objectives: our aim was to evaluate postop mortality and complications in our obstructed colorectal cancer series.

Material/Patients and Methods: Our patients' clinic data were collected from 2008 to 2013. This work was retrospectively done. Resection of the tumour-bearing segment of the colon was done in all patients have obstructing rectosigmoid tumor. Data regarding elective or emergency presentation, preoperative examinations, operative treatment, histopathological findings and per- and postoperative complications were registered. Post operative mortality was defined as death during hospital stay.

Results: 635 patients had colorectal surgery. 194 of 635(30.5%) had emergency operations. 55 of the patients who had emergency operations were died. 24 of 194 had obstructing lesions with tumour in rectosigmoid region. 5 of 24 (20%) patients also have perforation. Median age of patients who had an emergency operation was 73.7 (45-101) years, compared to 67.8 (31-88) years for those who had an elective operation . the patients who have obstructing tumor have the mean length of stay was 12.7 days. there was a shorter length of stay the patients who have resection without anastomosis than the patients with primary anastomosis because of fearing of anastomotic leakage of surgeon. Patients who underwent emergency operations more often underwent resection without anastomosis (55%).these patients have some postop complications ie wound infection, anastomotic leakage, eviseration, evantration, necrosis of colostomy stump, intraabdominal abscess. 3 of 24(12.5%) patients were died. in patients with left sided obstruction, the mortality rate was 15% following Hartmann's procedure and 9 % following segmental resection with primary anastomosis . emergency operation, increasing age and advanced tumour stage were associated with increased mortality rates . Emergency operation, increasing age and male sex (8/10) were associated with increased complication rates.

Conclusion: Emergency operation is associated with high mortality and complication rate and should be avoided

if possible. If immediate operation is necessary, resection and primary anastomosis seems justified in most cases, but the optimal treatment is still an issue for critical evaluation in future studies.

OP 30

Laparoscopic Versus Open Appendectomy in Acute Appendicitis. Our Experience

Halil Koray Sezer , Gokhan Celikkol

Balikesir Military Hospital, Turkey

Introduction: Appendicitis is the most common surgical emergency with the incidence rate of 6-10%. Although laparoscopic appendectomy is becoming the procedure of choice over open appendectomy in the treatment of appendicitis.

Objectives: To compare LA with OA to determine the length of hospital stay, post operative complication, length of operation, length of hospital stay.

Material/Patients and Methods: a retrospective study of all patients treated at our hospital for acute appendicitis, from May 2008 to June 2010, was performed. Data collection included postoperative complications, length of operation, conversion rate and length of hospital stay.

Results: Fifty-two patients with acute appendicitis were analysed. Among these, 20 (38,4%) had LA and 32 (61,6%) had OA. the mean length of hospital stay in LA was 3.02 days and in OA 4.13 days (p<0.001). the mean operative time in LA was 50.51 minutes and in OA 37.84 minutes (p<0.001). Post operative wound infection was none in LA group and 3 patients (9.3%) in OA group. Conversion to open surgery occurred once due to retrocecal appendix . Time to return to normal activity and time to return to work were shorter in LA group.

Conclusion: Laparoscopic appendectomy is as safe and effective as open procedure with major benefits like decreased wound infection, less hospital stay and early return to normal activities.

OP 31

May Peritoneal Aspiration Without Irrigation Decrease Postoperative Complication Rate in Perforated Appendicitis?

Nuraydin Ozlem , Kadir Yildirim , Sadik Kesmer

Samsun Education and Research Hospital, General Surgery Department, Turkey

Introduction: no study has compared peritoneal lavage with irrigation+aspiration(iA)vs only aspiration without irrigation(Awi)in perforated appendicitis(pa).

Objectives: Our aim is to determine if irrigation in pa decreases the postoperative complications(POC)(intra abdominal abscess(iAA),wound infection(Wi),postoperative

ileus(POi)rate,length of hospital stay(LOS),first oral intake(FOi) and operation time(OT).

Material/Patients and Methods: a randomised prospective study, march2011to august2012 279consecutive patients with acute apandicitis underwent appendectomy.

Results: 14of279patients have pa.7of those had iA,7had Awi.There are no differences between two groups in terms of age sex.4patients suffered fromPOCs;2have Wis,one hasiAA,forth patient hasPOi.1of4patient who hasPOC were in Awi group. the other 3-patients were in iAgroup.We found a lower overall complication rate in the Awi group,compared to the iA(14.2 %vs42.8% p=0.04)

Conclusion: It is becoming common practice routinely irrigate the peritoneal cavity during appendectomy when perforation exists.However,no study has shown if a causative relationship exists between use of intraoperative irrigation and the development of postoperativeiAAs.Moore et al's results show a trend toward an increase in postoperative abscess with the use of irrigation.we comparedPOC rate between the two methods.this study must be made on large group of patients According to our results, iA procedure increase postop complication in pa.It may be avoided peritoneal lavage even in pa.

OP 32

Enhanced Recovery Protocol Applied To Radical Cystectomy: Impact on Length of Inpatient Stay and Patient Outcomes.

Zhao Wu Meng¹, Mostafa Alabayati², Brian Birch²

¹ Faculty of Medicine, University of Southampton, UK

² University Hospital Southampton Nhs Foundation Trust, Hampshire, UK

Introduction: Radical cystectomy remains the standard treatment for patients with muscle-invasive bladder carcinoma. Despite improvements, it may be associated with greater mortality and inpatient stay.

Objectives: the current study aims to determine the impact of an enhanced recovery protocol (ERP) on length of stay and surgical outcome in patients undergoing radical cystectomy at University Hospital Southampton, NHS foundation Trust, UK.

Material/Patients and Methods: a retrospective study of patients undergoing elective radical cystectomy between October 2008 and March 2009 was performed. Data were extracted using case-notes and electronic databases. Patients receiving ERP were compared with those receiving non-ERP care. Statistical analysis was performed using Mann-Whitney U tests, two-sample T tests, and Fisher's Exact tests.

Results: a total of 57 consecutive patients underwent elective radical cystectomy; 24 (42%) patients received ERP care and 33 (58%) received non-ERP care. Mean age was 71y (range 53-91y) in the ERP-group and 66y (32-87y) in the non-ERP group (p=0.10). Patients in the ERP-group had a significantly reduced length of stay compared to patients in non-ERP group (10.0d (IQR 8.0-16.8) vs 14.5d (IQR 12.0-

16.8 respectively; p<0.05). Postoperative complications were overall less frequent but not significantly different in the ERP-group (p=0.31). No differences in 30d mortality rates were observed between the two groups. There were no significant differences in gender, co-morbidities, BMI, neo-adjuvant therapy, or disease stage between the cohorts.

Conclusion: ERP applied to radical cystectomy achieves a reduced the length of hospital stay without any observed adverse effects on mortality rate or post-operative complications.

OP 33

Fast-track Haematuria Clinic - a Cost Effective Way

Noel Aruparayil , Ben Nagy , Janine Lee , Jyoti Basu

Huddersfield Royal Infirmary, UK

Introduction: Fast - Track haematuria clinic is a nationwide one stop cancer referral system. with a catchment population of 40000 people, haematuria is a common problem in the community. in the region about 2500 cancers diagnosed a year - makes this a major part of clinical governance.

Objectives: To check the effectiveness of fast track haematuria clinic, adherence to local and national guidelines and cost-effectiveness.

Material/Patients and Methods: a retrospective study over 2 years, where patient notes were randomly selected using computerised system. Data collected in a proforma which included demographics, type of haematuria, duration from referral to treatment, investigations, diagnoses and cost.

Results: 75 patients were audited. Average age 65.9 (24-91). 55 male: 20 female patients. 59 macro-haematuria and 16 micro-haematuria. Investigations(%) (Day of clinic): 73 blood test, 90 US renal tract, 61 MSU, 34 urine cytology, DRE performed in 42 and 49 had CT urogram. Diagnosis (%): 16 - TCC, 6.6 Prostate Ca, 1.3 RCC, 10.6 UTI, 10.6 BPH, 2.6 Calculi, 14.6 (others - renal cyst, rectocele etc) and 37 patients - no diagnosis found. Duration (days): Referral from GP to clinic (overall) - 13.22 (Recommended time (RT) 14). Time to diagnose (overall) 21.15 (RT 17): TCC - 17.41, RCC - 1, Prostate Cancer 2. Time to treatment (cancer patients) - 14.5 (RT 31). Fast track haematuria costs £643 compared to routine clinic cost of £739 (CT Urogram cost excluded).

Conclusion: Fast track haematuria clinics are very cost effective for NHS - as it saves multiple visits and offers prompt clinical care to our patients.

OP 34

Upper Urinary Tract Urothelial Carcinoma: Prognostic Factors.

Talal Altayeb , Joseph El-shaikh , Sanjev Katwal , Graem Cooksey

Urology Department, Castle Hill Hospital, UK

Introduction: Upper urinary tract urothelial carcinoma (UTUC) comprises approximately 10% of renal neoplasm. Minimally invasive endoscopic procedures are associated with high recurrent rate; therefore, radical nephro-urectomy (RNU) remains the gold standard.

Objectives: the aim of this study was to examine the oncological outcome of patients with UTUC following RNU.

Material/Patients and Methods: We conducted a retrospective review of prospectively collected data on patients with UTUC underwent RNU from 2001 to 2005. SPSS statistical software programme was used for analysis

Results: a total of 26 patients were treated over the study period with median age of 61 years and 17 of patients were of male gender. Lower ureteral tumours were of higher grade (pT3/pT4) compared to upper localisation (66.6% versus 38.4) and were associated with increased rate of lymph node metastasis (33.3% contrast 18.3% respectively). Overall recurrence rate of 53.8% (n=14) was observed in this cohort. Most of the cases were intravesical recurrence 64.2% (n=9). Favourable oncological outcome was positively correlated with low grade cancer (pT1/pT2), absence of lymph node involvement and upper ureteral tumour (77%, 100% and 61.5 respectively; p < 0.05)

Conclusion: This study found that UTUC location and pathological stage are important prognostic factors. These results need to be validated with larger case series.

OP 35

Improvement of Walking Distance by Ramipril in Patients with Intermittent Claudication Is Partly Due To Its Ability To Reduce Arterial Stiffness: Results From a Randomised Controlled Trial

Yousef Shahin¹, John Cockcroft², Ian Chetter¹

¹Academic Vascular Surgical Unit, University of Hull, Hull, UK

²Welsh Heart Research Institute, Cardiff University, Cardiff, UK

Introduction: We have previously shown that the angiotensin converting enzyme inhibitor, ramipril, improved walking distance and reduced arterial stiffness in patients with intermittent claudication. However, the mechanism by which ramipril improves walking distance is still unknown.

Objectives: in this analysis on the same cohort of patients, we investigated whether ramipril's ability to improve walking distance is dependent on its ability to reduce arterial stiffness.

Material/Patients and Methods: 33 patients (25 males, mean age: 65+/-7.8) with intermittent claudication were randomised to receive ramipril (n=14) or placebo (n=19) for 24 weeks in a double-blind fashion. Walking distance was assessed using a standard treadmill test (1.6 mph at 10% incline) and arterial stiffness indices were assessed using the SphygmoCor device.

Results: After 24 weeks, ramipril improved maximum treadmill walking distance; adjusted mean change difference

(95% confidence interval); by 130.5 metres (61.8 metres to 199.2 metres) longer than placebo (p=0.001) and improved treadmill intermittent claudication distance by 121.9 metres (55.9 metres to 187.8 metres) longer than placebo (p=0.001). Ramipril reduced carotid femoral pulse wave velocity (PWVcf) by -1.47 m/s (-2.4 m/s to -0.57 m/s) compared to placebo (p=0.002) and reduced augmentation index (AIx) by -10.8% (-14.1% to -7.5%) compared to placebo (p<0.001). Changes in walking distance from baseline showed significant inverse correlations with changes in indices of arterial stiffness (PWVcf, r=-0.43, p=0.021; AIx, r=-0.50, p=0.006; AIx adjusted to 75 beats/minute, r=-0.50, p=0.006; central pulse pressure, r=-0.45, p=0.039). Correlations remained significant after adjusting for heart rate and mean arterial pressure.

Conclusion: Ramipril improves walking distance in patients with intermittent claudication. This improvement is partly due to ramipril's ability to reduce arterial stiffness.

OP 36

Economic Analysis of Evla and Surgery in the Treatment of Small Saphenous Incompetence. Results From an Rct

Nehemiah Samuel, Fayyaz Mazari, Tom Wallace, Daniel Carradice, Ian Chetter

Hull York Medical School / University of Hull, UK

Introduction: Rationing of constrained healthcare resources are being increasingly centred upon cost utility results. We compared the costs and utilities of Endovenous Laser Ablation (EVLA) and Surgery in patients with small saphenous venous (SSV) incompetence.

Objectives: To establish the most cost-effective treatment between EVLA and Surgery.

Material/Patients and Methods: Patients with primary SSV incompetence were randomised to receive EVLA or conventional Surgery. Assessments were performed at 1, 6, 12, and 52 weeks post intervention. Clinical and quality of life (QoL) data was recorded. EuroQol (EQ-5D) health utility index was plotted and quality adjusted life years (QALYs) generated by calculating the area under the curve. Costs were calculated using standard NHS tariffs and national statistics results. Cost per QALY was calculated.

Results: 106 patients were equally randomised to receive EVLA or Surgery. Both treatments resulted in significant improvement in EQ-5D (P<0.05 Friedman test). QALYs: There was no significant difference between the median (i.q.r.) QALYs for EVLA 0.8901 (0.2274) and Surgery 0.9396 (0.1547) (P=0.082) Costs: adjusted mean cost per procedure was lower for EVLA (£1233) than Surgery (£1862); hence the Cost/QALY was significantly lower for EVLA (£1386) as compared to Surgery (£1982). a cost of £13 per working hour gained, was achievable by the EVLA employee group due to faster return to work as compared to Surgery.

Conclusion: Both EVLA and Surgery are feasible well below the recommended NICE threshold of £20,000-30,000 per QALY. EVLA is the more cost-effective of the two with fewer peri-procedural morbidity and faster recovery.

OP 37

Collateral Circulation of the Rat Lower Limb and Its Significance in Ischemia-reperfusion Studies

Oliver Rosero¹, Karoly Nemeth², Zsolt Turoczi¹,
and ras Fulop¹, David Garbaisz¹, Matyas Kiss³,
Agnes Nemeskeri³, Attila Szijarto¹

¹1st Department of Surgery, Semmelweis University, Budapest, Hungary

²Transplantation and Surgical Department, Semmelweis University, Budapest, Hungary

³Department of Human Morphology and Developmental Biology, Semmelweis University, Budapest, Hungary

Introduction: Rats are the most commonly used animals for modeling and studying hindlimb ischemia-reperfusion (IR) injury. Hindlimb ischemia performed by arterial clamping causes milder damage than application of tourniquet, due to the presence of residual circulation.

Objectives: Our aim was to evaluate the importance of collateral flow between the two mentioned IR-models.

Material/Patients and Methods: Male Wistar rats were randomized into three major groups: (A) measurement of ischemic muscle weight (n=10), (B) hindlimb collateral system identification using corrosion casts (n=10) and (C) determination of muscle damage degree caused by application of tourniquet or infrarenal aortic occlusion (n=20). Blood and muscle samples were taken from group C to assess serum necroenzymes- (CK, LDH) and potassium-levels, muscle fiber viability and histological examinations.

Results: the corrosion casts showed several anastomoses capable of supplying the hindlimb. the use of tourniquet affected less amount of muscle tissue, but resulted in significantly more severe injury in contrast to the infrarenal aortic occlusion. This difference is also confirmed by serum CK- (p<0.001), LDH- (p=0.047), potassium-levels (p=0.048), histological examinations and viability-assay (p=0.00061).

Conclusion: the characterized hindlimb collateral network explains the discrepancy between the two IR-models regarding the degree of ischemic-reperfusion injury. This difference should be taken into consideration when designing a hindlimb ischemic-reperfusion rat model.

OP 38

A Complete Audit Cycle of Venous Thromboembolism Risk Assessment in Day-case Colorectal Surgery

Noman Qayyum, Muhammad Jawaid Akbar

Betsi Cadwaladr University Health Board, UK

Introduction: Venous thromboembolism (VTE) is a significant cause of morbidity in surgical patients. According

to guidelines by National Institute for Health and Clinical Excellence (NICE), day-case patients should be assessed for risk of VTE and offered the appropriate prophylaxis.

Objectives: This audit was undertaken to examine the compliance with VTE risk assessment in day-case colorectal patients at this centre.

Material/Patients and Methods: a prospective initial audit of procedures undertaken at day-case unit identified need for change in VTE assessment i.e. exemption of VTE risk assessment for procedures requiring local or no anaesthesia. Changes in practice were implemented and a prospective re-audit was undertaken to assess the impact of intervention.

Results: a total of 135 patients (initial audit: 74, re-audit: 61) were analysed. Haemorrhoidal banding was the most common procedure (audit 30%, re-audit 44%) followed by examination under anaesthesia (audit 13%, re-audit 11%), pilonidal sinus surgery (audit 13% re-audit 5%), inguinal hernia repair (audit 8%, re-audit 10%), and miscellaneous (audit 12%, re-audit 6%). At initial audit, thromboprophylaxis was given to 4 of the 16 patients assessed at the risk of VTE. the overall compliance to VTE guidelines was 84% (62/74). Post intervention, thromboprophylaxis was indicated in 7 patients and 6 were offered. Overall compliance to VTE risk assessment was 98% (60/61). Most common thrombotic risk factor was age greater than 60 years.

Conclusion: This audit found satisfactory compliance to VTE assessment in day-case surgical patients. We identified need for change in VTE assessment and prophylaxis for procedures not requiring anaesthesia. After implementation of change we were able to demonstrate improved compliance with NICE guidelines.

OP 39

Anatomical Variations of Saphenofemoral Junction Encountered During Venous Surgery

Murat Tavlasoglu¹, Hasan Alper Gurbuz²,
Mustafa Tarriseven³, Mustafa Kurkluoğlu⁴,
Fahri Gurhan Yasil⁵, Adem Guler⁵, Ibrahim Arzuman⁶

¹Diyarbakir Military Hospital, Department of Cardiovascular Surgery, Turkey

²Medicana International Ankara Hospital, Department of Cardiovascular Surgery, Turkey

³Diyarbakir Military Hospital, Department of General Surgery, Turkey

⁴Children's National Heart Institute, Children's National Medical Center, Department of Cardiovascular Surgery, Turkey

⁵Gulhane Military Medical Academy, Department of Cardiovascular Surgery, Turkey

⁶Gulhane Military Medical Academy, Department of Emergency Medicine, Turkey

Introduction: the term, 'varicose veins' is used commonly to describe the enlargement and tortuosity of lower extremity veins. However varicose veins can occur elsewhere. the traditional surgical treatment has been vein stripping to

remove the affected veins.

Objectives: in this article we aimed to present common anatomical variations of saphenofemoral junction encountered during surgical procedures in young adult patient population.

Material/Patients and Methods: Between January 2011 and January 2013, saphenofemoral junction compositions were investigated in 156 young adult patients who underwent great saphenous vein stripping with the diagnosis of superficial venous insufficiency. Data regarding the mean age of the patients, venous side branches draining to the saphenofemoral junction, the number of bifid saphenous vein and the distance between saphenous vein bifurcation to the saphenofemoral junction were recorded.

Results: the age of patients were 21.64 ± 0.91 (min:21, max: 25) and the number of side branches draining to the saphenofemoral junction was 4.9 ± 1.6 (min:1, max:8). Branches draining directly to the common femoral vein at the level of junction were detected in 4 cases (2.56%). Bifid saphenous vein was observed in 9 cases (5.7%).

Conclusion: It should be kept in mind that the success rate of the surgical procedure may be relevant to anatomical variation. To be familiar with the anatomical variations may decrease the recurrence rates of disease.

OP 40

Nim-811 Reduces Renal Complications After Lower Limb Vascular Operation

David Garbaisz¹, Zsolt Turoczi¹, and ras Fulop¹,
Oliver Rosero¹, Peter Onody¹, Gabor Lotz²,
Laszlo Harsanyi¹, Attila Szijarto¹

¹Semmelweis University, Ist Department of Surgery, Hungary

²Semmelweis University, Iind Department of Pathology, Hungary

Introduction: Operation on the infrarenal aorta could cause rhabdomyolysis of skeletal muscle, which may result in myonephropathic metabolic syndrome. NIM-811 (N-methyl-4-isoleucine-cyclosporine) is a mitochondria specific drug, which can prevent ischemic-reperfusion (I/R) injury.

Objectives: Our aim was to reduce damages in skeletal muscle and in the kidney after I/R of the lower limb with NIM-811.

Material/Patients and Methods: Wistar rats underwent 180 minutes bilateral lower limb ischemia and 240 minutes reperfusion. Animals were divided into four groups called Sham, IR (I/R+vehicle), NIM-sham (NIM-811+vehicle) and NIM-treated (I/R+NIM-811+vehicle). Serum, urine and histological samples were taken in the end of reperfusion. NADH-tetrazolium staining and muscle Wet/Dry (W/D) ratio was investigated.

Results: in the NIM-treated group has more favourable histological alterations. the serum necroenzyme levels are significantly lower in the NIM-treated group than in the IR group (LDH: $p=0.001$; CK: $p=0.04$). Muscle mitochondrial

viability is significantly higher ($p<0.001$) and renal function parameters are better (creatinin: $p<0.05$; FENa: $p=0.015$) in the NIM-treated group. the level of TNF- α is significantly lower ($p<0.05$), IL-6 is lower and W/D ratio is significantly lower ($p=0.04$) in the NIM-treated group.

Conclusion: NIM-811 can reduce the rhabdomyolysis and the damage of the kidney after infrarenal aortic operation.

OP 41

Comparison of Two Custom-made Stent Designs for the Treatment of Tricuspid Regurgitation

Margarita Malasa¹, and rea Amerini¹, Desiree Pott³,
Nima Hatam¹, Tobias Penzkofer²,
Rudiger Autschbach¹, Jan Spilner¹

¹Rwth University Hospital-thoracic and Cardiovascular Surgery, Aachen, Germany

²Rwth University Hospital, Radiology, Aachen, Germany

³Applied Medical Engineering, Helmholtz Institut, Aachen, Germany

Introduction: Good anatomical accessibility of the right heart by venous system allows a minimally invasive replacement of the tricuspid valve.

Objectives: in this study, we compared the potential stent design and its functionality to an interventional treatment of tricuspid regurgitation.

Material/Patients and Methods: by preliminary study CT date were obtained from several experimental animals (pigs) with different heart sizes. Based on this data, two stent designs were prepared. Design no. 1 consisted of two separate elements which were connected together, and lined right atrial and superior vena cava. Design no. 2 contained an additional third element which extended into the inferior vena cava. During each intervention a CT was performed. After subsequent rapid digital processing an appropriate stent size was selected. This stent was then implanted minimally invasiv.

Results: Altogether 6 pigs were operated. the appropriate size could be chosen exactly for both designs using the CT that was performed during each intervention. the correct positioning of both stent designs could be demonstrated by various imaging modalities. However, because of the rigidity of the catheter and the steep angle between the superior vena cava and right atrium the placement of the first stent design was complicated. No hemodynamic significant differences were found between the two designs. the whole intervention took about 50 minutes. Subsequently the autopsy showed good adaptation of both stent variants to the walls of the right heart.

Conclusion: the study has shown that the construction is also stable with two elements and eliminates the tricuspid insufficiency well. This promises less foreign material use with the same function. Soon, when a more flexible catheter is developed, the tricuspid insufficiency could be treated interventional.

OP 42

How To Start with Efficacy a Program of Mini Invasive Video Assisted Mitral Valve Surgery: One Center Experience

Demaria Roland , Rouviere Philippe , Battistella Pascal , Frapier Jean Marc , Albat Bernard

Department of Thoracic and Cardiovascular Surgery, Arnaud of Villeneuve University Hospital, Montpellier University, France

Introduction: Mini-invasive video assisted mitral valve surgery is an innovative surgical technique.

Objectives: the aim of this study is to evaluate a strategy used to initiate a program of video assisted mini-invasive mitral valve surgery.

Material/Patients and Methods: in December 2010, it was established consensually the 2 surgeons who would deal with this activity. Our direction was then informed of the wish argued with medico-economic considerations to begin this technique and envisaged a dedicated budget . We then established a training program in 5 european centers during the year 2011. in each one of these centers, a complete team of two surgeons, an anesthesiologist, a perfusionist and a specialized nurse moved. in parallel, equipment was selected. the first case was carried out in October 2011.

Results: From October 2011 to February 15, 2013, 14 cases were carried out. They were 9 cases of mitral valve replacement including four redo surgery, and 5 plasties. the surgical approach was a right mini thoracotomy and the canulation was peripheral under TOE control. the average time of aortic clampage was 118 minutes. the initial follow up were satisfactory, with 0% mortality and 0% stroke.

Conclusion: a rigorous strategy made it possible to launch this program under good conditions and with very satisfactory initial results. Any innovation in cardiac surgery must be founded on a strategy of this type to have optimal chances to be successful and durable in the current context.

OP 43

The Fpv Patellofemoral Joint Replacement: Mid-term Results From an Independent District-general Hospital

Nawfal Al-hadithy , Ronak Patel , Basalingappa Navadgi , David Hollinghurst , Sunny Deo , Venkat Satish

Great Western Hospital, UK

Introduction: Isolated patellofemoral joint osteoarthritis affects approximately 10% of patients aged over 40 years and treatment remains controversial. the Femoro Patella Vialli (FPV) patellofemoral joint replacement (Wright Medical Technology, UK has been shown to restore functional kinematics of the knee close to normal. Despite its increasing popularity in recent years, there are no studies evaluating the mid- term results with an objective scoring assessment.

Objectives: Therefore the aim of this study was to report the clinical and radiological outcomes of FPV patellofemoral joint replacement in patients with isolated patellofemoral arthritis, from our independent district-general hospital.

Material/Patients and Methods: Between 2006 and 2012, we performed 53 consecutive FPV patellofemoral arthroplasties in 41 patients with isolated patellofemoral joint osteoarthritis. 12 patients had bilateral one-stage procedures. There were 31 females and 10 males with a mean age of 62.2 years (39-86) and a mean follow up of 37 months (range: 12-70 months). All patients were followed up to failure or pain-free. PFJR was performed on the right knee in 33 and left in 20.

Results: the mean follow-up was 3 years. Mean Oxford Knee scores improved from 19.7 to 37.7 at latest follow-up. Ninety four per cent of patients were happy or very happy with their knees. Progression of tibiofemoral osteoarthritis was seen 12% of knees. 2 knees required revision to TKR at 7 months post-operatively, which we attribute to poor patient selection.

Conclusion: Our findings suggest that the FPV patellofemoral joint replacement appears to be a reliable prosthesis, which at a mean follow-up of 3years, has a high survival rate and gives good functional outcome with high satisfaction scores.

OP 44

Periosteal and Endosteal Microvascular Disturbances Following Excessive Osteosynthesis – the First Human Study

Petra Hartmann¹, Ferenc Greksa², and rea Szabó¹, Dénes Garab¹, Hristifor Gálity², Kálmán Tóth², Mihály Boros¹

¹Institute of Surgical Research, University of Szeged, Szeged, Hungary

²Department of Orthopaedics, University of Szeged, Szeged, Hungary

Introduction: We examined the endosteal and periosteal circulations of an orthopaedic patient with pseudoarthrosis who underwent excessive osteosynthesis applications (two long plates on both sides of the tibia and extension shaft of a cemented total knee endoprosthesis).

Objectives: the concomitant perfusion changes were determined in the nearest proximity of the osteosynthesis materials during their surgical removal upon the re-operation.

Material/Patients and Methods: the blood flow in the periosteum and endosteum was recorded by a laser-Doppler flowmetric device (PeriFlux System 500, Perimed, Järfälla, Sweden) with a fiber-optic probe (# 416; penetration depth of approx. 1 mm). Recordings were made in 30-sec periods and repeated 3 times. the tibial periosteum was exposed via an anterior incision, while a small drilled hole on the tibial anterior cortex provided access to the endosteum at the opposite medullary wall.

Results: Considerably lower blood flow values were

measured along the tibial periosteal region at the re-operated (pseudoarthrotic) limb than at the contralateral side (average PU was 76 vs. 106 PU, respectively). Perfusion values were markedly lower at the endosteal region (average values of approx. 30 PU) in the control tibia and were even more diminished in the re-operated tibial endosteum (average 9 PU) even in the presence of characteristic good signal quality.

Conclusion: Our present study demonstrates simultaneous impairment of both the endosteal and periosteal circulatory systems in a long bone after excessive prosthesis application. the perfusion deficit may explain the negative clinical outcome, i.e. pseudoarthrosis formation. Supported by TÁMOP-4.2.2.A-11/1/KONV

OP 45

Reconstruction of the Arches of the Foot Following High-energy Gunshot Injuries with Vascularised Fibular Flap and Analysis of the Late Results

Ismail Sahin , Dogan Alhan , Mustafa Nisanci , Serdar Ozturk , Fatih Zor , Serbulent Guzey , Selcuk Isik

Department of Plastic and Reconstructive Surgery, Gulhane Military Medical Academy, Etlik, Ankara, Turkey

Introduction: Composite defects of the foot, concerning the bone and soft tissue are commonly caused by high-energy traumas and free flaps are often necessary for reconstruction.

Objectives: in this study we aimed to present vascularised free fibular flap applications for high energy foot trauma reconstruction.

Material/Patients and Methods: in this study, we present 5 applications of vascularised free fibular flap. the average size of the bone grafts was 6.6 cm (range 5-13 cm) and the skin defect varied from 5 x 8 cm to 10 x 15 cm. the fibular flap was used for reconstruction of anterior transverse arch in one case, of posterior transverse arch in one case, of medial longitudinal arch in two cases, and of both anterior transverse and lateral longitudinal arches in one case. Bone mineral densitometry, dynamic podography and functional evaluation with gait analysis was performed at 12 months postoperatively.

Results: Mean follow up period was 48 (12-84) months. No complications were encountered postoperatively. All patients went back to social and working activities within 6 months. Testing revealed there was approximately a 1.5-fold increase in bone mineral density of the flap compared to the corresponding segment of the contralateral fibula. Minimal step length decrease was found according to gait analysis result. All patients were satisfied with the result.

Conclusion: Free osseocutaneous fibular flap is a safe and appropriate choice for the reconstruction of the transverse and longitudinal arches of the foot.

OP 46

The Early Results of Patients Underwent Fulkerson -watson Extraarticular Ligament Rekonstruction Technique for Chronic Distal Radioulnar Joint Instability

Faruk Akyildiz ¹, Hasan Turğut ², Selahattin özyürek ³, Üzeyir Tirmik ⁴, Mahir Mahiroğullari ⁵, Kenan Koca ⁶

¹ Malatya Asker Hastanesi Ortopedi Servisi, Turkey

² Siirt Asker Hastanesi Ortopedi Servisi, Turkey

³ Aksaz Asker Hastanesi Ortopedi Servisi, Turkey

⁴ Merzifon Asker Hastanesi Ortopedi Servisi, Turkey

⁵ istanbul Medipol üniversitesi Ortopedi Servisi, Turkey

⁶ Gata Ortopedi Kliniği Ankara, Turkey

Introduction: Distal radioulnar joint injuries can occur in isolation or in association with distal radius fractures, Galeazzi fractures, Essex-Lopresti injuries, and both-bone forearm fractures

Objectives: in this study we aimed to show the effectiveness of Fulkerson -Watson extraarticular ligament rekonstruction technique on patients with chronic distal radioulnar joint instability by evaluating the early results

Material/Patients and Methods: Between October 2011-April 2012 four patients with chronic distal radioulnar joint instability included in this study. Fulkerson-Watson extraarticular ligament reconstruction was performed in these patients had a sufficient sigmoid cavity. in 3 patients palmaris longus autograft, in 1 patient tensor fascia lata autografts were used. Quick-DASH, visual analog scale (VAS) and wrist MRI was used for evaluation. for the assessment of stability we viewed piano key findings

Results: Mean follow-up was 4.75 months (4-6). the mean Quick-DASH score was 43,18 (31,81-63,63) before operation and 10,99 (6,81-15,9) after operation. the mean VAS score was 7,5 (6,7-8,2) before operation and 2,5 (1,6-3,4) after operation. Piano key findings were available in 4 patients preoperatively, but this sign was not detected in any patients after the operation

Conclusion: Although our time is short and the small numbers of cases followed, in appropriate indications Fulkerson-Watson extraarticular ligament reconstruction technique is a easy and effective technique for patients with chronic distal radioulnar joint instability

OP 47

Clinical Outcomes of Patients with Radial Nerve Injury Associated To Humeral Shaft Fractures

Faruk Akyıldız¹, Hasan Turğut², Hakan Şimşek³, Selahattin Özyürek⁴, Üzeyir Tirmik⁵, Mahir Mahiroğullari⁶

¹ Malatya Asker Hastanesi Ortopedi Servisi, Turkey

² Siirt Asker Hastanesi Ortopedi Servisi, Turkey

³ Gata Haydarpaşa Eğitim Hastanesi Beyin Cerrahi Servisi, Turkey

⁴ Aksaz Asker Hastanesi Ortopedi Servisi, Turkey

⁵ Merzifon Asker Hastanesi Ortopedi Servisi, Turkey

⁶ İstanbul Medipol Üniversitesi Ortopedi Servisi, Turkey

Introduction: the most common nerve lesion following fractures of long bones is radial nerve palsy.

Objectives: in this study we aimed to determine treatment algorithm of patients with radial nerve injury associated to humeral shaft fractures in the light of literature and clinical results

Material/Patients and Methods: Between the years of 2006-2012, eight (15,8%) patients with radial nerve palsy (from 52 patients with closed humeral shaft fractures) included in this study. the mean age was 23.84. the mean duration of follow-up was 10.42 months. 7 patients presented radial symptoms on admission; in one of them developed iatrogenic radial nerve injury after functional casting with acute functional casting, the dynamic radial wrist orthosis fitted to seven patients and oral therapy was initiated with B vitamin complex.

Results: 6.month after operation, full recovery of sensorial functions was seen on patient with iatrogenic radial nerve palsy, but recovery of motor functions was 3/5. the motor functions regressed after 11 month on patient underwent surgery on 4.manth. But the motor functions regressed after 13 month on patient underwent surgery on 10.manth. Full recovery of motor functions were obtained in average 3,2 month (2,5-4,2) on 5 patients followed up conservatively.

Conclusion: We suggest that waiting for spontan regression is necessary on patients with radial nerve injury associated to humeral shaft fractures.

OP 48

Osteoinduction of Adult Stem Cells on Polyethylene Glycol Hydrogel Material

Diego Lops¹, Barbara Zavan²

¹ University of Milan, Italy

² University of Padova, Italy

Introduction: Nowadays, the bone defects treatment represents a great challenge both for cranio-maxillofacial and dental surgery. the concept of an induced membrane

represents a new strategy for bone regeneration.

Objectives: To test the osteogenic potential of a synthetic hydrogel made of polyethylene glycol (PEG) to be used as a biodegradable membrane for guided bone regeneration.

Material/Patients and Methods: Adult mesenchymal stem cells derived from adipose tissue, namely adipose-derived stem cells (ADSCs), were isolated, characterized in vitro, and seeded on the hydrogel (PEG). After 15 days of culture without an osteoinductor, the scaffolds were analyzed with scanning electron microscopy and real-time PCR to assess osteogenesis and with an array CGH to test their safety.

Results: It was confirmed that ADSCs were able to attach to the membrane and become osteocytes, as revealed by the SEM images and the positive expression of bone markers. Real-time PCR confirmed the presence of extracellular matrix components, such as osteopontin, osteocalcin and osteonectin. Nevertheless, it was demonstrated that ADSC also commit to mature endothelial cells.

Conclusion: the CGH array detected no chromosomal abnormalities, confirming the safety of the cultures. the PEG membrane has osteogenic potential and therefore could be used successfully as a membrane in the treatment of bone defects.

OP 49

Differential Osteogenic Ability and Survival of Human Mesenchymal Stem Cells in Orthotopic and Ectopic Sites in Mice

Mathieu Manassero¹, Adeline Decambon¹, Mickael Deschepper², Morad Bensidhoum², Delphine Logeart², Hervé Petite², Véronique Viateau¹

¹ Ecole Nationale Vétérinaire D'alfort, Maisons Alfort, France

² B20a, Umr 7052, Paris, France

Introduction: Tissue constructs containing mesenchymal stem cells (MSCs) are appealing strategies for repairing large segmental bone defects. However, they do not allow consistent bone healing. Early and massive MSCs death was identified as a cause of failure. Little is known about cell survival in the clinical micro-environment encountered during bone healing process, whereas ectopic evaluation is well documented.

Objectives: in vivo, luciferase-labelled human MSCs survival, within osteoconductive scaffold, was compared in orthotopic and ectopic locations, and bone formation ability of LF-hMSCs-Acropora constructs was evaluated. Interest and limits of each model were highlighted.

Material/Patients and Methods: Osteoconductive scaffold with or without LF-hMSCs were implanted either in a critical-segmental-femoral-bone defect stabilized by plate or subcutaneously in 44 mice. Cells survival was evaluated by serial bioluminescence imaging (BLI) during 10 weeks and osteogenic capabilities by histology and microCT.

Results: BLI provided evidence of fast and continuous cell death: 85% decrease of the BLI signal over the first 15 days in both location. the amount of newly formed bone in

LF-hMSCs-Acropora constructs was significantly higher than in scaffold-alone groups. This was also statistically higher in orthotopic than in ectopic location.

Conclusion: Corroborating previous studies, our results indicated that hMSCs promote bone formation despite early and massive cell death when loaded on ceramic scaffold. Interestingly, bone formation was higher in orthotopic than ectopic site despite a same survival pattern, suggesting a trophic effect of hMSCs. Ectopic implantation of cell-containing constructs is suitable to evaluate cell survival, but assessment of bone formation ability requires orthotopic implantation.

OP 50

Meta-analysis of Glue Versus Sutured Mesh Fixation for Lichtenstein Inguinal Hernia Repair

De Goede Barry¹, Klitsie Pieter. J.¹,
Timmermans Lucas¹, Van Kempen Bob J.¹,
Jeekel Johannes¹, Kazemier Geert², Lange Johan F.¹

¹ Erasmus Medical Center, the Netherlands

² Vu Medical Center, the Netherlands

Introduction: Chronic pain remains a frequent complication after Lichtenstein inguinal hernia repair. However, the efficacy of glue compared to sutured mesh fixation for Lichtenstein inguinal hernia repair is still subject to debate.

Objectives: This meta-analysis aimed to clarify which fixation technique is to be preferred for elective Lichtenstein inguinal hernia repair.

Material/Patients and Methods: a meta-analysis was conducted according to the PRISMA guidelines. Articles, published between January 1990 and April 2012, were searched for in Medline, Embase and the Cochrane Library. Randomized controlled trials (RCTs) comparing glue and sutured mesh fixation in elective Lichtenstein repair for unilateral inguinal hernias were included. the quality of the RCTs and the potential risk of bias were assessed using the Cochrane Risk of Bias tool.

Results: of 254 papers found after the initial search, a meta-analysis was conducted of seven RCTs comprising 1185 surgical patients. with the use of glue mesh fixation, operation time was shorter (mean difference -2.57, 95% CI -4.88 to -0.26; P=0.03), patients had lower visual analogue scores for postoperative pain (mean difference -0.75, 95% CI -1.18 to -0.33; P=0.001), early chronic pain occurred less often (RR 0.52, 95% CI 0.31 to 0.87; P=0.01), and time to return to daily activities was shorter (mean difference -1.17, 95% CI -2.30 to -0.03; P=0.04). Hernia recurrence rate did not differ significantly.

Conclusion: Elective Lichtenstein repair for inguinal hernia using glue mesh fixation compared to sutures is faster and results in less acute postoperative pain, less early chronic pain, shorter time to return to daily activities, and comparable hernia recurrence rate.

OP 51

Comparative Clinical Trial of Laparoscopic Ventral Hernia Repair with and Without Closure of Sac

Bhupinder Singh Pathania

Chintpurni Medical College Punjab, India

Introduction: Problems in Laparoscopic ventral and incision repair still persist. in addition to recurrence and postoperative pain ,there is problem of seroma with persistent postoperative bulge and loss of body image rendering the procedure unacceptable to patients . This was the basis on which comparative trial was taken up .

Objectives: Objective of the study; To evaluate and compare the postoperative morbidity in these two group of patients

Material/Patients and Methods: Methods and procedures ; 30 patients in group a (where sac was closed before placing mesh) and 30 patients in group B (in which sac was not closed and mesh was placed directly over the defect) .

Results: in this study , the average size of defect in our study was 21.64 sq cm. in our study, the incidence of post operative seroma in the closure group was 6.6% whereas this was 53% in the non closure group .There was 3.33% recurrence with closure of sac and 6.6% non closure group in follow-up. period of 8 to 25 months. 100% of patients in the closure group were very satisfied with their body image, whereas only 25% patients in the non closure group were very satisfied with their body image

Conclusion: Advantage of closure of sac in laparoscopic repair of ventral hernia. has been established. Drastic decrease in incidence of seroma .Quality of life in postoperative period is better as there is no bulge and patients are satisfied. Correlation with reduction in incidence of recurrence needs further follow up

OP 52

A Modification To Conventional Components Separation for "loss of Domain" Ventral Hernias: Preservation of Perforator Vessels

Mehmet Fatih Can , Yaşar Subutay Peker ,
ismail Hakki özerhan , Yusuf Peker

Gülhane Military Medical Academy, Department of
General Surgery, Ankara, Turkey

Introduction: Components separation is a vital treatment modality for giant "Loss of Domain" ventral hernias. Conventional open technique (CCS) dictates institution of large lipodermal flaps on both sides to perform relaxing incisions, which may result in an increased wound related complications. in order to eliminate this problem, endoscopic and laparoscopic approaches (ECS) have been proposed.

Objectives: To share our experience with a modified technique (MCCS) where two or more perforator vessels from

the rectus muscle to the skin flaps are preserved to diminish the chance of wound related complications.

Material/Patients and Methods: All patients who underwent MCCS between 01 December 2012 and 30 January 2013 were included in the study. a prospectively maintained database on postoperative complications, VAS scores and length of hospital stay were evaluated.

Results: in total, seven patients (m/f = 4/3, median age 33, [range: 20-56]) underwent the procedure. the median BMI was 24.55 kg/m²(37.50-17.99) and median hernia defect was 117cm²(61-201). According to Mosteller formula, the median body surface area of patients was 1.808m²(1.968-1.567) and median 'body surface/hernia surface' ratio was 176.234(98.451-314.000). Median VAS values for postoperative day 1, 3 and 7 were 6.5(8-5), 3.5(5-2), 2(4-1), respectively. Median hospital stay was 8.33(13-6) days. Polypropylene mesh was used for three patients. One patient experienced seroma formation without infection in whom mesh had been used (14.3%).

Conclusion: Our preliminary results suggest that MCCS can be a promising alternative to ECS for giant ventral hernias provided that at least two perforator arteries on each side are preserved.

OP 53

Tissue Adhesive Material Coated Meshes in Rabbits:effects on Wound Healing Using Onlay Technique

Nazif Zeybek ¹, Ulvi Mehmet Meral ²,
Yasar Subutay Peker ¹, Ali Fuat Cicek ¹, Nail Ersoz ¹,
Yusuf Peker ¹

¹ Gulhane Askeri Tip Akademisi Genel Cerrahi
Anabilimdali, Turkey

² Izmir Asker Hastanesi Genel Cerrahi Servisi, Turkey

Introduction: Meshes are widely used in the treatment of incisional hernia.

Objectives: the aim of our study is to evaluate the histopathological effects of mesh coating with Tisseel® on wound healing in rabbits.

Material/Patients and Methods: 35 New Zeland type rabbits were used. Midline defects were created in order to simulate incisional hernia and repaired with two different types of meshes (Heavyweight vs. Lightweight). Every mesh group were further divided in to two groups depending on the mesh fixation method (suture vs. Tisseel®). the rabbits were re-operated and fullthickness samples were histopathologically examined 90 days postoperatively. American Society for Testing and Materials (ASTM) scales were used to score the inflammatory response to these meshes. Mean overall response (MOR) scores were calculated and statistically significant differences were examined.

Results: in the noncovered group, histopathological examination revealed higher inflammatory response to HW meshes compared to LW meshes. However, the inflammatory response and MOR values were not significantly higher when

HW meshes were fixated with Tisseel®. Suprisingly; LW meshes covered with Tisseel® led to higher inflammatory response compared to Tisseel® covered HW meshes,LW meshes and HW meshes without Tisseel®.

Conclusion: HW meshes in the routine surgical practice create a higher inflammatory response when fixated with suture materials, however Tisseel® leads to a higher inflammatory response itself and when combined with LW meshes this response is higher than HW meshes.

OP 54

The 2012 International Consensus Algorithm for Management of Chronic Postoperative Inguinal Pain

Johan F.m. Lange ¹, Ruth Kaufmann ², Arthur R.
Wijsmuller ², Jean-pierre E.n. Pierie ³, Rutger J.
Ploeg ⁴, David C. Chen ⁵, Parviz K. Amid ⁵

¹ Department of Surgery, University Medical Center
Groningen, the Netherlands

² Department of Surgery, Erasmus Medical Center
Rotterdam, the Netherlands

³ Department of Surgery, Medical Center Leeuwarden,
the Netherlands

⁴ Nuffield Department of Surgical Sciences, University of
Oxford, United Kingdom

⁵ Department of Surgery, UCLA Medical Center, Los
Angeles, United States of America

Introduction: Chronic postoperative inguinal pain (CPIP) is the most significant complication after inguinal hernia repair. Several modalities are used in the management of CPIP, but no current consensus guidelines exist.

Objectives: Our aim was to develop an international expert-based algorithm for diagnostic and therapeutic management for practical use by general and dedicated hernia surgeons.

Material/Patients and Methods: the authors proposed an initial algorithm to a group of experts for commentary. All input was implemented into a revised algorithm. Subsequently, consensus regarding each step of the algorithm was sought in our expert group, using the Delphi-method. Steps that did not have 100% agreement were reassessed via a multiple-choice survey. the answer with most votes would be the consensus response. the final version of the algorithm was sent to all experts for review.

Results: Forty-seven experts were identified and invited to participate. Twenty-eight experts responded and agreed to participate, 15 of them commented on the initial algorithm. Thereafter, all experts were independently surveyed. Consensus was reached on 19 of 28 steps in this algorithm. the authors defined 9 multiple-choice questions to reach consensus on the remaining 9 steps. Twenty-one of the original 28 experts participated in the Delphi-method stage of algorithm development. of the 28 participating experts, 26 accepted the consensus algorithm: 12 totally agreed, 14 agreed despite a few minor details. One expert could not agree

with the final concept. One expert did not respond during the final phase.

Conclusion: This algorithm delineates a systematic approach to CPIP using imaging, pharmacologic and interventional pain management, and operative intervention.

OP 55

First Results of One General Surgical Clinic About Laparoscopic Incisional Hernia Repair: Problems

Nuraydin Ozlem¹, Sadik Kesmer¹, Elif Mangan Colak¹, Kadir Yildirim¹, M Sencer Ozsoy¹

Samsun Education and Research Hospital, General Surgery Department, Turkey

Introduction: Minimal access surgery for incisional hernia repair is still debated. Some studies showed that the tendency that LIHR is associated with the less postoperative pain and comparable postop complications, low recurrence rate, safety and good long term results of this procedure, lower ssi incidence, but some others reported that it is not better than open thecnic in term of recurrence.

Objectives: We aim to present first 17 patient experiences on LIHR.

Material/Patients and Methods: 22 patients try to achieve LIHR. 17 of 22 patient included. This study was ended for 22 month period. of the patients 4 are male 13 are female. Their mean age was 55.7(36-76). Mean follow up period are 8.1(1-22) months Mean hernia defect size 7.5cm (4-15), 6 patients have multiple fascial defect. mean length of stay 3.1 day (1-8) bmi = 33.7 (mean) range 24-48) ASA scor is mean 2.05 (1-3) operative time is 160.5 ±82 min(mean). of 14 patients have comorbidities. First oral intake time is mean 1.05 day. All operation were performed by two general surgeons perioperative ab were administered in all cases. Eight patients have recurrent incisional, 9 of them were incisional hernia. Parietex Composite mesh (covidien) were used. the mesh was anchored with four transfascial full-thickness sutures to the anterior abdominal wall. the mesh was then fixed with spiral tacks using the double-crown technique. Follow up consisted of a telephone survey. At follow up the recurrence rate, satisfaction with the surgical result on a scale (0 = no satisfaction, 10 = very satisfied) were determined for statistical analysis, possible associations between therapeutic and prognostic parameters and hernia recurrence were examined univariately by means of Student's t-test and Fisher's exact test. the data are reported as means with standard deviations (SDs) or ranges

Results: 4 seromas without need for intervention developed, in 2 patient postoperatif ileus ocured. summary complications are 35%. the satisfaction with the overall result of the operation was measured on a scale (0 = no satisfaction, 10 = very satisfied), with a mean value of 5.7 (0-10) in the laparoscopic group. in the interview, 60 % of the patients with LIHR would choose the laparoscopic approach for incisional hernia repair again.

Conclusion: the main benefits of minimally invasive surgery include a reduced risk of wound complications, less pain, faster recovery, and a rapid return to normal activity. we didnt have any wound complication. the other benefits of minimal invasive surgery didnt work. Our patients' hospital stay were longer than Bisgaard's shorter than Ferrarie's. Recurrence rate of these patients were 5.8 % , wolter et al reported that a rate of 8.6 was. Kurmann reported that their recurrence rate was 15.9% Our study limitations are short term period follow up and retrospective design and the small group of patiens. Satisfaction rate of our patiens is not perfect ;5.7 .wolter et al's patients satisfaction mean level being 8.2 in LIHR Our mean operative time was longer than ferrari's, Wolter's, but shorter than Kurmann's. Our suggestion is to plan prospective randomised study. We are doing this kind of study now.

OP 56

Effects of Chosen Operation Techniques on Recurrence Rates About Incisional Hernia

Nuraydin Ozlem¹, Cem Donmez², Umur Yilmazyildirim¹, Alper Ceylan¹, Sadik Kesmer¹, Kadir Yildirim¹, M Sencer Ozsoy¹

¹Samsun Education and Research Hospital, General Surgery Department, Turkey

²Ankara Atatürk Education and Research Hospital, General Surgery Department 1, Turkey

Introduction: Incisional hernia after abdominal surgery is an important problem.

Objectives: We aimed to evaluate the long-term recurrence rate in patients operated with primary repair-onlay-sublay mesh repair techniques for incisional hernia.

Material/Patients and Methods: We studied a serial of 75 patients retrospectively, operated due to incisional hernia in between 2003-2008 in Ankara Atatürk Training and Research Hospital General Surgery Department. the patient's age, sex, location and size of the defect, previous operation type (emergency or elective), operation findings, duration of hospitalization, early and late complications and recurrences were recorded. 14 (18,7%) patients have primary, 24 (32%) patients have onlay, 37 (49,3%) patients have sublay hernia repair. There is no statistically significant difference between 3 groups in mean ages, previous operation types and weights.

Results: there are recurrence 42,9% of patients in primary repair group, 45,8% in onlay group, 21,6% in sublay group. There is a significant difference between onlay and sublay repair group. Surgical site infections in onlay group increases statistically significant the recurrence rate.

Conclusion: Retromuscular Mesh Placement avoids contact between the mesh and abdominal viscera and has been shown in long-term studies to have a respectable recurrence rate (14%) in large incisional hernias. Prospective analysis of onlay technique is not available, but a retrospective review has reported recurrence rates of 28%. Our rate is 45,8% and about two-fold higher than the literature rates. Primary repair

can be done, for instance, with a direct suture technique, but recurrence rates are high. Recent literature advises the use of mesh repair. Although in our research there is no statistical significant difference between sublay and primary repair technique in recurrence rates. we have good outcomes in incisional hernia patients who have sublay hernia repair technique.

OP 57

Physiological Parameters for Pneumatic Compression Therapy of Swollen Tissues in Lower Limbs Ulcers

Marzanna Zaleska¹, Waldemar L. Olszewski¹, Pradeep Jain²

¹Department of Transplantation Surgery, Central Clinical Hospital, Ministry of Internal Affairs, Warsaw, Poland

²Benaras Hindu University, Varanasi, India

Introduction: Leg wounds and ulcers are accompanied by accumulation of excess plasma filtrate (tissue fluid, TF) in subcutaneous tissue, due to high capillary permeability in inflamed regions and elevated venous. Mechanical compression is an effective conservative method enabling TF to flow to non-swollen regions.

Objectives: How high should be externally applied forces and timing of compression to move stagnant tissue fluid?

Material/Patients and Methods: Hydraulics of tissue fluid in swollen lower limbs were studied in 15 patients with lower limb lymphedema edema stage II/III during intermittent pneumatic compression. in another group same studies were carried out in 5 patients with leg ulcer. Eight chamber sleeve was used. Inflation pressure ranged from 50 to 120mmHg, inflation time of each chamber ranged from 5 to 20 to 50sec. TF pressure was measured in calf by subcutaneously placed pressure sensor and changes in circumference using a plethysmograph.

Results: Inflation for 5 and 20 sec did not generate TF pressure as in inflated chamber. the minimum TF pressure to move fluid was 30 mmHg. To obtain the transmural TF pressure of 40 mmHg in indurated skin, pressures in the sleeve had to be as high as 150mmHg and timing 50 sec. TF flow at inflation pressure of 120mmHg and 50sec ranged from 1 to 20 ml per inflation cycle.

Conclusion: To move edema fluid optimum sleeve inflation pressures should be 80-120mmHg and inflation time of each chamber 50+ sec. These high pressures do not damage granulation tissue, as they act vertically and do not produce shear stress.

OP 58

Influence of Laser-magnetotherapy on Local Complications After Alloplastic Operation of Ventral Hernias

Parvin Najafgulyeva

Azerbaijan Medical University, Azerbaijan

Introduction: Frequency of formation of postoperative hernias after the lead surgical operations on organs of abdominal area makes 2-15 %.

Objectives: the high percent of formation of relapses of postoperative hernias does this theme actual.

Material/Patients and Methods: Under our observation there were 124 patients with the diagnosis a postoperative hernia. the first control group included 61 patients, in this group, treatment was taken traditionally. the second main group is divided into 2 sub-groups: the first sub-group included 38 patients and in this group of patients, besides the traditional treatment, laser-magnetotherapy courses were applied by "MILTA-F" device to the wound area. the second sub-group included 25 patients and in this group of patients, laser-magnetotherapy was applied by "ABA" device onto alloplastic material by the help of light transmitter directly through drainage line put in the hypodermic cavity.

Results: in control group seroma happened in wound in 23%, hematoma in 4,9%, a pyesis of a wound in 11,5%, infiltration in 6,6% case. Besides the traditional therapy, percutan laser-magnetotherapy was carried, there were a pyesis of a wound in 2,6%, infiltration in 5,3%, hematoma in 2,6%, seroma in 10,5% case. Besides the traditional therapy, there carried laser-magnetotherapy courses intracardial seroma happened in wound in 4% case, in 96% of the patients forming the second sub-group got cured in first level, the above mentioned features were not observed and the patients were issued to home in 7-10th days.

Conclusion: the method of application laser therapy courses incardially eliminates the inflammation processes in wound soon, makes microcirculation better, hastens recovery of wounds, reduces probability of formation of residives, causes reducing of the period staying of patients in reanimation and general hospital.

OP 59

The Response of Limb Lymphatic (immune) System To Wounds

Waldemar L. Olszewski¹, Marzanna Zaleska¹, Jarosław Cwikla², Pradeep Jain³, Karoon Agrawal⁴

¹Department of Surgical Research & Transplantology, Medical Research Center, Polish Academy of Sciences, Warsaw, Poland

²Department of Transplantation Surgery, Central Clinical Hospital, Ministry of Internal Affairs, Warsaw, Poland

³Benaras Hindu University, Varanasi, India

⁴Safdarjang Hospital, New Delhi, India

Introduction: Wound healing should not be considered as a process limited to damaged tissues. It is always accompanied by intensive response of regional, and in advanced stages systemic, lymphatic (immune) system. Penetration of microorganisms through epidermis and cellular changes caused by tissue injury are almost immediately recognized in local lymphatic system irrespective of the topography of tissue.

Objectives: To visualize and quantitate changes in lower limb lymphatics (LV) and nodes (LN) with use of isotope lymphography in patients with limb wounds.

Material/Patients and Methods: Patients with a) fractures (50), and b) venous ulcers (50) were studied. Anatomical evaluation and densitometry of calf and thigh lymphatics and inguinal lymph nodes pictures (surface area) were carried out. Data of swollen and contralateral healthy limb were compared (ratio).

Results: Calf fractures. Short healing time 20 ± 27 months, LN area 1.7 ± 0.9 , thigh LV 1.9 ± 2.5 , calf LV 2.3 ± 3.5 . Long healing time 47 ± 73 months, 0.6 ± 0.3 , 1.4 ± 1.7 and 2.2 ± 4.0 , respectively. Enlargement of LN and dilatation of LV was observed in short healing group, followed by atrophy of LN and thigh LV in the long healing group ($p < 0.05$). Thrombophlebitis with ulcer. Healing time 172 ± 286 months, LN area 1.2 ± 0.9 , thigh LV 1.4 ± 1.9 , calf LV 1.9 ± 1.8 . Enlargement of LN and dilatation of LV was observed lasting for several years.

Conclusion: Closed fractures evoke response of the lymphatic system caused by self-antigens terminating in atrophy of LN and thigh LV and stagnation of lymph in calf. Venous ulcers evoke a long-lasting response of the lymphatic system caused by continuing stimulation by wound microbes.

OP 60

Keratinocyte Spore-like Stem Cells in the Wound Healing Process

Waldemar L. Olszewski, Maria Moscicka-wesolowska, Anna Domaszewska-szostek, Marzanna Zaleska

Department of Surgical Research & Transplantology, Medical Research Center, Polish Academy of Sciences, Warsaw, Poland

Introduction: Skin wound healing process is finished when epidermal keratinocytes (KC) cover its surface. There should be a type of epidermal cell reacting to trauma signal by proliferation and progenies crawling upon the uncovered wound surface. The current knowledge of "bulge"- and basic layer-originating stem cells doesn't correspond to the histological pictures of healing wounds. We noticed that KC covering edges of ulcers originate not from basic layers but from stratum spinosum. The question arises as to whether these cells are not another form of KC stem cells, the so called "spore-stem cells".

Objectives: To study which KC population covers healing ulcers.

Material/Patients and Methods: Study was carried out on 15 patients with long lasting leg venous ulcers. Cells from

granulation tissue and ulcer edge adhered to glass. Adherent cells were stained for p63, CD29, PCNA, Ki67 and keratin 6.16 and 17. Viability test based on KC enzymatic activity was done.

Results: Among the whole population of infiltrating granulocytes and macrophages single large cells of a diameter of 20-30 microns with small nucleus resembling by shape those from stratum spinosum or granulosum, revealing full enzymatic activity were identified. They were p63 and CD29-negative. Some of them underwent mitoses, others had two small nuclei. No other type keratin-containing KC could be seen.

Conclusion: Large nucleated KC colonize ulcer surface close to its edge but some could also be seen dispersed on ulcer surface far from edge, forming small colonies. The phenotype of these cells was different from that of epidermal basic layer KC.

OP 61

Extended Prophylaxis with Antibiotics and Povidone-iodine Solution Wound Cover in Preventing Surgical Site Infection(ssi) in Elective Breast Surgery

Sajid Mehmood, Angelene Teo, Ram Prasad, Fares Koussa, Amar Deshpande

Wrightington, Wigan and Leigh Nhs Foundation Trust, UK

Introduction: Surgical site infection (SSI) is defined as infection in an incisional wound within 30 days or within a year if a prosthesis is implanted.

Objectives: This audit was aimed at evaluating the impact of prophylactic antibiotics and Povidone-iodine (Betadine) wound cover on the incidence of SSI in patients undergoing elective breast surgery.

Material/Patients and Methods: All patients who underwent mastectomy with or without axillary node clearance from 1st January 2011 to 31st April 2012 were retrospectively audited. Two groups of patients were identified. Extended prophylaxis group (EPG) received antibiotics and Betadine wound cover whereas standard practise group (SPG) did not receive such prophylaxis.

Results: a total of 78 patients were analysed (39 in each group). Patients with diabetes (3 and 4) and high BMI (14 and 13) were equally distributed between EPG and SPG, respectively. No patient was identified to have SSI in EPG whereas two patients were diagnosed with SSI in SPG. Only one of the two patients with SSI showed positive microbial isolation. Four patients in EPG were diagnosed with other wound complications (ischaemic necrosis / hypergranulation) compared with one in SPG (ischaemic necrosis of edges). Re-admission and 30-day mortality rates were not affected in either group.

Conclusion: There is generally low rate of SSI in the audited cohort. Use of prophylactic antibiotics and Betadine wound cover was associated with reduction in SSI rate. It is

recommended that a prospective study should evaluate the effectiveness of extended prophylaxis against SSI before any firm conclusions can be drawn.

OP 62

Comparison of the Effects of Mitomycin-c and /or 4%icodextrin (adept®) on Abdominal Adhesions in Cecal Abrasion

ismail Hakki özerhan ¹, Murat Urkan ¹, Mehmet Fatih Can ¹, Erkan öztürk ¹, Armağan Günel ², Gökhan Yağci ¹

¹ Department of General Surgery ,gülhane Military Medical Academy Ankara, Turkey

² Department of Pathology, Gülhane Military Medical Academy Ankara, Turkey

Introduction: Postoperative adhesions are still unsolved important problems. the incidence of adhesion formation has been decreased but not totally solved.

Objectives: This study; was planned to aim to compare the adhesion formation effects of Mitomycin C, Icodextrin 4%and Mitomycin C with Icodextrin 4%combinations in the laparotomized rats.

Material/Patients and Methods: Wistar-Albino 40 female rats, divided into 5 groups. After abrasion formation in the rats'caecum except group of Sham; in Group1 Mitomycin C, in Group 2 Icodextrin 4%,in Group 3 Mitomycin-C+Icodextrin %4 combination, in Group 4 0.9%NaCl, were given intraperitoneally. in Group5 (Sham) were just laparotomy. They were sacrificed after 21 nd day. Macroscopic and microscopic results were analyzed.

Results: All groups were examined macroscopically. As a result, the combined group were found to be superior to other groups. the results were statistically significant (p=0,8 and p<0,001). Even if statistically significant results undisclosed MMC clinical superiority of the group was found to be used in the combined solution. All groups were examined by histopathologic scoring system. All groups'statistically analysis achieved a meaningful results.

Conclusion: To use both of solution (Mitomycin-C and/ or Icodextrin %4)intraperitonealy has been shown that intra-abdominal adhesion formation getting down. the combined use of two solutions were superior to other groups. There were statistically significant differences between other groups.

OP 63

Surgical Management of Hiperparathyroidism and Uses of Roll with Tc-99m Labeled Macroaggregated Albumin

Mustafa Tarriseven ¹, Zafer Kilbas ², Ramazan Yildiz ², Oner Mentec ², Semih Gorgulu ²

¹ Diyarbakir Military Hospital, Department of General Surgery, Turkey

² Gulhane Military Medical Academy, Department of General Surgery, Turkey

Introduction: the traditional surgical approach to primary hyperparathyroidism has included bilateral neck exploration with visualizing all parathyroid tissue and removing the enlarged gland(s). in the hands of an experienced parathyroid surgeon, this approach has a success rate of over 95%.

Objectives: in this study we aimed that is there any differences between the traditional surgical approach and ROLL guided minimally-invasive parathyroidectomy for hyperparathyroidism with Tc-99m labeled macroaggregated albumin instead of Tc-99m sestaMIBI.

Material/Patients and Methods: Data of 50 patients who have been performed surgery for hyperparathyroidism between years 2009-2012 in our clinic is investigated. First group is consisting of 32 patients who had bilateral neck exploration with visualizing all parathyroid tissue and removing the enlarged gland. and the second group that includes the 15 patients who had ROLL guided minimally-invasive parathyroidectomy for hyperparathyroidism with Tc-99m labeled macroaggregated albumin.

Results: Age average of patients was 43 (ranging 25-67). There was no recurrent laryngeal nerve injury and hipocalsemia in the both of the groups. in the ROLL group the operation time was shorter length than the other group, sitatistically(P:0,03).

Conclusion: ROLL surgery has proven to be technically easy, safe, and with a low morbidity rate in the hands of a skilled surgeons. the advantages in patients with hyperparathyroidism can be summarized as follows; smaller incision, less surgical trauma, shorter length of surgery, anesthesia, and hospital stay, less postsurgical pain, better cosmetic results and lower overall cost. As with other radioguided surgical procedures (e.g., sentinel lymph node biopsy), a successful clinical outcome requires a smooth coordination between the nuclear medicine physician, the surgeon, and the pathologist.

OP 64

May GAIL Risk Score Be Helpful in Predicting the Diagnosis of Malignancy for Non-palpable Bi-rads Category 4 Lesions Before Biopsy?

Oner Menten¹, Mustafa Tanriseven², Zafer Kilbas¹, Ramazan Yıldız¹, Yusuf Peker¹

¹Department of Surgery, Gulhane Military Medical Academy, Ankara, Turkey

²Diyarbakir Military Hospital, General Surgery, Turkey

Introduction: BI-RADS 4 breast lesions are high probability of malignancy and the most common indication of breast biopsy in this group.

Objectives: in this study; we investigated the correlation between Gail risk scores and BI-RADS category of these patients for estimating malignancy before biopsy.

Material/Patients and Methods: in a prospective manner between 2007-2011, the age of over 35 patient's Gail risk scores who had biopsy indication for BI-RADS 4 category calculated before biopsy and final pathology results compared with the calculated risk scores. Statistically, $P < 0.05$ was considered significant. Dependence between categorical variables were evaluated with chi-square test.

Results: in this study 246 women have been included, patient's average age was 47.9(35-82) year. Pathologic results were benign in 196(79.67%), malign in 50(20.33%) patients. The diagnosis of benign lesions were 4A in 178, 4B in 11, 4C in 7 patient. the diagnosis of malign lesions were 4A in 35, 4B in 9, 4C in 6 patient. Statistically, there was a relationship between advanced BI-RADS category with increased risk of malignancy($p=0.001$). Malign diagnosed patient's of 9/50 of Gail risk score were above the value of 1.7. However patients with pathologically diagnosed benign were 39/178(21.81%) in 4A, 3/11(27.27%) in 4B and 3/7(42.85%) in 4C above the value of 1.7.

Conclusion: for women with Gail risk score above 1.7 is recommended close follow-up or prophylactic preventions. According to the results of our study before the biopsy, to determine the risk of malignancy BIRADS category is valuable.

OP 65

Follicular Lesion As a Cytological Diagnosis: Risk of Malignancy of Thyroid Nodules

Yurena Caballero Diaz¹, Clara Rosas Bermudez¹, Eudaldo Lopez-tomassetti Fernandez¹, Dieter Morales Garcia², Juan José Cabrera Galván¹, David Fernández San Millán¹, Juan Ramón Hernández Hernández¹

¹Hospital Universitario Insular De Gran Canaria, Spain

²Hospital Marques De Valdecillas De Santander, Spain

Introduction: Current management of thyroid nodules is based on Ultrasound-guided Fine Needle Aspiration (FNA) as it is the only non surgical method that allows predicting malignancy, and improves surgical indications. However,

follicular thyroid carcinoma is difficult to distinguish from benign follicular adenoma because of the need of a histological demonstration of capsular or vascular invasion. the cytological finding of a follicular lesion implies a potential high risk of malignancy for differentiated thyroid carcinoma.

Objectives: Analyze the malignancy risk of a thyroid nodule with a cytological diagnosis of follicular lesion.

Material/Patients and Methods: a retrospective study from 297 patients with a thyroid nodule and a FNA of follicular lesion was performed. We reviewed the surgical treatment and the histological findings of the definitive surgical specimen.

Results: From 297 patients, 252 were female and 45 male. Age distribution was staged in two groups: < 40 years (126 patients) and ≥ 40 years (171 patients). Surgical procedures included thyroid lobectomy (41.34%), subtotal thyroidectomy (20.89%) and total thyroidectomy (37.77%). 12 patients had a central compartment cervical lymph node dissection and 2 a lateral lymph node dissection. the definitive histopathological analysis showed 135 cases of follicular proliferation (45.45%), 67 of follicular adenoma (22.56%), 42 of thyroiditis (14.14%), 42 of papillary carcinoma (14.14%), 11 follicular carcinoma (3.71%) and an overall malignancy incidence of 17.91%.

Conclusion: Definitive treatment of thyroid nodules must not rely solely in the cytology; these must be assessed in combination with clinical findings to achieve the most adequate treatment.

OP 66

Is Cervical Lymph Node Dissection the Routine Procedure in Papillary Thyroid Cancer (ptc) Surgery?

Olexandr Butyrsky¹, Viktor Dubovenko², Natalia Tol' ², Anton Altyinnikov¹

¹Crimean Medical University, Ukraine

²Private Clinical Hospital, Ukraine

Introduction: in treating PTC, prophylactic central neck lymph node (NLN) dissection with extrafascial total thyroidectomy (ETTE) is controversial. This is because there is a possibility of increased morbidity with uncertain benefits.

Objectives: This study aims to determine whether prophylactic central NLN dissection is always indicated.

Material/Patients and Methods: This was a retrospective cohort study. It examined patients with PTC without preoperative evidence of lymph node involvement. 45 patients who had clinically node-negative PTC were undergone for ETTE with central NLN dissection (4 - modified lateral dissection with final ETTE) within 2008-2011. Before we did not do it prophylactically.

Results: the indication for NLN dissection was positive result of fine-needle aspiration biopsy and urgent histological assessment of thyroid and lymph nodes within surgery. Among patients the final histological investigation confirmed presence of metastases in NLN in 14 patients only (31%), others - reactive proliferative changes. As for postoperative

complications they are of usual rate (2% of recurrent laryngeal nerve damage, 2% - hypoparathyroidism, 2% - relapsing (in group without preventive central NLN dissection – prolongatio morbi)). Rate of 3 and 5 yrs survival is same.

Conclusion: Central lymph node dissection should not be routine for PTC surgical management. It should be performed only after intra-operative histological confirmation of NLN metastases. If not confirmed no benefits of routine NLN dissection are observed.

OP 67

What Are the Benefits of Breast Surgery for Stage Iv Breast Cancer?

Mustafa Tanriseven¹, Zafer Kilbas², Eyup Duran³, Oner Menten², Ramazan Yildiz²

¹Diyarbakir Military Hospital, Department of General Surgery, Turkey

²Gulhane Military Medical Academy, Department of General Surgery, Turkey

³Elazig Military Hospital, Department of General Surgery, Turkey

Introduction: Patients with metastatic breast cancer are unlikely to be cured of their disease by any means. Complete remissions from systemic chemotherapy are uncommon. the median survival for patients with stage IV breast cancer is 18 to 24 months. a major question that arises in such patients is how best to manage the primary tumor.

Objectives: in this study we investigated the role and importance of surgical excision of the primary tumor in stage IV breast cancer.

Material/Patients and Methods: Medline and Web of Science search was undertaken to identify relevant articles using terms “stage IV breast cancer” and “role of breast surgery”. This first search retrieved 77 articles of which abstracts were reviewed to identify relevant studies. 15 articles related directly with the role of breast surgery for stage IV breast cancer were reviewed in detail.

Results: Resection of the primary tumor in stage IV breast disease can provide palliation of bleeding, ulceration or infection. Surgical resection should be considered as a therapeutic option for women with limited metastatic disease, although the risks of surgery must be weighed against the potential benefits.

Conclusion: Most oncologists consider that once metastases have occurred, there is no survival benefit to aggressive local therapy.

OP 68

Using Loupe for Thyroidectomy Make Better the Results of Thyroidectomy

Nuraydin Ozlem , Umut Yilmazyildirim , Alper Ceylan , Sadik Kesmer , Kadir Yildirim , M Sencer Ozsoy

Samsun Education and Research Hospital, General Surgery Department, Turkey

Introduction: it suggested total thyroidectomy using loupe might decrease the postoperative hypocalcemia rates without statistically significant . There are only 3 articles published in literature in this subject. LT makes no statistically difference in terms of transient or permanent rln damage, but it does a meaningful difference between the two groups in term of transient hypocalcemia without doing any persistent hypocalcemia

Objectives: Our aim was to asses the effectiveness of loupe for doing total thyroidectomy in terms of postoperative complication.

Material/Patients and Methods: 94 patients (group I) underwent total thyroidectomy with loupe. 20 (group II) were operated in conventional manner. Demographics indications length of operations postoperative complications and length of hospital stay recorded. All operations were done by the same team. the patients were examined in terms of physical and laboratory findings on 3 day , 4 week, 3, 6 months and one year. If recurrent laryngeal damage and hypocalcemia persisted after 1 year it accepted those were persistent. Group values were compared using Mann Whitney U tests (for comparison of two groups). P<0.05 was accepted as significant.

Results: There were statistically age and sex differences between the groups. the lenght of loupe thyroidectomy operations was longer than conventional ones. Any difference was not found in terms of length of hospital stay. the transient recurrent laryngeal nerve damage was unique between the 2 group of patients. the rate of permanent hypocalcemia of the groups was not different . but transient hypocalcemi rates were statistically different. the difference between rates of the groups` hematoma and seroma was not significant.

Conclusion: total thyroidectomy asisted loupe takes more time than conventional ones. Loupe magnification cant decrease transient recurrent laryngeal nerve damage and permanent hypocalcemia but it can decrease the rates of transient hypocalcemia. So we recommend the loupe magnification must be used rutinly in thyroid surgery.

OP 69

Does Thyroid Lobectomy Mandatory for Parathyroid Cancers?

Salim Ilksen Basceken, Siyar Ersoz, Ferit Aydin, Cihangir Akyol, Erkinbek Orozakunov, Ilknur Kepenekci Bayram, Volkan Genç

Ankara University, School of Medicine, Department of General Surgery, Turkey

Introduction: Parathyroid carcinoma is a rare malignancy affecting 0,4–5% of all patients with primary hyperparathyroidism. There are not special clinical findings and the patients are frequently diagnosed incidentally.

Objectives: We evaluated 413 patients performed parathyroidectomy because of primer hyperparathyroidism in our clinic between 2000-2010 years. Only 9 patients (2.2%) were diagnosed parathyroid cancer.

Material/Patients and Methods: This patients evaluated with respect to age, sex, free of disease interval, follow-up period, treatment modalities and mortality. Furthermore patients classify as locally, invasive, and metastatic disease according to operational findings (invasion of adjacent tissue).

Results: Six patients were male and 3 were female. Local disease in 4 cases, invasive in 4 cases and metastatic disease in only 1 patient were detected. the mean age was 47.4 (range, 19-65) in female patients and 38.9 (range, 36-65) in male. the mean follow-up period was 105,6 months (range, 36-144) and mean free-of-disease interval was 93,6 months (range, 0-144) months. One patient with multiple bone metastases died 3 years after diagnosis because of the related complications. Two patients were also diagnosed papillary thyroid carcinoma and performed total thyroidectomy simultaneously. Two patients rejected additional lobectomy procedure after cancer diagnosis. and these patients has still free of disease (follow-up periods are 61 and 144 months, respectively).

Conclusion: Free of disease interval was detected as similar between cases performed only parathyroidectomy and cases applied parathyroidectomy and lobectomy or total thyroidectomy. So this finding causes to interrogating of lobectomy for parathyroid cancer treatment.

OP 70

Results of Resection and Three Area Lymph Node Dissection in Thoracic Esophageal Cancer

Osman Yüksel¹, Merter Gülen¹, Murat Akin¹, Zafer Ferahköşe², Ersin Özdemir²

¹Gazi University, School of Medicine, Department of General Surgery, Turkey

²Bayindir Hospital, Turkey

Introduction: the extended of surgery and extended lymph node dissection in esophagus surgery are important

in decreasing locoregional recurrences and improving the survivals.

Objectives: in this study, we aimed to evaluate the results of resection and three area lymph node dissection in thoracic esophageal cancer.

Material/Patients and Methods: We enrolled 70 patients who had undergone curative resections and three area lymph node dissections for thoracic esophagus cancer in recent 20 years. Histopathologic results of all of the patients were squamous cell carcinoma. Ages, gender, complications, 5-year survival rates of the patients and also the sizes, localizations, lengths of effected segments, and stages of the tumor were evaluated in the study.

Results: the distribution of the number of tumors in upper, middle and lower thoracic esophagus were 7, 50 and 13 respectively. the mean length of the tumor size was 6.2 cm. There were 39 patients with stage IIA whereas 21 patients with stage III. the 5-year survival rate was 65%. Seven patients died due to the complications the most of which were lung related.

Conclusion: the most important prognostic factor in the surgery of esophagus cancer is the having chance of curative resection and extended lymph node dissection. Extended lymph node dissection and clearing of the regional lymph nodes are important in improving the survival in thoracic esophageal cancer.

OP 71

The Effect of Extended Surgery in Lower 1/3 Esophageal Cancer or Type I Esophagogastric Junction Tumors on Survival

Osman Yüksel¹, Murat Akin¹, A. Mert Atak¹, Zafer Ferahköşe², Ersin Özdemir²

¹Gazi University, School of Medicine, Department of General Surgery, Turkey

²Bayindir Hospital, Turkey

Introduction: It's still debate that the standard treatment for lower 1/3 esophageal cancer or type I esophagogastric junction tumors is whether transhiatal or transthoracic.

Objectives: in this study, we aimed to evaluate the treatment approaches for distal esophageal cancer.

Material/Patients and Methods: Total 36 patients who had undergone curative resection and two areas lymph node dissection in the recent 20 years enrolled to the study for lower 1/3 esophageal cancer or type I esophagogastric cancer. the data about age, gender, the size of tumor, the localization of tumor, the length of effected segment, the stage of the tumor, applied surgical treatment, the extend of lymph node dissection, complications following the operations and 5-year survival rates were collected.

Results: the histopathology of the tumors composed of squamous cell carcinoma and adenocarcinoma. While 13 patients had lower 1/3 esophageal cancer, 23 patients had type I esophagogastric junction tumor. Neoadjuvan chemotherapy were given to 6 of the patients with lower 1/3

esophageal cancer and 9 of the patients with esophagogastric junction tumors. the number of patients with stage III is higher in both groups. While most of the patients with lower 1/3 esophageal cancer were undergone transthoracic approach, only half of the patients with type I esophagogastric junction tumors were undergone transthoracic approach.

Conclusion: Appropriate neoadjuvan approaches and proper surgical treatments with low morbidity provide better survivals in patients with lower 1/3 esophageal cancer or type I esophagogastric junction cancers.

OP 72

Evaluation of Muc2 and Muc5ac Expression in Gastric Adenocarcinomas, and Comparison with the Prognostic Parameters

Rukiye Gulbahce¹, M. Recep Pekcici³, Canan Altunkaya⁵, Gokhan Karaca², Huseyin Ustun⁴

¹Department of Pathology, Bafra Dr. Nafiz Kurt State Hospital, Samsun, Turkey

²Department of General Surgery, Ağrı State Hospital, Ağrı, Turkey

³Department of General Surgery, Ankara Education and Research Hospital, Ankara, Turkey

⁴Department of Pathology, Kafkas University, Kars, Turkey

⁵Department of Pathology, Ataturk Education and Research Hospital, Ankara, Turkey

Introduction: Gastric carcinomas are the 4th most common observed cancers and 2nd cause of the cancer related deaths worldwide. 5 years of survival is about 10-25%. in spite of the combined surgery and chemotherapy, and other new therapeutic approaches, the control of the prognosis especially in advanced carcinomas is difficult. Therefore, studies for early diagnosis and prevention of the progress are continuing.

Objectives: Our aim was to immunohistochemically investigate the MUC2 indicator which is not expressed from normal gastric epithelium and expressed in cases of intestinal metaplazi and adenocarcinomas, and MUC5AC indicator which is highly expressed from the normal gastric foveolar epithelium and antral mucous cells, and to determine the relations of this indicators with prognostic parameters of gastric adenocarcinomas

Material/Patients and Methods: Totally 55 cases which were diagnosed as gastic adenocarcinoma between the years 2006 and 2010 were investigated retrospectively. MUC2 and MUC5AC expressions, age, gender, tumoral gastric wall invasion depth, lymph node metastasis and the degree of tumoral differentiation were determined.

Results: We didn't found any statistically significant relation between the MUC2 expression and age, gender, tumoral gastric wall invasion depth, lymph node metastasis, and the degree of tumoral differentiation. There were significant relations between the lymph node metastasis, degree of tumoral differentiation, and MUC5AC expression.

MUC5AC expression was decreased with the increased number of lymph node metastasis and decreased degree of tumoral differentiation.

Conclusion: in this study we observed that MUC5AC could be a useful indicator for the determination of prognosis of gastric adenocarcinoma on the other hand MUC2 indicator could not.

OP 73

Complete Mesocolic Excision for Colon Cancer; Our Series

Hüseyin Göbüt, Osman Yüksel, Aydin Yavuz, Ilkin Ismailov

Gazi University, School of Medicine, Department of General Surgery, Turkey

Introduction: Complete mesocolic excision (CME) with central vessel ligation (CVL) offers the best long-term outcome for colon cancer.

Objectives: the aim of this study was to assess specimens after CME-CVL macroscopically and microscopically in patients with left and right colon cancers.

Material/Patients and Methods: the clinical and pathological findings of 21 patients with right or left colon cancer who underwent CME between January 2010 and January 2013 were collected prospectively. the quality of surgery also was assessed the specimen anatomic planes, completeness of the excised mesocolon and pathological analysis.

Results: CME is focused on applying the concept of enveloped visceral and parietal planes during the operations. the access also emphasized en bloc resection of mesocolon without defections to the planes. 19 cases were evaluated as good plane. the median total number of central lymph nodes retrieved was 17 (range, 13-45) and central lymph node metastasis was found in 8 of all cases. Complications were observed in 3 cases.

Conclusion: CME might be a standard procedure for the colon cancer surgery.

OP 74

An Analysis of Variation in the Bronchovascular Pattern of the Right Lung Using Three-dimensional Computed Tomography Angiography and Bronchography

Nagashima Toshiteru, Kimihiro Shimizu, Yoichi Ohtaki, Kai Obayashi, Izumi Takeyoshi

Gunma University, Thoracic and Visceral Organ Surgery, Japan

Introduction: Knowledge of anatomical variation in the pulmonary bronchi and vessels is necessary for performance of safe, accurate pulmonary surgery. However, few studies

have examined the relationships with the pulmonary bronchovascular anatomy using anatomical techniques. The recent advances in computed tomography (CT) have made it possible to obtain clearer images of the pulmonary structures easily and rapidly.

Objectives: We analyzed the variation in the bronchovascular pattern using three-dimensional CT angiography and bronchography (3DCTAB), and compared the results with previous reports.

Material/Patients and Methods: We reviewed the anatomical variation in the pulmonary bronchus and vessels of 164 patients using 3DCTAB images obtained using a 64-channel multidetector CT and a workstation with volume-rendering reconstruction software.

Results: In the right upper and middle lobes, the variations in the pulmonary artery and branches were similar to those in previous reports. However, in terms of the pulmonary vein in the upper lobe, 81.6% were of the anterior and central vein types, which is higher than in previous reports. In the right lower lobe, 21.2% were A8+9 and A10 types, which is also higher than in previous reports. Some anomalous vascular patterns were identified; the A2 branched from inferior trunks in three cases (1.8%), which has to our knowledge not been reported previously. An aberrant V2 behind the bronchus intermedius was found in three cases (1.8%).

Conclusion: Our data regarding the pulmonary artery and branches are similar to those in previous reports, while some variation in the pulmonary vein was identified.

OP 75

Second Look Surgery in Colorectal Cancer Patients

Hüseyin Göbüt, Osman Yüksel, İlkin İsmailov, Aydin Yavuz

Gazi University, School of Medicine, Department of General Surgery, Turkey

Introduction: Symptomatic and asymptomatic second-look surgery in patients with colorectal cancer must be considered as an important option in management and follow-up strategies.

Objectives: To analyze the impact of systematic second-look surgery plus intraperitoneal chemotherapy (IPC) performed asymptomatic patients at high risk of developing peritoneal carcinomatosis (PC).

Material/Patients and Methods: Seven high-risk colorectal cancer patients analyzed in this study between the 2010-2013. The high-risk patients include mucinous T3 and all T4 cancers, cancers with adjacent organ involvement, cancers with limited peritoneal seeding, cancers with ovarian involvement, cancers with positive peritoneal cytology, and cancers that are ruptured intraoperatively.

Results: PC was found and treated with complete surgery plus IPC in 4 patients. Three patients underwent complete abdominal exploration plus systematic IPC. Median follow-up was 10 months. Grade 3-4 morbidity was low. Peritoneal

recurrences 3 patients had macroscopic discovered during the second-look and one patient had no macroscopic PC.

Conclusion: Patients with cytologically positive colon or rectal cancer are at high risk for death from progressive disease. These patients with a positive cytology are identified as high risk for local-regional recurrence and eligible for second-look surgery.

OP 76

Which Rectal Cancers Are Suitable for Sacral Resection

Cemalettin Aydin¹, Cuneyt Kayaalp¹, Aymelek Cetin²

¹Department of Surgery, Inonu University, Turkey

²Department of Anatomy, Inonu University, Turkey

Introduction: Invasion is not rare to sacrum for locally advanced rectal cancers and sacrectomy from different levels have been described. However, landmarks of sacral vertebra levels (particularly S2) are obscure.

Objectives: The purpose of this study is to reveal measurements, which can define sacrectomy margins during surgery.

Material/Patients and Methods: This study has been made on 10 adult sacral bones provided from the Anatomy Department. Promontorium eminentia on the ventral surface was accepted as an anatomical marking. Distances from promontorium down to each foramina sacralia, sacroiliac joint and sacrococcygeal joint have been measured. On the dorsal surface sacrococcygeal joint has been taken as an anatomical marking. Distance this joint to each foramina sacralia, sacroiliac joint, and the most cranial point of the dorsal sacrum have been measured. Width and thickness of sacral bones on every foramina level were also recorded. Paper measuring stick and compass were used for the measurements.

Results: In the measurements on the ventral surface of sacrum, the mean distance from the promontorium to the lower end of 1st, 2nd, 3rd, and 4th sacral vertebrae were found, respectively, as 35.2±4.8, 61.3±4.2, 82.0±4.8, and 98.1±4.9 mm. Mean distance from promontorium to the lower end of sacroiliac joint was found as 68.2±7.5 mm.

Conclusion: To make resection below 2nd sacral vertebra level or below sacrococcygeal joint, there should be at least 7 cm tumor free area from promontorium down on the ventral surface of the sacrum.

OP 77

A Rat Model of Anastomotic Leakage Created by Insufficient Sutures After Partial Colectomy

Zhouqiao Wu, Freek Daams, Geesien S. A. Boersema, Johannes Jeekel, Johan F. Lange

Erasmus University Medical Center, the Netherlands

Introduction: Anastomotic leakage (AL) is the most important complication after colorectal surgery, accounting for one third of postoperative death. To prevent it, abundant interventions have been tested on animal models, mostly on rats. However, few of them have been validated.

Objectives: We aimed to develop a new, reproducible rat AL model by creating anastomosis with insufficient sutures after partial colectomy.

Material/Patients and Methods: To establish which number of sutures would create an acceptable leakage rate (20% to 50%), we performed partial colectomy in Wistar rats, using 12-suture anastomosis in the control group and anastomosis with insufficient sutures in the case group, starting at 5 sutures. Seven days later, the rats were examined for the occurrence and severity of AL, adhesion, and anastomotic bursting pressure. When the acceptable leakage rate was achieved, case and control series were both repeated twice.

Results: Sixty rats were included for data analysis. on day 7, 5-suture and 12-suture anastomosis induced respective leakage rates of 50% vs. 30%, 44.4% vs. 20%, and 50% vs. 20% in each series. Overall, the 5-suture group (48.3%) had a significantly higher AL rate than the 12-suture group (23.3%, $p = 0.045$). It also had higher AL severity and more adhesions (p for both < 0.05). Its bursting pressure (116.8 ± 58.9 mmHg) was significantly lower than in the 12-suture group's (150.4 ± 50.3 mmHg; $p = 0.041$).

Conclusion: Anastomosis with 5 sutures after partial colectomy provides a new, feasible rat AL model. Its future applications may help to improve the consistency of AL studies.

OP 78

Outcome of Rubber Band Ligation of Haemorrhoids

Talal Altayeb , Adele E Sayers , Mohamed J Akbar , Rikesh Patel , Ian a Hunter

Academic Unit of Surgery, Castle Hill Hospital, UK

Introduction: Haemorrhoids are a common surgical problem. Rubber band ligation using suction is well-accepted treatment modality with documented low morbidity rate.

Objectives: the aim of this study was to investigate the medium term success rate of this procedure in our cohort of patients.

Material/Patients and Methods: Patients with grade 1 or 2 internal haemorrhoids who underwent rubber band ligation procedure (using Haemoband Multi-Ligator) between 2005 and 2010 were retrospectively identified from theatre database. Medical records were inspected to ascertain symptoms and two year outcome. Successful primary procedure was defined as one not followed by any form of haemorrhoid treatment within the follow up period.

Results: a total of 718 patients under went rubber band haemorrhoid treatment over the study period with median age of 43 years and 46% were female. Bleeding per rectum

was the predominant presenting symptom exhibited by 94% ($n=675$) of the patients compared with 27.3% ($n=196$) cases reported pain. Overall success rate in our cohort is 92.1% as 661 patients presented no further symptoms over the two year follow up period. in contrast, 57 patients had to have a second treatment (10 had formal haemorrhoidectomy and 47 had repeat banding procedures with average time of 16 months between the two procedures).

Conclusion: Rubber band ligation is an effective primary treatment for symptomatic haemorrhoids. a period of symptoms control is achievable even in failed cases.

OP 79

The Effectiveness of Wound Irrigation on Preventing Surgical Site Infections Following Colon and Rectal Resections

Ersin Ozturk , Dilek Senol , Tuncay Yilmazlar

Uludag University School of Medicine, Department of General Surgery, Bursa, Turkey

Introduction: Surgical site infections (SSI) constitute significant part of nosocomial infections particularly following colon and rectal resections.

Objectives: in this study, the efficacy of wound irrigation following colon and rectal resections on preventing SSIs has been examined.

Material/Patients and Methods: Two groups of patients from a period in which wound irrigation was not performed; Group 1 (2006-2007) and from a period in which wound irrigation was routinely performed; Group 2 (2010-2011) were retrospectively compared. All the patients underwent colorectal resections. Wound irrigation was performed prior to skin closure by using sterile untouched 1 L of saline. the patients in both groups were compared for age, gender, body mass index, co-existing diabetes mellitus II, smoking condition, ASA score, presence of malignancy, nutritional status, length of preoperative hospital stay, steroid or immunosuppressant usage, blood transfusion. SSI rates of both groups were compared using chi square test.

Results: There were 412 patients in group one and 468 patients in group 2. Both groups of patients who experienced SSI were comparable in means of risk factors for SSI. Rate of SSI was calculated 11.6% for Group 1 and 7.4% Group 2, respectively ($p=0.03$).

Conclusion: the rate of SSI was significantly decreased in the period in which routine wound irrigation was performed.

OP 80

Usefulness of Pre-assessment Clinics in Promoting Smoking Cessation in Patients Undergoing Major Colorectal Surgery

M. J Akbar , H.k Perthiani , Salman Ejaz , Sajid Mehmood , I.a Hunter , John Hartley

University of Hull, UK

Introduction: Smoking is a well known risk factor for a number of medical and surgical conditions. National institute of Health and clinical excellence (NICE) advises to offer counselling and appropriate support that is vital in promoting smoking cessation.

Objectives: the aim of this audit was to examine such activity in surgical pre-assessment clinics prior to colorectal procedures.

Material/Patients and Methods: a prospective audit of patients undergoing major colorectal procedures was undertaken at pre-assessment clinics from April to June 2012. Pre-assessment booklets were examined for smoking assessment, smoking cessation advice, and explanation of hospital's non-smoking policy.

Results: a total of 68 consecutive patients, median age 64 years, 35 (51%) males were analysed. the intended surgical procedures included: Anterior Resection (n=14), right hemicolectomy (n=13), small bowel resection (n=10), reversal of stoma (n=10), sigmoid colectomy (n=4), and miscellaneous (n=17). the pre-assessment booklets were available for review in all cases. More than a third (40%, n=28) of patients have been involved in smoking. of those, 42% (n=12) were currently smoking and the remainders were ex-smokers 58% (n=16). Smoking cessation counselling was provided to 5/12 and nicotine replacement therapy was offered to 9/12 active smokers. in addition, hospital no-smoking policy was explained to 11/12 patients. the overall compliance to smoking cessation counselling at pre-assessment sessions was 90% (61/68).

Conclusion: This audit found satisfactory compliance to smoking cessation advice at pre- assessment clinics for colorectal patients. We recommend continued staff education as to the importance of adherence to NICE guidelines to ensure high compliance with smoking cessation counselling.

OP 81

Hydatid Disease of the Spleen: Retrospective Analysis of 23 Patients

Cengiz Eris¹, Sami Akbulut², Nilgun Sogutcu³, Suleyman Atalay¹, Mehmet Odabasi¹, Mehmet Kamil Yildiz¹, Hasan Abaoglu¹, Emre Gunay¹

¹Department of Surgery, Haydarpasa Numune Education and Research Hospital, Istanbul, Turkey

²Department of Surgery, Diyarbakir Education and Research Hospital, Diyarbakir, Turkey

³Department of Pathology, Diyarbakir Education and Research Hospital, Diyarbakir, Turkey

Introduction: Hydatid disease has been described in almost every organ or tissue of the body, but most hydatid cysts are situated in the liver, followed by the lung and spleen

Objectives: in this study, we aimed to share experiences with surgical treatment of splenic hydatid disease.

Material/Patients and Methods: Between January 2006 and July 2012, 23 patients who underwent surgical treatment because of the splenic hydatid cyst were retrospectively

analyzed. the demographic characteristics, medical history, physical examination findings, radiological diagnostic methods, surgical treatment options and follow-up data were recorded.

Results: Twenty-three of patients' ages ranged from 18 to 79 (44.9 ± 16.5 yr), 12 patients were female and 11 were male . the patient admitted to our clinics with abdominal pain in 16 patients, abdominal pain and distention in 4, pain in the left flank in 1, weight loss in 1 and other reasons in 1 patient. the radiologic examinations revealed that 12 patients had both hepatic and splenic hydatid cysts, 11 patients had only splenic hydatid cyst. Serological tests had been made in 16 of these patients preoperatively, and 13 of them had detected as IHA positive. Twenty patients were treated at the preoperative period with prophylactic Albendazole. the choice of surgical treatment was splenectomy in 12 patients, splenectomy + partial cystectomy + omentopexy in 8 patients, splenectomy+ partial cystectomy+ unroofing in 1 patient, splenectomy + pericystectomy in 1 patient and splenectomy+ pericystectomy+ partial nephrectomy in 1 patient. Biliary leakage was detected in a patient and wound infection occurred in three patients during follow-up period. Pneumococcus vaccine was performed either preoperatively or postoperatively in all patients undergoing splenectomy.

Conclusion: Splenic hydatid disease may occur as a primary or secondary to other organ involvement. Depending on the size, number, location, other organ involvement and relations with neighboring organs, splenectomy or spleen preserving surgery can be performed

OP 82

Amoebic Acute Appendicitis: Systematic Review of 174 Cases

Emrah Otan , Sami Akbulut , Cuneyt Kayaalp

Department of Surgery, Inonu University Faculty of Medicine, Turkey

Introduction: Acute appendicitis is one of the most common urgent surgical conditions of the abdomen, and appendectomy is one of the most frequently performed operations worldwide. Luminal obstruction is believed to be the primary etiology of appendiceal infection. Although fecaliths and lymphoid hyperplasia are the usual causes of the obstruction, other pathological conditions, such as amoebiasis, have been implicated as the underlying etiology.

Objectives: This study aimed to determine the clinical and demographic features of amoebic acute appendicitis by reviewing the reported cases.

Material/Patients and Methods: the PubMed and Medline databases were searched to identify articles related to amoebic appendicitis using the following keywords: ameb* or amoeb* or ameob* or entamoeb* AND append* or appendec* or appendi*. the search included all articles published between 1935 and 2012.

Results: a total of 174 cases of amoebic appendicitis reported in 42 articles were analyzed. the mean age of

patients was 23.5 years old (range: 2 months-83 years). the majority of patients were male (74.0%) and reported from countries with high/moderate risk for amoebiasis (76.5%). a history of travelling to a high/moderate risk country was cited in 64.0% of the overall cases, and the duration between travel and onset of clinical symptoms ranged from months to years. History of or co-existing dysenteric diarrhea was present in only 7.0% and 14.0% of overall cases, respectively. a preoperative diagnosis of amoebiasis was cited for only five cases (3.0%). Complicated appendicitis was present in 30.7% of cases, some of which required colonic resection. Severe postoperative intra-abdominal complications, such as liver abscess, abdominal sepsis, gastrointestinal fistula or hemorrhage, occurred in 19.4% of surgery-treated patients. the overall mortality rate was 3.2%.

Conclusion: Appendectomy specimens should be routinely sent for histopathological examination. in the case of suspected amoebic acute appendicitis extra precautions, such as early appendectomy, metronidazole for antibiotic prophylaxis, and wet-prep examination, may provide pathological findings of uncommon complications to hasten appropriate therapeutic intervention and improve outcome

OP 83

Preoperative Fasting in Adults & Children

Noel Aruparayil, Janet Baker

Airedale General Hospital, UK

Introduction: Preoperative fasting is vital in reducing risk of aspiration pneumonitis at induction of anaesthesia. Evidence shows that shortened preoperative fasting do not increase the risk of aspiration, however contemporary practice still has wide variations across the UK.

Objectives: To compare preoperative fasting times with national guidelines and to check the types of fluid given preoperatively.

Material/Patients and Methods: Patients audited prospectively over 1 month period. Data collected on a standard proforma on patients arrival in the anaesthetic room. This included demographics, urgency of surgery, time of surgery, preoperative use of opiates, fasting duration - fluids & food and type of fluid taken preoperatively.

Results: 62 patients with median age of 51 were audited. 20 Male : 42 female. 49 elective, 7 emergency and 9 urgent cases. 38 operations performed in day time whilst 24 performed in evening. 4 patients had strong opiates preoperatively. 69% had water, 16% had black tea, 4% had milk, 4% had black coffee, rest of 7% had other beverage (green tea, apple juice etc). Average fasting time (in hours): Fluid - 6.25 (recommended 2), Food - 13.6 (recommended 6). 62% patients fasted for food >12 hours. 51% patients fasted for fluid > 4 hours. 11% paediatric patients <10 years of age fasted for >12 hours.

Conclusion: Prolonged preoperative fasting was experienced in patients undergoing surgery. We recommended introducing clear apple juice (less acidic, clear and rich in carbohydrates) preoperatively to reduce discomfort and improve peri-operative care in patients. Strict adherence to recommended preoperative fasting times.

OP 84

Use of the World Health Organization Surgical Safety Checklist: a Systematic Analysis

Pervin Gokay¹, Sevinc Tastan², Hatice Ayhan², Emine Iyigun², Mehmet Fatih Can³

¹Gulhane Military Medical Academy, Department of Anaesthesiology and Reanimation, Turkey

²Gulhane Military Medical Academy, School of Nursing, Department of Surgical Nursing, Turkey

³Gulhane Military Medical Academy, Department of General Surgery, Turkey

Introduction: Morbidity and mortality rates are among indicators of compliance to patient safety rules at an institution. World Health Organization (WHO) recommends with the motto of 'Safe surgery saves lives' that a surgical safety checklist be used to improve patient safety in surgical disciplines.

Objectives: the purpose of this systematic review was to evaluate the effect of "WHO Surgical Safety Checklist" on surgical outcomes and to examine the compliance of health care staff to the checklist.

Material/Patients and Methods: PubMed-Medline and CINAHL databases were searched using keywords "WHO AND Safety Checklist" and "Surgical Safety AND Checklist" to identify relevant articles. Non-English papers and papers not using the WHO checklist were excluded.

Results: Some 18 research articles were examined in detail. a significant fall of 0.9 to 15.4 percent in the rate of morbidity was achieved with the use of the checklist. the reduction in the rate of mortality was between 0.28 and 2.3 percent in several studies. in majority of these studies health care workers demonstrated a high compliance yet some authors emphasized on negative factors affecting adherence to such checklists.

Conclusion: Adoption of the WHO Surgical Safety Checklist in clinical practice has reduced the morbidity and mortality rates at many institutes. Staff has generally a good level of compliance that is important in increasing the prevalence of the use of such checklists.

OP 85

Comparison of Pain Assessment by Patients and Surgical Nurses: a Descriptive Comparative Study

Hatice Ayhan¹, Caglayan Ates², Emine Iyigun¹

¹Gulhane Military Medical Academy, School of Nursing, Department of Surgical Nursing, Turkey

²Gulhane Military Medical Academy, Department of General Surgery, Turkey

Introduction: Postoperative pain assessment is important for pain management. the most reliable indicator of postoperative pain assessment is patient's own expression. in addition surgical nurses have a significant professional responsibility on alleviation of post-operative pain. So that approach of nurses regarding post-operative pain management is valuable.

Objectives: To compare nurses' ratings of pain intensity in adult surgical patients with the patients' own ratings.

Material/Patients and Methods: This descriptive comparative study performed on general surgery clinic in January-February 2013. for the sampling, 33 nurse and 2 patients for each nurse (n=66) were selected. Data was collected by a questionnaire of demographic information, numeric rating scale and Brief Pain Inventory for surgical patients. At first, the surgical nurse rated the patient's pain intensity in second postoperative day. the nurse then left the patient's room, researcher asked patients to rate their pain intensity. Collected data were analyzed using paired t-test in SPSS 15.0 software.

Results: in this study, surgical patients experienced mild postoperative pain. in first assesment of nurses, there was a significant difference between nurses' pain assessment (3.16±2.0) and pain intensity of the patients (2.19±1.99, t=3.099, p=0.004) and the correlation was moderate (r=0.60). in second assessment, there wasn't a significant difference (2.38±0.4 vs. 2.41±0.43; t=-.158, p=0.876) and the correlation was strong (r=0.89, p<0.001).

Conclusion: This study was raised awareness of nurses regarding to pain evaluation. for this reason, the nurses were judged more accurately patient's pain assessment in second assessment. Pain assessment may do correctly when using correct methods.

OP 86

Intravenous Fluid Therapy Prescribing: Idiosyncratic, Irrational and Misunderstood

Ravi Aggarwal , Li Lin Hong , Nadia Deyalsingh , Chunkheng Khoo

Nottingham City Hospital, Nottingham, United Kingdom

Introduction: 0.9% sodium chloride (NS) is widely used for intravenous fluid therapy (IVT). However, NS usage can

lead to hyperchloraemic acidosis. the British Consensus Guidelines on Intravenous Fluid Therapy for Adult Surgical Patients (GIFTASUP) recommends balanced crystalloids instead of NS in situations other than hypochloraemia. Chloride levels are not routinely measured on standard biochemical assays, but are quantified on arterial blood gas (ABG) sampling.

Objectives: We audit IVT prescribing for patients following an ABG, when chloride levels are known, at two teaching hospitals.

Material/Patients and Methods: Every inpatient who had an ABG analysis in the study period (3 consecutive days), and received IVT in the subsequent 24 hours was included in the study. Detailed fluid charts were compiled from patient records.

Results: 41 patients were eligible. 22 were normochloraemic and 17 were hyperchloraemic (median [Cl⁻] 109mmol/L, range 107-119mmol/L). in these patients, 15 (38.5%) were prescribed NS (mean 1463ml). 2 patients were hypochloraemic ([Cl⁻] 83 and 89mmol/L); neither received NS.

Conclusion: Despite guidelines to the contrary, more than a third of patients without hypochloraemia continued to be prescribed NS. in contrast, hypochloraemic patients received IVT containing relatively low or no chloride. IVT prescribing does not appear to be guideline driven or evidence based.

OP 87

Effects of Scalp Block with Levobupivacaine on Hemodynamic and Bispectral Index Parameters and Postoperative Pain in Adult Patients Undergoing Craniotomy: a Randomized Clinical Trial

Yusuf Çokay , Ozlem Selvi Can , Yüksel Keçik

University of Ankara, Faculty of Medicine, Departmens of Anesthesiology and Reanimation, Ankara Turkey

Introduction: Not only does hemodynamic stability offer proper condition for neurosurgical intervention, it also aids in avoiding potential complications. Laryngoscopy, endotracheal intubation, insertion of skull pins, surgical incision, dural opening are most stressful steps during neurosurgery.

Objectives: To compare the effects of skull block with levobupivacaine vs placebo on hemodynamics and bispectral index variables (BIS) during skull pin insertion and craniotomy.

Material/Patients and Methods: Sixty patients, ASA I-III, aged 18-80 y, scheduled for craniotomy were enrolled in this prospective, randomized, placebo-controlled, double blind study. Patients were randomly assigned in two groups, 30 patients in each arm. After intubation with standard protocol, scalp block was performed with 20 mL %0.9 sodium chloride in Group I and with 20 mL 2.5% levobupivacaine in Group II. Heart rate (HR), systolic (SBP) and diastolic (DBP) blood pressures, mean arterial pressure (MAP) and BIS were recorded before anesthesia induction, during the scalp block and 30 min after surgery. Visual analog pain scores (VAS),

first analgesic requirement and postoperative 24-hour analgesic consumption were also recorded.

Results: HR, SBP, DBP, MAP and BIS values obtained after surgery were significantly improved compared to baseline values in Group II ($p < 0.05$). Compared to hemodynamics and BIS values in Group I, those values obtained in Group II were significantly better at each time point ($p < 0.05$). The postoperative VAS scores and total analgesic consumption in Group II were significantly lower than those in Group I.

Conclusion: Scalp block with 2.5% levobupivacaine provided stable intraoperative hemodynamics and extended analgesic effects in postoperative period.

OP 88

Is Fiberoptic Bronchoscopic Imaging Required for Success with Blind Intubation Via Lma-fastrach?

Süheyla Karadağ Erkoç¹, Ozlem Selvi Can², Çiğdem Yildirim Güçlü²

¹Şanlıurfa Obstetrics and Gynecology Hospital, Department of Anesthesiology and Icu, Turkey

²Ankara University Medical Faculty Department of Anesthesiology and Icu, Turkey

Introduction: LMA-Fastrach™ (LMA-FT) is a designed for use in both anticipated and unexpected difficult intubations, and for failed intubations with other techniques.

Objectives: in this study fiberoptic bronchoscope (FOB) imaging through LMA-FT scored and blind intubation via LMA-FT was performed. Correlation between scores and success of blind intubation evaluated.

Material/Patients and Methods: One hundred ASA 1-3 patients aged between 18-80 years, scheduled for elective surgery and requiring endotracheal intubation enrolled. After standard monitoring and intravenous induction including neuromuscular blocker direct laryngoscopy was performed for Cormack-Lehane score evaluation. LMA-FT was inserted and view of vocal cords was evaluated by experienced anesthetist via FOB and scored by using Brimacombe classification. After FOB scoring blind intubation through LMA-FT with endotracheal tube was performed to all patients. LMA-FT was removed after intubation. FOB scores, times for successful placement of the LMA-FT and tracheal intubation, number of attempts needed for successful ventilation and tracheal intubation, and complications associated with procedure were recorded. Mallampati scoring, Thyromental and sternal distance, upper lip bite test were also recorded.

Results: Blind tracheal intubation through LMA-FT was successful in 81% of the cases at the first attempt and 12% at the second attempt. The tracheal intubation of 7 patients failed after the two attempts. There was a significant correlation between successful intubation and Brimacombe scores ($p = 0.0001$). There was no significant correlation between intubation success and other difficult intubation criterias.

Conclusion: Success rate of blind intubation through LMA-FT is relatively high and fiberoptic bronchoscopic evaluation can predict difficult intubation via LMA-FT.

OP 89

Influence of Blood Transfusion in Length of Icu Stay

Fatos Sada, Avdyll Krasniqi

University Clinical Center of Kosovo, Kosovo

Introduction: Side effect of RBC transfusion are well known.

Objectives: Influence of RBC in length of ICU stay

Material/Patients and Methods: the study is prospective, made in ICU at the University Clinic Center of Kosovo. Study period was October 2010 to September 2011. Inclusion criteria: age above 17 years and ICU stay of more than 48 hrs. Exclusion criteria was renal insufficiency.

Results: 184 patients were included in the study. Overall, 32 % of patients received one or more RBC units while in the ICU (mean 5.8 ± 2.6 units). The mean time to first ICU transfusion was 4.9 ± 5.1 days. 61% of RBC transfusions were given during the first five days of stay in ICU. Baseline hemoglobin was related to the number of RBC transfusions. Patients that did stay in ICU for ≤ 5 days received 2.7 units of RBC, patients that did stay 6-10 days received 4.8 units of RBC, patients that did stay 11-15 days received 4.8 units of RBC, while those who stood between 26 and 30 days received 8.6 transfusions.

Conclusion: the higher number of RBC transfusions a patient received during the study was associated with longer ICU lengths of stay. As longer as patient did stay in ICU he received more transfusions. Number of transfused patients resulted very high and majority of blood transfusions were made during the first week of ICU stay.

OP 90

Alphav Beta3 Integrin-targeted Iodinated-rgd Peptide, As a Molecular Contrast Agent. a Preliminary Study in a Rat Model

Ignacio Garcia-alonso¹, Jesus Maria Aizpurua¹, Maialen Sagartzazu¹, Borja Herrero De La Parte¹, Nestor Etxebarria-loizate¹, Jose Javier Echevarria-uraga²

¹University of the Basque Country, Leioa, Spain

²Galdakao-usansolo Hospital, Galdakao, Spain

Introduction: As $\alpha V\beta 3$ -integrins are overexpressed in some solid tumors, they might be used as therapeutic targets.

Objectives: by means of ICP-MS, the adhesion of Iodinated arginyl-glycyl-aspartic acid (RGD) mimetic peptides to colocalized liver tumors was assessed.

Material/Patients and Methods: Liver tumors were induced in 10 Waj/Rij male rats by direct inoculation

of 250,000 syngenic colocal carcinoma cells (CC531). Five animals received 160 mg of iodine by intravenous injection of Visipaque™ 320 (commercially available iodixanol, radiographic contrast medium). Another four rats received 14, 28, 42 or 56 mg of iodine by intraperitoneal injection of iodinated-RGD peptide. The last rat received no iodine at all. Two hours after iodine administration, samples from liver and tumor tissue were obtained from each rat and its iodine content was assessed. Median and range values are presented.

Results: Control rat: 23 ug/g (liver), 39 ug/g (tumor). Visipaque-rats: 108 (79-152) ug/g (liver), 95 (72-190) ug/g (tumor). Iodinated-RGD-rats: 579 (410-744) ug/g (liver), 84 (40-136) ug/g (tumor); in this group tumor iodine content directly correlated with the amount of iodine administered.

Conclusion: Visipaque was distributed by the arterial tree to all the tissues. Iodinated-RGD intraperitoneally administered reached the liver through the portal vein; however, as tumor tissue lacks of portal vessels, it received the iodinated-RGD from the arterial tree. Despite receiving less amount of iodine than the Visipaque-group, iodine concentration in the tumor tissue was greater, which suggests selective adhesion of RGD to tumor cells.

OP 91

Gene Transfer of High Mobility Group Box 1 Inhibitor, a Box, in Rat Acute Liver Failure Model

Masayuki Tanaka¹, Masahiro Shinoda¹, Minoru Tanabe¹, Atsushi Takayanagi², Ryo Nishiyama¹, Hiroshi Yagi¹, Ikuro Maruyama³, Yuko Kitagawa¹

¹ Surgery, School of Medicine, Keio University, Japan

² Molecular Biology, Keio University School of Medicine, Japan

³ Department of Laboratory and Molecular Medicine, Kagoshima University, Japan

Introduction: High-mobility group box 1 (HMGB1) is a monocyte derived late-acting inflammatory mediator. A domain of HMGB1, the a box, competes with HMGB1 for binding receptors and attenuates HMGB1-induced inflammation.

Objectives: In this study, we investigated if gene transfer of HMGB1 inhibitor, a box, is beneficial for the treatment of acute liver failure (ALF) in rat model.

Material/Patients and Methods: i) We isolated primary culture rat hepatocytes from the Wistar rat's liver and transfected the vectors to the hepatocytes. The culture supernatant was subjected to western blot analysis for a box protein. ii) We injected Adex-Abox or Adex-LacZ (control vector) into the portal vein of male Wistar rats, weighing 250-350 g, and the liver was subjected to immunohistochemical staining for a box. Seventy-two hours after Adex-Abox or Adex-LacZ injection (5x10⁸ pfu/body, n=5 in each group), D-galactosamine was injected into the penile vein to induce ALF. Survival was observed for 7 days.

Results: i) Western blot analysis showed a strong

expression of a box protein in the culture supernatant of primary culture rat hepatocytes transfected with AdexAbox. ii) Immunohistochemical staining showed that the liver injected with Adex-Abox was positive for a box. Survival was significantly improved in the rats transfected with Adex-A box compared to the rats transfected with Adex-LacZ (80% alive in Adex-Abox vs 0% alive in Adex-LacZ at 48 hours after ALF induction, p<0.05).

Conclusion: Gene transfer of HMGB1 inhibitor, a box, may be beneficial for the treatment of ALF in rat model.

OP 92

Improved Renal Function of Warm Ischemia-damaged Kidneys Cold Stored in Ecosol, a Novel Preservation Solution

Julia Kalenski¹, Elina Mancina¹, Pascal Paschenda¹, Christian Beckers², Christian Bleilevens², Benedict Doorschodt¹, Rene Tolba¹

¹ Institute for Laboratory Animal Science & Experimental Surgery, RWTH-aachen University, Aachen, Germany

² Department of Anesthesiology, RWTH-aachen University, Aachen, Germany

Introduction: The gold standard for cold storage (CS) preservation of warm ischemia-damaged kidney grafts is Histidine-Tryptophan-Ketoglutarate solution (HTK, Custodiol®) which was developed more than thirty years ago. Recently, Ecosol, a colloid based solution has been developed for wash-out, CS and machine perfusion.

Objectives: We aimed to assess the efficacy of Ecosol compared to HTK for 24h CS preservation of warm ischemia-damaged (WI) kidney grafts using the Isolated Perfused Porcine Kidney model. Kidneys retrieved without warm ischemia and thereafter cold stored for 24h in HTK served as controls.

Material/Patients and Methods: Before retrieval, the renal pedicle was clamped for 45' in the Ecosol-WI and HTK-WI groups. Consequently, kidneys (n=5 per group) were explanted and cold stored for 24h in their respective solutions and thereafter reperfused for 1h at 37°C with whole blood/Krebs-Henseleit Buffer medium (20/80%) for assessment of renal function and damage.

Results: At 1h reperfusion, vascular resistance and urine protein concentration were significantly lower in the Ecosol-WI group compared to the HTK-WI group and equal to controls (mean±SEM: 0.5±0.1 vs. 3.0±0.8 vs 0.5±0.0 mmHg/ml/100g and 77±19 vs. 540±86 vs. 48±11 mg/dl respectively). Also, oxygen consumption in the Ecosol-WI group was higher than HTK-WI and equal to controls (900±139 vs. 222±54 vs. 1021±82). Urine production and creatinine clearance rates at 1h were higher in the Ecosol-WI group compared to HTK-WI (231±28 vs. 44±7 ml and 4.4±0.5 vs. 1.0±0.2 ml/min/100g resp.).

Conclusion: Renal function of extensively warm ischemia-damaged, cold stored kidneys was significantly improved with the recently developed Ecosol preservation solution compared to HTK.

OP 93

Percolonoscopic Cleansing Technics for Unsufficient Bowel Cleansing. New Method for Difficult or Poor Bowel Cleansing Patients.

Mehmet İbiş , Harun Erdal , Özlem Gül Utku

Gazi University, School Ofn Medicine, Department of Gastroenterology, Turkey

Introduction: Bowel cleansing is the most important issue for effective colonoscopic prosedure especially in special co-morbities patients groups. There is to many factors affecting bowel preperation ec, age, gender, co-morbidities, socialstuation and prosedüre related factors

Objectives: Primary objectives is facilitate bowel cleansing in difficult patients groups.

Material/Patients and Methods: From may 2010 to december 201, totally 13 patients administered. We have a signed consent form from each patient before colonoscopy. If primary bowel cleansing was poor, before applying enema we received verbal concent in that patients. in case of unsufficient bowel cleansing while colonoscopic prosedure we applied 135 or 210 ml enema (disodium phosphate and sodium phosphate) according to patient age and clinical situation. After colonoscopic enema application we performed second colonoscopy in 4 hours or 24 hours due to colonoscopic unit availability and patients situation.

Results: Bowel cleansing was very clear in the second colonoscopy in all patients. No any adwers effect had been occured. Bowel cleansing was excellent 4 hours patient group and and was good in24 hours patients groups respectively.

Conclusion: Percolonoscopic enema application can obtain effective bowel cleansing in specially patient groups. There is a need more patient number for to take part practical algoritm.

OP 94

Determination of Intensive Care Unit Admission and Discharge Criteria Accepted by Physicians and Nurses Working in Intensive Care Unit

Betul Tosun ¹, Gonul Sahiner ¹, Ozlem Kizilca ², Semra Aciksoz ¹, Mehmet Fatih Can ², Ozlem Aslan ¹

¹Gata, School of Nursing, Turkey

²Gata, Department of General Surgery, Turkey

Introduction: Society of Critical Care Medicine Ethics Committee suggests that intensive care unit (ICU) patient admission/discharge criteria should be based on objective data.

Objectives: To determine the patient admission and discharge criteria accepted by physicians and nurses working in several ICUs.

Material/Patients and Methods: in this descriptive study, 81 nurses and 29 physicians working in several ICUs at a university hospital were surveyed between October

2012 and February 2013. Data collection form, eliciting socio-demographic features and ICU admission/discharge criteria, was developed by the researchers. Data was analyzed and presented in frequency, mean and standard deviation and correlation tables. $p < 0.05$ was considered statistically significant.

Results: Mean age of participants was 29.91 ± 7.17 years and mean working in the critical care period was 4.20 ± 4.24 years. Half of the physicians (48.3%) and 21.0% of nurses reported to be involved in decision processes of patient admission/discharge. One third (30.9%) of participants frequently and 22.7% of participants seldom reported to triage patients during admission/discharge. While 81.8% of participants reported no scoring systems used in their practice, 13.7% reported that they use Glasgow Coma Scale and 4.5% APACHE scoring systems for patient admission/discharge. Both physicians and nurses defined patient quality of life as the leading measure for patient admission/discharge. As working time in ICU gets longer, patient/family demand for non-indicational cases and irreversible illness get less important ($p < 0.05$).

Conclusion: We determined that physicians or nurses working in different units had different assessment measures in mind. We suggest that standard triage measures be developed for ICU admission/discharge. ICU workers should be trained in medical ethics for decision making processes.

OP 95

A Technique for Severe Peristomal Wound Complication

Fatih Sumer , Emrah Otan , Cemalettin Aydin , Bulent Unal , Cuneyt Kayaalp

Department of Surgery, Inonu University, Turkey

Introduction: Stoma care may be difficult when stoma is created under urgent and difficult conditions.

Objectives: We planned suturing a nylon camera cover, used in laparoscopy, around the stoma.

Material/Patients and Methods: a 32 years old male required a proximal (20 cm from Treitz ligament) end jejunostomy due to complicated secondary peritonitis. Jejenum was extremely oedematous and a large stoma orifice was located close to the left subcostal region. Peritonitis was treated with left open abdomen. High flow intestinal fluid caused peristomal inflammation. Various preventive and treatment methods were applied but all failed. Under local anesthesia, a nylon camera sheath for laparoscopic camera was attached to the skin using 3/0 prolene continuous sutures in the operation room. Suture line was supported with colostomy paste. Colostomy bag was not attached.

Results: Intestinal content was observed to drain through out the sheath. on the distal end of the sheath, colostomy bag was connected to collect the drainage content. Patient, after complaints decreased, began mobilisation. During 10 days period stoma care was without any problem, end of which leakage from the suture line presented. Therefore the sheath

was replaced with a new one using the same suture material and technique. During this whole period, patient's feeding was provided by total parenteral nutrition. Six weeks after the jejunostomy operation, proximal stoma was closed with jejunostomy. Five weeks later distal stoma was closed with ileo-colostomy. During all this period, there did not exist any kind of skin irritation.

Conclusion: Although appears to be old fashioned, suturing a nylon cover around the difficult stoma works well when necessary.

OP 96

The Incidence of Publication of Randomized Controlled Trials in High-profile Surgery Journals: Analysis of the Past Ten Years

Murat Urkan , Mehmet Fatih Can , Erkan öztürk ,
Abdurrahman Şimşek , Yusuf Peker

Department of General Surgery ,gulhane Military
Medical Academy Ankara, Turkey

Introduction: Randomized controlled trials (RCTs) are considered the best instruments in deciding whether a treatment strategy should be the standard of care for a given patient subset or illness. RCTs published in high-profile surgery journals usually are what individual institutes or specialty groups benefit the most from when constructing their own surgical guidelines

Objectives: Study aimed to perform a year-based analysis on the frequency of publication of RCTs in leading surgery journals.

Material/Patients and Methods: Science-citation index (SCI) and SCI-expanded were screened to identify surgery journals with an IF of 3 or greater according to the JCR 2011. Journal tables of contents were then reviewed for years 2002-2011 and all RCTs retrieved. a trend analysis was performed for journals in which at least 100 RCTs were published to reveal any possible significant increase or reduction in the number of RCTs.

Results: Totaly 3262 RCTs were published in 17 journals. British Journal of Surgery, Annals of Thoracic Surgery and Surgical Endoscopy were found to be journals in each of which more than 300 RCTs were published over the 10-year study period. Years 2011, 2008 and 2005 witnessed the highest number of RCTs published in the studied journals. There was no significant tendency towards over or underpublication of RCTs over timeline.

Conclusion: While the number of alternative surgical treatment modalities increase, there seems to be no parallel growth in the number of RCTs published in high-profile surgery journals.

OP 97

The Clinical Analysis of Anatomical Resection for Hepatocellular Carcinoma Based on the Liver Function

Yusuke Yamamoto , Hisashi Ikoma ,
Hirotaka Konishi , Ryo Morimura , Hitoshi Fujiwara ,
Kazuma Okamoto , Toshiya Ochiai , Eigo Otsuji

Division of Digestive Surgery, Department of Surgery,
Kyoto Prefectural University of Medicine, Japan

Introduction: the significance of anatomic resection (AR) for hepatocellular carcinoma (HCC) is controversial.

Objectives: This study aimed to clarify the efficacy of AR for HCC comparing with non-anatomical resection (NAR) with matching the background factors including liver function.

Material/Patients and Methods: the clinical records of 130 patients with single HCCs, 2-5 cm in diameter, without macroscopic vascular invasion were analyzed. AR was performed in 88 patients, and NAR in 42, respectively. Indocyanine green retention rate at 15 minutes (ICGR15) of 82 patients was less than 20%, which was classified as good liver function (LF) group, and that of 48 patients was more than 20%, which was classified as poor LF group.

Results: the 5-year overall survival (OS) and disease-free survival rates (DFS) were 79% and 47%, respectively. Cox proportional hazard analysis identified ICGR15 > 15% (p=0.03) and infiltrating growth (p=0.03) as independent prognostic factors. Liver cirrhosis was significantly less in AR than that in NAR (43%vs76%, p=0.01). in the subgroup analysis of good LF, all clinicopathological factors were comparable between AR and NAR. DFS of AR was significantly better than that of NAR (57%vs22%, p = 0.04), however, there are no significant differences in OS between both groups. (80%vs68%, p = 0.8) in the subgroup analysis of poor LF, all clinicopathological factors were comparable between AR and NAR. There were no significant differences in DFS (30%vs38%, p = 0.4) and OS (69%vs86%, p = 0.11) between AR and NAR.

Conclusion: in the patients with ICGR15 > 20%, AR did not carry postoperative outcome advantages compared with NAR.

OP 98

An Elevated Preoperative Neutrophil To Lymphocyte Ratio as a Predictor of Survival After Gastroenterostomy in Patients with Advanced Pancreatic Adenocarcinoma

Teiichi Sugiura , Katsuhiko Uesaka , Hideyuki
Kanemoto , Takashi Mizuno , Yukiyasu Okamura

Division of Hepato-biliary-pancreatic Surgery, Shizuoka
Cancer Center, Japan

Introduction: Few studies have investigated the clinical value of the neutrophil-to-lymphocyte ratio (NLR) in patients

undergoing gastroenterostomy for advanced pancreatic head cancer.

Objectives: To assess the predictive factors for survival in patients undergoing bypass procedures for advanced pancreatic adenocarcinoma, with a special focus on the preoperative NLR.

Material/Patients and Methods: a total of 83 patients who had symptoms of gastric outlet obstruction due to advanced pancreatic cancer and underwent gastroenterostomy were analyzed. the prognostic significance of the NLR was analyzed. the relationship between the NLR value and postoperative outcome was also evaluated.

Results: the median survival of all cohorts was 5.1 months. Survival analysis revealed that higher NLR (>4) predicted significant risk of postoperative poor survival. the median survival time was 9.4 months in patients with NLR < 4, whereas it was 3.4 months in patients with NLR > 4 (P <0.001). the multivariate analysis revealed that NLR > 4, the presence of liver metastases and daily pain were significant prognostic factors. a higher NLR was associated with postoperative morbidity; 36% of patients with NLR > 4 and 13% of those with NLR < 4 (P <0.001) developed morbidities. with regard to the quality of life, 45 of 47 patients (96%) with NLR < 4 and 13 of 36 patients (36%) with NLR > 4 had adequate oral intake of solid food without any support with intravenous nutrition for at least one month after surgery (p<0.001).

Conclusion: the preoperative NLR offers important prognostic information for patients who have gastric outlet obstruction syndrome due to advanced pancreatic adenocarcinoma.

OP 99

Surgical Approach To Noncolorectal Nonneuroendocrine Liver Metastases: What Does Cumulated Evidence Say?

Muharrem Oztas¹, Mehmet Fatih Can², Ismail Hakki Ozerhan², Gokhan Yagci²

¹ Sirnak Military Hospital, Department of General Surgery, Turkey

² Gulhane School of Medicine, Department of General Surgery, Turkey

Introduction: the role of hepatic resection in patients with liver metastases of noncolorectal nonneuroendocrine origin is not well defined due to heterogeneous characteristics of primary malignancies and the lack of conclusive studies with high level of evidence.

Objectives: To review the current knowledge on the value of surgical resection for noncolorectal nonneuroendocrine liver metastases.

Material/Patients and Methods: a search of Medline database and Web of Science was performed to identify articles reporting on the resection of noncolorectal nonneuroendocrine liver metastases in January 2013. the search was limited to papers written in English. Studies

investigating nonsurgical approaches such as radiofrequency ablation were excluded.

Results: the first search retrieved 4727 articles. of these, 4601 (97.3%) proved were not relevant to the topic of interest and therefore excluded. Some 67 trials and 2658 patients were included in the final analysis. No prospective trials existed. Most of the studies had small number of patients. in 13 studies in which the number of patients included was greater the case mix consisted of heterogeneous primary tumor types. Studies showed that the most important prognostic factor was primary tumor type. Gastrointestinal tumors had a significantly worse prognosis compared to genitourinary tumors.

Conclusion: Our analysis suggests that hepatic resection is safe and feasible for noncolorectal nonneuroendocrine liver metastases. Satisfactory long-term results with a low operative risk can be achieved in select patients when a curative resection is possible. Liver resection yields a clearer survival advantage in metastases from genitourinary tumors compared to that of other primary sites. However, lack of prospective trials limits reaching strong conclusions.

OP 100

Availability of Nx-pvka(lately Developed Reagent) as the Predictor of Prognosis in Hepatocellular Carcinoma

Motohiko Sato, Etsuro Hatano, Kohta Iguchi, Gen Yamamoto, Satoru Seo, Masato Narita, Kojirou Taura, Shinji Uemoto

Department of Surgery, Graduate School of Medicine Kyoto University, Japan

Introduction: PIVKA-II is generally used as a specific biomarker concerning hepatocellular carcinoma(HCC). But positive rate in HCC is no more than 60%, and we often experience some false positives(warfarization, Vit.K deficiency etc.). NX-PVKA, is measured by lately developed measuring reagent, is reported as that is more HCC specific than usual PIVKA-II.

Objectives: Measuring preoperative serum level of PIVKA-II, NX-PVKA, and NX-PVKA-R(PIVKA-II, NX-PVKA), then compare with recurrence rate and relapse free survival.

Material/Patients and Methods: Preoperative serum samples from 86 HCC patients who had undergone radical hepatectomy in our department 2010.1.1~2011.12.31. Samples are assigned into two groups by cut off point(NX-PVKA-R=1.5).

Results: Recurrence rate and median RFS in Group1(NX-PVKA-R>1.5) was 40.8% and 347days, 32.4% and 465days as in Group2(NX-PVKA-R<1.5). in comparison of two groups by Kaplan-Meier method, RFS in Group1 was significantly upwising in whole period of observation.

Conclusion: Availability of NX-PVKA-R as predictor of prognosis in HCC seems to be suggested.

OP 101

Prevention of Biliary Complications After Hydatid Liver Surgery

Cuneyt Kayaalp¹, Cemalettin Aydin¹, Aydemir Olmez¹, Sevil Isik², Sezai Yilmaz¹

¹Department of Surgery and Liver Transplantation Institute, Inonu University, Turkey

²Department of Surgery, Ordu University, Turkey

Introduction: Biliary fistulas are the most common morbidity (8.2-26%) following hydatid liver surgery.

Objectives: the aim of our study was to reduce the incidence of postoperative biliary fistulas after the suturing of cystobiliary communications by applying a bile leakage test.

Material/Patients and Methods: a total of 133 hydatid liver cysts from 93 patients were divided into two groups, according to whether the test was performed. Tests were performed on 56 cysts from 34 patients, and the remaining 77 cysts from 59 patients were treated without the test. in both groups, all visible biliary orifices in the cysts were suture ligated, and the cysts were drained.

Results: Biliary orifices were more visible in the tested cysts (13% vs. 48%; $P < 0.001$). Fewer biliary complications occurred in the tested patients (8.8% vs. 27.7%, $P = 0.033$). the mean drain removal time (4.1 ± 3.3 days vs. 6.8 ± 8.9 days, $P < 0.05$) and the length of the hospital stay (6.7 ± 2.7 days vs. 9.7 ± 6.3 days, $P < 0.01$) were shorter for the tested patients. None of the patients in the test group required postoperative ERCP or nasobiliary drainage (0.0% vs. 8.4%, $P = 0.09$). There were no long-term biliary complications for either group after three years of follow-up.

Conclusion: Identification of biliary orifices with a bile leakage test and the suturing of cystobiliary communications significantly reduced postoperative biliary complications following hydatid liver surgery.

OP 102

Is Early Cholecystectomy Safe in Acute Biliary Pancreatitis?

Pinar Sarkut¹, Sadik Kilicurgay¹, Ali Ozer¹, Ismail Tirnova¹, Ekrem Kaya¹, Yilmaz Ozen¹

Uludag University, School of Medicine, Department of General Surgery, Turkey

Introduction: After mild pancreatitis, the optimal timing of cholecystectomy remains unclear.

Objectives: in this study, the effect of the timing of cholecystectomy following acute biliary pancreatitis (ABP) on intraoperative and postoperative complications and recurrent pancreatitis attacks was investigated.

Material/Patients and Methods: the data of 103 patients who were undergone cholecystectomy following ABP were examined retrospectively. Apache II scoring system was

used to evaluate the severity of acute pancreatitis. Patients with an Apache score of < 8 were considered to have "mild pancreatitis". Cholecystectomy performed in 14 days after the onset of symptoms was classified as early cholecystectomy (Group A) and cholecystectomy performed after 14 days was classified as late cholecystectomy (Group B). the age, gender, ASA and Apache II score, presence of inflammatory changes, presence of perioperative and postoperative complications, operation times, conversion rate and recurrent ABP attacks were evaluated.

Results: Cholecystectomy was performed in 51 patients in Group A. Laparoscopic cholecystectomy was performed in 67 of the patients. 37 (55,2%) of these were from Group B. Conversion was observed in 4 patients (7,8%) in group a and in 6 patients (11,5%) in Group B ($p = 1.000$). No significant difference was found between the groups in terms of demographic data, Apache II score, perioperative and postoperative complications, operation times and hospitalization times. However, a history of recurrent biliary pancreatitis during the waiting time was present in 6 patients in Group B, while no patient in Group A had a history of rehospitalization for this reason ($p < 0.02$).

Conclusion: It appears that early surgery can be safely performed in ABP and delayed surgery may be a risk factor for recurrent pancreatitis attacks.

OP 103

Atypical Contrast Enhancement and Washout Patterns on Computed Tomography for Hepatocellular Carcinoma: Are They as Infrequent as is Assumed?

Mehmet Fatih Can¹, Murat Urkan², Fatih Ors³, Gokhan Yagci¹, Sadettin Cetiner¹

¹Gulhane Military Medical Academy, Department of Surgery, Turkey

²Eskisehir Military Hospital, Department of Surgery, Turkey

³Gulhane Military Medical Academy, Department of Radiology, Turkey

Introduction: While typical computed tomography (CT) images accompanied by elevated alkaline phosphatase levels strongly suggest the diagnosis of hepatocellular carcinoma (HCC), liver surgeons encounter frequently with atypical CT findings that make the diagnosis of HCC challenging.

Objectives: To determine the prevalence of atypical contrast enhancement and washout patterns detected on CT taken for the diagnosis of HCC.

Material/Patients and Methods: Medline and Web of Science search was undertaken using terms "hepatocellular carcinoma", "computed tomography", "contrast", "enhancement" and "washout" to identify relevant articles. Those studies that did not investigate contrasting patterns for HCC were excluded. in total, 17 articles related directly with the topic of interest were reviewed in detail.

Results: Totally 1324 CT scans were assessed. the

detection rate ranged between 56-100%. Majority of lesions tended to form solitary or multifocal nodular masses with less than 5% of them being infiltrative or diffuse type cancers. in 7 (47%) articles, no pre-contrast density patterns were reported. in 5 (30%) studies, the number of lesions with late washout surpassed the number of those with early washout. the ratio of hypoattenuation, isoattenuation and hyperattenuation in the portal phase ranged as 12-89%, 24-82% and 6-78%, respectively. Four (24%) studies reported existence a peripheral rim in 4-10% of masses. the frequencies of hyper- and hypo-vascularity were 40-100% and 0-60%, respectively.

Conclusion: the results of our study suggest that no single pattern of contrast enhancement and washout may be labeled as the typical CT findings of HCC. Hundreds of different combinations of pre-contrast and after-contrast CT profiles are possible.

OP 104

The Effect of Exogenous Recombinant Adiponectin in Experimental Abdominal Sepsis

Tonguç Utku Yılmaz¹, Bülent Salman³, Hatice Paşaoğlu⁴, Ebru Ofluoğlu²

¹Kocaeli University, School of Medicine, Department of General Surgery, Turkey

²Bülent Ecevit University, School of Medicine, Department of Biochemistry, Zonguldak, Turkey

³Gazi University, School of Medicine, Department of General Surgery, Ankara, Turkey

⁴Gazi University, School of Medicine, Department of Biochemistry, Ankara, Turkey

Introduction: Adiponectin (APN) is an anti-inflammatory cytokine that antagonizes the effects of pro-inflammatory cytokines. in several studies, decreased plasma adiponectin levels and increased plasma endotoxin and TNF- α have been shown in sepsis

Objectives: We aimed to investigate the effects of adiponectin on inflammatory cytokines, ICAM-1, MIF and NF- κ B in cecal ligation and puncture model

Material/Patients and Methods: Rats were divided into 3 groups; sham, control and adiponectin groups. Intrabdominal sepsis was performed by cecum puncture. Intraperitoneal recombinant adiponectin (2 μ g/kg) were given to the rats in APN group every three hours. Saline was injected to control group. Sham group only underwent laparotomy. Ten rats in each group were sacrificed on the 6th hour and ten on the 24th hour. Plasma TNF- α , IL-6, IL-10, soluble ICAM-1, macrophage inhibitor factor, and NF- κ B were measured. Ten rats in each group were observed for survival.

Results: the levels of TNF- α , IL-6, soluble ICAM-1, and NF- κ B in control group were significantly higher than the sham and APN groups. the levels of IL-10 was significantly lower in control group than the sham and APN groups. the survival was longer in APN group than the control group.

Conclusion: Adiponectin is an anti-inflammatory

cytokine that increase survival in intrabdominal sepsis model.

OP 105

The Effects of Using Probiotic and Glutamine in Rats with Obstructive Jaundice on Intestinal Barrier, bacterial Translocation, hepatocyte Apoptosis, oxidative Capacity and Kupffer Cell Function

Deniz Yücel¹, Mehmet Oğuz¹, Osman Yüksel¹, Utku Yılmaz², Güldal Yılmaz³, Tuğçe Paşaoğlu⁴, Tuba Çakiroğlu⁵

¹Gazi University, School of Medicine, Department of General Surgery, Turkey

²Kocaeli University, School of Medicine, Department of General Surgery, Turkey

³Gazi University, School of Medicine, Department of Pathology, Turkey

⁴Gazi University, School of Medicine, Department of Biochemistry, Turkey

⁵Gazi University, School of Medicine, Department of Medical Microbiology, Turkey

Introduction: Some pathologic changes occur in the organism as a result of biliary tract obstruction. One of these is bacterial translocation.

Objectives: Various substances and the consequences of bacterial translocation in obstructive jaundice were investigated but the combined insult with glutamine and probiotic has not been previously examined.

Material/Patients and Methods: in this study; thirty rats were divided into five groups including 6 rats in each group. in sham operated group only laparotomy was done. Obstructive jaundice was developed in control, glutamine, glutamine+probiotic groups. Blood samples were taken for the measurement of standard biochemical accounts and tissue samples for bacterial translocation, histopathological assessment and measurement of GSH (Glutathione), GR (Glutathione Reductase), SOD (Superoksit Dismutase), NOx (Nitric oxide).

Results: Standard biochemical values showing liver function, there were no statistically differences between the groups. However, bacterial translocation reduces in groups which glutamine and probiotic applied together and individually, the parameters showing antioxidant system values SOD in control group, GSH in glutamine group, GSH, GR, SOD in probiotic group, GSH and GR in glutamine+probiotic group statistically significant differences were confirmed (p<0,05). There was no difference in terms of NOx. Histopathologically, the probiotic group, apoptosis was found to be higher than the others groups.

Conclusion: Together and individual use of glutamine and probiotic in obstructive jaundice reduces bacterial translocation. However, especially in order to clarify the effects of probiotic on antioxidant system parameters and the liver, further studies are needed.

OP 106

High Levels of Skin Intercellular Fluid Cytokines and Chemokines Reflect Their Involvement in Innate Immune Processes

Marzanna Zaleska¹, Waldemar L. Olszewski¹, Marek Durlik²

¹ Department of Surgical Research & Transplantology, Medical Research Center, Polish Academy of Sciences, Warsaw, Poland

² Department of Transplantation Surgery, Central Clinical Hospital, Ministry of Internal Affairs, Warsaw, Poland

Introduction: Tissue cell metabolic processes, proliferation, differentiation, senescence and apoptosis are regulated by a plethora of cytokines, chemokines, growth factors, enzymes and neurotransmitters present in tissue fluid and lymph.

Objectives: Knowledge of their concentration and activity can give insight into cellular and interstitial processes of the tissue.

Material/Patients and Methods: Twenty randomly selected healthy individuals (ages 24–46 years) without any history of systemic or local disease of lower limbs undergoing voluntary studies of lymph lipids or antibiotic penetration were selected. A leg lymphatic lying on the fascia was exposed under the operating microscope and was cannulated in a retrograde manner. Lymph samples were taken at 12-hour intervals. Concentrations of cytokines and chemokines were measured by enzyme immunometric assays (Quantikine; R&D Systems, Abingdon, UK).

Results: Total protein concentration was in lymph and serum 1.66 ± 0.14 g/dl and 7.30 ± 0.1 g/dl, respectively (L:S ratio 0.22 ± 0.1). The cytokine lymph to serum ratio (L/S) was for IL1 β 3.1, IL6 3.9, TNF α 1.9, IL15 5.0, IL8 10.0 and 1.1 for IL1R α , but only 0.29 for IL12, 0.4 for IL10 and 0.004 for TGF (p<0.05). The chemokine and matrix enzyme L/S was 3.4 for MIP 1 α , 3.0 for CCL21, 2.5 for TIMP1 3.5 for TIMP2 and 1.0 for MCP1 and below 1 for MMP9 (0.33) and CCL27 (0.28) (p<0.05).

Conclusion: High lymph concentrations cannot be explained by filtration from blood and should be attributed to local production by keratinocytes, blood and lymphatic endothelial and Langerhans' cells, fibroblasts and recirculating lymphocytes serving innate immune reactions.

OP 107

Discovery of Novel Chemotypes As Potential Inhibitors of Leukotriene Biosynthesis Based on a Combined Ligand- and Structure-based Virtual Screening Approach

Erden Banoglu¹, Burcu Çalışkan¹, Gökçen Eren¹, Yağmur Özkan¹, Erşan Çelikoğlu¹, Carlo Pergola², Jana Gerstmeier², Oliver Werz²

¹ Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Gazi University, Ankara, Turkey

² Chair of Pharmaceutical/medicinal Chemistry, Institute of Pharmacy, Friedrich-schiller-university Jena, Philosophenweg 14, D-07743 Jena, Germany

Introduction: 5-Lipoxygenase (5-LO) and 5-Lipoxygenase-activating protein (FLAP) are soluble and nuclear transmembrane proteins, respectively, involved in the biosynthesis of leukotrienes (LTs) and other 5-LO products.

Objectives: Since 5-LO and FLAP inhibitors showed efficacy for prevention of major cardiovascular adverse effects (MACE) resulting from cardiovascular inflammation in early clinical trials, we aim to develop novel chemotypes for inhibition of both proteins.

Material/Patients and Methods: in the present work, we identified two chemotypes bearing benzimidazole and isoxazole scaffolds as developable candidates for efficient inhibition of LT biosynthesis through pharmacophore-based virtual screening.

Results: Our lead compound with benzimidazole structure suppressed cellular LT formation (IC₅₀ = 0.31 μ M) and showed typical features of FLAP inhibitors. Moreover, it inhibited LTB₄ formation in human whole blood and reduced the inflammatory reaction and LTB₄ production in pleural exudates of carrageenan-treated rats. The isoxazole derivative was a direct 5-lipoxygenase inhibitor for inhibition of leukotriene biosynthesis in human leukocytes (IC₅₀ = 2.0 μ M).

Conclusion: Together, our results exemplify the benzimidazole and isoxazole scaffolds as new chemotypes for further development of effective leukotriene biosynthesis inhibitors for diseases requiring anti-leukotriene therapy (This study was supported by TUBITAK research grant 108S210).

OP 108

Review of Type IV Reactions To Latex and Synthetic Medical Gloves in Healthcare Workers

Ruth Kaufmann¹, Vivian F. Zwart¹, Kevin A. Wiese², Hans Jeekel², Johan F. Lange¹, H.a.m. Neumann³

¹ Department of Surgery, Erasmus Medical Center Rotterdam, the Netherlands

² Department of Neuroscience, Erasmus Medical Center Rotterdam, the Netherlands

³ Department of Dermatology, Erasmus Medical Center Rotterdam, the Netherlands

Introduction: Thiurams, carbamates, mercaptans, amines and thioureas are rubber chemicals used during the manufacturing of both natural rubber latex (NRL) and synthetic rubber gloves. Rubber chemicals can cause type IV allergic reaction.

Objectives: This review describes various aspects of type IV reaction against gloves among healthcare workers (HCWs).

Material/Patients and Methods: Embase, Medline and Cochrane were searched for records on type IV reactions in NRL or synthetic gloves in HCWs. Data were abstracted and level of evidence was assessed.

Results: Through database searching 706 records were identified of which 26 studies were included. Incidence rates of type IV reactions to rubber chemicals in HCWs varied from 3.8% to 21.4%. Incidence of allergy to thiuram-mix (TM) and carba-mix (CM) was higher among HCWs than non-HCWs. TM caused the majority of positive patch test reactions in HCWs (48.3%), followed by CM (26.9%), black-rubber-mix (11.3%), mercapto-mix (7.7%), and thioureas (2.1%). NRL gloves seemed to induce type IV reactions more frequently than vinyl gloves, but vinyl gloves were not recommended in high risk situations. NRL gloves provide more comfort, better barrier protection and dexterity compared to nitrile gloves. Incidence of type IV reaction in NRL and other synthetic gloves does not seem to differ but stays largely unknown.

Conclusion: Rubber chemicals, especially thiurams and carbamates, are responsible for type IV reactions against gloves. Development of synthetic gloves to replace NRL gloves did not lead to a decrease in type IV allergy among HCWs. Due to their comfort, barrier protection and dexterity, low protein powder-free latex gloves may be considered first choice.

OP 109

Immunophenotyping of Post-traumatic Neutrophils on a Routine Hematology Analyser

Marjolein Heeres, Kathelijne Groeneveld, Albert Huisman, Leo Koenderman, Luke Leenen

University Medical Center Utrecht, The Nederland

Introduction: an overwhelming immune response is considered a major risk factor in the development of systemic complication after trauma. Monitoring of the immune status after trauma will not only help in the selection of patients at risk, but may also help in the choice of the most effective treatment. There are several flowcytometric markers that have been proposed as useful predictors for the occurrence of post-traumatic inflammatory complications. However, currently the need for a dedicated laboratory and the labour-intensive analytical procedures, make these markers less suitable for clinical practice.

Objectives: We tested an approach to overcome the limitations in the use of flowcytometric markers in blood of trauma patients in a clinical setting.

Material/Patients and Methods: Neutrophils of healthy donors were incubated with antibodies commonly used in trauma research: MAC-1 (CD11b/CD18), L-selectin (CD62L), FcyRIII (CD16) and FcyRII (CD32) in active form. Flowcytometric analysis was performed both on a FACSCalibur, a standard flowcytometer, and on a Cell-Dyn Sapphire, a routine hematology analyser.

Results: There was a high level of agreement between the two flowcytometers, with 41% for FcyRIII, 80% for L-selectin, 98% for MAC-1 and even 100% for active FcyRII. Moreover, analysis on the routine hematology analyser took less time than on the flow cytometer.

Conclusion: Analysis of neutrophil phenotypes on a Cell-Dyn Sapphire leads to the same conclusion compared to a standard flowcytometer. the markedly reduced time necessary for analysis and reduced labour intensity constitute a step forward in implementation of this type of analysis in clinical diagnostics in trauma research.

OP 110

Expression Analysis of Fibroblast Growth Factor Receptor-like 1 (fgfr1) in Esophageal Cancer

Yutaka Shimada¹, Tomoyuki Okumura¹, Takuya Nagata¹, Isaya Hashimoto¹, Shigeaki Sawada¹, Toru Yoshida¹, Kazuharu Shimizu², Kazuhiro Tsukada¹

¹ University of Toyama, Japan

² Kyoto University, Japan

Introduction: We previously reported that MicroRNA-210 regulates cancer cell proliferation through targeting fibroblast growth factor receptor-like 1 (FGFRL1) (JBC 2010).

Objectives: in order to evaluate the role of FGFRL1 in esophageal cancer, we analyzed FGFRL1 expression by tissue microarray and compared them with the clinico-pathological factors of the patients.

Material/Patients and Methods: Sixty-nine specimens of esophageal cancer were obtained from the patients who received an operation from 1990 to 2008. the patients consisted of 62 males and 7 females. Average age was 64.4 years old. the TNM stage of the patients were as follows; stage1: 7, stage2a; 10, stage2b; 10, stage3; 35, stage4; 7. After

careful examination by two independent researchers, the immuno-histochemical results were scored according to the intensity and the distribution.

Results: of 69 patients, 56 patients were FGFR1 positive and 13 patients were FGFR1 negative. the prognosis of the FGFR1 positive patients was significantly worse than that of the FGFR1 negative patients. (Logrank $P=0.0311$) Furthermore, FGFR1 positivity was associated with lymph node metastasis ($P=0.004$) and tended to be associated with the depth of the tumor ($P=0.0632$). However, FGFR1 expression was not an independent prognostic factor for the patients.

Conclusion: Our results suggested that FGFR1 may be a prognostic marker of the esophageal cancer patients and FGFR1 might be a good treatment target of esophageal cancer.

OP 111

The Survey of the General Surgeons' Approach Upon Oncoplastic Breast Surgery in Turkey

Mustafa Emiroglu¹, Cem Karaali¹, Ismail Sert², Semra Salimoglu¹, Abdullah Inal³, Mehmet Ali Gürçelik⁴, Varlık Erol¹, Cengiz Aydın¹

¹Tepecik Training and Research Hospital, Department of General Surgery, Turkey

²Van Regional Training and Research Hospital, Department of General Surgery, Turkey

³Erzincan University, school of Medicine, department of General Surgery, Turkey

⁴Ankara Oncology Hospital, Department General Surgery, Turkey

Introduction: Oncoplastic breast surgery becoming increasingly common in recent years. the attitude of the general surgeons vary in this regard.

Objectives: To evaluate the approaches, experiences and practices of the General Surgeons working mainly on breast surgery about oncoplastic breast surgery

Material/Patients and Methods: Eleven question survey about oncoplastic surgery have performed on 208 general surgeons working on mainly breast surgery, between Oct, 2012 and Feb, 2013. the statistical results were presented as descriptive

Results: the surgeons working at Research Hospital and General Hospital were 72.2% and 29.8%, respectively. the percentage of surgeons performing yearly breast cancer surgery between 10-25, 25-40 and over 40 were 17.8%, 29.3% and 52.9%, respectively. the number of the surgeons performing more than 50% breast-conserving surgery was 91 (46.8%). Hundred and ninety six (94.2%) Surgeons were routinely informing the patients about oncoplastic breast surgery. the number of the surgeons evaluating the early and late aesthetic outcomes of the breast-conserving surgery was 166 (79.8%). Hundred and thirty five participants were performing oncoplastic breast surgery. the number of the

Surgeons using the reconstruction techniques for non-cancer breast surgery were 67 (32.2%). Only, 48 (23.1%) Surgeons were performing the measurement of the breast volume. Training on oncoplastic breast surgery during residency was the most suggested method (36.1%).

Conclusion: the oncoplastic breast surgery is gradually increasing among general surgeons in Turkey. This survey results are important due to represent the approach of the substantial part of general surgeons mainly dealing with breast surgery about oncoplastic breast surgery. the suggestion of the surgeons about training on oncoplastic breast surgery is convenient for our country status

OP 112

Polypectomy for Haggitt's Level 3 Colorectal Adenocarcinoma, Is It a Safe Option?

Talal Altayeb, Rachael Lawrence, Muhamed J Akbar, Adele E Sayers, Ian a Hunter

Academic Unit of Surgery, Castle Hill Hospital, UK

Introduction: Polypectomy has been regarded as definitive treatment for Haggitt's level 3 invasive colorectal adenocarcinoma since 1985. However, this level of invasion was underrepresented in the original paper (10 cases).

Objectives: To investigated whether polypectomy constitutes a safe treatment option for Haggitt's level 3.

Material/Patients and Methods: Histopathology department database from 1995 to 2005 was retrospectively reviewed. Patients diagnosed with adenocarcinoma arising in adenomas of colorectal origin and classified as Haggitt's level 3 invasions were identified. Histopathology reports and patients' medical notes were inspected to ascertain 5 years outcome. Patients were divided into two groups in regards to outcome: adverse (dead or alive with colorectal carcinoma, local recurrent or lymph nodes involvement in a colectomy specimen), and favourable (absence of above).

Results: a total of 14 patients with Haggitt's level 3 invasions were identified. Five patients were treated with formal surgical resection, two of them demonstrated lymph nodes involvement in colectomy specimens. Polypectomy was regarded the definitive treatment for the remaining nine patients, with up to four patients underwent subsequent salvage resections for local recurrent of disease during the follow up period. Therefore, over all adverse outcome for Haggitt's 3 invasions in this cohort is 42.8% (n=6).

Conclusion: Endoscopic resection of Haggitt's level 3 invasive polyps does not constitute a safe management option.

OP 113

Which One Affect the Survival Negatively in Papillary Thyroid Cancer? Persistent or Recurrent Disease

Sevim Turanli¹, Kazim Caglar Ozcelik¹, Cengiz Dibekoglu¹

Ankara Oncology Education and Research Hospital,
Department of General Surgery, Turkey

Introduction: Although the main target in cancer surgery is to remove the tumor totally, but sometimes a residual tumor may persist.

Objectives: To determine the effect of persistent or recurrent papillary thyroid cancer on survival.

Material/Patients and Methods: Hospital records of 250 patients with nonaggressive variant of papillary carcinoma (microcarcinomas, papillary cancer and follicular variants) operated between 1994-2007 were investigated. All the patients underwent total thyroidectomy, 63 of them also therapeutic neck lymph node dissection. Radioactive iodine ablation (RAI) and thyrotropine suppression therapy was given in whole patients.

Results: Median follow up was 80 months. Persistent and recurrent diseases were detected in 6,8% and 12,4% patients respectively. Age and gender were similar in both groups. At the time of diagnosis, cervical lymph node positivity rate and distant metastasis rate for persistent and recurrent diseases was 70,6%, 61,3% and 70,6%, 12,9% respectively. Eighteen patients from recurrent group and two patients from persistent group were operated again for locoregional disease. Overall survival rates were 74 months and 86 months for persistent and recurrent disease groups respectively (p=0,27). At the end of the study 35,3% of persistent group and 25,8% of recurrent group patients died because of disease (p =0,48).

Conclusion: Persistent disease according to recurrent disease affect the survival negatively but at the end of 80 months follow up, result was not significant.

OP 114

Tumor Size in Stage Iii Gastric Cancer

Sevim Turanli¹, Yavuz Pirhan², Cengiz Dibekoglu³

¹Ankara Oncology Education and Research Hospital,
Department of General Surgery, Turkey

²Sungurlu Government Hospital, Department of
General Surgery, Turkey

³Istanbul Florence Nightingale Hospital, Department of
General Surgery, Turkey

Introduction: Relationship within tumor size and survival is controversial in advanced gastric cancer patients.

Objectives: Factors affecting the tumor size in patients with stage III gastric adenocarcinoma and the effect of size on overall survival were investigated.

Material/Patients and Methods: According to NCCN

2010 guidelines, between 2005-2010, 152 patients were investigated retrospectively. Median age was 59 years and 28,9% patients was female. Adjuvant chemotherapy with fluorouracil was given in 23% of patients and chemotherapy followed by radiotherapy was given the rest patients. Median follow-up was 22 months.

Results: Median tumor size was 6 cm. There was not any relationship with tumor size and sex (p=0,40), anemia (p=0,51), low serum albumin level (p=0,19), preoperative serum CEA and CA 19-9 levels (p=0,40 and p=0,60), T stage (p=0,63), N stage (p=0,38), lymphovascular invasion (p=0,20) and perineural invasion (p=0,38). According to Lauren classification, there was a significant difference between tumor sizes of diffuse type (7,57 ±0,5 cm) and intestinal type (5,65±0,2 cm), (p=0,001). According to tumor location, median tumor size at cardia 6,2±0,6 cm, at fundus 8,0±1,0 cm, at corpus 6,3±0,4 cm, at antrum 5,4± 0,3 cm and at whole gastric wall tumors 16,8±1,3 cm, (p=0,001). There was not any relationship with tumor size and survival (p=0,61).

Conclusion: Location and diffuse histological type of gastric cancers affect the tumor size but tumor size did not affect the survival.

OP 115

The Impact of Tumor Markers on the Management of Patients with Breast Cancer

Zafer Kilbas¹, Mustafa Tanriseven², Ramazan Yildiz¹, Erkan Ozturk¹, Yusuf Peker¹

¹Gulhane Military Medical Academy, Department of
General Surgery, Turkey

²Diyarbakir Military Hospital, Department of General
Surgery, Turkey

Introduction: Biomarkers are measured in the management of breast cancer patients for the; early detection of breast cancer, monitoring of breast cancer patients, predictive factors for therapeutic response and prognostic factors. CA 15-3 and CEA is the most common serum tumor markers in breast cancer patients.

Objectives: the aim of our study is determine the sensitivity and specificity of serum tumor markers and investigate the correlation between prognostic factors and serum tumor markers in patients which were diagnosed breast cancer.

Material/Patients and Methods: Data of 509 patients who have been performed surgery on between years 2008-2011 in our clinic are investigated retrospectively. Level of serum CA 15-3 and CEA were measured in 152 of the patients which diagnosed with invasive breast cancer. the sensitivity and specificity of serum tumor marker levels investigated for each stages of disease.

Results: the tumor marker levels were normal in 117 of 152(76,9%) patients and levels were high in 35 of 152(23%) patients. 38 patients (32.5%) were in stage I, 48 patients (41%) were in stage II and 27 patients (23.1%) were in stage III and 4 patients (11.4%) were in stage IV of the total 117

patients whose tumor markers were normal.

Conclusion: CA 15.3 and CEA are the serum tumour markers most often used in breast cancer. Levels of tumor markers in breast cancer were high only 23% of the patients. There is no ideal tumor markers for detection of early breast cancer.

OP 116

Carcinoid Tumors of the Appendix: a Clinicopathologic Study of 10 Patients From a Single Institution

Cengiz Dibekoglu¹, Sevim Turanli², Nazan Bozdogan³

¹Istanbul Florence Nightingale Hospital, Department of General Surgery, Turkey

²Ankara Oncology Education and Research Hospital, Department of General Surgery, Turkey

³Ankara Oncology Education and Research Hospital, Department of Pathology, Turkey

Introduction: Carcinoids of the appendix are rare neoplasms.

Objectives: Patient's demographic data, clinical presentation, surgical treatment, histopathology and long-term survival was evaluated.

Material/Patients and Methods: From 2004 to 2013, 975 appendectomies have been performed. Carcinoid tumor was diagnosed in 10 patients (5 female and 5 male), median age was 34 years. Except 2 patients who were operated for colon tumor and sigmoid volvulus, all patients presented to hospital with acute appendicitis symptoms and signs. Appendiceal malignancy has been suspected in one patient preoperatively and in two patients intraoperatively.

Results: Median tumor diameter was 0.7 cm. Generally, there were located in the distal third of the appendix (80%). Three patients underwent additional right hemicolectomy because of mesoappendiceal extension of tumor but residual tumor was not detected. In immunohistochemical examination, all the tumors showed positive staining with neuroendocrine markers synaptophysin and chromogranin. Ten cm diameter appendiceal tumor in old patient who operated for sigmoid volvulus was a Goblet cell carcinoid with adenocarcinoma. This patient died at perioperative period. An incidental appendiceal carcinoid was present in a patient who was operated for colon tumor. A metachronous colon tumor developed in this patient in follow up period. This patient died because of colon tumor. Adjuvant chemotherapy was given to only this patient. Other patients were alive and disease-free during a mean follow-up of 72 months.

Conclusion: Appendiceal carcinoid tumor is generally found incidentally during appendectomies because of its rarely detected radiological examination.

OP 117

To What Extent Do We Utilize Basic Information Existing in the Unos/optn Liver Transplant Database?

Mehmet Fatih Can¹, Eyup Duran², Gokhan Yagci¹, Christopher B. Hughes³

¹Gulhane Military Medical Academy, Department of Surgery, Turkey

²Elazig Military Hospital, Department of Surgery, Turkey

³University of Pittsburg Medical Center, Department of Surgery, USA

Introduction: Organ Procurement and Transplantation Network (OPTN) database operated by the United Network for Organ Sharing (UNOS) has an extensive portal in which extensive body of transplant-related data is stored in the United States. Researchers are allowed to use this data upon request for scientific purposes.

Objectives: To explore whether basic information existing in the UNOS/OPTN liver transplant database has been utilized productively by transplant researchers.

Material/Patients and Methods: A Medline search was undertaken using keywords "UNOS" "OPTN" "transplantation" to identify studies in which this database had been used. A manual cross-reference search of the references of relevant articles was also performed. Studies utilizing raw data of the database were included. A special sheet was developed to partition available knowledge into potential areas.

Results: In total, data from 2092872 patients/donors published in 122 articles from January 2001 through December 2011 were included. The American Journal of Transplantation was the journal of choice to publish papers (29 articles). One-hundred and six papers assessed UNOS/OPTN data purely, while 16 combined external data. Ninety-five of them reported on liver transplants and 27 on more than one type of transplantation. Seventy-two studies investigated adult data, 16 pediatric liver transplants and nearly one third (n=34) combined adult-pediatric transplants. Eight papers evaluated donors, 21 both recipient-donor data and the remainders recipient data.

Conclusion: Our study suggests that there are several aspects of the UNOS/OPTN liver transplant related basic data which remain untouched. New studies are warranted to gain maximum benefit from the database.

OP 118

Polystyrene Sodium Sulfonate Grafted Lars Ligaments Support Higher in Vitro Mineralisation and Enhance in Vivo Bone Tissue Integration

Viateau Veronique ¹, Vaquette Cedryck ², Manassero Mathieu ¹, Anagnostou Fani ³, Guerard Sandra ⁴, Migonney Veronique ¹

¹ Ecole Nationale Vétérinaire D'alfort, Maisons-alfort, France

² 1 Institute of Health and Biomedical Innovation, Queensland University of Technology, 60 Musk Avenue, Kelvin Grove/QLD, Australia

³ 3 Laboratoire De Bioingénierie Et Biomécanique Ostéoarticulaire, Umr-cnrs 7052, 10 Avenue De Verdun, Paris, France

⁴ Arts Et Métiers Paristech, Lbm, 151 Bd De L'hôpital 7, Paris, France

Introduction: Failures of artificial ligament used for knee reconstruction are often caused by the lack of integration of the ligament in the bone tunnels which generates laxity and wear. Improvement of the ligament-to-bone interface is believed to play a significant role in enhancing the long term performances of these ligaments. Grafting synthetic polymer onto implant surfaces have demonstrated to affect cell behaviour both in vitro and in vivo. T

Objectives: his study investigates the impact of polystyrene sodium sulfonate (PolyNaSS) grafting of a polyethylene terephthalate (PET) artificial ligament (Ligament Advanced Reinforcement System, LARS™) used for Anterior Cruciate Ligament (ACL) reconstruction onto the ligament's osseo-integration

Material/Patients and Methods: the performances of both grafted (GL) and non-grafted ligaments (NGL) were assessed in vitro by culturing human osteoblasts under osteogenic induction onto the device. GL and NGL were subsequently implanted in an ovine model for ACL reconstruction (51 sheep). the ligament to bone interface was evaluated 3 and 12 months post-implantation by histology and biomechanical testings.

Results: Surface modification was capable of up-regulating the secretion of ALP and induced higher level of mineralisation in culture conditions. GL exhibited more frequent direct bone to ligament contact at both time points compared to NGL. Similarly, higher percentage of bone ingrowths was observed in GL. However, this better osseo-integration was not translated into a significant increase in the biomechanical pull-out loads.

Conclusion: PolyNaSS grafting of PET artificial ligaments improved the osseointegration of the ligament within the bone tunnels. This strategy might positively influence the outcome of the surgical reconstructions.

OP 119

Effect of β -glucan in Preventing Bacterial Translocation in Model of Experimental Obstructive Jaundice

Fatin R. Polat , Hasan Dinelek , Sabriye Polat

Toyota Acil Yardım Ve Travma Hastanesi Genel Cerrahi Blm, Turkey

Introduction: Patients suffering with obstructive jaundice are typically sensitive to septic complications and renal failure. This situation makes contribution to high post-operative morbidity and mortality after surgery despite of the developing surgery techniques and antibiotics. It is known that bacterial translocation and endotoxemia play great role on the appearance of these complications [1]. Bacterial translocation can be defined as the spreading of particularly the gram-negative bacteria from the intestinal lumen to mesenteric lymph nodes (MNL), liver, spleen and systemic circulation. There are three main etiological factors for bacterial translocation; 1: the change of intestinal mucosal barrier, 2: Change of flora of the intestinal bacteria and 3: Change of the immune defence mechanism against the host. Retikuloendotelial system (RES) plays a central role on the prevention of bacterial dissemination. RES, cleans the microorganisms and endotoxins from the blood and defends the body against the infections. the functions of the hepatic macrophages which are important parts of the RES system are restrained during obstructive jaundice [2]. Beta glucan is a natural polysaccharide which is obtained from the baker's yeast (*Saccharomyces cerevisiae*) and reinforces the immune system. It increases the proliferation, adhesion ability, chemotactic activity and cytotoxic features of the macrophages [3]. the Effect of β -glucan in preventing Bacterial Translocation in Model of Experimental Obstructive Jaundice is researched during this study.

Objectives: Sepsis is the major cause of post-operative morbidity and mortality in obstructive jaundice as a result of bacterial translocation from the gut. This study was conducted to investigate the effect of β -glucan in preventing bacterial translocation in an animal model where obstructive jaundice was developed by common bile duct ligation.

Material/Patients and Methods: Patients and Methods:Forty-five Wistar-albino rats were divided into three groups of fifteen animal each. Only laparotomy was administered to Ist group. Bile duct ligation was administered to IInd group. Bile duct ligation and oral β -glucan for ten days were administered to IIIrd group. the animals were sacrificed at the end of the 10th day. Blood, liver, spleen and mesenteric lymph nodes were cultured. the samples taken from terminal ileum and liver were examined histopathologically. AST, ALT, ALP, LDH, Total bilirubin, direct bilirubin and CRP analyses were done on the blood samples taken from the rats.

Results: in the first group bacterial translocation was observed in one animal where as bacterial translocation was observed in twelve animals in IInd group. in IIIrd group bacterial translocation was determined in six animals given β -glucan. the differences between these three groups were

statistically significant ($p < 0.05$). According to biochemical data only the decrease of ALP and Total bilirubin values between group II and III were statistically significant ($p < 0.05$). After the histopathological examination of liver and terminal ileum, no significant difference between group II and III was observed ($p > 0.05$).

Conclusion: the result of this study showed that β -glucan, as a natural immune system activator, has an effect in preventing bacterial translocation in obstructive jaundice. **Keywords:** Obstructive Jaundice, Bacterial Translocation, β -glucan.

OP 120

Contribution of Wr 2721 (amifostine) To the Antioxidant and Hepatoprotective Effects of Uw and Htk Preservation Solutions

Sami Akbulut ¹, Sinasi Sevmis ¹, Hamdi Karakayali ¹, Nilufer Bayraktar ², Muge Unlukaplan ³, Ergun Oksuz ⁴, Mehmet Haberal ¹

¹ Department of Surgery, Baskent University Faculty of Medicine, Turkey

² Department of Biochemistry, Baskent University Faculty of Medicine, Turkey

³ Department of Pathology, Baskent University Faculty of Medicine, Turkey

⁴ Department of Public Health, Baskent University Faculty of Medicine, Turkey

Introduction: Hypothermic storage with the UW or HTK solutions has been regarded as the gold standard for organ transplantation. In spite of improvements in content of preservation solutions, the injury from grafts during cold storage is an unresolved problem in organ transplantation include liver transplantation.

Objectives: We aimed to investigate whether Amifostine (A) contributed to the antioxidant and cytoprotective effects of preservation solutions.

Material/Patients and Methods: 48 Sprague Dawley male rats were divided into 6 groups as each group to contain equal number of rats. Rats in the RL+A, HTK+A and UW+A groups were intraperitoneally administered amifostine at a dose of 200 before laparotomy. RL, HTK and UW groups: was administered RL, HTK and UW from the portal vein as perfusion fluid. HTK+A, UW+A and RL+A groups: following amifostine administration, perfusion was made with HTK, UW and RL respectively. Liver biopsy was performed in order to show pathological, immunochemical (TUNEL, INOS) and ultrastructural alterations.

Results: Despite the best results were achieved in UW+A group among the amifostine administration groups, no statistically significant difference was observed between UW+A and HTK+A groups. INOS grades were found to be lower in the amifostine groups and this difference was observed to be statistically. When amifostine groups were compared in themselves, INOS grades obtained from UW+A and HTK+A groups were seen to be similar, but the results of

the RL+A group were relatively poorer. In evaluation carried out with TUNEL, apoptosis ratio were found to be lower in amifostine groups than in the non-amifostine groups. When UW+A and HTK+A groups were compared, no statistical difference was observed between both groups in terms of apoptosis development. The best ultrastructurally preserved cellular structure was in the UW+A and HTK+A groups.

Conclusion: We demonstrated that preoperative use of single dose amifostine minimized the preservation damage that will occur in the hepatic cells.

OP 121

Changes in Society's Perspective Towards Face Transplantation After the Procedures That Were Carried Out in Our Country

Kirdar Guney, Billur Sezgin, Ismail Barut, Ozgur Hurkal, Kemal Findikcioglu, Selahattin Ozmen

Gazi University, School of Medicine, Department of Plastic, Reconstructive and Aesthetic Surgery, Turkey

Introduction: Recent years Face Transplantation (FT) have increased considerably

Objectives: the purpose of our study is to evaluate and compare the current viewpoint of society towards face allotransplantation by considering the results of a survey conducted in 2005.

Material/Patients and Methods: a questionnaire consisting of 23 questions. It was given to 545 volunteers, regarding data about demographics, educational status, religious and behavioral preferences. Their attitudes about donating their faces, knowledge about the pros and cons of this procedure, and personal desire for face transplantation if needed were inquired. The current results of the questionnaire were compared with the 2005. The data were statistically analyzed.

Results: Most of the participants have heard about FT. A considerable rise in the amount of knowledge on face transplantation has occurred. FT acceptance rates and face donation rates were the same when we compared to 2005. The acceptance of FT by those with higher education ($p = 0.002$) and by female participants ($p = 0.03$) is statistically significant. The acceptance towards face donation by those with higher education and by previous organ donors ($p < 0.05$) is statistically significant. Those who are familiar with FT have significantly accepted this surgery and face donation ($p < 0.05$).

Conclusion: As knowledge on FT widens and the level of education rises, a more positive view towards transplantation emerges throughout society. Those who have made donations previously also have made positive statements. The level of knowledge has risen in recent years due to increasingly successful FT surgeries globally and in our country.

OP 122

Peritoneum for Venous Grafting: a Clinical Case

Sezai Yilmaz¹, Cuneyt Kayaalp¹, Bektas Battaloglu²,
Veysel Ersan¹, Dincer Ozgor¹, Turgut Piskin¹

¹Inonu University, School of Medicine, Department of
General Surgery & Liver Transplantation Institute,
Turkey

²Inonu University, School of Medicine, Department of
Cardiovascular Surgery, Turkey

Introduction: Using peritoneum for vascular defects can be a good alternative for repair. Most of the previously published studies were only on experimental base.

Objectives: We aimed to test the utility of peritoneum for venous grafting in a clinical case.

Material/Patients and Methods: in an emergency situation, we used the peritoneum for venous grafting. an 18-year-old male living liver donor had an extended right lobe hepatectomy. Right and middle hepatic veins were cut and removed by the graft. While closing the venous stump, the clamp over the middle hepatic vein slipped and the vein stump sutured quickly under suboptimal exposure. Soon after this closure, the remnant liver showed increasing congestion due to impaired venous outflow. Under total hepatic vascular occlusion, the sutures were removed from the narrowed left hepatic vein. the remnant liver was required an emergency repair for hepatic venous outflow because of the risk of warm ischemia. a 2 × 2 cm peritoneal patch from the subcostal area that was prepared quickly and this peritoneal graft was used to repair the defect. the peritoneal graft was sutured to the edges of the left hepatic vein defect.

Results: Venous congestion of the liver disappeared when the clamps were removed. Intraoperative Doppler ultrasound confirmed normal hepatic venous flow. the postoperative course was uneventful. There was no clinical, biochemical, or radiological problem at 63 months of follow-up.

Conclusion: an autogenous peritoneal patch may be a good option to repair vascular defects.

OP 123

A Comparison of Inflammatory, Cytoprotective and Injury Gene Expression Levels in Dbd and Dcd Donor Livers

Tanja Saat , Denis Susa , Henk Roest , Sandra Van Den Engel , Luc Van Den Laan , J.n.m. Ijzermans , Ron De Bruin

Erasmus University Medical Centre, the Netherlands

Introduction: the liver transplant donor pool has been increased by using not only brain death (DBD) donors but also living donors (LD) and non-heart-beating (DCD) donors. DCD livers have a higher risk of complications.

Objectives: the aim of this study was to compare expression levels of inflammatory and cytoprotective genes

at the time of explantation, after cold ischemia and over time.

Material/Patients and Methods: Male Brown Norway rats were assigned to three groups/n=7. LD group served as control for the post-mortem groups. LD rats were mechanically ventilated for 1hour. Brain death was induced in DBD rats, after 6hours the liver was removed. an Isoflurane overdose induced cardiac arrest in DCD rats, livers were collected after 20minutes. Livers were flushed and stored in 4°C UW-solution. At different time-points livers were collected.

Results: At explantation, the inflammatory genes IL-6, IL-1β, TNF-α, P-selectin and E-selectin were massively up-regulated in DBD compared to LD and DCD livers. HMGB-1 and TLR4 were increased in DCD livers. HO-1 was increased in both post-mortem livers. Bax was decreased in DBD livers and Bcl-2 was increased in DCD livers. After cold ischemia, gene levels were comparable with those at explantation.

Conclusion: DBD donors have a massive up-regulation of inflammatory and cytoprotective genes in the liver at explantation. in contrast, DCD livers show only mild inflammation compared to LD. These gene expression levels do not change during cold preservation. DCD livers have an increase of TLR4 and HMGB1, which may play a role in the incidence of complications in DCD liver transplantation.

OP 124

A Comparison of Inflammatory, Cytoprotective and Injury Gene Expression in Heart Beating and Non Heart Beating Donor Kidney.

Tanja Saat , Denis Susa , Henk Roest , Sandra Van Den Engel , Luc Van Der Laan , J.n.m. Ijzermans , Ron De Bruin

Erasmus University Medical Centre, the Netherlands

Introduction: the superior long-term survival of kidneys from living donors (LD) compared to brain death (DBD) or non-heart-beating (DCD) donors is well established. However, no studies have compared the pathophysiological perturbances that occur during DBD with DCD and LD.

Objectives: the aim of this study was to compare gene expression levels at the time of explantation, after cold ischemia, and over time.

Material/Patients and Methods: Male Brown-Norway rats were randomly assigned to a LD, DBD or DCD group/n=7. the LD group served as control for both post-mortem groups. LD rats were mechanically ventilated for 1hour. Brain death was induced in DBD rats, after 6hours the kidneys were removed. an Isoflurane overdose induced cardiac arrest in DCD rats, kidneys were collected after 20minutes. Kidneys were flushed and stored in 4°C UW-solution. At different time-points kidneys were collected.

Results: At explantation, the inflammatory genes IL-1β, IL-6, TNF-α, MCP-1, TLR4, P-selectin and E-selectin were massively up-regulated in DBD kidneys. IL-1β, IL-6, P-selectin and E-selectin were slightly increased in DCD donors. Kim-1 was massively increased in DBD. HO-1 and p21 were strongly increased in DBD. After 18hours of cold storage gene

expression levels reflected those at explantation.

Conclusion: DBD donors show a massive up-regulation of inflammatory, injury and cytoprotective genes at the time of graft explantation. These expression levels do not change during cold preservation. DCD kidneys show only mild inflammation and injury. These results may explain why delayed graft function in DCD kidneys has not the deleterious effect on graft survival as it has in DBD kidneys.

OP 125

Surgeons' Attitude Towards a Competency-based Training and Assessment Programme: Results From a Multicentre Survey in the Netherlands

C.j. Hopmans¹, Pt. Den Hoed², L. Van Der Laan³, E. Van Der Harst⁴, M. Van Der Elst⁵, G.h.h. Mannaerts⁶, I. Dawson⁷, J.n.m. Ijzermans¹

¹ Erasmus University Medical Centre, Rotterdam, the Netherlands

² Ikazia Hospital, Rotterdam, the Netherlands

³ Amphia Hospital, Breda, the Netherlands

⁴ Maastad Hospital, Rotterdam, the Netherlands

⁵ Reinier De Graaf Group, Delft, the Netherlands

⁶ Sint Franciscus Gasthuis, Rotterdam, the Netherlands

⁷ IJsselland Hospital, Capelle Aan Den IJssel, the Netherlands

Introduction: Currently, most surgical training programmes are competency-based and focused on methods to evaluate attainment of competence. However, little is known on the surgeons' attitude towards competency-based training and assessment programmes.

Objectives: the aim of this study was to examine the attitude of surgeons towards a competency-based training and assessment programme implemented to redirect surgical training in the Netherlands in 2009.

Material/Patients and Methods: in 2011, all trainees (n=51) and consultant surgeons (n=108) from one surgical training region, consisting of seven hospitals, were surveyed. First, participants were asked to rate the importance of the CanMEDS competencies. Subsequently, the suitability of the assessment tools was surveyed. Items were rated on a 5-point Likert scale and considered relevant when $\geq 80\%$ of the respondents rated an item with a score of 4 or 5 (indicating a positive attitude).

Results: the response rate was 88% (n=140). the CanMEDS framework demonstrated good reliability (Cronbach's alpha 0.87). However, the importance of the competencies 'Manager' (78%) and 'Health Advocate' (70%) was undervalued. the assessment tools jointly failed to achieve an acceptable reliability (Cronbach's alpha 0.55) and individual tools were predominantly considered unsuitable for assessment. Exceptions were the tools 'In-Training Evaluation Report' (91%) and 'Objective Structured Assessment of Technical Skill' (82%). No significant differences were found between the trainees and consultant surgeons.

Conclusion: Two years after the implementation of a competency-based surgical training programme, trainees and consultant surgeons in a large surgical training region of the Netherlands do not acknowledge the importance of all CanMEDS competencies and consider almost all assessment tools unsuitable for assessment.

OP 126

An Evaluation of the Current Status of the European Board of Surgery Qualification Exams: an Issue of Unawareness or Unwillingness?

Mehmet Fatih Can¹, Muharrem Oztas², Aytekin Unlu¹, Yusuf Peker¹

¹ Gulhane School of Medicine, Department of General Surgery, Turkey

² Sirtak Military Hospital, Department of General Surgery, Turkey

Introduction: Board exam in surgical specialties has long been an important edge for thousands of surgeons before having hands-on patient responsibility in North America health system. European Board of Surgery Qualification (EBSQ), the official surgical board exam in Europe, has been in effect as well for the past fifteen years.

Objectives: To evaluate the current status of the European Union of Medical Specialists (UEMS) EBSQ in terms of its historical continuity and global results of the exam.

Material/Patients and Methods: a detailed search was undertaken on the official web site of UEMS EBSQ on January 10, 2013 to identify historical perspectives of the exams for each subsection, surgeons who were successful and their home countries. There was no information available regarding candidates who had participated in the exam.

Results: While General Surgery subsection exams have been the oldest offered to surgeons (since 1996), there were only 129 diplomates who had passed the exam in consecutive 15 sessions. Coloproctology subsection had the greatest number of exams made from 1998 through 2012 with 27 sessions and 262 diplomates. Transplantation, Endocrine Surgery, Trauma and Surgical Oncology subsections have witnessed 129, 76, 69 and 60 successful surgeons, in 5, 14, 12 and 9 sessions, respectively. There was no information available with regard to Thoracic Surgery, Breast Surgery and Hand Surgery exams. in general, a homogenous spread across Europe of the number of diplomates' home countries were observed.

Conclusion: Our study suggests that European Surgeons are either unaware of or far less interested in board exams compared to their North American counterparts.

OP 127

Lifelike Revascularization of Embalmed Kidneys: a Promising New Surgical Training Model?

Wouter Willaert¹, Wim Ceelen¹, Yves Van Nieuwenhove¹, Katharina D'herde², Piet Pattyn¹

¹Ghent University Hospital, Department of Gastrointestinal Surgery, Belgium

²Ghent University Hospital, Department of Basic Medical Sciences, Belgium

Introduction: Patient safety and limited working hours for surgical trainees necessitate a growing use of surgical training tools, of which human bodies are the most realistic. Currently, a revascularized human training model mimicking reality, however, has been lacking.

Objectives: To install a lifelike prolonged circulation in embalmed kidneys.

Material/Patients and Methods: the renal artery and vein of 13 goat kidneys and 8 pig kidneys were cannulated. Thiel embalming fluid was injected via the artery. Seven kidneys were additionally immersed in a Thiel embalming bath. To lose weight, 19 kidneys were afterwards brined. Then, again, both vessels were cannulated and connected to a roller pump, which installed a circulation using liquid paraffin or polyethylene glycol. Reperfusion time, flow rate and weight were measured.

Results: Embalming resulted in a substantial weight gain (mean: 31.4%). Brining efficiently dehydrated the kidneys (mean weight loss: 13.3%) and was most successful if no embalming bath was used. Pump driven circulation was installed in every specimen at flow rates of 15-30 cc per minute during 15-120 minutes. Polyethylene glycol mixed with water enabled the longest reperfusion with least weight gain and acceptable preservation of pliability.

Conclusion: Sole use of Thiel perfusion fluid adequately embalms kidneys and subsequent brining efficiently diminishes swelling enabling recovery of original weight. Pump-driven reperfusion based on polyethylene glycol was installed during longtime without significant change of the constitution of the kidneys. This realistic model has promising properties, however, further elaboration is needed to eventually develop the most realistic surgical training tool ever.

OP 128

Whey-hydrolyzed Peptide-enriched Immunomodulating Diet Prevents Progression of Liver Fibrosis/cirrhosis in Rats

Kanta Jobara¹, Toshimi Kaido¹, Kosuke Endo¹, Yoichiro Uchida¹, Keiko Iwaisako¹, Akihiro Kawashima², Hajime Sasaki², Shinji Uemoto¹

¹Surgery, Division of Hepato-biliary-pancreatic Surgery and Transplantation, Kyoto University, Kyoto, Japan

²Department of Nutritional Reserch, Food Science Institute, Meiji Corporation, Odawara, Japan

Introduction: Whey-hydrolyzed peptide (WHP), a major peptide component of bovine milk, exerts antioxidant, anti-inflammatory, and antibacterial effects in experimental models.

Objectives: We investigated the anti-fibrotic effects of WHP in a rat model of liver fibrosis/cirrhosis.

Material/Patients and Methods: Liver fibrosis was induced by repeated intraperitoneal administration of dimethylnitrosamine (DMN) for 3 weeks to rats fed a WHP-enriched immunomodulating diet (WHP group) or a control enteral diet (control group). the degree of liver fibrosis was compared between the two groups. Next, the effect of WHP on DMN-induced hepatocyte injury was examined in vitro using hepatocytes isolated from rats fed a control diet (control diet group) or a WHP-enriched diet (WHP diet group).

Results: Macroscopic and microscopic progression of liver fibrosis/cirrhosis was suppressed in the WHP group when compared with the control group. Elevations in serum liver enzymes, hyaluronic acid level, and liver tissue hydroxyproline content were attenuated in the WHP group when compared with the control group. in the in vitro experiment, the rates of necrotic hepatocytes after DMN challenge were significantly lower in the WHP diet group than in the control diet group.

Conclusion: a WHP-enriched immunomodulating diet effectively prevented DMN-induced liver fibrosis/cirrhosis in rats, possibly via a hepatoprotective effect.

OP 129

Comparison of the Mini Nutritional Assessment, Subjective Global Assessment, and Nutritional Risk Screening (nrs2002) for Nutritional Screening in Elderly Patients

Erkan öztürk , Murat Urkan , Aytekin ünlü , Mehmet Fatih Can , Birgül Dağ , Hülya Şafak , Gökhan Yağci

Department of General Surgery ,gülhane Military Medical Academy Ankara, Turkey

Introduction: Subjective global assessment (SGA), Malnutrition Universal Screening Tool, Mini Nutritional Assessment(MNA), and Nutritional Risk screening(NRS2002)

have been developed to identify the risk for malnutrition. MNA is first choice for geriatric patients. We aimed that to compared prospectively SGA and/or NRS with MNA results.

Objectives: the study consisted of all patients who were above 60. Patients examined prospectively with MNA, SGA and NRS-2002.

Material/Patients and Methods: Examinations were administered by two physicians without knowledge of the MNA result. the first measure was made on first day, second one was after fifteen days.

Results: 114 patients were admitted to the study. the mean age was 70.5 years. 61 (53.3%) were females 53 (46.7%) were males. All of patients were living in their home. Nobody was not living in a nursing home. 73 (65%) patients well nourished, 30 (27.3%) patients under risk, and 11 (9.65%) malnourished according to the MNA score. 78 (68.4%) patients as well (SGA A), 29 (25.4%) patients as mild (SGA B) and 7 (6.2%) patients malnourished (SGA C). NRS-2002 results: 88 (77.2%) patients without risk, 14 (12.3%) patients becoming malnourished and 12 (10.5%) patients high risk for malnutrition.

Conclusion: Three score systems has got the same result. the NRS2002 and SGA are simple, quick, valid and reliable tool which can be used to identify older patients at risk of malnutrition. But another randomised controlled trials have to do.

whereas all ad libitum fed males (n=8) died or had to be sacrificed (p=0.0171). Seven of 10 fasted females survived, whereas 9 of 11 ad libitum fed females died or had to be sacrificed (p=0.0040). Fasted mice of both sexes had a better kidney function as shown by lower serum urea levels, showed significantly less acute tubular necrosis and increased regeneration. in the surviving mice, body weight decreased in the first two postoperative weeks but slowly increased thereafter.

Conclusion: Similar to young-lean male mice, preoperative fasting protects aged obese mice against renal IRI. This suggests a general protective response of dietary restriction against renal IRI regardless of age, sex, bodyweight and genetic background. Dietary restriction could be a non-invasive intervention inducing increased resistance against IRI in older and obese patients as well.

OP 130

Preoperative Fasting Protects Aged Obese Mice Against Ischemia-reperfusion Injury

F. Jongbloed¹, J.n.m. Ijzermans¹, Sandra Van Den Engel¹, L.j.w. Van Der Laan¹, Harry Van Steeg², M.e.t. Dollé², R.w.f. De Bruin¹

¹Department of Surgery, Laboratory for Experimental Transplantation and Intestinal Surgery (letis), Erasmus Medical Center, the Netherlands

²Laboratory of Health Protection Research, National Institute of Public Health and the Environment, the Netherlands

Introduction: Renal ischemia-reperfusion injury (IRI) is inevitable during kidney transplantation. We previously showed that preoperative fasting protects against IRI in young-lean male mice.

Objectives: Because of heterogeneity and (co)morbidities in patients, we investigated the effects of fasting on IRI in mice of another age, sex, bodyweight and genetic background.

Material/Patients and Methods: Male and female F1-FVB/C57BL6-hybrid mice, mean age 73 weeks and weight 47.4 respectively 47.1 grams, were fed ad libitum or 72 hours fasted. Renal IRI was induced by clamping both renal pedicles: in males 37 minutes, in females 60 minutes. Bodyweight, kidney function and survival were monitored until day 28 postoperatively.

Results: Fasting significantly improved survival in both sexes. Seven of 8 fasted males survived in good health,

OP 131

Permanent Gastric Neuromodulation for Drug Refractory Gastroparesis, and Persistent Nausea and Vomiting.

M. J Akbar, Sajid Mehmood, Sana Ullah, Ged Avery, Peter Sedman, John Macfie

University of Hull, UK

Introduction: Drug refractory nausea and vomiting and gastroparesis can lead to significant burden on healthcare system and it also affects social wellbeing of patients. New modalities in the form of permanent gastric neuromodulation (PGN) have recently been offered for the treatment of drug refractory gastroparesis or persistent nausea and vomiting in the absence of a mechanical obstruction. There is, however, little objective evidence to support its use.

Objectives: This study was undertaken to examine the efficacy of PGN.

Material/Patients and Methods: Eleven patients, [male: female = 5:6, median age 44 years (range 23-72)] underwent PGN. Seven patients had confirmed slow GI transit. Aetiology included previous surgery (n=3), diabetes mellitus (n=3), and idiopathic (n=5). PGN was offered after successful trial of temporary gastric neuromodulation for 7 days. PGN device was inserted laparoscopically in anterior abdominal wall under general anaesthesia. Gastroparesis symptom score (GSS), vomiting frequency score/week (VFS), health-related quality of life (QOL), physical composite score (PCS) and mental composite score (MCS) using SF12 questionnaire, gastric emptying (GE), nutritional status and weight were compared before and after PGN.

Results: PGN demonstrated improvement in GSS from baseline 12.5 to 3 (P=0.0010). VFS improved in all 6 symptomatic patients from 10 (range 2-40) to 0 (range 0-13). PCS improved in nine patients from 30 to 46, whereas MCS improved in ten patients from 24 to 44 (P=0.0266). All patients reported an improvement in oral intake. Significant weight gain (3.5kg, range 0.5-6) was observed at six weeks follow up. Gastric half emptying time improved from 87 to 58

minutes ($P=0.473$).

Conclusion: PGN improves Upper GI symptoms, QOL and nutritional status in patients with gastroparesis, and intractable nausea and vomiting. PGN is feasible and effective in this chronically debilitated group of patients.

OP 132

Real Time Shear Waves Elastography Monitoring of Thermal Ablation: in Vivo Evaluation in Pig Livers

Mariani Antoine ¹, Kwiecinski Wojciech ², Pernot Mathieu ², Balvay Daniel ¹, Tanter Mickael ², Clement Olivier ¹, Cuenod Charles-andré ¹, Zinzindohoue Franck ¹

¹Inserm, Umr 970, Paris Cardiovascular Research Center - Parcc, Université Paris Descartes, Sorbonne Paris Cité, Paris, France

²Institut Langevin, Ecole Supérieure De Physique Et De Chimie, Industrielles De Paris (espci) Paristech, Cnrs Umr 7587, Inserm U979, Paris, France

Introduction: Thermal ablation is a widely used minimally-invasive treatment modality for different cancers. However, lack of a real-time imaging system for accurate evaluation of the procedure leads to an important rate of local recurrences. Shear wave elastography (SWE) is a new ultrasound imaging modality to quantify tissue stiffness.

Objectives: To assess the feasibility and accuracy of ultrasound elastography for quantitative monitoring of thermal ablation treatments and to determine the elasticity threshold predictive of coagulation necrosis.

Material/Patients and Methods: 29 in vivo thermal lesions were performed in the liver of five pigs with a bipolar radiofrequency system. Ultrasound shear wave elastography (SWE) and standard B mode ultrasound images were acquired during the procedure. Liver elasticity was quantified by using SWE data and the Young's modulus, and expressed in kPa. After the procedure, the findings of the gross examination and histopathologic analysis of the treated tissues were compared to the real-time B mode and SWE images. The sensitivity and positive predictive value of the SWE maps of tissue elasticity were calculated and compared with the boundaries of the pale coagulation necrosis areas found at pathology.

Results: the liver mean elasticity values before and after thermal therapy were 6.4 +/- 0.3 and 38.1 +/- 2.5 kPa, respectively ($p<0.0001$). for a threshold of 20 kPa, sensitivity (i.e., the rate of pixels correctly detected as necrosed tissue) was 0.8 and the positive predictive value (i.e., the rate of pixels in the elastographic map over 20 kPa that actually developed coagulation necrosis) was 0.83.

Conclusion: Tissue areas with coagulation necrosis are significantly stiffer than the surrounding tissue and SWE permits the real-time detection of coagulation necrosis produced by bipolar radiofrequency. SWE could allow accurate real-time monitoring of ultrasound-guided thermal ablation.

OP 133

Single Incision Reversal of Hartmann's Procedure Without Laparoscopy

Cemalettin Aydin ¹, Aydemir Olmez ¹, Sevil Isik ², Fatih Sumer ¹, Cuneyt Kayaalp ¹

¹Inonu University, Department of Surgery, Turkey

²Ordu University, Department of Surgery, Turkey

Introduction: Minimal invasive reversal of Hartmann's procedure is a challenging method includes laparoscopy with multiport or single port.

Objectives: We aimed to perform minimal invasive reversal of Hartmann's procedure only through the stoma site without extra incisions or laparoscopic assistance.

Material/Patients and Methods: a total of 8 patients (7 males), ages 23-80 years, were treated. the indications of the Hartmann's procedure were sigmoid volvulus (4), sigmoid cancer obstruction (2), rectal trauma (1), and Fournier gangrene (1). the length of the rectal stump was at least 5 cm over the pelvic peritoneum and the body mass indices of all patients were less than 30 kg/m².

Results: Incision extensions of the stomal orifice were needed for two cases as a result of injury on the intestine and inability to identify the distal bowel stump. the mean operative blood loss and duration of operation were 50 mL (range, 30 to 100 mL) and 65 minutes (range, 45 to 80 minutes), respectively. the length of postoperative hospital stay was a mean of 5.5 days (range, 4 to 9 days). Neither anastomosis leakage nor surgical site infections were observed in any of the patients and all had an uneventful postoperative course.

Conclusion: the described technique can be the least invasive one than the previously described techniques for the reversal of the Hartmann procedure, particularly for non-obese patients with a long distal rectal stump.

OP 134

Comparison of Three Different Protocols in the Prevention of Postoperative Deep Vein Thrombosis in Patients At High-risk: Randomized Clinical Study

Hatice Ayhan ¹, Emine Iyigun ¹, Selami Ince ², Mehmet Fatih Can ³, Sevgi Hatipoglu ⁴, Mutlu Saglam ²

¹Gulhane Military Medical Academy, School of Nursing, Department of Surgical Nursing, Turkey

²Gulhane Military Medical Academy, Department of Radiology, Turkey

³Gulhane Military Medical Academy, Department of General Surgery, Turkey

⁴Retired Faculty Member, Turkey

Introduction: There is no study in the literature with regard to the combined use of pharmacological, mechanical and physical methods in the prevention of post-operative deep vein thrombosis.

Objectives: To compare the efficacy of three different prevention methods in patients at extremely high-risk for postoperative deep vein thrombosis.

Material/Patients and Methods: Some 219 patients were randomized into three groups. the pharmacological, physical and mechanical prophylaxis methods were performed on all three groups after patient education. the group I was given low pressure knee-length graduated compression stocking (GCS) for mechanical prophylaxis; group II was given low pressure thigh-length GCS and the group III moderate pressure knee-length GCS. the lower extremities of patients were assessed using duplex ultrasonography within the postoperative 5th-7th days. Furthermore, problems regarding the use of GCS and patient satisfaction were recorded.

Results: No symptoms or findings of deep vein thrombosis were observed in any of the groups in the study. Moreover, no thrombosis findings were observed on duplex ultrasonography. the patients in the group I evaluated the GCSs as very comfortable; those in the group II evaluated as comfortable, and those in the group III as uncomfortable ($p < 0.001$).

Conclusion: the combined use of pharmacological, mechanical and physical methods, and patient training is effective in the prevention of post-operative deep vein thrombosis. There was no difference in the efficacies of the GCSs used for mechanical prophylaxis. Nevertheless, low pressure knee-length GCSs may be preferred in clinical practice due to their efficacy and provision of a better patient satisfaction.

OP 135

Successful Treatment of Fistula In-ano Using an Autolog Cartilage Plug: "ozturk Plug"

Ersin Ozturk¹, Baris Gulcu¹, Tuncay Yilmazlar¹, Fikret Kasapoglu²

¹Uludag University School of Medicine, Department of General Surgery, Bursa, Turkey

²Uludag University School of Medicine, Department of Head and Neck Surgery, Bursa, Turkey

Introduction: Fistula in ano might be a challenging condition. Many attempts have been made to create a sphincter preserving procedure that is feasible and easy to perform. None has been defined yet.

Objectives: This is retrospective analysis of prospectively maintained data of 5 patients successfully treated with an autologous cartilage plug.

Material/Patients and Methods: All the patients had recurrent fistulas with at least two prior surgeries. Plugs were prepared using patients' own cartilage and then were applied into the fistula tracts at the same session. Cartilage was taken from either nose or ear, diced into pieces and wrapped using Surgicell®. Fistula tracts were lay opened from the external opening through to the internal opening until the level of anal sphincters. At the level of sphincters fistula tract was curated and then Ozturk plug was applied into the tract. Patients

were examined every months following surgery. Relief of the symptoms, recurrence and continence were evaluated.

Results: All patients' fistulas were treated without any complication. Median follow up time was 6 months. No recurrence was seen. Costs were relatively less than synthetic plugs.

Conclusion: Ozturk plug can be safely used in the treatment of fistula in-ano with success.

OP 136

Gastric Neuromodulation – 'temporary To Permanent' and Not the 'straight To Permanent' Is the Cost-effective Approach

M. J Akbar, Sajid Mehmood, Sana Ullah, Ged Avery, Peter Sedman, John Macfie

University of Hull, UK

Introduction: Drug refractory gastroparesis can lead to significant financial burden on healthcare system. Permanent gastric neuromodulation (PGN) has been shown to provide therapeutic benefit in up to 70% of patients with intractable nausea and vomiting. Successful temporary gastric neuromodulation (TGN) prior to PGN identifies those who will benefit.

Objectives: We aimed to analyse the cost effectiveness of such approach (proceed to PGN only if TGN effective).

Material/Patients and Methods: a retrospective cost-effectiveness analysis was undertaken for the TGN and PGN performed in over unit. for TGN, the pacing-wires were placed endoscopically and left in situ for 7 days. the patients deriving significant therapeutic benefit were offered insertion of an Enterra PGN device in anterior abdominal wall under general anaesthesia.

Results: Eleven of the 15 patients treated with TGN derived therapeutic benefit and were offered the PGN. All those patients subsequently showed improvement in their symptoms at 6 weeks follow-up. Cost of each TGN was £1150 (endoscopy £517, pacing wire £80, derma bond clip £75, ward £228, GE study cost £247). Thus the total cost for 16 TGN procedures was £17250. Cost of each PGN was £10500 (Enterra pulse generator and two leads £8820, surgery fee £1200, anaesthesia fee £293, ward 228). the total cost for 11 PGN procedures was £115500. the total expenditure of GN in the above cohort was £132750. in contrast, a 'straight to PGN' approach would have incurred £157500 (15 x 10500) - additional avoidable expenses of £24750.

Conclusion: TGN offers success rate that is similar to PGN alone at a substantially lower price. It provides a reliable template for a permanent procedure. We recommend PGN should be reserved for those demonstrating clinical benefit from TGN.

OP 137

The Diagnostic Importance of Blood Procalcitonin, D-dimer, Il-2 and Il-6 Levels in Acute Appendicitis Model Developed on Rabbits

Vahit Onur Gul¹, Oner Menten², Orhan Kozak², Erdinc Cakir³, Ali Fuat Cicek⁴, Ugur Musabak⁵

¹ Edremit Military Hospital, Department of General Surgery, Turkey

² Gulhane Military Medical Academy, Department of General Surgery, Turkey

³ Gulhane Military Medical Academy, Department of Biochemistry, Turkey

⁴ Gulhane Military Medical Academy, Department of Pathology, Turkey

⁵ Gulhane Military Medical Academy, Department of Immunology, Turkey

Introduction: Acute Appendicitis is accepted as the most common Acute Abdomen Table in Emergency Surgery and is continuing to be a problem due to reasons like negative appendectomy rates, late diagnosis

Objectives: Correlation of Procalcitonin, IL-6, IL-2 and D-Dimer levels with histologically compared appendicitis diagnosis was searched.

Material/Patients and Methods: diagnostic importance of blood Procalcitonin, D-Dimer, IL-2 and IL-6 levels in acute appendicitis model developed on rabbits. Study has been analysed in 5 groups of control group, sham group and appendicitis groups. in appendicitis groups, appendectomy has been practiced by taking blood from ear vein at 12. (group 3) 24. (group 4) and 48. (group 5) hours to examine IL-2, IL-6, Procalcitonin and D-Dimer levels by the ligation of appendix through laparotomy.

Results: the procalcitonin values have shown an increasing course among all groups, paralel to the inflammation in appendicitis table. the IL-6 values have reached highest levels at early stage, then showed a minimal decrease in following stages. the Il-2 values were sunstancially high in groups histopathologically diagnosed as appendicitis. But it was statistically insignificant. It has been confirmed that D-Dimer values did not show any significant difference among appendicitis groups.

Conclusion: This experimental study a conclusion has been reached that for appendicitis diagnosis procalcitonin and IL-6 variables, specially IL-6, are determinant at early stage and that these two parameters are more important determinents compared to IL-2 and D-Dimer

OP 138

Cost-effectiveness of Robotic-assisted Gastrointestinal Surgery: Is It Justified?

Mehmet Fatih Can , Yaşar Subutay Peker , Murat Urkan , Aytekin ünlü , Gökhan Yağcı

Gülhane Military Medical Academy, Department of General Surgery, Ankara, Turkey

Introduction: There has been ongoing debate whether Robotic Major Gastrointestinal Surgery (RGS) is a sound surgical approach of which costs can be justified when weighted against its potential benefits over conventional laparoscopic surgery (CLS).

Objectives: the aim of this study was to assess currently available publications reporting on the cost-effectiveness of RGS.

Material/Patients and Methods: Studies investigating cost-effectiveness of robot-assisted gastric, liver, pancreas, and colorectal resections were evaluated by performing a literature search using Pubmed search engine. a cross-check of references from the relevant articles was also performed.

Results: in total, 15 studies were included. of these, 3 were meta-analysis, 8 randomized trials and the reminders had a lower level of evidence. in terms of gastrectomy, liver - pancreas resection and colorectal surgery, 12 studies made directly a cost-effectiveness analysis. the distribution of studies were as follows: 4 colorectal surgery case series, 2 colorectal meta-analyses, 3 upper gastrointestinal tract surgery case series, 2 cost-effectiveness studies with no specification including 1 meta-analysis and other relevant topics case series. Detailed review of those studies that included cost analysis demonstrated that 11 of these studies are clearly against RGS declaring no clear benefit derived from RGS. Three studies were on grey zone highlighting some advantages and disadvantages. One study recommended widely application of RGS.

Conclusion: a common conclusion drawn by the articles is that the main advantage of RGS is that it offers greater comfort to the surgeon which, in turn, may add minimally over the results yielded by TLS. Currently, RGS appears to aid in maneuvers on narrow-space deep surgical sites for improved surgical safety.

OP 139

A New Intracorporeal Anastomosis Technique Following Laparoscopic Anterior Resection in Pigs

Abdulkadir Bedirli¹, Deniz Yucel¹, Burcu Ekim²

¹Gazi University, School of Medicine, Department of General Surgery, Turkey

²Gazi University, Laparoscopic Surgery Education and Research Center, Turkey

Introduction: Bowel anastomosis after anterior

resection is one of the most difficult tasks to perform during laparoscopic colorectal surgery.

Objectives: To evaluate a new feasible and safe intracorporeal anastomosis technique following laparoscopic rectum resection in a pig model.

Material/Patients and Methods: This technique was evaluated in five pigs. the OrVil® device was inserted into the anus and advanced proximally to the rectum. a 0.5-cm incision was made in the sigmoid colon, and the two sutures attached to its delivery tube were cut. After the delivery tube was evacuated through the anus, the tip of the anvil was removed through the perforation. the sigmoid colon was transected just distal to the perforation using an endoscopic linear stapler. the rectosigmoid segment was removed through the anus with a grasper and distal transection was performed. a 25-mm circular stapler was inserted and combined with the anvil, and end-to-side intracorporeal anastomosis was then performed.

Results: We performed this technique on five pigs. Anastomosis required an average of 12 minutes. We observed that the proximal and distal donuts were completely removed in all pigs. No anastomotic air leakage was observed in any of the animals.

Conclusion: We demonstrated the efficacy and safety of intracorporeal anastomosis with the OrVil® device following laparoscopic anterior resection.

OP 140

The Role of Carbon Dioxide Insufflation in Preventing Postoperative Peritoneal Adhesions in Rats

Harun Karabacak¹, Murat Akin¹, TonguÇ Utku Yilmaz², Güldal Yilmaz³, özlem Gülbahar⁴

¹Gazi University, School of Medicine, Department of General Surgery, Turkey

²Ankara Training and Research Hospital, department of General Surgery, Turkey

³Gazi University, School of Medicine, Department of Medicine Pathology, Turkey

⁴Gazi University, School of Medicine, Department of Medical Biochemistry Turkey

Introduction: Laparoscopic operations are associated with less trauma to peritoneum, lower bleeding, less invasive to intra abdominal organs and tissues, reduced manipulation of structures distant from the operative site, lower contamination with foreign bodies such as glove powder, starch powder, gauzes, operation materials, etc and early recovery

Objectives: There are many reports about the superiority of the laparoscopic procedures than conventional operations for reducing the incidence of postoperative adhesions. Relationship between laparoscopy and postoperative adhesions has been studied on the basis of the less tissue trauma effect of laparoscopy and it has been compared with open surgery about the effects on adhesion formation. in

this study we explored the role of capnoperitoneum for the prevention of the postoperative adhesion formation.

Material/Patients and Methods: Thirty Wistar Albino type female rats those weight sranging from 250 ± 20 g were used. the rats were divided into 5 groups and each group consisted of six rats. Group 1 represented the Sham group while the Group 2 represented the control group. on the other hand, midline laparotomy was performed in Group 3 after carbon dioxide insufflation for 15 minutes. Then the scraping model was created. Group 4 underwent midline laparotomy after carbon dioxide insufflation for 15 minutes. Then the scraping model was created. the incision was closed by 3/0 vicryl after the procedure. After that carbon dioxide insufflation was applied for 45 minutes. Group 5 underwent midline laparotomy. After creating the scraping model carbon dioxide insufflation was applied for 45 minutes. the anterior abdominal wall was removed by making an inverted-Ushaped incision to anterior abdominal wall of whole rats and all the adhesions in the abdomen were examined and recorded. the tissue samples obtained were examined histopathologically and biochemical MDA and PAI studies were performed

Results: Statistically significant difference was observed between the groups relating to the inflammation, fibrosis and adhesion results (p<0.05). the findings associated with fibrosis, inflammation and adhesion were gradually decreased from Group 1 to Group 5. There was no statistically significant difference between the groups according to the PAI 1 levels. (p> 0.05). There was statistically significant difference between the groups associated with MDA levels. (p< 0.05).

Conclusion: Our results suggest that CO2 pneumoperitoneum has positive effects on development of postoperative intraperitoneal adhesions. It is impossible to say that the adhesion formation is reduced with mechanical effect due to creating the scraping model. the pathophysiological basis of postoperative adhesion formation is well-characterized. However, we think that capnoperitoneum reduces the postoperative adhesion formation via anti-inflammatory mechanism. Further studies are required to investigate this mechanism.

OP 141

The Effects of Carbonmonoxide(co) and Carboxyhemoglobin(cohb) Levels in Systemic Circulation on Patient, Releated with Monopolar Electrocautery Manipulation During Laparoscopic Cholecystectomy.

İsmail Hakki özerhan , Yüksel Baldan , Murat Urkan , Taner Yiğit , Aytekin ünlü , Orhan Kozak

Department of General Surgery ,gülhane Military Medical Academy Ankara, Turkey

Introduction: Using elecrocautery is routine act in laparoscopic surgery.

Objectives: the aim of study is effects of carbonmonoxide

(CO) and systemic carboxyhemoglobin (COHb) levels on patient, related with monopolar electrocautery manipulation during laparoscopic cholecystectomy

Material/Patients and Methods: 35 laparoscopic cholecystectomy who was diagnosed of benign gall bladder disease between January-July 2012 was accepted. Intraoperative monopolar electrocautery manipulation was measured with sensitive chronometer. Arterial COHb levels was measured during postoperative 30. min, 1., 2., 4. and 6. hrs. Intraperitoneal CO was measured with detector: before and after the manipulation of intraoperative electrocautery and after the gas discharge.

Results: Electrocautery manipulation duration was measured 122,69±52,33 seconds mean CO levels measured after intraoperative electrocautery manipulation was 535,97±227,98 parts per million (ppm). The level of CO after the manipulation of electrocautery and the level of arterial COHb postoperative 30. minute, 1. and 2. hour has statistically difference. the measurements determined that the mean level of COHb was 0,61±0,20% and 0,61±0,20% respectively. None of the CO toxicity symptoms were detected from the patients who was accepted for the study. Increase of intraperitoneal CO levels was detected related with electrocautery manipulation significantly.

Conclusion: To prevent CO toxicity and other biologic-chemical toxins surgent, patient and staff in operation room have to use electrocautery more carefully and shorter.

OP 142

The Assessment of History, Physical Examination, Radiological Findings and Bronchoscopic Findings of Childhood Tracheobronchial Foreign Body Aspirations

Bilge Can , Mehmet C. Şen , A.can Başaklar , Kaan Sönmez , Zafer Türkyılmaz , Ramazan Karabulut

Gazi University, Faculty of Medicine, Pediatric Surgery Department, Turkey

Introduction: Foreign body aspiration (FBA) is still an important cause of mortality and morbidity in all over the world which is preventable. in this study, the analyse of our clinical data of the patients who underwent bronchoscopy for FBA and review of the literature was done.

Objectives: the aim of the study is to analyse the epidemiological and clinical data of the patients who underwent bronchoscopy for FBA from November 2006 – August 2012 at Gazi University Faculty of Medicine Pediatric Surgery Department, retrospectively and to compare the findings with the literature to determine preventing strategies.

Material/Patients and Methods: the patients' genders, ages, symptoms, physical findings, witnessed choking crisis, the activity during event, time elapsed from aspiration to presentation, radiological findings, type of the bronchoscopy, presentation of foreign body (FB), negative bronchoscopy rate, type of the FB, localization of the FB, complications,

hospital stay, white blood cell counts, existence of siblings, diagnosis and treatment for upper respiratory tract infections before bronchoscopy, the medications applied before and after bronchoscopy were recorded after an archive scanning.

Results: 35,82% of the patients were girls, 64,18% were boys. the median age was 31,1 months. FBA mostly seen in 1-3 age group (71,64%). a FB was found in 79,1% of patients, the negative bronchoscopy rate was 20,9%. 87,74% of FBs were organic and 12,26% were inorganic. Most common organic FBs were hazelnut, seed and walnut (respectively 18%, 16% and 14%). the FBs were found 49,53% in the right and 41,69% in the left bronchial tree. But in the group of 1-3 age the left and right bronchial tree localizations were found equal (43,84%). 26,87% of patients were presented with a history of aspiration at the same day and 14,93% with a history of more than 2 weeks. Adult presentation during the aspiration was 77%. Most common symptoms were wheezing (30,1%) and coughing (29,77%). Most common auscultation findings were unilateral loss of breath sounds (33,33%) and wheezing (20,11%). Most common radiological finding was unilateral air trapping with 66%. the radiological examination were normal in 35,82% of the patients. Steroids, ventolin and antibiotics were given 39,55%, 55% and 93% respectively. 52,9% of the patients had siblings. 42,54% were diagnosed and treated for upper respiratory tract infections before bronchoscopy. Mean hospital stay was 1,9 days. the complication rate was 8,9% and the mortality rate was 0%.

Conclusion: FBA is a worldwide public health problem in pediatric population. the numbers of cases can be reduced by determining proper preventions for the children under risk. It is needed to define regulatory standards for baby and child products manufacture and appropriate labelling practices like developed countries; public education campaigns and enhancing the public awareness about FBA.

OP 143

Effect of Pneumoperitoneum in Bacterial Translocation in an Experimental Porcine Model of Peritonitis

Miguel Angel Caínzos Fernández², Víctor Turrado Rodríguez¹, Enrique Mena Del Río², Jorge Martínez Castro², Manuel Taboada², M L Jorge²

¹ General Surgery Department, Hospital De La Santa Creu I Sant Pau, Spain

² Department of Surgery, Hospital Clínico Universitario De Santiago De Compostela, Spain

Introduction: Over the past years, the use of laparoscopy has become a popular approach to abdominal infections. Notwithstanding, the effects of CO2 pneumoperitoneum in peritonitis has not yet been completely elucidated and clarified.

Objectives: To evaluate the risk of bacteriemia in an experimental model of peritonitis in pigs after laparoscopic surgery with low (<14 mmHg) or high (>14 mmHg) pressure when compared to conventional surgery

Material/Patients and Methods: 45 pigs were anaesthetised and a mixture of *E. coli*, *K. pneumoniae*, *Enterococcus* sp., *P. mirabilis* and *B. fragilis* (10×10^5 CFU) was introduced into the abdominal cavity. The pigs were divided into four groups: a control group, a laparoscopy with low pressure group, a laparoscopy with high pressure group, and a laparotomy group. Serial blood samples were taken on every group for biochemical purposes and blood culture.

Results: There was a higher tendency of bacteraemia (*E. coli*, *P. mirabilis* and *K. pneumoniae*) in the high pressure laparoscopy group. There was a higher incidence of *Enterococcus* bacteraemia in the high pressure laparoscopy group. There was a higher *B. fragilis* bacteraemia incidence in the high pressure laparoscopy group.

Conclusion: the laparoscopic technique is a correct surgical approach for peritonitis provided that it is performed with a low pressure pneumoperitoneum (<14 mmHg). Low pressure laparoscopy is characterized by the same rate of bacterial translocation as that of the laparotomy group. By contrast, the high pressure laparoscopy is characterized by an increase in the bacterial translocation of *B. fragilis* and *Enterococcus* sp.

OP 144

The Role of Bile After Roux-en-y Gastric Bypass in Promoting Weight Loss and Improving Glycaemic Control

Jan Hr. Becker¹, Dimitri J. Pournaras², Mohammed A. Ghatei², David Mahon³, Carel W. Le Roux², Clare Glicksman⁴, Julian Rf. Walters⁵, Richard Welbourn³

¹Department of Surgery, University of Pretoria, South Africa

²Department of Investigative Medicine, Imperial Weight Centre, Imperial College London, UK

³Department of Bariatric Surgery, Musgrove Park Hospital, Tauton, UK

⁴Department of Clinical Biochemistry, King's College Hospital, London, UK

⁵Department of Gastroenterology, Imperial College London, UK

⁶Experimental Pathology, Conway Institute, School of Medicine and Medical Sciences, University College Dublin, Ireland

Introduction: Bile acids signal through the cell-membrane G protein-coupled receptor (TGR5) and stimulate the gut hormones, including peptide YY (PYY) and glucagon-like peptide-1 (GLP-1) which in turn promotes satiety and stimulates β -cells in the pancreas to release insulin. Bile acids increase Fibroblast growth Factor-19 (FGF-19) that regulates glycogen metabolism in an insulin-independent manner.

Objectives: Hypothesis: the altered bile flow of the Roux-en-Y bypass (RYGB) partly explains the beneficial metabolic outcomes of the operation.

Material/Patients and Methods: the following models were studied: Gastric bypass, Gastric banding, Canine and

rodent models with altered bile flow. Blood tests: FGF-19, plasma bile acids, GLP-1, PYY.

Results: FGF-19 and total plasma bile acids increased after gastric bypass with no change after banding. In the Canine model, GLP-1 and PYY increased significantly when food and bile is combined compared to when only food or bile is given separately. In the rodent model drainage of endogenous bile into the distal ileum was associated with enhanced PYY responses, reduction in food intake and weight loss.

Conclusion: Altered bile flow after RYGB leads to increased plasma levels of bile acids, FGF-19, incretin and satiety gut hormones, and possibly explains the remission of type 2 diabetes after RYGB. Reference: *Endocrinology*, August 2012, 153(8);3613-3619

OP 145

Safety of Laparoscopic Colorectal Surgery with Heart Disease: a Single Hospital Experience in Japan

Takahisa Fujikawa, Mitsuo Nishiyama, Seiichiro Tada, Hisatsugu Maekawa, Norihiro Shimoike, Toshihiro Abe, Yasunori Yoshimoto, Akira Tanaka

Kokura Memorial Hospital, Department of Surgery, Japan

Introduction: Laparoscopic surgery for the patients with heart disease is still controversial.

Objectives: We examined the safety of laparoscopic colorectal surgery for the patients with heart disease.

Material/Patients and Methods: the study population consisted of 425 patients undergoing laparoscopic colorectal surgery for colorectal cancer in our hospital from June 2004 to May 2012. Of these patients, 206 patients were without heart disease (No risk group; NR), 52 patients were with light to mild heart disease (Low risk group; LR) and 167 patients were with severe heart disease (High risk group; HR). Three groups were compared in terms of operation time (OT), amount of bleeding (AB), hospital days after the operation (HD) and complications. 116 patients were taking ATD (t-ATD), they were compared to the patients without taking ATD (no-ATD). Anti-thrombotic drugs (ATD; anti-platelet agent + anti-coagulant) were treated according to the consensus protocol in our hospital.

Results: Between NR and HR, there were no significant difference in OT ($P=0.6126$), AB ($P=0.0620$) and complications ($P=0.3629$), but there existed significant difference in HD ($P=0.0009$). However, HR included the patients with warfarin control (set back to warfarin from heparin, 26 cases), there were no significant difference in HD ($P=0.0632$) except them. Between no-ATD and t-ATD, eventually, there were no significant difference in OT ($P=0.8137$), AB ($P=0.0859$), complications ($P=0.6432$) and HD (except warfarin control, $P=0.0578$).

Conclusion: Under the optimal protocol, we would suggest a comparable safety for the patients with heart disease in laparoscopic colorectal surgery, even if taking ATD.

OP 146

Reduction in Body Weight Predicting Metabolic Complication of Newly Formed Ileostomy

Talal Altayeb, Rachael Lawrence, Muhamed J Akbar, Rikesh Patel, Adele E Sayers, John E Hartley, Ian a Hunter

Academic Unit of Surgery, Castle Hill Hospital, UK

Introduction: Metabolic complication of newly fashioned ileostomy is common. Patient measurement of stoma out-put is unreliable.

Objectives: To investigate whether a decrease in body weight of ileostomy patients can predict development of dehydration.

Material/Patients and Methods: Body weight of ileostomy patients over four week period from hospital discharge was prospectively recorded and monitored. Details of any hospital admission due to dehydration were noted. Weight loss was defined as the maximum reduction in body weight during the study period or the readmission weight.

Results: a total of fifty two patients were initially recruited. Three were subsequently excluded (two withdrew consent and one patient could not be reached). the median age of those completing the study was 69 years and 53.1 % (n=26) were female. the majority of the patients 75.5% (n=37) exhibited weight loss at some point during the study period with 29.7 % (n=11) of them requiring hospitalisation secondary to high out-put stoma. in contrast, 24.5% (n=12) of the cohort managed to maintain or improve their hospital discharge weight with no metabolic complications observed. Furthermore, weight loss as percentage of discharged weight was calculated. Patients with dehydration lost significantly more weight in comparison to those who remained well (5.5 % range [3%-6.4%] versus 2.1% range [0.3%-5%] respectively). Strong correlations between percentage of body weight reduction and development of severe dehydration was demonstrated (r=0.7, p=0.00 Chi-Square test). Sensitivity, specificity and positive predictive value of 5% body weight reduction predicting stoma complications were, therefore, calculated (90.9%, 92.1% and 76.9% respectively)

Conclusion: Reduction in body weight can predict development of metabolic complications of newly fashioned ileostomy. a validation study is currently being undertaken.

OP 147

The Impact of Positive Circumferential Margin on Survival Following Oesophagectomy Using the New 7th Tnm Classification

Thomas Theologou¹, Mohammad Diab¹, Pa Kyaw¹, John Gosney², James Mcshane³, Nathan Howes¹, Richard Page¹, Michael Shackloth¹

¹ the Liverpool Heart & Chest Hospital, Cardiothoracic Department Liverpool Thomas Drive L14 3lp United Kingdom.

² department of Histopathology, the Royal Liverpool Hospital, 5th Floor Duncan Building, Daulby Street L69 3ga Liverpool, UK

³ the Liverpool Heart & Chest Hospital, Department of Clinical Audit & Clinical Quality, UK

Introduction: Previous studies looking at the influence of positive circumferential margin (CRM) on survival after oesophagectomy are conflicting. This may be due to the fact that older versions of the TNM classification were used, which do not predict survival as accurately as the new 7th edition.

Objectives: We examine whether CRM involvement has an impact on survival when the 7th TNM classification is used.

Material/Patients and Methods: Over a 10 year period, 199 patients who had undergone potentially curative resection for oesophageal cancer with post-operative histopathological T3 were identified. 151 (75.9%) were found to have CRM involvement (<1mm), and these were compared with patients where the CRM was free of tumour. Cancers were staged according to UICC TNM 7th edition. Firstly, univariate and then multivariate Cox regression analysis was performed to assess factors influencing survival. Potentially significant predictors (p < 0.1) from the univariate analysis were offered to the forward-stepwise Cox regression model and were allowed to remain in the final model if achieving a p-value of < 0.05. a sub-group analysis was also performed for different N stages (N0 to N3).

Results: After all analyses were performed, CRM involvement was found to have no effect on survival following oesophagectomy [HR 1.28 (95% CI 0.82 - 2.01) (p=0.28)]. This was seen for all N-stages. Stage of disease, age at operation, % predicted FEV1 and shortness of breath (according to NYHA classification) were all significant predictors of survival.

Conclusion: with this study it is clear that the CRM involvement does not affect long-term survival of patients after oesophagectomy. Patients with CRM involvement should not necessarily be considered to have had an incomplete resection.

OP 148

Prevention of Anastomotic Leakage with Tissue Adhesives in Contaminated Environment

Zhouqiao Wu, Konstantinos A. Vakalopoulos, Geesien S. A. Boersema, Johannes Jeekel, Johan F. Lange

Erasmus University Medical Center, the Netherlands

Introduction: Anastomosis created in contaminated environment results in higher leakage rate, leading to poor clinical outcomes. Histoacryl Blue® (n-butyl-2-cyanoacrylate), Duraseal® (polyethylene glycol), and TissuCol® (fibrin glue) showed promising results to prevent leakage in clean environment.

Objectives: This study investigated the influence of them on anastomotic healing in peritonitis.

Material/Patients and Methods: Sixty-seven Wistar rats were divided into control group (CG), Histoacryl Blue® group (HG), Duraseal® group (DG), and TissuCol® group (TG). Bacterial peritonitis was induced on day -1 with caecal ligation and puncture model. on day 0, anastomosis was constructed after resection of 1.0 cm descending colon, and then sealed with tissue adhesive. Anastomotic leakage, abscess, adhesion, and bursting pressure were evaluated on day 3 or 14.

Results: on day 3, lower leakage rates were found in HG (0.0%), DG (12.5%), and TG (0.0%) compared with CG (85.7%, $p < 0.001$). Bursting pressures of HG (117.3 ± 20.2 mmHg), DG (136.0 ± 5.7 mmHg) and TG (120.1 ± 25.3 mmHg) were significantly higher than CG (24.4 ± 31.7 mmHg, $p < 0.001$). More adhesions were found in CG ($p < 0.05$), while their severities were similar to other groups. on day 14, only one leakage from CG was found in all rats. Leakage rates and adhesion amount were similar between groups, but adhesion severity in DG was significantly lower than CG and HG ($p < 0.01$).

Conclusion: Anastomotic sealant with Histoacryl®, Duraseal®, or TissuCol® reduced leakage rate and increased anastomotic strength in peritonitis in short-term. Their applications seem to be effective and safe in contaminated surgery.

OP 149

The Surgical Treatment of Parastomal Hernias

Parvin Najafgulyeva

Azerbaijan Medical University, Azerbaijan

Introduction: Parastomal hernia is a common complication of stoma formation, having an incidence of about 10%.

Objectives: Most of these hernias should be managed conservatively; only 10-20% of patients eventually require operative intervention.

Material/Patients and Methods: in Scientific Surgery Center named after M.A.Topchubashov, between 2002 to 2010 were treated 142 incisional hernias, of which there

were 27 parastomal hernias at 21 patients, 6 of which are recurrent parastomal hernia. the most parastomal hernias were asymptomatic; only six cases with parastomal hernias required emergency surgical treatment for obstruction (3 cases) or strangulation (3 cases). We performed: local tissue repair in 11 cases (3 cases with recurrent parastomal hernia; stoma relocation in one case); sublay mesh repair in 16 cases (3 cases with recurrent parastomal hernia; stoma relocation in 2 cases).

Results: Postoperative morbidity registered were 3 wound infections (one case after mesh repair which required surgical reintervention) and stoma necrosis in one case with strangulation parastomal hernia. After local tissue repair recurrences were seen in 4 cases, after mesh repair we registered recurrence only in one case, that helped a parietal suppuration and no relapse after the relocation of the stoma.

Conclusion: Parastomal hernia is a relatively rare disease reported in number of incisional hernia. with increasing life expectancy stands we noted and increased incidence of parastomal hernia. Prophylactic use of mesh during the primary operation is a safe procedure and reduces the risk of parastomal hernia.

OP 150

Effects of Trimetazidine on Experimental Pancreatitis

Hakan Ergucuk¹, Emrah Otan¹, Sevil Isik², Mehmet Gul³, Elif Ozerol⁴, Cealettin Aydin¹, Cuneyt Kayaalp¹

¹Department of Surgery, Inonu University, Turkey

²Department of Surgery, Ordu University, Turkey

³Department of Histology, Inonu University, Turkey

⁴Department of Biochemistry, Inonu University, Turkey

Introduction: Trimetazidine is a antiischemic, antioxidant and cardioprotective agent.

Objectives: This study aims to investigate trimetazidines effects on the acute pancreatitis.

Material/Patients and Methods: Three groups of female Sprague-Dawley rats were divided as sham, control (pancreatitis) and treatment (pancreatitis + trimetazidine). Pancreatitis was done by injection of sodium-taurokolate via pancreatic duct. in the treatment group trimetazidine 10 mg/kg group was administrated for three times after pancreatic induction (30 minutes, 24 and 72 hours). rats were sacrificed at 72 hours for biochemical and histopathological exams.

Results: AST, ALT, amylase, lipase at the plasma, SOD, CAT, GSH-Px, MDA, NO, PC and GSH at the pancreatic tissue, edema, hemorrhagia, aciner cell necrosis and perivascular inflammation at histopathology all demonstrated supported the use of trimetazidine when compared the results of control.

Conclusion: Trimetazidine protects pancreas tissue and lowering the biochemical and histopathological disturbances in the early stages of acute pancreatitis.

OP 151

Prevention of Incisional Hernia by Means of Primary Mesh Augmentation: a Systematic Review and Meta-analysis

Lucas Timmermans¹, Barry De Goede¹, Bob J.h. Van Kempen¹, Geert Kazemier², Johannes Jeekel¹, Johan F Lange¹

¹Erasmus Mc Rotterdam, the Netherlands

²Vrije Universiteit Mc Amsterdam, the Netherlands

Introduction: Incisional hernia (IH) is a frequent complication with an incidence of 11-20%. Risk factors, such as AAA and obesity, incite larger incidences, up to 30%. Primary mesh augmentation (PMA) is a new concept to strengthen the abdominal wall and to reduce IH incidence.

Objectives: a systematic review of the literature and meta-analysis of the available randomized controlled trials (RCT) was conducted to evaluate the prophylactic effect of PMA on IH occurrence compared to primary suture (PS).

Material/Patients and Methods: a search in MEDLINE, EMBASE and Cochrane databases was performed. Clinical studies evaluating the use of PMA were included.

Results: Out of 502 papers, 4 RCTs were selected comprising 282 patients. Two of the included RCTs scored poor and two scored reasonable. IH occurred significantly less in the PMA group (RR 0.28, 95% CI 0.13 to 0.62, I2 0%; P=0.001). No difference could be observed with regards to wound infection (RR 0.74, 95% CI 0.22 to 2.50, I2 0%; P=0.63) or seroma (RR 1.25, 95% CI 0.50 to 3.16, I2 0%; P=0.63). a trend was observed for chronic pain in favour of the PS group (RR 6.63, 95% CI 0.77 to 56.86, I2 0%; P=0.08).

Conclusion: the use of PMA seems an effective and safe method for IH prevention. However, some of the studies included were of poor quality and not all outcome measures were reported. a large high quality RCT should be performed to evaluate the true effectiveness and safety of PMA

OP 152

Parastomal Hernia Is an Independent Risk Factor for Incisional Hernia in Patients with End Colostomy

Lucas Timmermans¹, Eva B. Deerenberg¹, Bas Lamme², Johannes Jeekel¹, Johan F Lange¹

¹Erasmus Mc Rotterdam, the Netherlands

²Albert Schweitzer Hospital Dordrecht, the Netherlands

Introduction: Incisional hernia (IH) is a frequent complication with incidences of 11-20%. Known riskfactors for IH are AAA and obesity. Our hypothesis is that parastomal hernia (PH) is a riskfactor for developing IH.

Objectives: Identifying risk factors can help determine the need for preventive measures like primary mesh augmentation.

Material/Patients and Methods: in a multicenter study,

all patients operated between 2002 and 2010 by means of a Hartmann procedure or APR were invited for follow-up. Primary outcome measures were the prevalences of IH and PH. All possible risk factors for IH were scored. a physical examination was performed and, when available, CT scans were scored for IH and PH.

Results: in the clinic 150 patients were seen. the median follow-up was 49 months (30-75). IH and PH had a prevalence of 37.1% and 52.3%. Both hernias were present in the same patient in 30%. PH was found to be a statistically significant risk factor for IH in univariate and multivariate logistic regression analyses, with an Odds Ratio (OR) of 7.2 (95% CI 3.3 – 15.7). This effect can possibly be attributed to a shift of the midline or rectus muscle atrophy after colostomy creation. in addition, an emergency operation was found to be a risk factor for IH with an OR of 5.8 in the multivariate analyses.

Conclusion: Patients with a PH have a 7 times higher chance of developing an IH compared to patients without PH.

OP 153

Small Bowel Injury: Direct Sequel of Mesenteric Occlusion and Indirect Consequence of Lower Limb Arterial Exclusions

Zoltan Czigan, Zsolt Turoczi, Oliver Rosero, and ras Fulop, Tibor Kovacs, Peter Onody, David Garbaisz, Attila Szijarto

Experimental Surgery and Training Center of 1st Department of Surgery, Semmelweis University, Budapest, Hungary

Introduction: Small bowel injury occurs in the notoriously life-threatening superior mesenteric artery occlusion (SMA-O). Nevertheless it can be observed within the systemic consequences of ischemic-reperfusion (IR) injury following lower limb vascular occlusions (LL-O) as well.

Objectives: Effects of LL-O and SMA-O on small intestinal injury were investigated in this study.

Material/Patients and Methods: Male Wistar-rats (n=30) underwent the following procedure: in the LL-O-group 3 hours of bilateral lower limb ischemia and in the SMA-O-group 1 hour of mesenteric ischemia was induced, followed by 6 hours of reperfusion. for analysis of redox-homeostasis (free-radical-content, antioxidant-levels) and for histological assessment (Chiu-score), samples were taken from specified sections of the small intestine.

Results: Free-radical-content has increased significantly in the SMA-O-group (jejunum: p=0.025 ileum: p=0.029), and in the LL-O-group likewise (jejunum: p=0.014 ileum: p=0.010), compared to the Sham-group. Antioxidant-levels have significantly (p<0.05) reduced in the IR-injured groups in comparison with the Sham-group. Except for the jejunum SH-group values there were no significant alterations between the two IR-groups regarding the redox-state parameters. Considering the histological evaluation of intestinal injury no significant differences were detected between the LL-O and SMA-O groups.

Conclusion: in this study we demonstrated that sublethal mesenteric IR-injury and 3 hours long LL-O can induce similar extent of small bowel damage.

OP 154

Early Period Analysis of 310 Patients Treated with Modified Limberg Flap Method

Muharrem Oztas¹, Huseyin Sinan², Mehmet Saydam², Halil Koray Sezer³, Eyup Duran⁴, Ahmet Ziya Balta⁵, Mehmet Yıldız²

¹ Sırnak Military Hospital, Department of Surgery, Sırnak, Turkey

² Ankara Mevki Military Hospital, Department of Surgery, Ankara, Turkey

³ Balıkesir Military Hospital, Department of Surgery, Balıkesir, Turkey

⁴ Elazığ Military Hospital, Department of Surgery, Elazığ, Turkey

⁵ Gulhane Military Medical Academy, Haydarpaşa Training Hospital, Department of Surgery, Istanbul, Turkey

Introduction: Pilonidal sinus is a disease that does not have a standardized surgical treatment method. Various surgical techniques are currently used for treatment of pilonidal sinus.

Objectives: the aim is to share early postoperative results after surgery for pilonidal sinus disease using the modified Limberg flap technique.

Material/Patients and Methods: This retrospective study analyzed all patients in our clinical database with pilonidal sinus disease who received surgical treatment with the modified Limberg flap technique from September 2011 to January 2013.

Results: During the study period, 310 patients met study criteria. All patients were males. Mean age was 22.4±3.2 years (range, 16-34 years), duration of complaint was between 3-78 months and mean operation time was 36.1±5.1 minutes (range, 20-55 minutes). Fifty-two of the 310 patients underwent surgery for recurrence of their pilonidal sinus disease. Postoperative care for all patients included drains and double antibiotic prophylaxis (cefoperazone and metronidazol). The drains were removed on postoperative day 1 for 77 patients, day 2 for 215 patients, day 3 for 14 patients, and day 4 for 4 patients. Mean drainage volume was 32.3±10.3 cc (range, 15-90cc) on postoperative day 1, and 20.3±8.4 cc (range, 10-60 cc) on day 2. Surgical site infection occurred in 3 patients, bleeding in 1 patient, and minimal wound dehiscence in 19 patients. For the 3 patients with surgical site infection, we reversed the flap transposition and left the wound open for secondary healing.

Conclusion: a rapid healing process and short recovery time make the modified Limberg flap transposition one of the best treatment options for both primary pilonidal sinus disease and recurrence.

OP 155

Staged Repair of Severe Open Abdomens Due To High-energy Gunshot Injuries with Early Vacuum Pack and Delayed Tissue Expansion and Dual-sided Meshes

Dogan Alhan, Ismail Sahin, Ismail Hakki Ozerhan, Mustafa Nisanci, Serdar Ozturk, Selcuk Isik

Department of Plastic and Reconstructive Surgery, Gulhane Military Medical Academy, Etlik, Ankara, Turkey

Introduction: the open abdomen is a salvage procedure that prevents the catastrophes after severe intraabdominal traumas. However, following this life saving attempt, it is mostly not feasible to close abdomen immediately after the recovery of intraabdominal injuries. Consequently a staged reconstruction is required. First of all a temporary closing provided. At the end of this stage, resulting giant "ventral hernia" is a burden for both patient and the surgeon. So, subsequently a permanent repair is needed.

Objectives: Herein, we present our staged protocol to restore abdominal wall defect and strategy for optimizing the results in such conundrum cases.

Material/Patients and Methods: Treatment was performed to 9 male patients suffering from severe open abdomen due to high-energy firearm injury. In all patients, temporary closure was provided by negative pressure wound treatment applied directly to the viscera and followed by a skin grafting. Late permanent closure was performed with the lamination of expanded abdominal skin and dual-sided meshes.

Results: the follow-up period ranged between 16 months to 3,5 years (mean: 2 years). During this period, no recurrence of ventral hernia, enteric fistula formation, infection and seroma formation was observed on any patient. Results were highly satisfactory for patients and acceptable aesthetically.

Conclusion: Although there are many treatment modalities described for this goal, etiologies like high-energy firearms may cause an exactly nuisance scene which can limit treatment options and reduce final success.

OP 156

Single Visit Laparoscopic Cholecystectomy Clinic - a Feasible Option

Martin Nnaji, Maryam Haneef, Makani Hemadri, Peter Moore

Scunthorpe General Hospital, Scunthorpe, UK

Introduction: Laparoscopic cholecystectomy is the treatment of choice for gall bladder disease and is performed in many centres as a day case procedure.

Objectives: the aim of this study was to evaluate the outcomes of patients who underwent laparoscopic cholecystectomy using a 'single visit' clinic pathway.

Material/Patients and Methods: a retrospective analysis

was conducted on 50 patients who underwent laparoscopic cholecystectomy for uncomplicated gall bladder disease from June 2007 to December 2012 using a single visit clinic pathway. a single visit clinic is one where patients are first seen by a surgeon on the day of their procedure and discharged usually within 24 hours with no follow appointment. This pathway excludes patients with known complicated gall bladder disease and high anaesthetic risk.

Results: the male female ratio was 1:5, and mean age 46.6 years. 44 patients (88%) were discharged within 24 hours. There was one intraoperative haemorrhage (2%), and one conversion to open cholecystectomy (2%); 2 readmissions following discharge (4%) and 2 unexpected post operative outpatient visits (4%). Furthermore the number of preoperative outpatient visits reduced from 2 to 0, reducing waiting times and saving £310 per patient.

Conclusion: Single visit laparoscopic cholecystectomy clinic is a safe and cost-effective option in the management of the uncomplicated gall bladder disease.

OP 157

Vegf Expression in Lesions of Patients with Colorectal Peritoneal Metastases is Correlated to Survival

E.M.V. de Cuba, I.H.J.T de Hingh, R.Kwakman, W.J.H.J. Meijerink, P.M. Delis-van Diemen**, H.J. Bonjer, G.A. Meijer**, E.A. te Velde*

Dept. of Surgical Oncology, VU University Medical Center Amsterdam, the Netherlands

* Dept. of Surgery, Catharina Ziekenhuis Eindhoven, the Netherlands

** Tumor Profiling Unit Dept. of Pathology, VU University Medical Center, the Netherlands

Introduction: High levels of Vascular Endothelial Growth Factor (VEGF) are associated with worse prognosis in colorectal cancer (CRC). Anti-VEGF therapies improve the survival in haematogenously disseminated CRC. Patients presenting with peritoneal metastases (PM) can be curatively treated with cytoreductive surgery (CRS) and HIPEC. It is unknown whether these patients benefit from additional treatment with anti-VEGF antibodies.

Objectives: Investigate the levels of expression of VEGF in PM and its prognostic value in HIPEC patients.

Methods: From 2007-2010 all consecutive patients undergoing CRS & HIPEC in a single institution were investigated for VEGF expression. Patients surviving <12 months post-treatment were categorized as short survivors and patients surviving >12 months as long survivors. VEGF expression was assessed in sections of PM by immunohistochemistry on formalin-fixed paraffin embedded tissue. The intensity of the staining was scored as negative, weak, moderate and strong. The Chi-Square test was used for comparison.

Results: A total of 49 patients (22 male and 27 female) that underwent CRS&HIPEC for colon- (n=44) and rectal

carcinoma (n=5) were included. The median age was 62 years (range 31-77) and median follow-up was 18 months (range 1-51). 34 patients survived >12 months (69%). Moderate to strong VEGF expression was observed in 35 out of 38 successfully analysed cases (92%). Univariate analysis showed that high VEGF correlates with a survival of <12 months (p=0,02).

Conclusions: Higher VEGF expression correlated with a survival of <12 months in our patients. The use of anti-VEGF in patients undergoing CRS&HIPEC might be of additional clinical value.

OP 158

Is There a Survival Benefit in Performing Colorectal Cancer Surgery in the Octogenarian Population?

M. J Akbar , Shahid Seedat , Talal Altayab , R.k Patel , I.a Hunter , John Hartley

University of Hull, UK

Introduction: There are currently three million people aged greater than 80 years in the United Kingdom. This number projected to double by 2030 and to reach eight millions by 2050. Surgery for Colorectal cancer for these patients poses a significant challenge due to the high incidence of co-morbidities and limited functional reserve. Although, we would like to offer the best curative treatment, a concern is that we are exposing the elderly to excessive risk.

Objectives: Our objective was to assess the outcome of surgery for colorectal cancer undertaken in an octogenarian

Material/Patients and Methods: We performed a retrospective review of a prospectively maintained database in order to identify octogenarians undergoing treatment for colorectal cancer in our unit from 2006 to 2011.

Results: a total of 270 consecutive patients with a median age of 84 years were analysed. Colorectal cancer surgery was performed in 222 (82%) patients. Median survival in this group was 31 months. Surgery was not performed in 48 (18%) patients due personal or medical reasons; their median survival was 7.5 months. Sub group analysis of median survival (months) between surgical and non-surgical groups according to Dukes classification was as follows: Dukes B (surgery 32 vs. non surgery 15); Dukes C1 (surgery 29 vs. non surgery 14); Dukes D (surgery 9 vs. non surgery 4). Survival for Dukes a and C2 groups with surgery was 44 and 29 months respectively. a comparison was not drawn with those managed non-surgically, as there was only 1 patient in each of the Dukes a and C2 subgroups

Conclusion: Colorectal cancer surgery offers reasonable survival benefit in the octogenarian population and can be offered as a first line treatment in this challenging group of patients.

OP 159

Prognostic Value of E2f1 in Rectal Cancer

Hasan Uzer , Hizir Akyildiz , Muhammet Akyüz , Sözüer Erdoğan , Alper Akcan , Bahadır öz , Baykan Mehmet , Poyrazoğlu Bilgehan

Erciyes University, School of Medicine, Department of General Surgery, Turkey

Introduction: All patients do not benefit from the treatment of primary colorectal cancer likewise. We need new molecular prognostic markers to determine surveillance of patients following curative treatment of colorectal cancer.

Objectives: E2F1 may be a potential prognostic marker in patients with rectal cancer.

Material/Patients and Methods: 86 patients who treated with curative resection because of rectal cancer in the Erciyes University Faculty of Medicine, Department of General Surgery between January 2005-December 2007 were included in the study. Staging, made according to the criteria of the AJCC 2010. Nuclear and cytoplasmic staining of E2F1 were performed as immunohistochemical studies on paraffin embedded and blocked tumor tissue samples of patients.

Results: in the 5-year follow-up period, 34 (41.5%) of the patients were alive. 5-year overall survival was 43.7%. the mean survival time of patients in the study were 50.8±4.1 months. When the patients were evaluated according to E2F1 nuclear staining, survival rate of nuclear unstained cases for 12-month was 79% , 24-month 69% and 36-month 59%. According to the state of nuclear staining the average overall survival in patients with strong nuclear staining was 60% and 28% for weak nuclear staining. There was significant statistical difference between groups according to their degree of nuclear staining (p=0.017). When the cases were evaluated according to cytoplasmic staining with E2F1, results were insignificant as statistically (p=0.408).

Conclusion: In this retrospective study it is shown that the survival rates are higher in immunohistochemical strong nuclear staining with E2F1 positive rectal cancer patients.

OP 160

Detection of a Dysplasia-associated Lesion or Mass (dalm), Is It a Valid Indication for Colectomy?

Talal Altayeb , Muhamed J Akbar , Adele E Sayers , Rikesh Patel , Shahid Seedat , Alistar Mcdonalds , Ian a Hunter

Academic Unit of Surgery, Castle Hill Hospital, UK

Introduction: Detection of a dysplasia-associated lesion or mass (DALM) in patients with ulcerative colitis is associated with increased risk of malignancy and is regarded as an indication for surgical resection. Previous studies have indicated that over 40% of patients with a DALM also have a concurrent bowel cancer. However, this figure was based on only 40 cases identified between 1980 and 1994.

Objectives: the aim of this study was to re-evaluate this association still hold true in a contemporary cohort of patients.

Material/Patients and Methods: Patients were retrospectively identified from histopathology department database. All patients with DALM detected at colonoscopy from 2000 to 2010 were included. the incidence of invasive carcinoma in the subsequent surgical specimens was ascertained.

Results: a total of 19 DALM patients were identified from the database with median age of 65 and 42% female gender. Locations of DALM were as follows: 7 rectum, 8 sigmoid and 4 colon. Four patients did not have surgical resection (three due to severe co morbidity and one by own choice). Invasive carcinoma was indentified in four resection specimens out of the 15 available cases.

Conclusion: Although the incidence of concurrent DALM and invasive cancer in this cohort was lower than that reported in the historic literature, there still appears to be strong association confirming DALM as an indication for oncological colectomy.

OP 161

Questioning the Role of Axillary Node Dissection in Sentinel Node Positive Early Stage Breast Cancer in the South Eastern Breast Cancer Centre

Osama Mohamed , Peter Neary , Constantino Castineira , Gerrard O'donoghue

Rcsi, Ireland

Introduction: Axillary lymph node status is the most important predictor of breast cancer patient overall survival. Previous standard practice of axillary node dissection following a positive sentinel node macrometastases has been challenged by the American College of Surgeons Oncology Group (ASOSOG), Z0011 trial. This demonstrated that clinically/radiologically node negative early stage breast cancer patients with a positive sentinel node failed to derive therapeutic benefit from completion node dissection.

Objectives: To evaluate the role of axillary node dissection in all sentinel node positive early stage breast cancer patients.

Material/Patients and Methods: Retrospective review of all clinically node negative patients undergoing breast conserving surgery and axillary node dissection for a positive sentinel node biopsy over a one year period from Jan 2011 to Jan 2012.

Results: of the 174 new breast cancers diagnosed, 144 underwent surgery of which 127 patients were clinically/radiologically node negative and evaluated with sentinel lymph node biopsy. 46 (36.2%) patients were sentinel node positive. 35 (76%) proceeded to have an axillary clearance. Out of the 46 who were SLNB positive 3 out of 8 T1 tumours, (37.5%) had further positive nodes on axillary clearance. 11 out of 24 T2 tumours, (45.8%) had further positive nodes on axillary clearance. All 3 (100%) T3/T4 tumours had further

positive nodes on axillary clearance. Mean numbers of sentinel lymph nodes harvested and axillary nodes harvested was 2.3 and 15.2 respectively.

Conclusion: 14 (33.3%) of T1/T2 tumours undergoing axillary clearance after a positive sentinel node had further positive nodes. Some patients with early stage breast cancer may represent a subgroup where completion axillary dissection has no proven survival benefit.

OP 162

The Incidence of Malignancy in Gallbladder Polyps : How Useful Is Ultrasound Findings?

Pinar Sarkut , Sadik Kilicturgay , Ali Ozer , Ersin Ozturk , Tuncay Yilmazlar

Uludag University, School of Medicine, Department of General Surgery, Turkey

Introduction: Early stage gallbladder cancers can be detected as a polyp in imaging studies. Gallbladder polyp is important

Objectives: the aim of this study is to determine the factors affecting the decision of surgery via analyzing the malignancy incidence of gallbladder polyps and the efficiency of ultrasonography (US) in detecting gallbladder polyps (GP).

Material/Patients and Methods: the data of 138 patients who underwent cholecystectomy between 1996 and 2012 in our clinic with the diagnosis of GP were retrospectively analyzed. Demographic data, clinical presentation, principal symptoms, ultrasonographic and histopathologic findings were evaluated.

Results: the median age was 50 (26-85) and 91 of them were female. of 138 patients who underwent cholecystectomy with GP diagnosis, only 99 had polyp histopathologically. 77 of them had pseudopolyps and 22 had true polyps. Twenty one patients had adenocarcinoma. of these 21 patients, 11 were male, median age was 61 (40-85) and all malign polyps with diameters were bigger than 10 mm. 112 of 138 patients whom surgery were performed had ultrasonographically polyps with diameters less than 10 mm. 22 of other 26 patients who also had polyps with diameters bigger than 10 mm, had true polyps. the sensitivity of US was 84,6 % in polyps with diameters bigger than 10 mm, however it was only 66 % in polyps with diameters less than 10 mm.

Conclusion: the sensitivity of US in polyps with diameters less than 10 mm was not sufficient. the risk of malignancy was high in the male patients over 50 years old who had polyps with diameters bigger than 10 mm.

OP 163

Thymic Carcinoma. Clinical Single Institutional Experience with 16 Patients

Hironori Ishibashi ¹, Shin-ichiro Ohta ², Masahide Hirose ²

¹Tokyo Medical and Dental University, Japan

²Shizuoka General Hospital, Japan

Introduction: Thymic carcinoma is more invasive and has a poorer prognosis than thymoma.

Objectives: We retrospectively evaluated 16 patients with thymic carcinoma treated with various modalities and investigated overall management of this disease.

Material/Patients and Methods: From 1990 to 2008, we treated 16 patients diagnosed with thymic carcinoma (11 squamous cell carcinomas, 2 adenocarcinomas, 2 neuroendocrine cell carcinomas), including 14 men and 2 women. Classification of these patients' tumor stages was based on the Masaoka staging system.

Results: They consisted of 1 at Masaoka stage I, 12 at stage III, 1 at stage IVa and 2 at stage IVb. We proceeded with surgery for 13 of the 16 patients. Complete resection was performed in 6 patients and chemoradiation for 4 patients. Incomplete resection was performed in 7 patients and 6 patients were treated by postoperative chemoradiation therapy. 2 patients without surgery were treated by radiation therapy and survived for 8 or 18 months. 1 patient without surgery treated with chemoradiotherapy survives for 144 months. the median survival was 90 months for patients with complete resection (all patients survive from 54 to 214 months), and 47 months (from 32 to 284 months) for patients with incomplete resection. 2-year, 5-year, and 10-year disease free survival rates of patients with complete resection were 50%.

Conclusion: We concluded that especially complete resection improves the survival rate and is a curative therapy for thymic carcinomas and chemoradiotherapy improves the survival rate even if in advanced unresectable cases.

OP 164

[18f]-fluoroacetate Pet/ct As a Novel Tumor-imaging Modality in Liver Tumors

Kenji Takemoto ¹, Etsuro Hatano ¹, Ryuichi Nishii ², Tatsuya Higashi ³, Kan Toriguchi ¹, Kazutaka Tanabe ¹, Kojiro Taura ¹, Shinji Uemoto ¹

¹Division of Hepato-biliary-pancreatic Surgery and Transplantation, Department of Surgery, Graduate School of Medicine, Kyoto University, Kyoto, Japan

²Department of Radiology, Faculty of Medicine, University of Miyazaki, Miyazaki, Japan

³Division of Pet Imaging, Shiga Medical Center Research Institute, Moriyama, Japan

Introduction: [18F]-FDG is widely used to evaluate various types of tumor, though the sensitivity in liver tumors is around 60%. [18F]-Fluoroacetate (FACE) is a [18F]

fluorinated acetate, which is known to be metabolically trapped in TCA cycle and is expected to be a promising oncologic PET tracer.

Objectives: the aim of this study was to evaluate the usefulness of FACE as an oncologic PET tracer in the diagnosis of liver tumors.

Material/Patients and Methods: in vitro, we evaluated the uptake of FACE and FDG in the liver carcinoma cell lines (JHH-1, JHH-5, HepG2, HLE). in vivo, five patients with liver tumors (3 hepatocellular carcinoma, 1 cholangiocellular carcinoma, 1 P-NET) were evaluated by PET/CT using SUVmax and TNR (Tumor-to-normal Liver Ratio).

Results: Each cell line uptakes FACE in early phase and the cell line indicated 1.2-1.5 times accumulation compared to medium culture in 120 min. There was a difference in the pattern of uptake in time among the cell lines. Though FDG uptake is significantly higher than FACE in each cell line. in patient evaluation, FDG was positive in 2 tumors (1 HCC, 1 CCC) and negative in the other 3 tumors, while FACE was also positive in 2 tumors, which were the same tumors with positive FDG uptake. FDG uptake of liver tumors (SUVmax: 6.2+/-4.4, TNR: 2.5+/-1.6) was significantly higher than that of FACE (2.6+/-0.6, 1.3+/-0.3). But one tumor in HCC showed accumulation in periphery only in FACE.

Conclusion: Tumor FACE uptake was confirmed. [18F]-Fluoroacetate PET/CT is expected as a novel tumor-imaging modality in liver tumors.

microporation using 1.50mm Deeproller® one week prior to fat graft transfer in the study group. the control group didn't undergo preconditioning. a pouch was raised and sutured back to place without fat transfer in the sham group. the rats were sacrificed 15 weeks later and morphologic, biochemical, histological and immunohistochemical evaluation of the grafts were undertaken.

Results: Morphological evaluation demonstrated higher vascularity in the subcutaneous recipient bed in the study group in comparison to the control group. Fat grafts in the study group had better integrity and a higher level of vascularity compared to the control group. Volume analysis demonstrated higher graft survival in the preconditioned group. Histomorphometric and immunohistochemical evaluation showed uniform adipocytes with intact nuclei, less fibrosis, vacuolization and inflammation and better vascularization in the study group. Although higher triglyceride concentrations were measured for the study group, the difference was statistically insignificant.

Conclusion: in conclusion, fat grafting performed on an area preconditioned with microneedling results with higher graft volume, better integrity and vascularization and an overall higher survival rate.

OP 165

Improving Fat Graft Survival Through Preconditioning of the Recipient Site with Microneedling

Billur Sezgin¹, Selahattin Ozmen¹, Hakan Bulam¹, Suna Omeroglu², Seher Yuksel³, Banu Cayci³, Tuncay Peker⁴

¹Gazi University Medical School, Department of Plastic, Reconstructive and Aesthetic Surgery, Ankara, Turkey

²Gazi University Medical School, Department of Histology and Embryology, Ankara, Turkey

³Gazi University Medical School, Department of Biochemistry, Ankara, Turkey

⁴Gazi University Medical School, Department of Anatomy, Ankara, Turkey

Introduction: Although fat grafting is considered the ideal soft tissue filler, the main problem encountered with this technique is not being able to predict long-term graft survival due to high absorption rates.

Objectives: the purpose of this study was to investigate the angiogenic effects of preconditioning the recipient area with microneedling and determine its overall impact on fat graft survival.

Material/Patients and Methods: Thirty wistar rats were used for the study which consisted of a sham, control and study group. the source of fat was the inguinal fat pad while the recipient area was a dorsal subcutaneous pouch. the dorsal area was preconditioned with standard-technique

OP 166

Reconstruction of Axillary Defects with Dorsolateral Thoracic Region Perforator Flaps

Mustafa Nisanci, Dogan Alhan, Ismail Sahin, and ac Aykan, Muhitdin Eski, Selcuk Isik

Department of Plastic and Reconstructive Surgery, Gulhane Military Medical Academy, Etlik, Ankara, Turkey

Introduction: Injuries to axillary region may result in disabling deformities that impair function, when they are treated inappropriately or inadequately. Since the first introduction of the perforator flaps, new skin flaps have been described with overriding advantages. Use of perforator flap spares the underlying muscle that usually functions as a carrier for overlying skin paddle and provides a thin, pliable skin flap.

Objectives: We devised a new surgical approach with an initial incision that provides access to possible perforator systems on the dorsolateral thoracic area and that can easily be converted to a fasciocutaneous transposition flap when attempts for identification of a proper perforator fail.

Material/Patients and Methods: with the intention of using perforator-based flap for reconstruction, we used this surgical approach for coverage in 9 cases of unilaterally axillary contracture and in 1 case of bilaterally hidradenitis suppurativa.

Results: Totally 11 flaps were performed. Only in one case, conversion of the initial incision to local transposition flap was required while perforator based flaps (4 thoracodorsal perforator flap, 6 latissimus dorsi perforator flap) were readily be elevated and transferred to the recipient area without the need for intramuscular dissection in the

remaining 8 patients.

Conclusion: Conclusively, our current surgical approach may offer taking the advantages of using a true perforator flap for reconstruction while avoiding from imposing second stress on the patient when an operative plan for perforator flap harvest fails.

OP 167

Is There a Correlation Between Radiological and Pathological Atypical Lipoma and What Is the Effect on Management?

Rachel Clancy, Ronak Patel, Tom Woodward, Paul Wilson

Frenchay Hospital, Bristol, UK

Introduction: a common question and discussion point at multidisciplinary meetings (MDT) is the correlation between radiological and histological diagnosis of atypical lipoma and its effect on management.

Objectives: the aim of this study was to evaluate the correlation between radiological findings of atypical lipoma and definitive histological diagnosis of atypical lipoma, otherwise described as superficial well-differentiated liposarcoma.

Material/Patients and Methods: Patients were retrospectively identified in through analysis of MDT outcomes over a one-year time period. a standardised proforma was used to collect patient demographics. All patients with the word "lipoma/liposarcoma" in their MDT report were documented. Radiological interpretation of ultrasound scanning and MRI was compared to histological diagnosis.

Results: 70 patients were included in the study. 29 patients had a radiological diagnosis and/or histological diagnosis of liposarcoma. of these, the radiological diagnosis matched the histological diagnosis in 17 patients (59%). 3 patients had a histological diagnosis of atypical lipoma; only 1 of these was correctly identified at MDT.

Conclusion: Our data show there is often a discrepancy between histological and radiological findings in the diagnosis of atypical lipoma. the radiological diagnosis of atypical lipoma should not be confused with the histological diagnosis of atypical lipoma or superficial, well-differentiated liposarcoma. This has implications for management of these patients.

OP 168

An Algorithmic Approach To Lateral Scalp Burn Alopecia Reconstruction

Ismail Sahin, Dogan Alhan, Serbulent Guzey, Muhitdin Eski, Mustafa Nisanci, Selcuk Isik

Department of Plastic and Reconstructive Surgery, Gulhane Military Medical Academy, Etlik, Ankara, Turkey

Introduction: Cicatricial alopecia is a form of hair loss that causes both cosmetic and psychological concerns for patients. Although tissue expanders are the common approach to reconstruction of this deformity, no algorithm exists in the literature for this process. We created an algorithm for the reconstruction of lateral scalp alopecias with the goal to achieve better and standardized results.

Objectives: the aim of the study was to form a standard algorithmic approach for lateral scalp alopecia reconstruction

Material/Patients and Methods: We divided lateral scalp alopecias into 3 groups: total lateral alopecia (Type I), temporal and sideburn alopecia (Type II), and sideburn alopecia (Type III). We then placed tissue expanders at the parietooccipital area in Type I defects, parietal area in Type II defects, and the temporal region in Type III defects. Tissue expanders were used to create flaps that were advanced with 60o rotation, 90o rotation and no rotation for Type I, II and III defects, respectively.

Results: Between 2001 and 2012, 15 patients were treated with this algorithm. Using this approach, we achieved natural, standardized aesthetic results for each patient, all of whom were satisfied with the final results.

Conclusion: in conclusion, for the purpose of obtaining acceptable and reliable aesthetic results for the reconstruction of different types of lateral scalp alopecias, a newly designed algorithm was created. by using this algorithm, good cosmetic results were obtained in this group of patients.

OP 169

Consent for Surgery To Cleft Lip & Palate; Fit for Purpose and Who Does It Best?

Rachel Clancy¹, Helen Katsarelis¹, Thomas Bragg¹, Timothy Goodacre²

¹Stoke Mandeville Hospital, UK

²John Radcliffe Hospital, UK

Introduction: the process of consent for cleft lip and palate surgery (CLAP) generally requires a third party to consent on behalf of a minor. Studies have shown patients generally retain low levels of information relating to their procedure.

Objectives: the aim of this study was to explore how informed people are, and how much information they retain.

Material/Patients and Methods: Data was prospectively collected via a questionnaire from consecutive patients undergoing a spectrum of procedures related to the management of CLAP in a UK Hospital.

Results: 32 participants were included. Participants reported high levels of satisfaction (97%) with the consenting process and showed good level of knowledge (mean 66.24%, median 68.87%). Approximately 1/5 respondents recorded scores of 50% or less; suggesting a subgroup of individuals require additional support. This group displayed a bias towards wanting the provision of information via a specialist nurse.

Conclusion: This study, contrasting others on consent, indicates that despite the complexity of the procedures,

those giving consent retained very good levels of detailed knowledge. We failed to identify any link with gender, educational attainment, age, procedure and time since operation. The study does identify a subgroup of patients, who rely upon input from the specialist nurse to achieve robust consent.

OP 170

The Gluteal Fold Flap: a Versatile Option for Perineal Reconstruction Following Anorectal Cancer Resection

Nicholas Pantelides¹, Justin Davies², Nicola Fearnhead², Charles Malata¹

¹ Department of Plastic and Reconstructive Surgery, Addenbrooke's Hospital, Cambridge, UK

² Cambridge Colorectal Unit, Addenbrooke's Hospital, Cambridge, UK

Introduction: Gluteal fold flaps (GFFs) have been extensively reported for vulvo-vaginal reconstruction but there are no published series of their use for perineal reconstruction following anorectal cancer resection. In this context, abdominal myocutaneous flaps remain the method of choice but may be unavailable because of pre-existing abdominal scars, or the need for a colostomy/urostomy. In addition, their abdominal wall morbidity makes them less acceptable, especially given the increasing use of laparoscopic technique for the extirpative surgery.

Objectives: We document our experience using the GFF for perineal reconstruction following radical anorectal cancer excision.

Material/Patients and Methods: Data were collected from a single surgeon's consecutive cases performed over a five-year period (October 2007- May 2012). The indication, surgical procedure, complications and follow-up were recorded, as was the incidence of neoadjuvant/adjuvant therapy.

Results: Ten gluteal fold fasciocutaneous flaps were performed in seven patients at the time of radical anorectal excision. The GFFs were performed alone (unilateral n=3, bilateral n=3) or in combination with a contralateral anterolateral thigh (ALT) myocutaneous flap (n=1). The indications for anorectal excision were rectal adenocarcinoma (n=3), anal squamous cell carcinoma (n=3) and anal adenocarcinoma (n=1). All flaps survived completely although two patients required further surgery, one for evacuation of a late donor site haematoma and another to close a small, persistent wound dehiscence. The mean follow-up period was 24 months (range 2-57).

Conclusion: The GFF is a reliable, versatile and robust option for perineal reconstruction after extended anorectal excision, despite local irradiation, and should be considered for medium and selected large defects in this context.

OP 171

The Inhibitory Effect of Platelet Rich Plasma on Botulinum Toxin Type-a Induced Skeletal Muscle Paralysis: an Experimental Study in Rabbits

Hakan Bulam¹, Suhan Ayhan¹, Billur Sezgin¹, Murat Zinnuroglu², Ece Konac³, Nuray Varol³, Kemal Findikcioglu¹, Serhan Tuncer¹

¹ Gazi University, School of Medicine, Department of Plastic Reconstructive and Aesthetic Surgery, Ankara, Turkey

² Gazi University, School of Medicine, Department of Physical Therapy and Rehabilitation, Ankara, Turkey

³ Gazi University, School of Medicine, Department of Molecular Biology and Genetics, Ankara, Turkey

Introduction: Platelet-Rich-Plasma (PRP) is a platelet concentrate which includes various growth factors. Botulinum toxin type-A (BTxA) is a neurotoxin which causes muscle paralysis. These two products are used in various areas of medicine.

Objectives: The aim of this study was to investigate the effect of PRP applications on BTxA induced muscle paralysis.

Material/Patients and Methods: Twenty-four New Zealand white rabbits were assigned to 4 groups. Anterior auricular muscle (AAM) and skin over the AAM were used for injections. Group I received BTxA intramuscular injection and PRP intradermal injection. Group II received BTxA intramuscular injection and 0.9NaCl intradermal injection. BTxA and PRP were mixed in sterile tube and Group III received this mixture intramuscularly. BTxA and additional 0.9NaCl were mixed in sterile tube and Group IV received this mixture intramuscularly. Alterations in muscle paralysis were evaluated with electroneuromyography and visual studies at 1st and 14th day. SNAP-25 protein m-RNA was evaluated in muscle samples with Quantitative-Real-Time PCR. Data were evaluated by Multibox Chi-square Test, Wilcoxon signed rank test and Kruskal-Wallis test.

Results: In electroneuromyography and visual studies a significant decrease of BTxA activity was observed in intradermal PRP application side of Group I (0.048 and 0.028). In Group III, a reduction in the rate of action potential amplitude of AAM was observed in PRP/BTxA mixture side (0.038). No significant differences were found in Group II and Group IV. SNAP-25 m-RNA expression was observed in all samples.

Conclusion: Evaluations of muscle activity studies revealed that intradermal PRP applications and direct contact of PRP with BTxA resulted with reduction of BTxA activity. We could not explain the exact mechanism underlying this inhibition but we assumed that the α -2 macroglobuline in α -granule of platelets and serum may have an inhibitory effect on Zn-metalloproteinase active site of BTxA because α -2 macroglobuline is a general protease inhibitor.

OP 172

Atypical Fibroxanthoma: Do We Need Guidelines?

Debbie Hunt, Amir Sadri, Ahmed El Gawad, Leila Touil, Saif Rhobaye, Ali Juma

Countess of Chester Hospital, UK

Introduction: Atypical fibroxanthoma (AFX) is a malignant dermal tumour. A lack of appreciation for this tumour can lead to loss of follow up and lack of treatment. No guidelines exist for the management of AFX. We present our 10 year experience with these malignant tumours of the skin.

Objectives: the aim of the study is to investigate the incidence and natural history of AFX, including the rate of recurrence and metastatic rate. In addition, the study will examine our current management of these lesions and whether this can be improved, in terms of both excision and follow up.

Material/Patients and Methods: a retrospective review of all cases of AFX was performed between 2002 and 2012. The following outcomes; location of lesion, method of biopsy, excision margins, total follow up period, metastases, recurrence and time to recurrence and finally deaths were recorded

Results: Thirty three cases of AFX were treated between 2002-12. The scalp (67%) was the commonest site and predominated in elderly male individuals (90.9%). Biopsy was performed in 30% of cases. Three percent of biopsy proven AFX did not go on to have formal excision. Four lesions (12%) were incompletely excised. The recurrence in incompletely excised cases was 50% and 6.1% overall. 18% of patients were discussed at an MDT. No deaths were recorded.

Conclusion: This is the largest UK series of AFX. It shows similar management issues that other series have described such as lack of follow up, incomplete excision without re-excision and lack of MDT discussion.

OP 173

Predicting the Response of Tamoxifen Resistance in Breast Cancer: Stemness Protein Is Invaluable Marker

Issam Hussain¹, Khalid Arif¹, Carol Rea¹, Oleg Eremin², Mohamed El-sheemy¹

¹University of Lincoln, UK

²Lincoln County Hospital, UK

Introduction: It is well known using Tamoxifen as anti-hormonal therapy for breast cancer patients who are oestrogen-receptor positive has a significant effect in improving the survival rate. However the development of resistance to Tamoxifen limits its clinical advantage as primary therapy. This therapeutic failure has revived interest in breast cancer stem cell. Stemness genes expression increases in undifferentiated cells and invasive cancer. However, the role

of their expression in breast cancer is still poorly defined

Objectives: Examine the role of stemness proteins in breast cancer cell lines and anti-hormonal therapy resistance

Material/Patients and Methods: MCF-7, MCF-7/tamoxifen resistant (TAMR) and MDA-MB238 cells were cultured, with relevant hormonal therapy to calculate ED50 and incubated in 5% CO₂ at 37°C. Quantitative and qualitative immunophenotyping of cells was achieved using fluorescein isothiocyanate labelled antibodies reactive with NANOG, SOX2, OCT4 and CD44

Results: MDA-MB238 cells showed significant expression of NANOG (70%), CD44 (85%) SOX2 (68%) and OCT3-4 (50%) compared with MCF-7 (12%, 4%, 15% and 10% respectively). However the MCF-7 TAMR demonstrated lower expression of NANOG (45%), CD44 (60%), SOX2 (60%) and OCT3/4 (55%) compared with MDA-MB238

Conclusion: Stemness proteins are highly expressed in breast cancer cells resistant to tamoxifen therapy. There is association between the expression of Stemness proteins level and the development and progression of breast cancer resistance to tamoxifen therapy

OP 174

Does Application of Axillary Dissection in Sentinel Lymph Node Biopsy (slnb) Positive Breast Cancer (bc) Patients Contribute To Staging and Treatment Method?

Ramazan Yildiz, Zafer Kilbaş, Yaşar Subutay Peker, Erkan öztürk, öner Menteş, Semih Görgülü

Gülhane Military Medical Academy, Department of General Surgery, Ankara, Turkey

Introduction: SLN is the first lymph node(s) that tumor is drained. In the surgical treatment of BC, axillary dissection has been replaced by SLNB.

Objectives: Our purpose is to share our axillary dissection experiences in SLNB positive patients and its contribution to patient management-staging.

Material/Patients and Methods: Data of 242 surgery+SLNB applied BC patients treated between 2000-2012 was evaluated retrospectively.

Results: 5(2.0 %) patients had stage0, 116(47.9%) had stage1, 73(30.1%) had stage2a, 35(14.4%) had stage2b, 9(3.7%) had stage3a, 1(0.4%) had stage3b, 4(1.6%) had stage3c BC. Average age was 45.8(27-84years). 58(23.9%) patients had SLNB positivity. 19(32.7%) patients had additional metastatic lymph nodes to SLN whom formal axillary dissection was performed which caused change in tumour stage only at 9(15.5%) of SLNB positive patients. A shift from 2a to 3b was observed in 1, 2b to 3a in 6, 2b to 3c in 2 patients which also changing the treatment method. Metastatic lymph nodes were detected in the axillary dissection of 4(2.17%) patients with negative SLNB.

Conclusion: SLNB has become a routine application in invasive BC avoiding complications of axillary dissection. False negativity rate has been reported as 5%. Evidence level

of SLNB in early-stage BC is sufficient while in advanced-stage is not. Change in tumour stage due to skip metastases was found at 9(15.5%) patients. Further prospective randomized studies are needed to evaluate whether completion of axillary dissection in SLN positive cases effects tumour stage and treatment method.

OP 175

Thyroid Hormone Profile During Stress-induced Endocrine Response Due To Increased Intra-abdominal Pressure in Rats

Erdal Uysal , Turkay Kirdak , Pinar Sarkut , Nusret Korun

Uludag University, School of Medicine, Department of General Surgery, Turkey

Introduction: Few data are available about the effects on thyroid hormones of increased intra-abdominal pressure.

Objectives: the aim of this study is to investigate the changes in the thyroid hormone profile during stress-induced endocrine response due to increased intra-abdominal pressure obtained by pneumoperitoneum in rats.

Material/Patients and Methods: One hundred fifty 'Wistar albino' rats were divided into five main groups. After that these main groups were divided into three subgroups as a,b,c containing 10 rats each. Group 1 (Control) was not exposed to increased intra abdominal pressure. Group 2 and 3 were exposed to 15 mmHg, Group 4 and 5 were exposed to 25mmHg intra-abdominal pressure for 15, 30 and 45 minutes. Blood samples were drawn prior to decompression in Group 2, Group 4, and following decompression in Group 3, Group 5. Thyroid Stimulating Hormone (TSH), total triiodothyronine (tT3), total thyroxine (tT4), free T3 (fT3) , free T4 (fT4), Adrenocorticotrophic hormone (ACTH), Vasopressin and Cortisol levels were measured.

Results: Group 4 when compared with Group 1 and 2 at 45 minute; TSH levels were found statistically lower both of tT3 and fT3 levels were found as significantly increased. TSH values in Group 5 were found to be decreased significantly when compared with the values in Group 3. There were no significant differences among fT3, TSH and tT4 values in both groups. Vasopressin, cortisol and ACTH levels increased in parallel with intra abdominal pressure, significantly.

Conclusion: Increased intra-abdominal pressure cause increased T3 levels and decreased TSH levels in the rat. During these changes Cortisol, ACTH and Vazopressin levels also increase. Pathogenesis and metabolic results due to changed thyroid function are not clear.

OP 176

Prognostic Factors and Surgical Strategy in the Differentiated Thyroid Carcinoma

Yurena Caballero Diaz , Clara Rosas Bermudez , David Fernandez Sanmillan , Eudaldo Lopez-tomassetti Fernandez , Juan Ramón Hernandez Hernandez

Hospital Universitario Insular De Gran Canaria, Spain

Introduction: Differentiated thyroid carcinoma is the most frequent malignant tumour found in the endocrine system with a 10 year survival rate higher than 90%. Large series of patients with long follow-ups are required to identify prognostic factors.

Objectives: To assess the prognostic factors of the differentiated thyroid carcinoma and the survival rate at 5 and 10 years.

Material/Patients and Methods: We retrospectively reviewed 186 patients operated from a differentiated thyroid carcinoma in our hospital. the study included epidemiological data, histopathological diagnosis, surgeries performed, oncological data, postoperative complications, adjuvant treatment, recurrence rate and survival rate at 5 and 10 years.

Results: 186 patients were included, 152 female and 34 men. 148 cases were papillary carcinomas and 38 follicular carcinomas. Mean age was 43.92±26 years. in the papillary carcinoma subgroup surgeries performed included thyroid lobectomy in 4.72%, subtotal thyroidectomy in 12.10% and total thyroidectomy in 83.18% with 48 cases of central lymph node dissection. in the follicular carcinoma subgroup, total thyroidectomy was performed in all cases with functional cervical lymph node dissection in 7.89% of the patients. Postoperative complications included transient hypoparathyroidism (26.58%), definitive hypoparathyroidism (2.45%), transient recurrence nerve injury (4.73%), definitive recurrent nerve injury (2.03%) and bleeding (0.68%). Survival rate at 5 and 10 years were 92.51% and 90.52% for the papillary carcinoma; and 91.25% and 88.42% for the follicular carcinoma.

Conclusion: Age presentation over 40 years, tumour size > 4cms, presence of extrathyroidal growth, presence of cervical lymph nodes and presence of metastatic disease are all associated with worse prognosis in the differentiated thyroid carcinoma.

OP 177

Clinical and Histopathological Results of Central Compartment Lymph Nodes' Dissection in Papillary Thyroid Carcinoma

Yurena Caballero Diaz, Clara Rosas Bermudez, David Fernandez Sanmillan, Eudaldo Lopez-tomassetti Fernandez, Juan Ramón Hernandez Hernandez

Hospital Universitario Insular De Gran Canaria, Spain

Introduction: Lymph node dissection of the central compartment of the neck should be the gold standard treatment for differentiated thyroid cancer, as it reduces the local recurrence rate. However the optimal surgical Management in papillary thyroid carcinoma remains controversial.

Objectives: To analyze the histopathological results, the morbidity and the lymph node recurrence rate after the central neck dissection in papillary thyroid cancer.

Material/Patients and Methods: Clinical database of patients with papillary thyroid cancer undergoing surgery during the period between 2006 and 2012 was retrospectively analyzed. Total thyroidectomy with central compartment lymph nodes' dissection was performed in all patients. Postoperative complications, histopathological results and lymph node recurrence rate were reviewed.

Results: a total of 44 patients were operated, 32 women and 12 men. the mean age was $36,14 \pm 2,32$ years. the tumour mean size was of $2,6 \pm 0,3$ cm, 19 cases were multifocal and five cases had distant extension. a mean of 6,5 lymph nodes were removed where 31 cases had lymph node metastases and in 13 cases required lateral lymph node dissection. Postoperative complications included transient hypoparathyroidism in 25 patients (56,8%), only 2 patients with permanent hypoparathyroidism (4,54%), transient recurrent laryngeal nerve (RLN) injury in 3 patients (6,8%) and permanent RLN injury in 1 patient

Conclusion: the central neck dissection has a poor morbidity with low recurrence rate, therefore it should be performed in the majority of cases with papillary thyroid carcinoma.

OP 178

Operative Treatment of Primary Hyperparathyroidism in Daycare Surgery

Tessa Van Ginhoven¹, Roderick Dulfer¹, Wanda Geilvoet¹, Wouter De Herder², Casper Van Eijck¹

¹ Erasmus Mc, Department of Surgery, the Netherlands

² Erasmus Mc, Department of Endocrinology, the Netherlands

Introduction: Primary hyperparathyroidism (PHPT) is most often due to a single parathyroid adenoma secreting excessive parathyroid hormone (PTH).

Objectives: the standard of care for primary

hyperparathyroidism is surgical removal of hyperfunctional parathyroid tissue. Here we describe twenty patients with PHPT who were treated surgically in the setting of daycare surgery.

Material/Patients and Methods: Twenty patient with primary hyperparathyroidism were operated between March 2005 and May 2010. the follow-up period had a median of 23 weeks (3-171). Results are presented as mean (\pm standarddeviation) or median (minimum-maximum).

Results: Twenty patients (15 women, mean age 54 ± 14 years) were included. Nine patients were provided with postoperative calcium supplementation. One visited the emergency department (ED) the next day with paresthesias and normocalcaemia, this patient was send home. Four patients, without prophylaxis, also reported themselves to the ED. Only one had a mild hypocalcaemia (2,09 mmol/L) and was supplemented. Comparing the ED-group (n=5) with the others, we found that preoperative calcium levels were similar ($p=0.40$), however the ED-group had significantly lower postoperative calcium levels (2.27 ± 0.14 vs. 2.55 ± 0.25 , $p=0.008$) and the relative decline was significantly higher ($17.5\% \pm 5.4$ vs. $10.5\% \pm 6.4$, $p=0.021$).

Conclusion: Parathyroidectomy in the daycare setting is feasible and safe. However many patients return to the ED. This could be related to the strict information that is provided or due to a large decrease in their calcium levels, albeit normocalcaemia. Calcium supplementation is cheap and safe, so we will provide al future patients with calcium supplementation

OP 179

Comparing the Internal Jugular Vein Entry Points by Using Anatomical Projection Method and Ultrasound Imaging

Ceren Gunt, Ozlem Selvi Can, Sacide Demiralp

Ankara University Medical Faculty Department of Anesthesiology and Icu; Ankara, Turkey

Introduction: Internal jugular vein cannulation (IJVC) has been traditionally performed by external anatomical landmarks. Depending on the practitioner's experience and the patient's anatomy, IJVC may be difficult to complete successfully. Use of ultrasound (USG) to guide IJVC has improved the success rates in recent years.

Objectives: To evaluate the relationship of sternocleidomastoid muscle (SCM) length and body mass index (BMI) with IJV entry points determined by anatomic landmarks and USG guidance.

Material/Patients and Methods: Thirty ASA 1-3 patients were enrolled in this prospective cross-over study. After intubation the measurements were done using USG. an experienced anesthesiologist blinded to the measurements performed IJVC via anatomical projection approach. Possible Catheter Entry Point (PCEP) was marked under USG guidance. the distance of PCEP to the midline and clavicle as well as IJV diameter and the length of SCM were recorded. the distance between PCEP and Actual Catheter Entry Point (ACEP), the

number of the attempts, demographic variables, body mass index (BMI) and complications were also recorded.

Results: the mean ACEP was located more cranially (6.2 ± 1.9 cm vs 4.7 ± 0.9 cm) and laterally (6.1 ± 1.3 cm vs 4.8 ± 1.0 cm) compared to the PCEP ($p < 0.05$). Neither of the points had any significant relationship with BMI and the length of SCM in terms of the distances from the clavicle and midline.

Conclusion: the ACEP determined by the landmarks is placed significantly cranial and lateral to the PCEP marked using ultrasound. the distance between these two points, however, are not affected by BMI or the length of SCM.

OP 180

Factors Affecting Anesthesia Preferences of the Parturients for Caesarean Section

Helin Şahintürk, Sanem Çakar Turhan, Ozlem Selvi Can, Ali Abbas Yılmaz, Asuman Uysalel

Ankara University Medical Faculty Department of Anesthesiology and Icu, Turkey

Introduction: High incidences of caesarean section (C/S) for birth increase the importance of parturient preferences about anesthesia management.

Objectives: To evaluate the preferences of anesthesia methods and factors affecting these preferences.

Material/Patients and Methods: After IRB approval and patient informed consent, 750 pregnant women enrolled in this prospective study. a survey consisting of 20 questions were applied to parturients before C/S. Survey included questions about demographics, anesthesia choice, monthly income, level of education, the presence of information and past experiences about anaesthesia techniques, the presence of anxiety about C/S and any symptoms of panic disorder.

Results: 392 (52.3%) parturients preferred regional anaesthesia (RA) ($p < 0.05$). Some 16 patients who choose RA had general anesthesia (GA) and 23 patients who choose GA had to have RA for unforeseen medical reasons. Being aged between 21-34y, working woman, higher monthly income, higher level of education and higher level of knowledge about anaesthesia techniques significantly affected anaesthesia preferences in favor of RA. Being younger than 20y, higher level of anxiety and presence of panic disorder significantly increased GA preference. the most common reason for RA preference was the request to see the baby immediately after delivery. Request to be unaware of everything was the main reason for GA preference.

Conclusion: Parturients with higher level of education / monthly income or those who were in business significantly preferred RA method. These groups of women could probably get more information about RA from their surroundings or use internet more frequently.

OP 181

The Effects of Sildenafil in Liver and Kidney Injury in a Rat Model of Severe Scald Burn: a Biochemical and Histopathological Study

Ali Kagan Gokakin¹, Koksal Deveci², Enver Sancaktar², Mehmet Tuzcu³, Cevdet Duger⁴, Mustafa Atabey¹, Omer Topcu¹

¹Cumhuriyet University School of Medicine, Department of General Surgery, Turkey

²Cumhuriyet University School of Medicine, Department of Biochemistry, Turkey

³Cumhuriyet University Faculties of Veterinary, Department of Pathology, Turkey

⁴Cumhuriyet University School of Medicine, Department of Anesthesiology, Turkey

Introduction: Severe burn induces systemic inflammation and reactive oxygen species that leads to lipid peroxidation which may play a role in remote organs injury. Sildenafil is a selective and potent inhibitor of cyclic guanosine monophosphate specific phosphodiesterase-5. Sildenafil reduces oxidative stress and inflammation in distant organs.

Objectives: the aim of present study was to evaluate the effects of different dosages of sildenafil in remote organs injury as a result of severe burn in rats.

Material/Patients and Methods: a total of 32 rats were randomly divided into four equal groups. Twenty-four of 32 rats were subjected to 30% total body surface area severe scald burn injury. the groups were designated as follows: Sham, Control, 10, and T20 mg/kg sildenafil treatment groups. Levels of malondialdehyde (MDA), vascular endothelial growth factor (VEGF), VEGF receptor (Flt-1), activities of glutathione peroxidase (Gpx), levels of total antioxidative capacity (TAC), and total oxidant status (TOS) were measured in both tissues and serum, a semi-quantitative scoring system was used for the evaluation of histopathological findings.

Results: Sildenafil increased levels of Gpx, and Flt-1, and decreased MDA and VEGF levels in tissues. Sildenafil also increased serum levels of TAC and Flt-1 and decreased TOS, OSI, and VEGF. Sildenafil decreased inflammation scores in remote organs in histopathological evaluation.

Conclusion: Sildenafil has protective effects in severe burn-related remote organ injuries by decreasing oxidative stress and inflammation, and the dosage of 10 mg/kg could be apparently better than 20 mg/kg. Running Title: Effects of sildenafil in remote organ injury related severe burn

OP 182

Weaning From Mechanical Ventilation Driven by Non-physician Health Care Professionals Versus Physicians

Emine Arici¹, Sevinc Tastan², Hatice Ayhan², Emine Iyigun², Mehmet Fatih Can¹, Ramazan Yildiz¹

¹Gulhane Military Medical Academy, Department of General Surgery, Turkey

²Gulhane Military Medical Academy, School of Nursing, Department of Surgical Nursing, Turkey

Introduction: Mechanical ventilation (MV) is a mainstay treatment in intensive care units (ICU). Studies have shown that applying algorithms to weaning procedure shortens the duration of MV. Whether weaning of patients by non-physician health care professionals (nurse, physiotherapist) improves or worsens outcomes remains an unresolved issue.

Objectives: To evaluate studies comparing outcomes after weaning driven-by non-physician health professionals vs. physicians.

Material/Patients and Methods: Search engines of Pubmed, CINAHL and Cochrane Library were searched using keywords 'mechanical ventilation', 'weaning', 'physician', 'non-physician', 'nurse', 'driven' without date limitation. Studies written in English, evaluating the results of discontinuation of MV led by non-physician health professionals and physician-driven weaning were evaluated. Ten relevant studies were retrieved and included in the detailed analysis.

Results: Four of the studies were randomized controlled trials, another four studies were non-randomized controlled trials and two were cohort studies. Seven of these studies concluded that weaning driven by non-physician health care professionals decreases the duration of MV provided they adhere to weaning protocols ($p < 0,05$). Other three studies showed no difference between the two groups. No statistically significant differences between the groups were observed in terms of hospital stay (LOS), re-intubation, and mortality.

Conclusion: Weaning driven by non-physician health care professionals may shorten the duration of MV. More randomized controlled studies are needed to determine whether the rate of morbidity, mortality and LOS can also be reduced by this approach.

OP 183

The Effects of the Pharmacologic and Nonpharmacologic Methods for the Chest Tube Removal: a Systematic Review

Yasemin özkan¹, Sevinc Tastan², Hatice Ayhan², Emine Iyigun², Gökhan özkan³

¹Gulhane Military Medical Academy, Department of Cardiac and Vascular Surgery, Turkey

²Gulhane Military Medical Academy, School of Nursing, Department of Surgical Nursing, Turkey

³Tatvan Military Hospital, Department of Anesthesiology, Turkey

Introduction: Chest tube removal for patients with painful, annoying and worrisome process. So as to relief the pain experienced by the patients which pharmacologic and nonpharmacologic pain relief methods can be applied.

Objectives: the aim of this systematic reseach to evaluate the effectiveness of pharmacologic and nonpharmacologic pain management methods that used to chest tube removal.

Material/Patients and Methods: in this study we used three databases (PubMed, CINAHL, WEB OF SCIENCE) to obtain the initial list of potential articles for systematic review. Researches included published articles covering the period from 2003 to 2013. Research terms included, "chest tube", "pain", and "removal". Inclusion criteria for this research articles can be written in English and should be a research article. Exclusion criteria; not to be in English, not to be a research article and studies which was performed for pediatrics. Potentially relevant 8 studies were evaluated for this study.

Results: Seven of the studies which analyzed randomized controlled trials and three of them double-blind, placebo-controlled study. One of these studies design was two-group quasi-experimental pretest/posttest. the greater part of the studies suggest that the effect of pharmacological methods. However some of these studies shown that nonpharmacologic methods which is including the cold application methods or relaxation exercises indicates a statistically significant decrease with chest tube removal pain.

Conclusion: the studies suggest that pharmacologic and nonpharmacologic methods is effective in pain management for these patients. However, in the literature there are limited studies that used the combination of these both methods to provide effective pain management for these patients. for this reason randomized controlled trials on this subject are recommended.

OP 184

Lidocaine Prevents Lung Inflammatory Response To One Lung Ventilation

Lisa Rancan ¹, Carlos Alberto Calvo ¹, David Rincón ², Cristina Ginés ¹, Raquel Esteras ², Carlos Simon ², Ignacio Garutti ³, Elena Vara ¹

¹ Complutense University, School of Medicine, Department of Biochemistry and Molecular Biology Iii, Madrid, Spain

² Gregorio Marañón Hospital, Department of Thoracic Surgery, Madrid, Spain

³ Gregorio Marañón Hospital, Department of Anesthesiology, Madrid, Spain

Introduction: Lung resection surgery with one lung ventilation (OLV) is generally associated with an intense local and systemic inflammatory response. Lidocaine is a commonly used local anesthetic agent which has also been found to possess anti-inflammatory activity.

Objectives: This study was designed to investigate the possible effect of lidocaine on lung injury secondary to OLV.

Material/Patients and Methods: Eighteen swines undergoing left caudal lobectomy with OLV were randomly divided in 3 groups: animals receiving anesthesia with IV propofol alone (CON) or plus lidocaine (LIDO) and sham group (SHAM). Samples of bronchoalveolar lavage (BAL) and blood were collected before and after OLV and the next day. Lung biopsies from collapsed (LCL) and ventilated (ML) lungs were collected before surgery and 24h after it. Levels of inflammatory (IL-1, IL-2, TNF α , NFkB, MCP-1) and apoptotic (caspases, BAD, BAX, BAK, Bcl2) biomarkers were determinate in lung samples. BAL and blood levels of metalloproteinases (MMP) were also determined.

Results: OLV increased the expression of TNF α , IL-1, IL-2, MCP-1 and NFkB ($p < 0.05$) in the LCL. the OLV effect was reduced by lidocaine. Caspase (3 and 9), BAD and BAX activities as BAL and blood MMP2 and MMP9 levels were higher ($p < 0,05$) in both CON and LIDO groups compared to SHAM group ($p < 0,05$) and again these effects were partially blocked by lidocaine. Lidocaine administration was associated with high values of Bcl-2 compared with the other two groups. No change was observed in BAL levels of MMP3

Conclusion: These results suggest that lidocaine prevents OLV-induced lung injury through the reduction of proinflammatory cytokines and lung apoptosis.

OP 185

A Different Perspective To Gynecomastia

Dogan Alhan , and ac Aykan , Serbulent Guzey , Muhitdin Eski , Selcuk Isik

Department of Plastic and Reconstructive Surgery, Gulhane Military Medical Academy, Etlik, Ankara, Turkey

Introduction: Although, many surgical techniques were

defined on gynecomastia treatment, not-well established systematic approaches in technique selection have negative impacts on the treatment process and may lead to repeated surgeries and patient dissatisfaction.

Objectives: in this study, our approach to gynecomastia patients, our algorithm for selection of treatment modality and our experience are presented.

Material/Patients and Methods: in the study 32 cases of gynecomastia, who were treated in our clinic between 2010-2012 were included. According to evaluation of the patient records and photos, the parameters of volume, ptosis, width of the areola, breast content (glandular-fat) were revealed. This data were compared with the surgical technique and our algorithm for treatment selection was established.

Results: the average age of the patients were 19 (17-22). 3 of 32 patients were suffered from one-side gynecomastia. 12 patients were underwent conventional liposuction. 14 patients were underwent combination of liposuction and excision. 6 patients were applied to excision only. Skin reduction via periareolar resection were applied to 10 patients and areola reduction were applied to 6 cases.

Conclusion: Liposuction and resection, two main treatment versality. First of all, one must decide which of them is the major. Many of the literature advocate size, as a major variable in the decision-making process and many treatment algorithms had been shown in this way. As a result of this study, the content of the breast should be considered as the most important factor that determines the technique. the size and skin elasticity help us to decide skin reduction.

OP 186

Does Diagnostic Excisional Biopsy Prevent the Breast Conserving Surgery?

Zafer Kilbas ¹, Mustafa Tanriseven ², Ramazan Yildiz ¹, Oner Menten ¹, Erkan Ozturk ¹, Semih Gorgulu ¹

¹ Gulhane Military Medical Academy, Turkey

² Diyarbakir Military Hospital, Turkey

Introduction: Excisional biopsy in the diagnosis of breast cancer has decreased in recent years. in experienced centers, preoperative tru-cut or FNAB are 75-80% breast cancer diagnosis. Performing excisional biopsy for diagnosis makes breast preservation surgery which will be carried out later on complicated and defaces breast cosmetically.

Objectives: in this study; we aimed to determine whether diagnosing breast cancer with excisional biopsy is affecting the method of ideal surgical technique (i.e. breast preservation surgery or mastectomy)

Material/Patients and Methods: Data of 425 patients who have been performed surgery on between years 2006-2012 in our clinic is investigated retrospectively. Patients are distinguished in two groups. First group is consisting of the patients who are diagnosed by excisional biopsy and then performed secondary surgical operation as complimentary treatment required.

Results: Age average of patients was 52 (ranging 27-83). Absolute histopathological examination exposed that 14 patients (42.4%) were in stage I, 14 patients (42.4%) were in stage II and 5 patients (15.2%) were in stage III, of the total 33 patients performed excisional biopsy.

Conclusion: Sufficient data on prognostic factors such as tumor diameter, grade, surgical borders, receptor status that are important to define surgical options is not reachable as diagnosis purposed excisional biopsy processes have been carried out by other medical centers.

OP 187

«The Pip Breast Implant Scandal” - a Single Surgeon’s Experience and Management Algorithm

Alastair Blake , Nicholas Cunniffe , Nakul Patel , Charles Malata

Addenbrookes Hospital, University of Cambridge, UK

Introduction: the recent PIP implant scandal has been a great source of anxiety for the estimated 47,000 British PIP breast implant recipients. the response from the government, regulatory authorities and plastic surgeons was initially slow and at times contradictory. This prompted a review of patients presenting with ruptured PIP implants.

Objectives: To evaluate the surgical considerations and devise a management algorithm for treating patients with ruptured PIP implants.

Material/Patients and Methods: We identified six consecutive private patients with ruptured PIP implants and retrospectively reviewed their presentation and subsequent management.

Results: All six primary breast augmentations were performed in UK cosmetic clinics by non-plastic surgery accredited practitioners. They presented with at least two of the following: breast discomfort, axillary discomfort, breast swelling, axillary swelling or change in breast consistency. Three patients underwent ultrasound and four had MR imaging. All had severe local tissue reactions and required bilateral total capsulectomies. Five underwent implant exchanges with a mandatory change of implantation pocket. Half needed removal of breast and axillary silicone granulomata.

Conclusion: PIP implant ruptures often necessitate capsulectomies and implant pocket alteration. an algorithm to assist staggered patient management based on clinical evaluation and appropriate imaging is proposed. We reflect on the general lessons for public health, regulatory bodies and the plastic surgery community.

OP 188

Are Aesthetic Surgical Procedures “easy and Uncomplicated”?

Evangelos Sarantopoulos , Henrik Menke

Klinikum Offenbach GmbH, Department for Plastic, Aesthetic and Hand Surgery – Burn Unit, Germany

Introduction: Liposuction, abdominoplasty and breast reduction procedures are some of the most popular performed operative procedures in aesthetic surgery. These kind of procedures can have serious complications, such as infections, allergic reactions, sepsis or death as well. Although having serious complications, aesthetic procedures are often performed from physicians that are not specialized and qualified in plastic and aesthetic surgery.

Objectives: Showing the serious complications that can result after aesthetic surgical procedures.

Material/Patients and Methods: a series of patients had aesthetic surgical procedures performed by “non-specialized” physicians, leading to a serious complications such as necrosis, haematoma and sepsis. All of these patients were at some point referred for treatment to our Department for Plastic and Aesthetic Surgery due to the above mentioned complications.

Results: All of the patients were treated successfully and were discharged in healthy condition.

Conclusion: a number of complications are possible after aesthetic surgical procedures. for instance, the combination of aesthetic surgical procedures such as liposuction and abdominoplasty is associated with a higher risk of possible complications. That is the reason why aesthetic surgical procedures should be performed by physicians specialized and qualified in plastic and aesthetic surgery.

OP 189

V-y Advancement Flap Versus Primary Midline Closure in Chronic Pilonidal Disease

Halil Koray Sezer , Gokhan Celikkol

Balikesir Military Hospital, Department of General Surgery, Turkey

Introduction: Pilonidal sinus is a common disease that mostly affects young people. It causes both discomfort and distress to patients and prolonged work-off.

Objectives: the aim of this study was to compare the V-Y advancement flap and primary midline closure.

Material/Patients and Methods: Prospectively collected records of 65 patients who underwent surgical treatment for Pilonidal disease from June 2010 to May 2011 were retrospectively assessed. Patients were divided into two groups;PMC (n=35) and V-Y (n =30) groups. Surgical findings, complications , length of hospital stay, time to return to normal activity, time to return to work, recurrence rates, and degree of satisfaction based on a questionnaire obtained via

telephone interview were compared between the two groups.

Results: Length of hospital stay was longer in V-Y flap group. Significant differences were found between the two groups in terms of complications ($p < 0,01$) in favour of V-Y group. There was no recurrence in V-Y group. Time to return to normal activity and time to return to work were shorter in V-Y group. Eighty percent of patients in V-Y group were completely satisfied with the procedure, while only 40 % of patients who underwent the PMC procedure reported excellent satisfaction.

Conclusion: We believe that the V-Y advancement flap is a good alternative method for the treatment of pilonidal sinus because of no recurrence and less complication and promising satisfaction rates and short functional recovery time.

OP 190

The Importance of Reconstructive Thinking During the Acute Traumatic Phase

Evangelos Sarantopoulos , Henrik Menke

Klinikum Offenbach GmbH, Department for Plastic, Aesthetic and Hand Surgery – Burn Unit, Germany

Introduction: the first priority during the acute traumatic phase is to evaluate the entire patient and to stabilize his injuries. However, modern microsurgical treatment options enable the reconstruction of extreme complex hand injuries after crushes and amputations.

Objectives: the importance of reconstructive thinking during the acute traumatic phase.

Material/Patients and Methods: the first patient was transferred to us due to extended defects of the distal forearm and the dorsum of the hand. the angiogram that was preoperatively performed showed an occlusion of the right radial artery. We decided to perform a modified pedicled ALT. the second patient lost his left thumb after a car accident. in order to reconstruct his thumb we decided to perform a toe-to-hand reconstruction. Intraoperatively, we realized that the recipient artery was inappropriate for the anastomosis of the free flap. Thus, we performed an end-to-end anastomosis to the radial artery.

Results: Both patients were discharged with stable wounds and were very satisfied with the reconstructive result.

Conclusion: It is very important to salvage as many anatomical structures as possible during the acute traumatic phase. the consideration of a secondary reconstructive procedure during the acute traumatic phase will enable better function restoration and improve the patient's quality of life.

OP 191

Systemic and Local Anti-angiogenic Activity After 70%hepatectomy in Rats and Its Relationship with Regeneration and Angiogenesis

Dauren Sarsenov , Ahmet Bülent Doğrul , Mehmet Bülent Tirmaksiz

Hacettepe University, School of Medicine, Department of General Surgery, Turkey

Introduction: the aim was to evaluate systemic and local angiogenesis and anti-angiogenesis after 70% hepatectomy in form of VEGF-endostatin ratio (VER) and its applicability for systemic identification of angiogenesis-related process in a rat model.

Objectives: There is a strong necessity to obtain minimally invasive and still reliable tool for diagnosis of angiogenesis related processes and their intensity which are typically defined by pathological evaluation of biopsy materials.

Material/Patients and Methods: Sixty-four Sprague-Dawley albino rats in eight groups ($n = 8$) underwent 70% partial hepatectomy. Local angiogenic and anti-angiogenic activity were assessed in remnant liver together with systemic representatives of these processes on days 0, 1, 3, 5, 7, 10, 14 and 21. Angiogenesis was defined by immunoreactivity to anti-VEGFR-2 antibody, anti-angiogenesis by immunoreactivity to anti-endostatin antibody. Systemic VEGF and endostatin were identified by ELISA with corresponding antibodies.

Results: Our study demonstrated that VEGFR-2 expression and systemic VEGF concentration were showing anticipated receptor-ligand kinetics both peaking at day 5 in concordance. Endostatin local expression was quite accurately correlating with serum endostatin concentration showing anticipated sequence of production and consequent washing out into systemic circulation with probable endocrine effects supposed to down-regulate endocrine effects of VEGF. Furthermore, even after guaranteed cessation of angiogenesis on day 14, systemic level of endostatin on days 14 and 21 kept on being higher than basal level of control group. We also showed a good correlation between systemic VEGF and endostatin in most of groups (five of eight), giving a hope for developing a VER-based screening and diagnostic test for angiogenesis related processes.

Conclusion: VER can become a useful tool in detecting the stage or at least presence of angiogenesis related processes.

OP 192

Effect of the Hydrogen Sulfide Donor Gyy4137 on Platelet Activation and Microvascular Thrombus Formation in Mice

Fabian Mueller-graf¹, Eberhard Grambow¹, Evgenya Delyagina², Marcus Frank³, Angela Kuhla¹, Brigitte Vollmar¹

¹Institute for Experimental Surgery, University of Rostock, Rostock, Germany

²Reference and Translation Center for Cardiac Stem Cell Therapy, University of Rostock, Rostock, Germany

³Electron Microscopy Center, University of Rostock, Rostock, Germany

Introduction: H₂S is a gaseous transmitter mediating cytoprotective and cytotoxic effects.

Objectives: This study evaluates the effect of the H₂S donor GYY4137 (GYY) on adhesion molecule expression, protein S-sulfhydration and morphology of platelets in-vitro and on kinetics of microvascular thrombus formation in-vivo.

Material/Patients and Methods: Using flowcytometry, untreated resting, TRAP-activated, or TRAP-activated and GYY-exposed human platelets were studied for expression of P-selectin, GPIb and GPIIb/IIIa as well as for fibrinogen binding. by means of electron and structured-illumination microscopy, platelet morphology, shape change and intracellular granule numbers were assessed. Biotin switch assay served for analysis of platelet protein S-sulfhydration by GYY. Using the FeCl₃ and the light/dye model in dorsal skinfold chamber-equipped mice, the effect of GYY and its vehicle DMSO was studied on venular thrombus formation and tail-vein bleeding time. Soluble (s)P-selectin plasma concentrations were measured in GYY- or DMSO-treated animals.

Results: Exposure to GYY increased the S-sulfhydration of platelet proteins. GYY reduced dose-dependently the TRAP-induced adhesion molecule expression and attenuated the morphological signs of TRAP-associated platelet activation. in mice, GYY caused a significant prolongation of venular thrombus formation and tail-vein bleeding time. Application of an anti-P-selectin antibody in DMSO-exposed animals prolonged thrombosis formation comparably as GYY did. GYY reversed the TRAP-induced distribution of P-selectin at the plasma membrane of platelet. This indicates reduced exocytosis and shedding of P-selectin, which is supported by significantly lower sP-selectin concentrations in GYY- vs DMSO-treated mice.

Conclusion: H₂S acts anti-thrombotic and seems to regulate thrombogenesis by interference with platelet activation and adhesion molecule-mediated aggregation.

OP 193

Is There Any Direct Relationship Between the Osas and Ngerd?

Şeyma Biçici¹, Osman Yüksel²

¹Gazi University, School of Medicine, Turkey

²Gazi University, School of Medicine, Department of General Surgery, Turkey

Introduction: Obstructive sleep apnea syndrome (OSAS) and nocturnal gastroesophageal reflux disease (NGERD) are common chronic diseases and share similar risk factors. the prevalence of NGERD in OSAS patients is significantly higher than the general population.

Objectives: the aim of the study was to investigate the relationship between OSAS and NGERD.

Material/Patients and Methods: Search of the literature using PubMed database. the articles were searched with the keywords "OSAS, GERD, obstructive sleep apnea syndrome, gastroesophageal reflux disease" and the articles (Grade a and B) were selected between the 2000-2013. Results of the parameters (polysomnography, pH monitoring, esophageal manometry and questionnaires related with sleep and typical reflux symptoms) were evaluated.

Results: in classical knowledge considered that there is a strong relationship between OSAS and GERD. Some studies found positive correlation between endoscopic severity of reflux disease and AHI (apnea hypopnea index) and say that there is a direct relationship because the treatment of one condition (cPAP) improves the other condition. But a lot of studies did not find direct association between the reflux events and apneas, they say that arousals or apneas are not the cause of reflux episodes or vice versa. and in one study antireflux therapy reduced arousal index but no differences in the AHI or minimum O₂ saturation.

Conclusion: the treatment with cPAP provide improvement in GERD in both OSAS and non-OSAS patients. for this reason this is not a strong evidence for direct relationship. According to articles OSAS and GERD are nondirectly related. Future trials should concentrate on OSAS and NGERD.

OP 194

The Effect of Arginine, Glutamin and Hydroxymethylbutirate on ischemic Wound Healing

Haldun Gündoğdu¹, Hande Temel¹, Bahadır Bozkırlı¹, Eren Ersoy¹, Aylin Yazgan², Zuhâl Yıldırım³

¹Atatürk Training and Research Hospital, Department of General Surgery, Turkey

²Atatürk Training and Research Hospital, Department of Pathology, Ankara, Turkey

³Gazi University, Department of Biochemical, Turkey

Introduction: Wound healing is a complex process that

corrects impaired tissue integrity in which certain aminoacids have a crucial role.

Objectives: Arginine and glutamine are those aminoacids that become essential in the case of trauma and stress. They were proved to enhance wound healing. Hydroxy-methyl-butyrates(HMB) is an aminoacide that has been recently shown to effect protein cycle and prevent proteolysis in muscle tissue. It has been proven in a previous study that the combination of these three aminoacids increased collagen synthesis in healthy human subjects. However, there were no experimental studies on the effect of this combination on secondary wound healing. In our previous study we found that a mixture containing these three aminoacids did not affect the secondary healing of uncomplicated wounds. The purpose of the present study is to investigate the effect of this aminoacid combination on secondary wound healing in the presence of ischemia.

Material/Patients and Methods: Eighteen Wistar rats were used in this study. Two 2X2cm wounds were created on bipedicated skin flaps on the backs of rats. The rats in the treatment group received 200mg/kg L-arginine, 200mg/kg L-glutamine and 40mg/kg HMB per day for two weeks. After two weeks tissue samples were taken from both of the groups.

Results: the wounds in the treatment group were significantly smaller($p<0.001$). There were no difference in collagen accumulation($p=0.658$) and hydroxyproline levels($p=0.195$) Inflammatory cell accumulation was significantly higher in the control group($p=0.024$).

Conclusion: As a result, the combined use of these three aminoacids enhanced the secondary healing of ischemic wounds. The insignificant results need further investigations.

OP 195

Effects of Glutamine on Wound Healing

Ugur Kesici¹, Sevgi Kesici², Hulya Ulusoy³, Fulya Yucesan³, Aygen Turkmen⁴, Ahmet Besir³, Verda Tuna²

¹ Akcaabat Hackali Baba State Hospital, Turkey

² Kanuni Training and Research Hospital, Turkey

³ Karadeniz Technical University, School of Medicine, Turkey

⁴ Okmeydani Training and Research Hospital, Turkey

Introduction: Studies reporting the need for replacing amino acids such as glutamine (Gln), hydroxy methyl-butyrates (HMB) and Arginine (Arg) to accelerate wound healing are available in the literature.

Objectives: Primary objective of this study is to present the effects of glutamine on tissue hydroxyproline (OHP) levels in wound healing.

Material/Patients and Methods: This study was conducted on 30 female Sprague Dawley rats with a mean weight of 230 ± 20 grams. Secondary wounds were formed by excising 2x1 cm skin subcutaneous tissue on the back of the rats. The rats in the study were divided into three equal groups. Group C (Control): the group received 1 mL/day isotonic by

gastric gavage after secondary wound was formed. Group A (Abound): the group received 0.3 g/kg/day/mL gln, 0.052 g/kg/day/mL HMB and 0.3 g/kg/day/mL arg by gastric gavage after secondary wound was formed. Group R (Resource): the group received 0.3 g/kg/day/mL gln by gastric gavage after secondary wound was formed. OHP levels of the tissues obtained from the upper ½ region on the 8th day and lower ½ region on the 21st day from the same rats in the groups, were examined. For the statistical analysis performed in the evaluation of the data obtained during the study, statistics program SPSS 17.0 was used.

Results: No statistically significant differences were reported with regard to the OHP measurements on the 8th and 21st days (8th day; $F=0.068$; $p=0.935>0.05$, 21st day; $F=0.018$; $p=0.983>0.05$). The increase in mean OHP levels on the 8th day and 21st day within each group was found to be statistically significant ($F=1146.34$; $p=0.000<0.001$).

Conclusion: We suppose that in adults who eat healthy food, who do not have any factor that can affect wound healing negatively and who do not have large tissue loss at critical level, gln, arg and HMB support is not required to accelerate secondary wound healing.

OP 196

Electrical Stimulation for Ulcer Healing: a Systematic Review and Meta-analysis of Randomised Controlled Trials

Rachel Barnes, Yousef Shahin, Risha Gohil, Ian Chetter

Academic Vascular Surgical Unit, Hull York Medical School and University of Hull, Hull, UK

Introduction: Several studies have been conducted to investigate the effectiveness of electrical stimulation for ulcer healing.

Objectives: To investigate the effect of electrical stimulation on ulcer healing compared to placebo or usual treatment, i.e. simple dressings.

Material/Patients and Methods: MEDLINE, EMBASE and Cochrane Central Register of Controlled Trials (CENTRAL) were searched from inception to December 2011 on randomised controlled trials (RCTs) which assessed the effect of electrical stimulation on ulcer size as compared to placebo or usual treatment.

Results: In 6 trials ($n=210$), electrical stimulation improved mean percentage change in ulcer size over total studies periods by 24.62%, 95% Confidence Interval 19.98 to 29.27, $p<0.00001$ with no heterogeneity. In 3 trials ($n=176$), electrical stimulation insignificantly improved mean weekly change in ulcer size by 1.64%, 95% Confidence Interval -3.81 to 7.09, $p=0.56$ with significant heterogeneity ($I^2=96%$, $p<0.00001$). In 6 trials ($n=266$), electrical stimulation decreased ulcer size by 2.42 cm², 95% Confidence Interval 1.66 to 3.17, $p<0.00001$, with significant heterogeneity. In one trial ($n=16$), electrical stimulation also insignificantly improved the mean daily percentage change in ulcer size by 0.63%, 95% C.I. -0.12 to 1.37, $p=0.10$, with significant

heterogeneity.

Conclusion: Electrical stimulation increased the rate of ulcer size reduction and is superior to placebo or usual treatment modalities for ulcer treatment.

OP 197

Correlation of Adenosine Stress Perfusion Magnetic Resonance Imaging with 99mTc Myocardial Perfusion Scintigraphy and Coronary Angiography in Patients with Previous Coronary Endovascular Intervention.

Seyda and ac¹, Yusuf Oner¹, Erhan Yazici², Atiye Cengel², Mesut Basara³, Mehmet T. Kitapci³, Turgut Tali¹

¹Gazi University, School of Medicine, Department of Radiology, Turkey

²Gazi University, School of Medicine, Department of Cardiology, Turkey

³Gazi University, School of Medicine, Department of Nuclear Medicine, Turkey

Introduction: MRI plays an important role in the evaluation of cardiac ischemia.

Objectives: in this study our purpose was to prospectively evaluate the performance of adenosine stress perfusion MRI, MRI wall motion imaging and late gadolinium enhancement in detecting ischemic myocardial segments among symptomatic patients with previous coronary endovascular intervention, and to compare them with 99mTc myocardial SPECT considering coronary angiography as the reference standard.

Material/Patients and Methods: Eighteen patients (4 women and 14 men) were enrolled in this study. All patients were examined first with MRI and then with SPECT, during the same day with the same adenosine injection. Coronary angiography examinations were performed within the following week. Image evaluations were made using the American Heart Association (AHA) 17 segment model, with the exclusion of the apex (segment 17), by means of visual scoring for each segment made by two radiologists. Statistical analysis were made considering angiography as the reference standard and a p value lesser than 0,05 to indicating a significant difference.

Results: Sensitivity, specificity and accuracy of MRI first-pass perfusion for detection of a significant coronary artery stenosis in the total patient group were % 50.4, % 87.6, % 70.1 respectively. Delayed enhancement CMR imaging had the highest specificity with % 94.8. the combination of first-pass perfusion, rest perfusion, delayed enhancement and wall motion imaging data had a sensitivity of %74,8, specificity of %79,7, positive predictive value of %76,5, negative predictive value of %78,2 and an accuracy of %77,5. the sensitivity, specificity, positive and negative predictive values, accuracy and kappa values of single and combined MRI data were significantly higher than those with SPECT in differentiating normal and pathologic coronary segments with significant

stenosis on coronary angiography

Conclusion: Adenosine stress alone and combined with other MRI techniques have higher sensitivity and accuracy than the more widely used SPECT, in diagnosing significant coronary artery stenosis in symptomatic patients with previous coronary endovascular treatment.

Video Presentations

VP 01

Remote Ischemic Preconditioning And Major Liver Resection In Rats: Description Of A Feasible Technique

Umit Alakuş, Mehmet Fatih Can, Hasan Şahin, Ismail Özerhan, Gökhan Yağcı

Department of General Surgery, Gülhane Military Medical Academy, Turkey

Background & Aim: Liver ischemic preconditioning, and more recently, remote ischemic preconditioning have been proposed as two methods of limiting liver ischemia caused by portal occlusion during hepatic resection. Here we present our technique of remote ischemic preconditioning and major liver resection in a rat model.

Technical Description: After the rat is anesthetized, a bilateral subcostal incision is done. Major liver resection can be carried out as right hepatectomy, left hepatectomy or median lobectomy. We adopt a left hepatectomy technique consisting of resection of the left lateral lobe and left median lobe, by which approximately 40% of the liver parenchyma can be removed. We ligate the lobes at their roots using silk ties. This is an easy-to-perform procedure that can be completed within a few minutes. In order to achieve adequate remote ischemia without compromising nearby structures we perform occlusion of the right femoral artery through a mini incision of the groin. The approach allows synchronized or sequential clamping and release of blood supply to the liver and the limb. The experiment finalizes with removal of the liver at a second operation.

Conclusion: Ischemic and remote ischemic preconditioning of the liver can be performed using several techniques. We believe our technique is feasible and safely reproducible that does not necessitate sophisticated equipment.

VP 02

Computer-Generated 3d Models and Virtual Reality Animations Hold Promise for the Future of Surgery Related Education

Mehmet Fatih Can

Gulhane School of Medicine, Department of General Surgery, Turkey

Introduction & Aim: Computer-generated 3D models and virtual reality animations created using state-of-the-art software are increasingly becoming popular in drug and medical device industry. There has however been limited incorporation of such techniques into surgical educational activities took place at medical faculties. The aim of this study to explore potential advantages and difficulties of creating 3D animation models that can be used for educational purposes.

Technical Description : Using Blender 2.62®, TrueSpace 7.6® and Corel VideoStudio ProX5® software, several models of pancreas, liver and nearby vasculature were designed. Camera and organ oriented animations were then rendered to make it possible to share the information gathered. Stepwise difficulties creating and using the models were analyzed. Both pancreas and liver 3D models were successfully created. The most significant problem was that construction of details like texturing of pancreatic surface during modeling and camera oriented animation were time-consuming. Once a model has been created, however, it was easy to navigate it through the software itself at pre-rendering phase. The model seemed to be a good instrument to help students figure out relevant anatomy during the class as long as the same software is used for 3D navigation.

Conclusion: Computer-generated 3D models can contribute considerably to the surgical education of medical students and even residents in the future. Rendering a scenario into virtual reality animation may also help the trainee figure out a complex operation.

VP 03

A Novel Murine Model of Ascending Aortic Aneurysm

Giacomo Bianchi¹, Mattia Glauber², Vincenzo Lionetti¹

¹Scuola Superiore Sant'anna, Settore Di Scienze Della Vita, Pisa, Italy

²Ospedale Del cuore - Fondazione Toscana "G. Monasterio" - Massa, Italy

Introduction & Aim: Abdominal and descending thoracic aorta aneurysmal disease has been extensively investigated with dedicated animal models. Ascending thoracic aorta has different embryological origin and pathophysiology; thus a dedicated experimental model is needed and yet lacking.

Technical Description : Ten adult C57BL/6J mice underwent premedication with Zolazepam/Tiletamine and

Xylazine. After that oro-tracheal intubation was performed and mechanical ventilation started (165 breath/min, 1.5 ml tidal volume, 2 L/min O₂ with isoflurane 2%). The ascending aorta was exposed through a partial upper midline sternotomy. Calcium chloride was applied on its abluminal surface for 15 minutes; after that, the surgical field was rinsed with saline, the chest closed in routine fashion as well as the soft tissues. The anesthesia was discontinued and the animal allowed to recover. After 4 weeks, euthanasia was performed and the perfusion-fixed aortas harvested. Histology demonstrated a thinning of the aortic wall in CaCl₂-treated group (-47%;), a decrease in aortic cells content (-30%) and a decrease of elastic fibers as well (6±1 vs 3±1, control vs. treated; p<0,01).

Conclusion: An easy and reproducible model of murine ascending aortic aneurysm with features resembling those of human disease has been developed.

VP 04

Bacterial Endocarditis Model in Rabbits-Modification of a Common Model

Michalis Katsimpoulas, Constantinos Dimitriou, Petros Moustardas, Panayiotis Fanourgiakis, Nikolaos Kostomitsopoulos, Alkiviadis Kostakis

Center for Experimental Surgery, Biomedical Research Foundation of the Academy of Athens, Greece

Introduction & Aim: The challenge to induce bacterial endocarditis in the rabbit by placing a flexible catheter tip at the root of the aortic valve and the subsequent injection of bacteria, is an experimental model fully documented in the literature. However, a frequent problem in the performance of the surgical procedure is the ectopic course of the catheter, especially in the thoracic aorta, which may be due to the inexperience of the surgeon, a miscalculation or anatomical variations. The purpose of this communication is to present the modification of the intravascular catheter placement under fluoroscopic guidance.

Technical Description : In establishing relevant research protocol, the right common carotid artery was catheterized in 90 male rabbits (group1-common model N=45, group2-modification model N=45). The catheterization of the vessels were under fluoroscopic control. At euthanasia, successful placement of the catheter into the aortic root was achieved in 60% (group1). On the modification group the placement was successful in 100% of the animals.

Conclusion: The modifications, documented by C-arm, eliminate substantially the percentage of the incorrectly positioned catheters, thereby reducing the number of animals and contributing to obtain more reliable results.

VP 05

Allogeneic Aortic Transplantation in Rat Model After Decellularization

Michalis Katsimpoulas¹, Efstathios Michalopoulos²,
Constantinos Dimitriou¹, Petros Moustardas¹, Ioanna
Gontikas², Panayiotis Mallis², Nikolaos
Kostomitsopoulos¹, Alkiviadis Kostakis¹

¹Center for Experimental Surgery, Biomedical Research
Foundation of the Academy of Athens, Greece

²Hellenic Cord Blood Bank, Biomedical Research
Foundation of the Academy of Athens, Greece

Introduction & Aim: the loss or damage of an organ or tissue is one of the most common and devastating problems in healthcare today. Current therapies include organ transplantation, surgical restoration or the use of mechanical devices. The field of tissue engineering applies the principles of engineering, cellular and molecular biology towards the development of sustainable biological scaffolds that maintain, improve or restore the function of pathological tissues. The key role to scaffolding is to provide mechanical stability to the native tissue and structural support to cells. A biocompatible scaffold of rat aorta would function as an ideal allograft for vascular conduits in cardiovascular disease surgeries. We examined the possibility of allogeneic transplantation of decellularized aorta, originated from rats.

Technical Description : We have performed allogeneic transplantation of the abdominal aorta between DA (donor) and Wistar (recipient) rats performing end to end anastomosis and sacrifice the animals 1,5 month later. We have formed two groups; In group A (N=6) the allogeneic aorta was intact and in group B (N=6) the aorta had been decellularized.

Conclusion: We present the feasibility and reproducibility to decellularize and to transplant abdominal aorta between different rat strains.

VP 06

Minimal-Touch' Model of Orthotopic Abdominal Aorta Transplantation (AoTX)

Efstathios Antoniou¹, Michalis Katsimpoulas², Christos
Salakos¹, Constantina Tiniakou¹, Petros Moustardas¹
Nikolaos Kostomitsopoulos²

¹University of Athens, Medical School, Athens, Greece

²Center for Experimental Surgery, Biomedical Research
Foundation of the Academy of Athens, Athens, Greece

Introduction & Aim: the aim of this study was to develop a "minimal-touch" model of aortic transplantation (AoTX) for the interpretation of reperfusion injury mediated tissue damage.

Technical Description: Twelve orthotopic AoTX were performed using Wistar rats, as donors and recipients. The

infrarenal aorta was isolated from 5mm below the aortic bifurcation up to the left renal vein, by tying the lumbar, spermatic and inferior mesenteric arteries. The aorta was flushed in situ with 3ml of 4°C UW solution through the left iliac artery (IA). The graft was removed and transplanted immediately without preservation (Group 1, n=6), or preserved at 4°C for 24h and transplanted (Groups 2, n=6). Recipient's infrarenal aorta was dissected and clamps were placed on the cranial and caudal portions of the dissected vessel, which then divided and flushed. Cranial anastomosis was performed first, followed by the caudal anastomosis using a continuous suturing technique. Recipients were sacrificed at 24h posttransplantation. There were no technical failures during procurement or transplantation. H & E graft histology demonstrated significant percentage of endothelial denudation accompanied by massive neutrophil infiltration in the subjacent layers, in stored grafts.

Conclusion: the model is feasible and reproducible. This study showed that it is possible that leukocyte emigration into the aortic medial compartment (generating an inflammatory infiltrate)

VP 07

Standardized Technique of Stapler Closure in Distal Pancreatectomy

Siyuan Yao, Shintaro Yagi, Satoshi Kaihara, Ryo Hosotani

Department of Surgery, Kobe City General Hospital,
Kobe, Japan

Introduction & Aim: the ideal resection and closure technique of the pancreas after distal pancreatectomy is unknown, although several surgical techniques have been proposed in attempt to reduce postoperative pancreatic fistula (PF). Objectives: We have standardized stapler closure from March 2012 as an efficient method, which can prevent PF. And, so far, it is effective for reducing the rate of PF. We are presenting here our technique of closure of pancreatic remnant.

Technical Description : Between March 2008 and December 2012, 60 patients were under distal pancreatectomy in our hospital. From March to December 2012, we performed distal pancreatectomy to 14 patients with stapler closure in new procedure, in contrast to before March 2012, resection and closure of pancreas were performed to 46 patients with a wide variety of devices including electrical scalpel, ultrasonic dissection devices and linear stapler. Our new closure technique with stapler is as following. After division of splenic artery, we use intestinal clamp covered with Penrose drain to compress pancreas on the lines of dissection over a period of 5 minutes carefully about not to damage the pancreatic membrane. and then, we resect and close pancreas remnant with stapler over a period of another 5 minutes. No further procedure is done for the pancreatic remnant. PF rate after March 2012 was 21% (3 of 14), which was lower than that before March 2012 (46%; 21 of 46). (p=0.0377)

Conclusion: Standardized stapler closure can reduce the rate of PF after distal pancreatectomy.

VP 08

Pure Laparoscopic Anatomical Hepatic Segmentectomy for Primary Hepatic Tumors

Yuji Iimuro, Toshihiro Okada, Seikan Hai, Shogo Tanaka, Ikuo Nakamura, Yuichi Kondo, Tadamichi Hirano, Jiro Fujimoto

Department of Surgery, Hyogo College of Medicine, Japan

Introduction & Aim: With advance in laparoscopic surgical techniques, anatomical hepatic resection should be performed for primary hepatic tumors. We have started pure laparoscopic anatomical segmentectomy.

Technical Description: Laparoscopic anatomical resection of segment 5, 6, or 3 has been experienced. For the segmentectomy of 5 or 6, the Lap-Disc and EZ-access are placed at the umbilicus on the left decubitus position, and two more trocars were inserted. After anterior or posterior branch of the Glisson's sheath was exposed and temporally clamped, demarcation lines between S4/S5 or S5/S6 clearly appear. After the marking of the demarcation lines, hepatic parenchyma is dissected from the hepatic hilum using BiClamp or CUSA. After the blanching pattern of Glisson's sheath become apparent, branches circulating the aimed segment is clamped with Hem-o-lok, and dissected with LCS. Resection of hepatic parenchyma is then performed along the demarcation lines. Resected liver specimens are retrieved through the Lap Disc. In resection of segment 3, the Glisson's branch of segment 3 is dissected with a stapler from the behind, and parenchymal resection is performed. Results: there has been no post-operative complication.

Conclusion: Anatomical hepatic segmentectomy can be safely performed in the laparoscopic surgery, and could be useful for the treatment of primary hepatic tumors.

VP 09

Total Thoracoscopic Pulmonary Segmentectomy Guided by 3-Dimensional Computed Tomography Angiography and Bronchography

Kimihiko Shimizu, Toshiteru Nagashima, Yoichi Ohtaki, Kai Obayashi, Izumi Takeyoshi

Department of Thoracic and Visceral Organ Surgery, Gunma University Graduate School of Medicine, 3-39-15 Showa-Machi, Maebashi, Gunma 371-8511, Japan

Introduction & Aim: We describe the benefits of a three-dimensional multidetector computed tomography angiography and bronchography (3DCTAB)-guided total thoracoscopic segmentectomy technique by video

presentation.

Technical Description : Four or five ports (one with a diameter of 20 mm [flexible], two with a diameter of 10 mm, and one or two with a diameter of 5 mm) are prepared for the port access technique. The 3DCTAB-guided segmentectomy is initiated by detaching the arteries and veins from the pulmonary parenchyma along the shortest route to the intended segmental bronchi, according to the preoperative simulation and intraoperative 3DCTAB guidance. We usually first ligate and dissect the intrasegmental veins and segmental arteries, and then divide the segmental bronchi. The diseased segment is inflated using elective segmental jet ventilation while the preserved segments appear collapsed, and a line is formed between the inflated and deflated lung parenchyma, evidencing the anatomic intersegmental plane. In general, we ligate and dissect the segmental bronchi using 2-0 silk. At the central portion around the hilum, the intersegmental plane is approached along the intersegmental vein. At the peripheral site, electrocauterization is used toward the hilum, along the inflation-deflation line. The dissected raw parenchymal surface is sealed with an available fibrin sealant and an absorbable polyglycolic acid felt. We have used this new technique for 31 patients (17 patients with lung cancer, 9 with pulmonary metastasis, and 5 with benign disease). The mean operation time was 158 minutes, and the mean blood loss was 50 ml.

Conclusion: This new technique might be useful in pulmonary segmentectomy or subsegmentectomy.

VP 10

Conventional vs Endoscopic Components Separation for Loss of Domain Ventral Hernias

Mehmet Fatih Can, Yaşar Subutay Peker, Ümit Alakuş, Sezai Demirbaş, Sadettin Çetiner

Gülhane Military Medical Academy, Department of General Surgery, Ankara, Turkey

Introduction & Aim: Loss of domain hernias are complex defects in nature that are usually difficult to fix and require using large meshes. Component separation (CS) technique offers a more physiological repair allowing for the rectus muscles to institute a contractible anterior abdominal wall. Here we aimed to comparatively analyze surgical technique we adopt for conventional (CCS) and endoscopic CS (ECS).

Technical Description : In both CCS and ECS, the initial step is to expose the medial edge of the rectus sheath on both sides. Adhesions with intestinal structures around the defect are taken down. CCS necessitates that substantial lipocutaneous flaps be created to gain access to the lateral abdominal wall musculature which, in turn, may lead to wound related complications. Therefore, we modified the technique in that at least two perforator arteries from the rectus to the skin on each side are preserved. During ECS, the medial flap is extended no more than 4 cm laterally. The external oblique aponeurosis is incised endoscopically after three trocars are placed lateral to the rectus muscle and a pneumatic dissection

between the external and internal oblique muscles are done. Proper placement of trocars appears to be the key to success in this technique. Typically, 8-10 cm of medialization of the rectus muscle on each side is expected to occur. Preserving perforator vasculature does not interfere with medial repositioning of the abdominal wall.

Conclusion: Our analysis suggests that both CCS and ECS are viable alternatives to each other in the treatment of complex large ventral hernias.

VP 11

Superior Mesenteric Artery Syndrome: Laparoscopic Approach

Bahadır Celep¹, Ahmet Bal¹, Mustafa Ozsoy¹, Taner Ozkececi¹, Nazan Okur², Mustafa Kalkan¹, Sezgin Yilmaz¹, Yuksel Arikan¹

¹Afyon Kocatepe University, School of Medicine, Department of General Surgery, Turkey

²Afyon Kocatepe University, School of Medicine, Department of Radiology, Turkey

Introduction & Aim: Superior mesenteric artery (SMA) syndrome is a rare entity caused by the obstruction of the duodenum between SMA and aorta. Several surgical procedures had been described for the treatment. We want to present our laparoscopic experience in a case of WS.

Technical Description : Four trocars were used in this technique. the laparoscope was placed through a 10-mm trocar under the umbilicus. 5-mm and 12-mm trocars were placed in the midclavicular line on both sides and one additional 5-mm trocar was placed on the midline 5 cm above the umbilicus. the right side of the mesocolon was opened just above the dilated duodenum under the transverse colon. A proximal loop of jejunum was brought up without tension distal to ligament of Treitz. Two stay sutures of 2-0 Vicryl were used to approximate the afferent and the efferent segments and the free ends of the sutures got through outside of the abdomen by the help of suture passer. Enterotomies were performed in both sides of the small intestine. A 60-mm laparoscopic linear stapler was placed through the enterotomies using the 12-mm trocar and fired to create a duodenojejunostomy. the resulting enterotomy was closed using a running 3-0 Vicryl suture. A suction drain was placed next to the anastomosis.

Conclusion: As a result of being seen rarely, surgical experience in WS is generally limited to specific centers. Despite this fact, in our opinion LS can be performed safely in the treatment of WS if the surgeon is familiar with the techniques of laparoscopic suturing and stapling skills.

VP 12

Laparoscopic Total Proctocolectomy and ileal J-Pouch ileoanal Anastomosis: Counter-Clockwise Dissection Technique

Mehmet Fatih Can, Yaşar Subutay Peker, İsmail Hakkı Özerhan, Gökhan Yağcı

Gülhane Military Medical Academy, Department of General Surgery, Ankara, Turkey

Introduction & Aim: Laparoscopic Total Proctocolectomy and Ileal Pouch Anal Anastomosis (LTP/IPAA) for Familial Adenomatous Polyposis is a technique that necessitates meticulous dissection to preserve terminal ileum without compromising oncological safety. Whether proceeding with dissection from the caecum to the rectum or vice versa provides an easier handling of tissues during surgery is unknown. Here we describe a reverse dissection starting over the sigmoidorectal part upward to the transverse colon and finalizing with the caecum.

Technical Description : the patient is placed in the modified lithotomy position with the legs abducted. We adopt 5-port technique. the dissection is initiated around the rectosigmoid mesocolon. After clipping and dividing the inferior mesenteric artery and vein at their roots, the white-line is opened and the holly plane dissected. Next, the splenic flexure is taken down after dividing the arc of Riolan (if any). the greater omentum is entered to expose transverse mesocolon. the middle colic artery and veins are divided. the right colic artery (if any) is divided below the superior mesenteric vein. A great care should be exercised to preserve the ileocolic artery and vein that will exist most of the time. We prefer to advance deep perirectal dissection through a 10-cm pfannenstiel incision, which is also used for specimen extraction. the operation is completed with the construction of J-pouch and the anastomosis done using double-stapling technique.

Conclusion: LTP/IPAA performed using counter-clockwise dissection technique seems safe and feasible preventing the proximal colon from interfering with the surgeon when proceeding distally.

VP 13

Thyroidectomy with Servical Block

Mehmet Erikoglu

Necmettin Erbakan University, School of Medicine, Department of General Surgery, Turkey

Introduction & Aim: Thyroid surgery is usually performed under general anaesthesia. However, for a selected group of patients, local anaesthesia may be preferable. In the the past decade, there has been a renewed interest in performing thyroidectomy under servical block anesthesia in some endocrine surgery centers. In this video demonstration,

a hemithyroidectomy under servical block anesthesia to remove a solitary toxic adenoma is presented.

Technical Description : A 64 year- old female patient presented with swelling of the neck, dispnea and palpitation. Her medical history included chronic obstructive lung disease for which she was receiving medical treatment. On physical examination, the thyroid gland was found to be soft with a 5x6 cm solitary thyroid nodule in the left thyroidal lobe. Thyroid ultrasonography and isotope scanning showed a solitary toxic adenoma in the inferior part of the left lobe. Thyroid function test results showed hiperthyroidi. the patient was examined at the Anesthesia clinic and results showed there was ASA-3 level risk so servical block and sedation anesthesia was employed before she underwent hemithyroidectomy of the left lobe. the patient was discharged on the first post-operative day with no complications.

Conclusion: Thyroid surgery under servical block anaesthesia can be performed safely in a selected group of patients. It may be an effective alternative approach to general anaesthesia especially in patients with high risk for complications from general anesthesia.

VP 14

Pathway Athrectomy Device

Imran Javed

Arizona Heart Institute, Phoenix, Az, USA

Introduction & Aim: Initial Experience with the Jetstream™ Pathway Device for Femoro-Popliteal Disease. Imran Javed, MBBS, FCPS, Venkatesh Ramaiah, MD, FACS, David Terry, MD., Julio Rodriguez, MD, FACS, Matt Nammany, MD. Objectives: To report safety and efficacy of Jetstream™ Pathway rotational atherectomy/ thrombectomy device for the treatment of femoro-popliteal arterial lesions with special emphasis on rate of re-intervention and intervention free period.

Technical Description : Materials & Methods: Duration of study is from Mar 2008 to Nov 2009 (21Months). Total numbers of patients is 86. Males are 55(64%) & Females are 31(36%). Age range is 36 to 87 Years. All patients underwent Pathway Athrectomy during this time period regardless of their previous status were included. Re intervention in the same limb after athrectomy was endpoint of the study.

Conclusion: Results: TLR (Target Lesion Revascularization) was 15% in patients during follow up period. Re intervention was more common in first 3 months after first intervention. It was more common in TASC II type B lesions and mostly managed by Balloon Angioplasty. Conclusion: the JetStream™ Pathway device with thrombectomy and aspiration capabilities has added advantages to femoro-popliteal atherectomy. Adjunctive stenting remains very low in this difficult segment. Long term follow up will definitely be needed for durability and patency.

VP 15

Is Remaining Natal Cleft Responsible for Recurrences in Pilonidal Disease

Hakan Özdemir¹, Zehra Ünal Özdemir¹, Metin Şenol¹, İbrahim Tayfun Şahiner¹, Yeliz Şahiner²

¹Department of General Surgery, Nevşehir State Hospital, Nevşehir, Turkey

²Department of Anaesthesiology and Reanimation, Nevşehir State Hospital, Nevşehir, Turkey

Introduction & Aim: Pilonidal sinus disease (PSD) is a benign anorectal problem caused by hair follicles in sacrococcygeal region. Despite the use of different methods in treatment, there is no consensus reached for treatment modalities. In this study, we used a new technique which was whole natal cleft excision and flap method to remove the natal cleft of extensive sacrococcygeal PSD cases.

Technical Description : 193 patients with PSD were evaluated retrospectively. 32 patients who had not sinus excision before with extensive sacrococcygeal PSD were included in the study. In these patients, the natal cleft was excised using a whole natal cleft excision and flap method which was performed by an incision to include all the natal cleft and the remaining defect was closed with a single fasciocutaneous flap by sliding along the midline intergluteal sulcus. Result: the mean age of patients was 27.8 years (17-41). the average hospital stay of patients was 2.8 (2-4) days, mean operative time was 6.5 (44-80) minutes, mean drain removal was 2.8 (2-4) days, mean postoperative follow-up was 17.4 (9-24) months and mean BMI was 28.8 (22-30 m²/kg). Seroma was occurred in three patients (9.3%) and surgical site infection requiring re-use of antibiotics was occurred in two patients (6.2%). Flap necrosis and failure was not observed in the patients. During an average follow-up of 17 months, no recurrence was occurred.

Conclusion: Especially in extensive sacrococcygeal PSD treatment, removal of the whole natal cleft and shifting the midline completely, is an effective method that can reduce recurrence.

Poster Presentations

PP 01

Quality of Life in Patients Treated with Abdominoperineal Excision or Anterior Resection for Rectal Cancer

Jin-ichi Hida , Takehito Yoshifuji , Yasumasa Yoshioka , Fumiaki Sugiura , Kouji Daito , Kazuki Ueda , Tadao Tokoro , Kiyotaka Okuno

Department of Surgery, Kinki University School of Medicine, Japan

Introduction: Patients with rectal cancer who undergo abdominoperineal excision (APE) are physically burdened by the presence of permanent colostomy.

Objectives: We compared physical conditions of patients treated by APE with those of patients treated by anterior resection (AR) and found out whether the choice of operation technique had any influence on their social and psychological conditions.

Material/Patients and Methods: Using a 16-item questionnaire, we compared the postoperative physical (number of bowel movements, excess flatus, unpleasant odor, perineal soreness, dietary restriction, medication to control bowel action, degree of satisfaction with bowel function; feeling of incomplete bladder emptying, requiring self-catheterization of bladder; sexual desire, able to obtain erection, able to ejaculate, able to have orgasm), social (hindrance of leaving house, return to previous work), and psychological (the will to live) conditions of 40 patients who underwent APE with those of 116 patients who underwent AR.

Results: Physical conditions in the APE group were significantly worse than those in the AR group. There were no significant differences in social conditions between the two groups, and social conditions were satisfactory in both groups. However, the will to live (substantive/empty) in the APE group was significantly less than that in the AR group (substantive, 40% (16/40) vs. 74% (86/116); $P < 0.0001$).

Conclusion: Although most patients who undergo APE return to their normal level of social condition after surgery, their will to live is less because of physical discomforts, including bowel dysfunction, urinary dysfunction, and sexual dysfunction. the quality of life is influenced by multiple factors, one of which may be the presence of the colostomy.

PP 02

What Factors Prolong the Hospital Stay in Patients Undergoing Laparoscopic Cholecystectomy ?

Yoshikazu Morimoto , Takeyoshi Yumiba , Yuusuke Akamaru , Makoto Fujii , Keigo Yasumasa , Emiko Kono , Yoshio Yamasaki

Department of Surgery, Osaka Kousei Nenkin Hospital, Japan

Introduction: Laparoscopic cholecystectomy (LC) has become the standard operation for patients with gallbladder diseases. by expanding surgical indication of LC patients, LC becomes more difficult, thus the rate of patients with long-term stay hospital has been increasing in Japan. It has not been elucidated what risk factors prolong the hospital stay in patients undergoing LC.

Objectives: The aim of this study was to evaluate the pre- and intra-operative factors which had the relation to prolongation of hospital stay; furthermore, the discrimination prediction system should be identified.

Material/Patients and Methods: The data of 370 LC that had been performed in our clinic between 2008 and 2011 were analyzed. We studied preoperative factors as demographic characteristics, clinical history, laboratory data and imaging studies. Intraoperative and postoperative details were also evaluated. All patients were divided into the two groups according to postoperative length of stay (LOS); normal duration stay (ND) group (less than 5 days) and long duration stay (LD) group (more than 6 days). the discrimination prediction system was evaluated with using multiple regression analysis and its accuracy was analyzed with ROC curve.

Results: The object patient were 178 male and 192 female, mean age 59.3 ± 14.2 years. ND group was 236 and the LD was 134. 17 patients (4.6%) required conversion from laparoscopic to open surgery. in pre- and intra-operative factors, 13 factors were determined to be statistically significant between two groups—namely, age, sex, symptoms, acute cholecystitis, choledocolithiasis, laparotomy, ASA score, thickened gallbladder wall, ALP, CRP, LC difficulty on the image, operation time and operative bleeding. in accordance with the selection criteria for explanatory variables, eight factors among 13 were most suitable for the system. We defined this system as the prediction score, which revealed the accuracy of sensitivity 82.1%, specificity 75.0%. LOS in ND group was 4.82 ± 0.41 days and that in the LD group 12.08 ± 10.63 days. No readmitted patients were determined during 3 months after LC.

Conclusion: These data indicate that 13 factors affect LOS. Our prediction score is elucidated to be a useful indication deciding for hospital stay in patients undergoing LC.

PP 03

Diagnostic Value of Hook Wire Localization Biopsy by Imaging Guidance for Nonpalpable Breast Lesions

Gökhan Demiral¹, Fikret Aksoy², Alp Özçelik³, Metin Şenol⁴

¹ Ardahan State Hospital, Department of General Surgery, Ardahan, Turkey

² Maltepe Bölge Hospital, Department of General Surgery, Istanbul, Turkey

³ Uzmanlar Hospital, Department of General Surgery, Yalova, Turkey

⁴ Nevşehir State Hospital, Department of General Surgery, Nevşehir, Turkey

Introduction: with widespread usage of screening mammography, diagnosis of nonpalpable lesions breast lesions were increased. To confirm breast cancers in early stage, excisional biopsy with needle wire localisation is widely accepted technique for suspicious nonpalpable lesions.

Objectives: The aim of this study was to investigate the validity of hook wire localization biopsy by imaging guidance for nonpalpable breast lesions which are detected by ultrasonography or mammography.

Material/Patients and Methods: In this retrospective study ultrasonography or mammography guided hook wire localization technique was performed to 83 patients who had nonpalpable breast lesion. Then histopathological examination performed to surgically removed spesimens. All patients' mammographies or ultrasonographies were categorized using BI-RADS classification.

Results: The mean age of the patients was 47.46 years. the malignancy rate was increased in over 45 years-old group. Breast cancer is localized in the upper outer quadrant of the breast in 12 (%80) patients. Radiologically 27(32.53%) patients were classified as BIRADS 3, 49(59.04%) as BIRADS 4, 1(1.2%) as BIRADS 5 and 6 (7.23%) as BIRADS 0. Histopathological results were benign in 68(81.9%) and malign in 15(18.1%) patients. 27 patients were classified as BIRADS 3 and definitive diagnosis for all were benign. Besides, 49 patients were classified as BIRADS 4 and histopathologically 14 of them were reported as malign, 35 as benign. Sensitivity of mammography was 93% and specificity was 55%. for ultrasonography the sensitivity was 100% and the specificity was 73%.

Conclusion: In early diagnosis of the breast cancer, the validity of the imaging guided hook wire localization of nonpalpable breast lesions has been proved. the cooperation of surgeon, radiologist and pathologist increases the successfull results of hook wire localization technique.

PP 04

Original Devices for Large Wounds Closure

Olexandr Butyrsky, Pavel Tatarchuk, Dmitry Shestopalov, Iryna Butyraska

Crimean Medical University, Ukraine

Introduction: Till nowadays devices for wounds management are used rarely due to absence of convenient models.

Objectives: We elaborated devices for wound closure with small epicutaneous part that provides patient's mobility after surgery and rapid rehabilitation. We used arch-shaped curved pricking elements been placed in paravulnar tissues that provides good fixation and doesn't restrict patient's motions. Construction provides sufficient mobility of device parts that enables wound modeling with optimal management and rapid healing.

Material/Patients and Methods: Patients had such pathology: enormous gluteal and thigh phlegmons - 6, ligature fistulas - 8, eventration - 4, - extended peritonitis - 33, suppurated pilonidal cyst - 11.

Results: Indication for phlegmon management was impossibility to close the wound due to ananerobic aetiology and make cutting and draining only. Enormous necroses of fatty tissue, skin, and muscles and extension via fasciae forced to make extended debridement with formation of major tissue defect. Used devices enable to provide staged wound border approaching and repeated debridement. One elderly diabetic patient died on the 12th day due to sepsis. Successful use in ligature fistulas and suppurated pilonidal cysts is provided by radical debridement and absence of threads in wound depth that often promotes relapsing. 19 patients were followed-up within 1-3 yrs; no relapsing, incisional hernias were revealed. Using devices in extended peritonitis enables to shorten duration of repeated abdominal laving for programmed relaparotomy/laparostomy, to minimize inflammatory/necrotic changes in wound walls due to placement of pricking elements in sound tissues, and to close the abdominal cavity gradually to avoid intra-abdominal pressure increase.

Conclusion: 1. Elaborated devices may be successfully used in different surgical cases. 2. Principal indication for devices using is impossibility to close the wound with ligatures, need of repeated revisions and staged wound borders approaching.

PP 05

The Significance of Fixation Vs. Non-fixation of Prolene Mesh Placed in Preperitoneal Space of Rats in T.e.p Procedure

Cihangir Ulubey¹, Hüseyin Ekinci¹, Metin Şenol², Mehmet Mustafa Altıntaş¹, Ayhan Çevik¹, Tayfun Yücel¹, Yetkin Özçabi¹, Serkan Zenger¹

¹Dr. Lütfi Kirdar Kartal Training and Research Hospital, General Surgery Clinic, Istanbul, Turkey

²Nevşehir State Hospital General Surgery Clinic, Nevşehir, Turkey

Introduction: Several studies have shown that non-fixation of mesh in total extraperitoneal (TEP) inguinal hernia repair is safe and has no disadvantage compared to mesh fixation.

Objectives: In our study, the effect of prolene mesh fixation using fibrin glue vs. no fixation that was placed in preperitoneal space in rats in TEP procedure has been analyzed histopathologically for inflammation, fibrosis, granulation and foreign body reaction.

Material/Patients and Methods: In this study, 15 male Wistar-Albino rats of 4 months' age, each weighing between 300-350 grams were used. in two groups of 7 and 8 rats each, 1x1 cm polypropylene mesh was placed into the preperitoneal space on the right and left side. the mesh on the right side was fixed via fibrin glue. the mesh on the left side was not fixed (no fixation). the first group was sacrificed on the 7th day, while the second group was sacrificed on day 21. Anterior abdominal walls were examined histopathologically after being excised with the mesh and its surroundings.

Results: No displacement or folding of mesh was observed on either side in both groups. in both Group 1 and 2, no histological differences were observed between left and right sides. When Group 1 and 2 were compared, the degree of foreign body reaction was statistically lower in Group 1 ($p=0.023 < 0.05$; $p=0.006 < 0.05$). There was no differences in other criterias.

Conclusion: As a result, in laparoscopic hernia repair, mesh causes foreign body reaction rapidly when laying preperitoneal site properly and doesn't need any fixation for histological response.

PP 06

Survival After Percutaneous Endoscopic Gastrostomy in Elderly Patients

Kazuhiro Ashikawa¹, Keizo Hataji¹, Takehito Otsubo²

¹Dept. of Surgery, Japanese Red Cross Society Susono Hospital, Susono, Japan

²Dept. of General and Gastrointestinal Surgery, St. Marianna University School of Medicine, Kawasaki, Japan

Introduction: Percutaneous endoscopic gastrostomy

(PEG) has been widely acknowledged to be a safer method for enteral feeding, but its long-term impact on prognosis is not sufficiently understood.

Objectives: To evaluate long-term survival and prognostic factors in patients treated with PEG.

Material/Patients and Methods: We retrospectively reviewed the medical records of 263 patients whose clinical course could be followed to confirm long-term survival or until death. These patients had swallowing difficulty for which PEG was performed at the Japanese Red Cross Society Susono Hospital (Susono, Japan) between January 1, 2001, and December 31, 2010. Survival curves were analyzed using the Kaplan-Meier method for the overall population and using log-rank tests to compare survival based on variables such as age group (< 75, 75-85 and > 85 years) and baseline disease.

Results: The 263 patients were assessed over a mean follow-up period of 717.8 days. a total of 156 deaths (59.3%) were observed. Two deaths (one sepsis and one short-term pneumonia) were directly attributed to the procedure. Most deaths were due to underlying co-morbidities, with pneumonia being the most common cause. the PEG tube was removed from 16 patients (6.1%) who resumed oral nutrition. the overall 30-day, 3-month, 6-month, 1-year, and 2-year mortality rates were 4.2%, 10.9%, 24.0%, 41.3%, and 51.1%, respectively. in addition, 25%, 50%, and 75% of the patients had died at 184 days, 612 days, and 1438 days post-PEG, respectively. Age over 85 years and dementia were not significant risk factors for death following PEG.

Conclusion: PEG is a minimally invasive gastrostomy method with low rates of morbidity and procedure-related mortality, even in individuals older than 85 years and patients with dementia. in prognostic terms, the overall mortality rate in PEG-treated patients is poor, but PEG does offer survival benefits by providing nutritional support.

PP 07

Pulmonary Artery Tumor Embolism in a Patient with Previous Fibroblastic Osteo sarcoma

Silviu Buderu¹, Thomas Theologou¹, John Gosney², Michael Shackcloth¹

¹Department of Cardiothoracic Surgery, Liverpool Heart and Chest Hospital, Liverpool, UK

²Department of Pathology, Royal Liverpool University Hospital, Liverpool, UK

Introduction: Pulmonary artery tumor embolism has a prevalence of 10% in the patients with cancer. We present a rare case of a patient with acute lymphoblastic leukemia and fibroblastic osteosarcoma, both treated successfully, who presented acutely with a pulmonary artery tumor embolism and pulmonary infarction.

Objectives: A 48-year-old man was referred for potential left pulmonary metastasis and left pulmonary artery embolus

Material/Patients and Methods: The patient had T-cell acute lymphoblastic leukemia and fibroblastic osteosarcoma. a left pneumonectomy was performed successfully. the

histologic report concluded that an embolic deposit of osteosarcoma was present.

Results: The histologic report concluded that an embolic deposit of osteosarcoma was present. the patient was discharged without complications. During a postoperative follow-up at 6 weeks after the procedure, the patient presented an uneventful recovery period.

Conclusion: In our patient, prompt diagnosis and good response to chemotherapy offered the possibility of surgical cure. the tumor embolus occluded the pulmonary artery, causing distal thrombosis and infarction, but did not itself embolize into the lungs.

PP 08

Single-incision Laparoscopic Cholecystectomy Versus Conventional Laparoscopic Cholecystectomy in Respect To Trauma Induced Stress Response

Yetkin Özcabi¹, Cihangir Ulubey², Serkan Zenger², Ayhan Çevik²

¹ Fatih Sultan Mehmet Training and Research Hospital, General Surgery Clinic, Istanbul, Turkey

² Dr.Lütfi Kırdar Kartal Training and Research Hospital, 2nd General Surgery Clinic, Istanbul, Turkey

³ Nevşehir State Hospital General Surgery Clinic, Nevşehir, Turkey

Introduction: Laparoscopic cholecystectomy has been recognized as a golden standard in cholelithiasis. As a more minimally-invasive surgical procedure, Single-Incision Laparoscopic Surgery (SILS) has been performed in recent years. Due to a single incision, SILS offers less pain, reduced complications and better cosmetic results following the surgery

Objectives: Our aim was to evaluate immunological response of these patients after conventional laparoscopic cholecystectomy or single incision laparoscopic cholecystectomy.

Material/Patients and Methods: The study has been performed prospectively from January 2011 to May 2011 with a total of 24 patients who underwent cholecystectomy due to cholelithiasis or polyps detected in their gallbladder. Patients were divided into two groups. in the first group (n=12), single-port laparoscopic cholecystectomy, and in the second group (n=12), conventional laparoscopic cholecystectomy were performed. Immunological parameters (IL6,TSH,T3,T4,CRP,WBC) have been compared at postoperative 24th hour between two groups.

Results: Postoperative results were in SILS group IL6:1.91, CRP:7.37, WBC:10.26, TSH:1.7, fT4:12.57, fT3:5.05, in the second group IL6:1.81, CRP:5.72, WBC:9.25, TSH:1.62, fT4:12.68, fT3:5.09. Comparison of preoperative and postoperative IL6, CRP, WBC, TSH, fT4, fT3 values in both Groups 1 and 2 did not indicate statistically significant difference (p>0,05).

Conclusion: This study revealed that there was no significant difference in IL6, CRP, WBC, TSH, fT4, fT3 levels in the blood between the two groups in terms of trauma induced stress response. We believe that with surgeons who have experience in minimally invasive surgery, single port laparoscopy is as equally effective as conventional laparoscopic cholecystectomy but not more.

PP 09

Acute Functional Casting Technique and Clinical Results of Patients with Humeral Shaft Fractures Treated by This Method

Faruk Akyıldız¹, Hasan Turğut², Selahattin Özyürek³, Üzeyir Türmük⁴, Selami Çakmak⁵

¹ Malatya Asker Hastanesi Ortopedi Servisi, Turkey

² Siirt Asker Hastanesi Ortopedi Servisi, Turkey

³ Aksaz Asker Hastanesi Ortopedi Servisi, Turkey

⁴ Merzifon Asker Hastanesi Ortopedi Servisi, Turkey

⁵ Haydarpaşa Asker Hastanesi Ortopedi Servisi, Turkey

Introduction: Humeral shaft fractures are 1-3% of all of the fractures. for nonsurgical treatment of humeral shaft fractures a lot of methods were described such as hanging cast, U-splint, abduction device, long arm plaster casts and the skeletal traction which passes through the olecranon.

Objectives: In this study we aimed to show the effectiveness of the functional casting by describing this technique for conservative treatment in patients with humeral shaft fractures.

Material/Patients and Methods: 42 patients with humeral shaft fracture were included in this study between the years of 2006-2012. for initial therapy acute functional casting applied all patients and Hunter functional scoring system was used for evaluation.

Results: The average follow-up was 25.12 months (15-69 months). 4 patients underwent surgical treatment due to the loss of reduction. Union were obtained average 13.12 week (8 to 23.2) of the remaining 38 humeral fractures. According to the Hunter criteria excellent (G5) results were obtained in 35 patients, good (G4) results were obtained in 3 patients. Average 7.43 degree (1-23) of varus-valgus angulation developed to anterior-posterior angulation with average 7.26 degrees (1-24).

Conclusion: We conclude that acute functional casting may be an effective treatment with excellent results on humeral shaft fractures.

PP 10

Clinical Outcomes of Patients with Distal Humeral Shaft Fractures Treated with Acute Functional Casting

Faruk Akyıldız¹, Hasan Turğut², Hasan Turğut², Selahattin Özyürek³, Mahir Mahiroğullari⁴, Mesih Kuşkuç⁵

¹ Malatya Asker Hastanesi Ortopedi Servisi, Turkey

² Siirt Asker Hastanesi Ortopedi Servisi, Turkey

³ Aksaz Asker Hastanesi Ortopedi Servisi, Turkey

⁴ Istanbul Medipol Üniversitesi Ortopedi Servisi, Turkey

⁵ Haydarpaşa Asker Hastanesi Ortopedi Servisi, Turkey

Introduction: Humeral distal shaft fractures are of 7,5% all humeral fractures.

Objectives: In this study, we aimed to evaluate the effectiveness of acute functional casting for patients with distal humeral shaft fractures by comparing of radiological and functional results.

Material/Patients and Methods: 20 patients with humeral distal shaft fracture were included in this study between the years of 2006-2012. Acute functional casting applied all patients as initial and final therapy. According to broken line 14 patients had spiral fractures, 6 patients had distal spiral wedge fractures. The differences between the union periods were determined. Hunter functional scoring system was used for evaluation.

Results: The average follow-up was 25.12 months. a complete union was obtained in average 13,94 weeks on 14 patients with distal spiral fractures and was obtained in average 13,39 weeks on 6 patients with distal spiral wedge fractures. According to Hunter the criteria excellent results (G5) were obtained in 19 patients, good results (G4) were obtained in 1 patient. In distal humeral spiral fractures the mean degree of anteroposterior final angulations was 6,64 and varus-valgus angulations was 4,85. In distal humeral spiral wedge fractures the mean degree of anteroposterior final angulations was 9,66 and varus-valgus angulations was 10.

Conclusion: We conclude that acute functional casting may be an effective treatment with excellent results on humeral shaft fractures.

PP 11

Pancreatic Arteriovenous Malformation (p-avm): Two Cases Onset As a Surgical Emergency

Lorena Hierro-olabarria Salgado, Carmen González Serrano, Ignacio Iturburu Belmonte, Ángel Gómez Palacios, Jaime Jesús Méndez Martín, Pilar Gómez García, Patricia Perez De Villarreal Amilburu, Sandra Ruiz Carballo

Hospital Universitario Basurto, Bilbao, Basque Country, Spain

Introduction: P-AVM is an extremely rare vascular anomaly, usually asymptomatic.

Objectives: We report two cases of P-AVM presenting as a surgical emergency.

Material/Patients and Methods: Two 51-year-old men are presented. the first one came to hospital with abdominal pain and jaundice; and the second one was admitted with acute abdomen compatible with perforated duodenal ulcer. the contrast-enhanced dynamic CT scan showed strong enhancement or a conglomeration of small hypervascular spots in pancreas, combined with early contrast filling of the portal vein in the arterial phase, indicative of P-AVM. The angiography confirmed the P-AVM and the formation of a pseudoaneurism in the pancreaticoduodenal artery.

Results: The first patient underwent two embolizations using coils, but they were unsuccessful. Hence a Whipple's pancreaticoduodenectomy was performed. in the second, the embolization was successful, being asymptomatic now. However, we don't dismiss the surgical treatment.

Conclusion: The median age at diagnosis of P-AVM is 50, with a male predominance. the majority of cases are asymptomatic, but may be complicated by gastrointestinal bleeding, abdominal pain, or portal hypertension. the contrast-enhanced dynamic CT is the first-line method for the diagnosis of P-AVM. Embolization with angiography is useful when active bleeding happens and before surgical treatment. the most effective treatment for patients with symptomatic P-AVM is the surgical resection of the affected pancreas. The treatment of asymptomatic P-AVM is controversial. Some authors recommend early surgical resection because of the risk of complications and because the natural course of asymptomatic P-AVM has not yet been elucidated; however, others prefer expectant management.

PP 12

Abdominal Compartment Syndrome in Surgical Intensive Care

Subash Chandra Dadhich, Rekha Dadhich, Raghu Prakash

Arogya Hospital, India

Introduction: Abdominal compartment syndrome is a known cause of multiple organ dysfunction syndrome in patients with poly-trauma. We have to resort to damage control laparotomy, followed by planned ventral hernia, which is repaired after 6 months

Objectives: Study the role of damage control laparotomy in abdominal compartment syndrome

Material/Patients and Methods: • a 45 years old male, 35 yrs female, and 42 year male patient, were admitted in trauma unit. Injuries sustained: multiple fractures, contusion extradural haematoma. During the second week they developed MODS, with distension of the abdomen. They underwent damage control laparotomy. Incision was given from xiphisternum to symphysis pubis, and bowel loops decompressed. Abdominal wound closed with polygalactin

mesh, daily clipping done to reduce the opening. in the 3rd week, polygalactin mesh was removed, and split skin graft applied. Patients' were discharged with the ventral hernia. After 6 months patients' had skin graft removed, and definitive repair of ventral hernia done with polypropylene mesh.

Results: Abdominal compartment syndrome is due to ischemia - re-perfusion injury. It occurs after abdominal injury, and in extra- abdominal poly-trauma. Splanchnic hypo-perfusion with resultant gut mucosal acidosis, bowel edema, hepatic and renal ischemia follow. All three patients survived and are doing well.

Conclusion: Abdominal compartment syndrome can occur when the abdomen is not primarily involved. It requires surgical intervention once the Intra-abdominal pressure exceeds 25 mmHg. the large ventral hernia has to be managed in 3 stages, which may extend up to 6 months. The procedure is effective in life threatening situations associated with poly-trauma.

PP 13

Safety and Feasibility of Laparoscopic Total Mesorectal Excision for Rectal Cancer Patients Who Underwent Neoadjuvant Chemoradiotherapy

Jeonghyun Kang , Im-kyung Kim , Dongwon Kang , Seung Kook Sohn , Kang Young Lee

Yonsei University College of Medicine, Korea

Introduction: Although the increasing penetration of laparoscopic surgery for rectal cancer, laparoscopic rectal surgery in patients who underwent neoadjuvant chemoradiotherapy (NCRT) has been regarded as a challenging procedure.

Objectives: This study aimed to investigate the safety and feasibility of laparoscopic surgery for the treatment of rectal cancer after NCRT.

Material/Patients and Methods: From January 2003 to Jan 2012, rectal cancer patients who underwent laparoscopic total mesorectal excision were selected from our database. Patients were divided into two groups whether the patient underwent NCRT or not. Pathologic results, morbidity, and postoperative recovery outcomes were compared.

Results: Among 170 patients, 41 patients (24%) underwent NCRT. There was no difference between the two groups based on gender, age, BMI or ASA grade. However, tumor height was significantly lower (7.6 vs. 10.3cm, $p < 0.001$) in NCRT group. There was no conversion in both groups. Protective ileostomy was more commonly performed in NCRT group (29.3 vs. 7.7%, $p < 0.001$). Operative time was significantly longer in NCRT group (272 vs. 249 minutes, $p = 0.040$). There were no differences in estimated blood loss, lymph node harvest number, distance of distal margin or proportion of CRM involvement. Postoperative complications were similar in both groups (19.5 vs. 12.4%, $p = 0.255$), including anastomotic leakage rate (12.2 vs. 6.2%, $p = 0.308$). No significant differences were observed in terms with early

recovery outcomes.

Conclusion: Laparoscopic TME could be performed safely with an acceptable morbidity rate for rectal cancer patients after NCRT.

PP 14

The Impact of Lymph Node Size To Predict Nodal Metastasis in Patients with Rectal Cancer After Preoperative Chemoradiotherapy

Im-kyung Kim ¹, Beom Jin Lim ², Jeonghyun Kang ¹, Dongwon Kang ¹, Seung-kook Sohn ¹, Kang Young Lee ¹

¹ Department of Surgery, Yonsei University College of Medicine, Seoul, Korea

² Department of Pathology, Yonsei University College of Medicine, Seoul, Korea

Introduction: Accurate nodal staging after preoperative chemoradiotherapy is essential for determining extent of surgery and further treatment strategy.

Objectives: This study was designed to evaluate the impact of lymph node(LN) size to predict nodal metastasis in rectal cancer patients after preoperative chemoradiotherapy.

Material/Patients and Methods: From 90 patients newly diagnosed as rectal cancer within 10cm from AV, 29 patients with preoperative chemoradiotherapy followed by curative resection(CRTx group) were matched with 30 patients who had primary resection of tumor(non-CRTx group) using 1:1 case-match design. To clarify the optimal cutoff values for the size of LNs according to risk of detecting metastasis, the receiving operator characteristic(ROC) curve was made.

Results: In non-CRTx group, 39 among 474 LNs have metastasis, whereas 29 of 422 LNs were metastatic in CRTx group. the ROC curve describes the optimal cutoff value determining metastasis in non-CRTx group was 3.5mm with 71.8% of sensitivity and 58.9% of specificity. in CRTx group, the value was 4.5mm with 75.9% of sensitivity, 78.1% of specificity and 77.9% of accuracy.

Conclusion: The CRTx group has higher accuracy rate for prediction of nodal metastasis than non-CRTx group, which implies LN size would be an effective tool to predict nodal metastasis in rectal cancer patients after preoperative chemoradiotherapy.

PP 15

Isolated Rupture of the Brachialis: A Case Report

Faruk Akyıldız¹, Hasan Turğut², Selahattin Özyürek³, Muzaffer Sağlam⁴, Şafak Ekinli⁵, Kenan Koca⁶

¹ Malatya Asker Hastanesi Ortopedi Servisi, Turkey

² Siirt Asker Hastanesi Ortopedi Servisi, Turkey

³ Aksaz Asker Hastanesi Ortopedi Servisi, Turkey

⁴ Gata Haydarpaşa Eğitim Hastanesi Radyoloji Servisi, Turkey

⁵ Ağrı Asker Hastanesi Ortopedi Servisi, Turkey

⁶ Gata Ortopedi Kliniği Ankara, Turkey

Introduction: Brachialis muscle injury reported in the literature as a rare type of injury. Medical history is very important.

Objectives: We presented a case of isolated brachialis partial rupture that suspected on physical examination, diagnosed with ultrasound and MRI and followed conservatively

Material/Patients and Methods: 21-year-old male patient was admitted to our clinic. He had difficulty in making elbow movements due to the pain after falling down the stairs and acute swelling was occurred in this region Patient described the pain in the last 40 degrees of extension. If resistance was created to flexion and pronation, he said that pain increased in the ulnar side of the cubital region. Neurovascular examination was normal. Initially, anterior and posterior radiographs of the elbow were taken and absence of pathology on x-ray we applied elbow USG and MRI

Results: The left elbow reached the normal function in 8 week. After 12.week swelling of ulnar side began to soften and completely disappeared at 24th week. Heterotopic ossification was also completely disappeared at 24th week

Conclusion: After a good history and physical examination soft tissue ultrasound provide diagnosis on suspected cases. We concluded that good results can be obtained with conservative treatment.

Objectives: We investigated whether reducing plasma HMGB1 levels using an adsorption column is feasible and beneficial in a swine acute liver failure (ALF) model.

Material/Patients and Methods: First, a swine ALF model was developed injecting D-galactosamine intravenously at doses of 0, 0.2, 0.6, or 1.0 g/kg (male domestic swine, 20-25 kg). Secondly, a HMGB1 adsorption column was newly developed. Swine plasma samples containing HMGB1 were subjected to 2-hour incubation in vitro with adsorbent fiber. Finally, 20 hours after induction of ALF, swine were subjected to 4-hour extracorporeal hemoperfusion using a HMGB1 adsorption column or an empty column.

Results: i) the 0.6 g/kg dose resulted in an increase in the level of hepatic enzymes and plasma HMGB1 and was selected for the extracorporeal hemoperfusion study. ii) There was a significant difference between the HMGB1 concentrations before incubation and after incubation with adsorbent. iii) the ratio of the HMGB1 concentration at the outlet versus the inlet of the column was significantly lower in swine hemoperfused with the new column than with the control column at 20 hours after ALF induction. the levels of hepatic enzyme were significantly lower in swine hemoperfused with the HMGB1 adsorption column than the control column at 36 hours after ALF induction. There was a tendency for improved survival in swine in the HMGB1 adsorption column group as compared with the control column group.

Conclusion: The effects of hemoperfusion with the HMGB1 adsorption column on ALF appear to be beneficial but further investigations of this potential treatment are needed.

PP 17

Pseudoaneurysm of the Cystic Artery: A Rare Complication of a Common Disease

Sandra Ruiz, Carmen González, Iñaki Iturburu, Angel Gomez Palacios, Jaime Méndez, Izaskun Del Hoyo, Lorena Hierro-olabarria, Eider Etxebarria

Basurto Hospital, Spain

Introduction: Visceral artery aneurysms and pseudoaneurysms despite being uncommon, are clinically important because of the high incidence of rupture and life-threatening haemorrhage. They are located in the main arterial trunks (celiac trunk, superior mesenteric artery and inferior mesenteric artery) or in one of their vessels.

Objectives: Pseudoaneurysm of the cystic artery is a rare condition, having been reported in only 15 cases.

Material/Patients and Methods: A 74-year-old man presented to the emergency department complaining of epigastric pain and asthenia for a few weeks. on the physical examination, the patient was febrile without tenderness over the abdomen. Computerized tomographic (CT) evaluation of the abdomen demonstrated a gallbladder mass. After endoscopic ultrasound and biopsy, there was no evidence of malignancy, suggesting a xantogranulomatous cholecystitis. He complained of melena, so the gastroendoscopy was carried out revealing a cholecystoduodenal fistula. Finally, cholangio-

PP 16

Reducing Plasma High-mobility Group Box 1 Levels Using a Hemoadsorption Column in Swine Acute Liver Failure

Masahiro Shinoda¹, Minoru Tanabe¹, Masayuki Tanaka¹, Ryo Nishiyama¹, Kiminori Takano¹, Ikuro Maruyama², Yuko Kitagawa¹

¹ Surgery, School of Medicine, Keio University, Japan

² Department of Laboratory and Molecular Medicine, Kagoshima University, Japan

Introduction: High-mobility group box 1 (HMGB1) is a monocyte derived late-acting inflammatory mediator.

MTR diagnosed a pseudoaneurysm of cystic artery.

Results: The patient suffered from hypovolemic shock because of pseudoaneurysm rupture requiring an urgent embolization by the Interventional Radiology Service. Afterwards, the patient recovered uneventfully and thus was discharged.

Conclusion: The cystic artery pseudoaneurysm is a rare complication of a common disease; acute cholecystitis. The clinical features had already been reported by Quincke, as biliary colic, jaundice and gastrointestinal bleeding. The cooperation between surgeons and radiologists allows not only a selective embolization in urgent situations, but also the cholecystectomy as a definitive treatment. In our case, the selective embolization of the cystic artery was an effective and safe therapeutic strategy.

PP 18

The Frequency of Intestinal Obstruction Associated with the Use of Activated Charcoal in Multiple Doses

Yellz şahlner¹, İbrahim Tayfun şahlner², Zehra Unal Özdemir², Hakan Özdemir², Metin Şenol²

¹Ministry of Health Nevşehir State Hospital Department of Anaesthesiology and Reanimation, Turkey

²Ministry of Health Nevşehir State Hospital Department of General Surgery, Turkey

Introduction: Activated charcoal therapy is widely used for intoxication at emergency departments. The major causes of morbidity and mortality secondary to activated charcoal therapy are aspiration of charcoal, gastrointestinal obstruction, and fluid and electrolyte abnormalities. Intestinal obstruction is a rare but very serious complication of multiple-dose administration of activated charcoal.

Objectives: In this study we investigate the patients who admitted to emergency department (ED) for drug toxicity and treated with activated charcoal.

Material/Patients and Methods: All patients analyzed from data bank of Nevşehir State Hospital who admitted to ED for drug intoxication and treated with activated charcoal between January 2008 and December 2012.

Results: Totally 1638 patients were treated with activated charcoal for drug intoxication. 6 (0,36%) of them occurred intestinal obstruction associated with the use of multiple-dose activated charcoal. The patients received a total of 350 g activated charcoal via a nasogastric tube over 25 hours. Patients experienced charcoal stained vomiting, but made an otherwise unremarkable recovery and was discharged home. The patients were hospitalized again 2-4 days later with intestinal obstruction. Patients were followed up with conservative therapy, no need for surgery. After few days, bezoars related with activated charcoal were exited with defecation.

Conclusion: Charcoal bezoars are a rare complication of activated charcoal administration. They have been associated with treatments for intoxication with carbamazepine,

amitriptyline, benzodiazepines and barbiturates. Parasympatholytic effects of the drugs can precipitate or contribute to paralytic ileus, allowing charcoal to accumulate (potentially with remnants of undigested tablets) and form bezoars. Gastrointestinal complications should be considered whenever activated charcoal is administered.

PP 19

A State Hospital's Surgical Intensive Care Unit Experiences

Yellz şahlner¹, İbrahim Tayfun şahlner², Hakan Özdemir², Zehra Ünal Özdemir², Metin Şenol²

¹Ministry of Health Nevşehir State Hospital Department of Anaesthesiology and Reanimation, Turkey

²Ministry of Health Nevşehir State Hospital Department of General Surgery, Turkey

Introduction: In this study, Intensive Care Unit (ICU) patients in Nevşehir State Hospital were examined.

Objectives: We intend to determine the spectrum of the surgical patients' demographic characteristics like age, gender, diagnosis and APACHE-II scores in a new opened intensive care unit which has 10 beds.

Material/Patients and Methods: All post-operative patients between 2011-2012 who were hospitalized in general intensive care unit in Nevşehir State Hospital have been analyzed retrospectively. Age, sex, diagnosis, length of stay in the ICU, intubated or not, follow-up APACHE-II score and the effect of the expected and actual mortality ICU mortality rates of 98 surgical ICU patients were evaluated.

Results: 35%(n=34) of the patients were female and 65%(n=64) were male. The mean age was 63.5 years (16-95). Gastrointestinal tract malignancies (n=41), multiple trauma (n=33), ileus (n=22) and necrotizing fasciitis (n=2) patients were treated. 80% of patients (n=78) didn't need any mechanical ventilatory support. In other patients 20% (n=20), while the intensive care unit stay, at least once intubation and mechanical ventilation support was needed. Mean APACHE-II score was 9 (3-19). Despite of high APACHE-II score, the average mortality rate of these surgical ICU patient was 10% (n=21).

Conclusion: The newly opened state hospital intensive care unit's surgical patients' APACHE-II score was found high. Most of these patients were geriatric and have malignancies. Despite the high expected mortality rate according to the APACHE II scoring system, these surgical ICU patients' mortality rates were close to mean mortality rates of their primary diseases. This situation can be explained by good intensive care patient management.

PP 20

Harmonic Scalpel Vs. Ferguson Haemorrhoidectomy: A Clinical Study

MetIn Şenol¹, İbrahim Tayfun Şahlner¹, Zehra Ünal Özdemir¹, Yeliz Şahlner², Hakan Özdemir¹

¹Ministry of Health Nevşehir State Hospital Department of General Surgery, Turkey

²Ministry of Health Nevşehir State Hospital Department of Anaesthesiology and Reanimation, Turkey

Introduction: Haemorrhoids are defined as the symptomatic enlargement and distal displacement of the normal anal cushions. Different surgical methods are being used for haemorrhoidal disease.

Objectives: The purpose of this study was to compare the efficacy of Harmonic scalpel and Ferguson haemorrhoidectomy procedures.

Material/Patients and Methods: From January 2012 to November 2012, haemorrhoidectomy was done to 84 patients for grade II-IV haemorrhoidal diseases. Harmonic scalpel was used in Group 1 (n:44) and Ferguson haemorrhoidectomy was done in Group 2 (n:40). Patients' demographic data, operation time, peroperative bleeding, postoperative pain scores, hospitalization time, wound healing time, return to daily activity and complications were recorded and analyzed. Patients were examined at one, two and four weeks after the operation.

Results: There were no differences between two groups in terms of age, gender, haemorrhoidal degree and type of anesthesia. Mean operation time of Group 1 was significantly shorter than Group 2 (23 vs 40 min. P<0.05). Mean peroperative bleeding and postoperative pain scores were significantly lower in Group 1 (P<0.05). Nearly all patients were discharged from hospital at postoperative first day. Bleeding was occurred postoperatively in 2 patient in Group 2. Except this early complication, there was no significant differences for complications, wound healing time and return to daily activity between two groups (P>0.05).

Conclusion: This study demonstrated that Harmonic scalpel haemorrhoidectomy is a safe and effective procedure, also reduces operation time, peroperative bleeding and postoperative pain. On the other hand it has no significant advantage in hospitalization time, wound healing time, return to daily activity and complications.

PP 21

Assessing the Risk of Breast Cancer by Gail Risk Scale in a State Women Population

İbrahim Tayfun Şahlner¹, Zehra Ünal Özdemir¹, Hakan Özdemir¹, Yeliz Şahlner², MetIn Şenol¹

¹Ministry of Health Nevşehir State Hospital Department of General Surgery, Turkey

²Ministry of Health Nevşehir State Hospital Department of Anaesthesiology and Reanimation, Turkey

Introduction: GAIL and others have developed a model (GAIL) using age-at-menarche, age-at-birth of first live child, number of previous benign breast biopsy examinations, and number of first-degree-relatives with breast cancer as well as baseline age-specific breast cancer risks for predicting the 5-year risk of invasive breast cancer for women. However, the validity of the model for projecting risk in women living in Nevşehir state is uncertain.

Objectives: The aim of this study is to evaluate GAIL risk scale and attempted to improve its performance for women in Nevşehir, Turkey.

Material/Patients and Methods: Nevşehir State Hospital Patient Screening Programme was used for data recording. GAIL risk model was used to determine breast cancer risk. Between January 2012- December 2012, all patients with mastodynia, nipple discharge and palpable mass in breast were analysed for GAIL risk scale.

Results: Totally 500 patients were examined. The mean age was 58 years (17-85). 200 of the patients had mastodynia, 20 patients had nipple discharge, 68 patients had palpable breast mass, 34 patients had inflammatory disorders, 188 patients had no pathological symptoms and came for screening. Only 6 patient diagnosed as breast cancer and underwent mastectomy. GAIL risk assessment of these breast cancer patients were found higher from the normal population.

Conclusion: Numerous risk assessment tools can be used for breast cancer. GAIL can be refined by using national race-specific invasive breast cancer rates. Nevertheless its role in counseling the individual women regarding their risk of breast cancer remains problematical and needs to be validated in independent data.

PP 22

Comparison of Primary Repair and Limberg Flap Technique in Pilonidal Sinus Disease

Zehra Ünal Özdemir¹, Hakan Özdemir¹, MetIn Şenol¹, İbrahim Tayfun Şahlner¹, Yeliz Şahlner²

¹Ministry of Health Nevşehir State Hospital Department of General Surgery, Turkey

²Ministry of Health Nevşehir State Hospital Department of Anaesthesiology and Reanimation, Turkey

Introduction: Pilonidal sinus is a benign and chronic disease described by Herbert Mayo in 1833. Despite the use of different methods in treatment of pilonidal sinus disease, there isn't a consensus in method of pilonidal sinus surgery.

Objectives: The aim of this study was to compare primary repair and Limberg flap technique for pilonidal sinus disease.

Material/Patients and Methods: In this study, patients who were presented with pilonidal sinus disease between January 2009 and March 2011 were evaluated. Primary repair was performed in 41 patients who had 2 or less sinus openings or patients who didn't have evidence of pilonidal abscess. Limberg flap repair was performed in 52 patients who had 3 or more sinus openings or pilonidal abscess before

and secondary sinus tract. Operation time, length of hospital stay, surgical site infection, wound dehiscence, postoperative pain during first defecation and recurrences were recorded and analyzed.

Results: Average length of hospital stay and mean operative time of Limberg flap patients were 2.56 days and 53 minutes respectively. In primary repair patients average hospital stay and mean operative time were 1.07 days and 32 minutes. Mean operative time and hospital stay were significantly higher in patients who underwent Limberg flap ($p < 0.05$). On the other hand, surgical site infection, wound dehiscence, postoperative pain during first defecation and recurrence rates were statistically and significantly lower in Limberg flap group ($p < 0.05$).

Conclusion: Although, operation time and length of hospital stay is longer in Limberg flap technique, it has lower recurrence and complication rates. Therefore it should be preferred in pilonidal sinus disease.

PP 23

Primary Cecal Epiploic Appendagitis Mimicing Acute Appendicitis; Report of 4 Cases

Hakan Özdemir¹, Zehra Ünal Özdemir¹, Ibrahim Tayfun Şahiner¹, Metin Şenol¹, Yeliz Şahiner²

¹Ministry of Health Nevşehir State Hospital Department of General Surgery, Turkey

²Ministry of Health Nevşehir State Hospital Department of Anaesthesiology and Reanimation, Turkey

Introduction: Primary epiploic appendagitis (PEA) is an inflammatory disease due to the torsion or spontaneous venous thrombosis of colonic epiploic appendages. Frequency of PEA is greater in the sigmoid colon, which is the place where appendix epiploica most commonly observed. Cecal PEA is seen rarely.

Objectives: PEA is actually a disease that can be cured by conservative treatment. However, cecal appendagitis epiploica is sometimes managed by surgical treatment because it mimics acute appendicitis.

Material/Patients and Methods: From September 2011 to November 2012, 4 patients were admitted to emergency room with sign and symptoms of acute appendicitis. Laparotomy was done via McBurney incision and primary cecal appendagitis epiploica was diagnosed in all patients.

Results: All patients were male and mean age was 24 years (18-35). There was a mild fever, tenderness and rebound at right lower quadrant in all patients. Mean WBC was 10.700/ μ L (9.000-12.300). Abdominal ultrasonography was done to all and computed tomography was done to two patients. Pericecal free fluid was reported in three patients but appendagitis epiploica was not identified radiologically. All patients were operated; ischemic appendix epiploica was excised and although appendix was normal, appendectomy was performed to all of them.

Conclusion: We believe that a careful radiological examination, especially a CT, would increase the correct diagnosis of appendagitis epiploica cases and provide an opportunity for conservative treatment. On the other hand, if cecal appendagitis epiploica can not be diagnosed by the radiologist, surgery will be inevitable because it mimics acute appendicitis.

PP 24

The Outcomes Following Pancreatoduodenectomy with Pancreaticogastric Anastomosis

Hisashi Ikoma, Yusuke Yamamoto, Hirotaka Konishi, Ryou Morimura, Toshiya Ochiai, Hitoshi Fujiwara, Kazuma Okamoto, Eigo Okamoto

Kyoto Prefectural University of Medicine, Japan

Introduction: Interestingly, the technique of pancreatic anastomosis after pancreaticoduodenectomy (PD) almost always differs between several centers.

Objectives: To determine outcomes following pancreaticoduodenectomy with pancreaticogastric anastomosis in our institute.

Material/Patients and Methods: From April 2008 through to December 2012, 66 patients were submitted for PD reconstructed by pancreaticogastrostomy. The study consisted of 41 men and 25 women, with a median age of 66.4 years old. The main indications for PD were cholangiocarcinoma in 23 patients, pancreatic ductal carcinoma in 24 patients, IPMN in 8 patients, pancreatic Neuroendocrine tumor in 4 patients. Reconstruction by pancreaticogastrostomy was performed, the stump of pancreas was invaginated into the posterior wall of the stomach by using a pancreatic stent.

Results: The average of duration of operation was 550 minute, and the amount of blood loss 645ml. The overall in-hospital morbidity and mortality rate was 48% and 0%, respectively. Pancreatic fistula at the grade B/C in ISGPF occurred in six (13.6%) patients and five patients at the grade B was treated conservatively with good outcome. One patient at the grade C reoperated to drainage abdominal abscesses due to pancreatic fistula with good outcome, too. No patients developed postoperative new or worsening endocrine or exocrine insufficiency.

Conclusion: Pancreatoduodenectomy with pancreaticogastric anastomosis in our method offers a safe alternative to the pancreaticojejunostomy and may be technically simpler.

PP 25

Abdominal Cocoon: A Rare Cause of Acute Mechanical Intestinal Obstruction in Five Patients

Yigit Duzkoylu , Mehmet Baki Dogan , Soykan Arikan

Istanbul Training and Research Hospital, General Surgery Clinic, Turkey

Case Report: Background&Aims: Abdominal cocoon, also known as sclerosing encapsulating peritonitis, is a rare cause of intestinal obstruction usually diagnosed incidentally at laparotomy. the cause and pathogenesis of the condition have not been understood yet. We report our experience with five such adults. Methods: We describe five patients, presenting with acute mechanical intestinal obstruction without history of previous abdominal surgery. After radiologic evaluation, an exploratory laparotomy was performed through a midline incision. Results: The youngest patient was a 15-year-old girl and the oldest one was a 56-year-old man (mean age: 40,2). Two of the patients were men and three of them were women. All of them had referred to the emergency clinic with acute intestinal obstruction symptoms. CT scans were obtained in which a conglomerate of several small-bowel loops were seen in the center of the abdomen(Figure 1).At surgery, we observed forshortened, distended, small bowel loops, encapsulated within a thick fibrous membrane adherent to the bowel serosal layer and fused to its mesentery (Figure 2).Decortication of membrane and adhesiolysis successfully released the intestinal obstruction.All five patients had uneventful recovery and follow-up. Conclusion: Abdominal cocoon is a rare cause of AMIO, characterized by a complete or partial encasement of the bowels by a fibrocollagenic cocoon-like sac.In our cases, clinical, laboratory, and radiologic findings were concordant with abdominal cocoon. We think that abdominal cocoon is a developmental disease due to continual growth of the small bowel loops within a semirigid encased accessory peritoneal membrane resulting in long-standing symptoms of partial bowel obstruction and abdominal mass before the onset of an acute obstructive episode. Although it was first described in tropical and subtropical adolescent girls, it can occur in all age groups, both genders and in many regions of the world. a better awareness of the clinical features of this condition may facilitate preoperative diagnosis and intraoperative identification,thus preventing inadvertent bowel damage unnecessary bowel resection at laparotomy.

PP 26

Kidney Preserving Margin Free Resection of Leiomyosarcoma Arising From Left Renal Vein with Vascular Reconstruction: Case Report.

Murat Urkan ¹, Gökhan Yağcı¹, İsmail Hakkı Özerhan ¹, Erkan Öztürk ¹, Aytekin Ünlü¹, Mehmet Gamsızkan ², Yusuf Peker ¹

¹Department of General Surgery ,Gülhane Military Medical Academy Ankara, Turkey

²Department of Pathology, Gülhane Military Medical Academy Ankara, Turkey

Case Report: Background: Leiomyosarcoma is a common retroperitoneal sarcomas mostly originating from muscles. Only about 5% of leiomyosarcomas arise directly from large blood vessels and more than 50% of cases originate from inferior vena cava. Primary leiomyosarcomas of renal veins are extremely rare (30 cases). Mostly diagnosed at advanced stages because of nonspecific clinical signs. Case: A 40-year-old woman was evaluated of a left retroperitoneal mass with severe back pain. CT scan revealed a left retroperitoneal mass 7 cm. in size adjacent to left renal hilum. During the operation; a multilobular, solid tumor in 7 x 6.5 x 3 cm size, surrounding the left renal vein was observed. Further dissection revealed that the tumor was originated from left renal vein wall. Total devascularization and partial left renal vein resection with tumor and end to end anastomosis was performed. Vascular outflow was confirmed with intraoperative and postoperative doppler examination. Pathology was reported as moderately differentiated leiomyosarcoma, originated from renal vein wall with tumor free resection margins and the patient was discharged with adjuvant chemoradiotherapy. Conclusion: Although the radical nephrectomy is the gold standard approach for malign tumors of the kidney, kidney preserving tumor free resection with vascular reconstruction is a feasible alternative followed by adjuvant chemoradiotherapy and close follow up.

PP 27

The Number of the Metastatic Lymph Nodes Is Independent Predictor of Early Recurrent Esophageal Cancer

Hiroyuki Kobayashi , Masato Kondo , Siyuan Yao , Akira Miki , Satoshi Kaihara , Ryo Hosotani

Kobe City Medical Center General Hospital, Japan

Introduction: Although the outcome of surgical therapy against esophageal cancer is getting better, there are still patients who cannot gain the benefit of surgical therapy. Especially, there are some patients who have a recurrence of esophageal cancer at very early date postoperatively.

Objectives: A retrospective study was performed to assess which clinicopathological factor could be the predictor of early recurrence of esophageal cancer.

Material/Patients and Methods: We analyzed 116 consecutive esophageal cancer patients who underwent clinically curative esophagectomy from 2005 to 2009 in our hospital. We compared the clinicopathological characteristics between the patients who had a recurrence within 6 months (group A) and the others (group B).

Results: Totally 55 patients (47%) had a recurrence and 61 (53%) patients had no recurrences within 3 years after surgery. Fifteen patients (13%) had an early recurrence within 6 months after surgery. Early recurrent patients had very poor prognosis, which average survival time was 12 months. Most clinicopathological factors such as ages, sex, smoking habit, location of the tumor, histological type, operative duration, amount of bleeding, complications showed no significant differences between group A and B. Early recurrent patients showed significantly higher pT and pN categories and R. Multivariate analysis demonstrated that the number of lymph node metastasis was independent factor of early recurrence.

Conclusion: Increasing number of positive LN in patients with esophageal cancer portends an early recurrence and poor prognosis. This factor should play an important role in determining which patients receive adjuvant and/or neoadjuvant therapy.

PP 28

The Impact of Posthepatectomy Liver Failure on the Recurrence and Prognosis of Hepatocellular Carcinoma

Kohta Iguchi¹, Etsuro Hatano¹, Kenya Yamanaka¹, Shiro Tanaka², Keiichi Yamamoto², Kojiro Taura¹, Shinji Uemoto¹

¹Department of Surgery, Graduate School of Medicine, Kyoto University, Kyoto, Japan

²Department of Clinical Trial Design and Management, Translational Research Center, Kyoto University Hospital, Kyoto, Japan

Introduction: Patients with hepatocellular carcinoma (HCC) who underwent hepatectomy often developed an intrahepatic recurrence, even though it was a curative one. The relationship between liver injury and the recurrence of HCC has not been described.

Objectives: This study evaluated whether posthepatectomy liver failure, as defined by the International Study Group of Liver Surgery, affected the recurrence and prognosis of HCC.

Material/Patients and Methods: We performed a retrospective cohort study of 287 patients with HCC who underwent hepatectomy between 2006 and 2010 at Kyoto University Hospital. Early posthepatectomy liver failure (EPLF) was defined as liver failure occurring between postoperative days 5 and 10. The patients were divided into an EPLF group and a non-EPLF group. Disease-free survival (DFS) and overall survival (OS) were compared between these 2 groups. The influences of host-related, surgery-related, and tumor-related factors on patient outcomes were evaluated

using multivariate analyses.

Results: The EPLF group and the non-EPLF group contained 89 and 198 patients, respectively. The probability of DFS and OS were significantly increased in the non-EPLF group compared to the EPLF group (DFS; hazard ratio [HR] [95% confidence interval (CI)]: 1.63 [1.18–2.22], P = 0.0021. OS; HR [95% CI]: 1.78 [1.06–2.94], P = 0.033). In the multivariate analyses of DFS and OS, the HRs [95% CI] were 1.48 [1.06–2.06] and 1.85 [1.08–3.12], respectively. EPLF was an independent factor for both DFS and OS.

Conclusion: EPLF was associated with postoperative HCC recurrence and poor survival. The prevention of EPLF might improve the prognosis of patients with HCC.

PP 29

The Implication of Serum I-fabp Levels in the Early Diagnosis of Acute Mesenteric Ischemia (experimental Study)

Serkan Zenger¹, Ayhan Çevik¹, Işıl Demir Piroğlu¹, Yetkin Özçabi¹, Cihangir Ulubey¹, Metin Şenol², Nejed Bildik¹, Tayfun Yücel¹

¹Dr. Lütfi Kırdar Kartal Training and Research Hospital, 2nd General Surgery Clinic, Turkey

²Nevşehir State Hospital General Surgery Clinic, Turkey

Introduction: Acute Mesenteric Ischemia (AMI), although relatively rare, is an emergency condition with high mortality rates (60–80%) attributed to lack of early diagnosis.

Objectives: The purpose of our study is to investigate Serum Intestinal Fatty Acid Binding Protein (I-FABP) levels in the early diagnosis of acute mesenteric ischemia obtained via superior mesenteric artery occlusion model in rats.

Material/Patients and Methods: In this study, 20 male Wistar-Albino rats were used. After determining the basal values, the rats were randomly divided into two groups as a Control Group (Group 1) and Mesenteric Ischemia Group (Group 2). 0.5 ml blood was drawn from each rat in both groups at the 30th, 60th, and 90th minutes to determine serum I-FABP levels. Results compared with the two groups also compared with inside in each group.

Results: There was no statistically significant difference within the serum I-FABP levels of the group 1 at the 30th, 60th, and 90th minutes. However, in the experimental group where mesenteric ischemia was generated by SMA occlusion, we detected an increase of serum I-FABP levels at minute 30, which continued to escalate to significant levels with respect to basal values at the 60th and 90th minutes (1.38, 2.02, 4.54 ng/ml). Same differences were also found when comparing with two groups.

Conclusion: We think that Serum I-FABP levels have a significant role among non-invasive tests for Acute Mesenteric Ischemia disease where diagnosis is notoriously difficult. It may lead us early diagnosis and life-saving treatment chances in these cases.

PP 30

Tactical Evacuation of Casualties by Military Helicopters: Present and Future Aspects

Aytekin Ünlü , Murat Urkan , Ümlit Alakuş , İsmail Hakkı Özerhan , Ramazan Yıldız , Erkan Öztürk , Gökhan Yağcı

Department of General Surgery ,gÜlhane Military Medical Academy Ankara, Turkey

Introduction: Injury is a surgical disease and survival is inversely proportionate to elapsed time to treatment. As the routine use of helicopters started during the Vietnam War, it has been well established that rapid transport was associated with unprecedented survival of critically injured patients.

Objectives: The main focus of this study was to increase the Turkish Trauma Society awareness, improve en route care quality, identify new research topics and increase military medical readiness for the ensuing conflicts and disaster situations.

Material/Patients and Methods: Currently, helicopters are used for tactical and medical evacuation purposes both in the Turkish Military and civilian health care system. Despite the rapid transport advantages, these flying ambulances are austere environments in terms of limited space and medical resources.

Results: Accordingly, a study group consisting of experienced military trauma surgeons has analyzed the data related with the present and future aspects of casualty evacuation missions with military helicopters.

Conclusion: Helicopter tactical evacuation is not merely a rapid transport of trauma victims but an essential part of prehospital care. However, care is notoriously suboptimal especially when compared with medical evacuation. Upon analysis of available data, further prospective studies and additional funds are required to improve care given to both civilian and military trauma victims.

PP 31

An Aortic Stentvalve with Integrated Bypasses

Spillner Jan , Amerini Andrea , Autschbach Ruediger , Hatam Nima

Clinic for Cardiothoracic and Vascular Surgery; Rwth Aachen University Hospital, Germany

Introduction: Aortic regurgitation is not treatable interventionaly. Moreover a heterotopic interventional placement of a valved stent may be desirable in some circumstances.

Objectives: We investigated a new approach to anchor a biological heart valve heterotopically in the ascending aorta and maintain coronary perfusion in vitro.

Material/Patients and Methods: Our concept was to equip collapsible stentvalves with extensions reaching down into the two coronary ostia to provide coronary perfusion. Three types of collapsible valves were manufactured based on

a nitinol stent: two biological valves and one of polyurethane. in all these valves in two cusps an extension was integrated: The biological valves were equipped with vein extensions, the polyurethane valve was already buildt with extensions of 4 mm diameter. These three prototypes were investigated in a pulsatile circulation model of a porcine ascending aorta regarding coronary perfusion, leak flow and gradients.

Results: The stentvalves could be easily implanted in a supracoronary position. the extensions could be fixed and tightened in the coronary ostia from the inside by coronary stents. in the circulation model no relevant gradients of the additional valve were observed. There was a moderate leak flow of 122 (+/- 33) ml/min but the valves stayed in place over the observation period of 1 hour. Coronary perfusion was maintained compared to the state without the bypasses 345 (+/- 23) ml/min.

Conclusion: This study demonstrates the principal feasibility of an heterotopic interventional aortic valve implantation. This approach might be used for an interventional treatment of aortic regurgitation and Type a Dissections.

PP 32

Efficacy of Preoperative Oral Care for Gastric Surgery

Akira Miki , Siyuan Yao , Kazuyuki Okada , Takehito Yamamoto , Kenta Inogudhi , Eisei Mitsuoka , Satoshi Kaihara , Ryo Hosotani

Kobe City Medical Center General Hospital, Japan

Introduction: Oral care is known to prevent the infectious complications in critically ill patients; however little is known if it reduces the risk of perioperative complications after gastrointestinal surgery.

Objectives: We evaluated the effects of preoperative oral care in the patients operated for gastric cancer.

Material/Patients and Methods: Hundred-six patients, who operated for gastric cancer in our institute from January to December in 2012, were enrolled in this study. They received oral checking up at least twice before surgery and were treated if they had any problem. Hundred-eight patients, who operated for gastric cancer from January to December in 2011 without any preoperative oral care, were served as a control. the incidence of perioperative complications and surgical site infection (SSI) were compared in these two groups. We use χ square method for statistical analysis.

Results: There were no statistical differences in the backgrounds these two groups (age, gender, operation method, and operation time). No perioperative complications occurred in oral care patients; however, 3 patients had perioperative complications in non-oral care patients (pneumonia, tooth falling during anesthesia, and parotitis due to dental caries). SSI occurred in 14.2% of oral care patients and in 22.2% of non-oral care patients. the incidence of SSI tends to decrease with preoperative oral care, but there was

no statistical significance (P=0.125).

Conclusion: Preoperative oral care may be useful to reduce perioperative complications for gastric cancer patients.

PP 33

Predictive Scoring System Assessing the Need for Intraoperative Blood Transfusions During Hepatectomy for Hepatocellular Carcinoma

Yusuke Yamamoto, Hisashi Ikoma, Hirotaka Konishi, Ryo Morimura, Hitoshi Fujiwara, Kazuma Okamoto, Toshiya Ochiai, Eigo Otsuji

Division of Digestive Surgery, Department of Surgery, Kyoto Prefectural University of Medicine, Japan

Introduction: It is a great clinical concern to preoperatively predict blood transfusions during hepatectomy for hepatocellular carcinoma (HCC).

Objectives: This study was undertaken to develop a predictive scoring system for blood transfusions during hepatectomy using these factors.

Material/Patients and Methods: A total of 199 consecutive patients undergoing elective hepatectomy for HCC were reviewed retrospectively. We investigate preoperative factors potentially influencing intraoperative blood transfusion and establish predictive scoring system for intraoperative blood transfusion.

Results: One hundred and nine patients (54.7%) received red cell blood transfusion during surgery. a preoperative predicting scoring system for blood transfusion (0-5 points) was constructed using the following 5 factors; serum albumin value < 3.5 g/dL, 15-minute retention rates of indocyanine green > 10%, present of preoperative TACE, alfa-fetoprotein > 400 ng/mL, and anatomical resection. the nomogram showed an area under the curve (AUC) of 0.768. This scoring system was highly predictive for blood transfusion (AUC = 0.755). When the score was 0 points, the incidence of intraoperative blood transfusion was 0%. the rate increased to 12%, 51%, 74%, and 84% when the score was 1, 2, 3, and 4 points, respectively, and reached 100% when the score was 5 points.

Conclusion: This predictive scoring system would be useful for preoperatively assessing the need for intraoperative blood transfusions during hepatectomy for HCC.

PP 34

Outcome of Surgical Treatment for Toxic Megacolon in Patients with Ulcerative Colitis

Sho Haneda, Hitoshi Ogawa, Takeshi Naito, Masayuki Kakyo, Munenori Nagao, Kou Miura, Chikashi Shibata, Michiaki Unno

Tohoku University, Japan

Introduction: Although most of patients who complicate

toxic megacolon (TMC) during the treatment for ulcerative colitis (UC) require surgery, its postoperative outcome is considered unsatisfactory.

Objectives: The aim of this study was to investigate outcome of surgical treatment for TMC in patients with UC.

Material/Patients and Methods: We reviewed clinical record of patients who underwent emergency operation for TMC between 1994 and 2011. There were 16 patients (10 men and 6 women).

Results: Median age at the time of surgery, the median duration from onset of UC to operation, and median postoperative follow-up time was 45 (Range: 13-75) years, 82 (15-4653) days, 7.2 (0.1-16.4) years. Fourteen of 16 patients underwent subtotal colectomy (STC) with an end-ileostomy, and Turnbull's operation was performed in 2 patients. Early postoperative complications were observed in 9 (56%) patients; pneumonia in 4 patients (25%), wound infection in 4 patients (25%), intestinal obstruction in 2 patients (13%), and others in 3 patients. All 4 patients who complicated pneumonia were above 55 years old. a 73-years-old male patient who underwent STC died of pneumonia at 30th postoperative day. Ileal J pouch-anal (canal) anastomosis was performed after STC or Turnbull's operation in 9 patients, while five patients required permanent ileostomy.

Conclusion: One patient complicating TMC died of pneumonia and rate of morbidity was increased. However, long-term results in patients with TMC were considered satisfactory, because restorative proctocolectomy was feasible in most of patients with TMC.

PP 35

Perioperative Ercp Decreases the Complication Rate in Surgical Treatment of Large Liver Hydatid Cysts (lhc)

Avdyl Krasniqi¹, Besnik Bicaj¹, Astrit Hamza¹, Adem Rrusta², Faton Hoxha², Valon Zejnullahu², Fatos Sada¹, Dalip Limani¹

¹ Faculty of Medicine, University of Prishtina, Prishtina, Kosovo

² Department of Surgery, University Clinical Centre of Kosova, Prishtina, Kosovo

Introduction: Although surgery remains the main modality for treatment of complicated liver hydatid cysts (LHC), there is not yet a standard surgical technique widely accepted.

Objectives: To compare the complication rate of two groups of patients (pts) with large LHC treated surgically, with focus on the role of ERCP in the perioperative period.

Material/Patients and Methods: A retrospective chart review of patients with large LHC treated surgically during the periods 1981-1990 (I) and 2001-2010 (II). Complication rate between two groups was compared.

Results: A total of 340 pts. 218 (64.1%) female and 122(35.8%) male. Were performed following surgical procedures; endocystectomy with partial pericystectomy

and omentoplication (61%), total pericystectomy (27%), endocystectomy with capitonnage (11%), external drainage (1%). Bile duct exploration and T tube was performed in 10 pts of group I vs. 39 pts of group II. the perioperative ERCP with consecutive sphincterotomy was done only in 9 pts of the second group. the overall complication rate was 15.09% in the first vs. 9.5% in the second group. Main postoperative complications were residual cystic cavity, pleuritis, biliary fistulas, wound infection, subdiaphragmal abscessus, biliary peritonitis and one fatal complication in the first group.

Conclusion: ERCP, bile duct exploration and T tube have decreased the complication rate, particularly residual cystic cavity, biliary fistulas and biliary peritonitis after surgical treatment of large LHC.

PP 36

Siliconosis: An Unknown Entity in Aesthetic Breast Surgery

Aphrodite Iacovidou , Zeeshan Ahmad , Eltigani Eltigani , Richard Matthews

University Hospital of Coventry and Warwickshire, UK

Introduction: The authors present an interesting and unusual case of siliconosis secondary to bilateral cosmetic breast augmentation in 1989. Troubled with a myriad of complications, she underwent exchange of implants with Trilucent implants in 1997 and subsequent removal in 1998. Thereafter, she underwent bilateral mastopexy and is currently free of implants. Ever-since her first operation she complained of pain, localised tenderness, swelling, axillary fullness, paraesthesiae and partial paralysis in her upper limbs amongst other symptoms. Objective investigations including plain radiographs, USS, CT, MRI, nerve conduction studies, rheumatological screen yielded essentially negative results. She also been thoroughly investigated for breast cancer, undergone several operations and biopsies of axillary swellings to date with confirming reactive lymphadenopathy. a working diagnosis of siliconosis has been made and she is being treated expectantly

Objectives: As above

Material/Patients and Methods: Case Presentation and retrospective notes analysis

Results: Diagnosis of Siliconosis

Conclusion: Given the recent PIP scandal this case reminds us of the of the clinicians' roles and responsibilities in offering cosmetic breast surgery.

PP 37

A Case of Pincer Nail Treated Using Dermal Grafting and Review of Literature

Huseyin Taskoparan ¹, Eyup Duran ², Mustafa Tanriseven ², Muharrem Oztas ³

¹ Elazig Military Hospital, Department of Orthopedia , Turkey

² Elazig Military Hospital, Department of General Surgery , Turkey

³ Sirtak Military Hospital, Department of General Surgery , Sirtak, Turkey

Case Report: Pincer nail is a kind of nail deformity characterized by an increase in the transverse curvature along the longitudinal axis of the nail. Numerous treatment modalities, including conservative approaches and surgical methods, have been reported. We report a case of pincer nail man who was treated with dermal grafting under the nail bed. a 20 year-old man presented with 5 years history of progressive nail deformity. the patient have been suffered subungual pain and tenderness. No etiologic factor that might cause the pincer nail was detected. Digital nerve block is provided with %1 lidocaine solution and a tourniquet was applied. the deformed nail plate was removed from the nail bed. a tunnel was created between the nail bed and the underlying phalanx. Dermal graft was harvested from right inferior quadrant of abdomen under local anesthesia. After graft elevated the paronychial fold, it sutured. the nail grew in a natural 5 months postoperatively. Using dermal graft is effective treatment of the pincer nail deformity.

PP 38

Acute Left Colonic Diverticulitis:a Prospective Analysis of 167 Consecutive Cases

Konstantinos Alexiou , George Efstathiou , Ioannis Karanikas , Athanasios Fotopoulos , Economou Nikolaos

Sismanoglion General Hospital, Department of General Surgery, Greece

Introduction: Most patients with diverticulitis severe enough to require hospitalization should be treated with intravenous fluids, bowel rest, antibiotics, and analgesics. Computed tomography is the preferred diagnostic test in patients who do not improve within 48 hours, who are assumed to have a complication of diverticulitis.

Objectives: The purpose of this prospective study was to evaluate the immediate and late outcome of acute left colonic diverticulitis and to correlate it with age (younger and older than 50 years of age), gender, and initial computed tomography (CT) findings.

Material/Patients and Methods: Analysis was made of data collected prospectively from all patients admitted

because of acute colonic diverticulitis between January 2008 and December 2012. Diagnosis relied on results of operation, CT. One hundred and sixty seven patients were urgently hospitalized for acute left colonic diverticulitis; 37 were younger than 50 years of age (21%).

Results: Forty eight patients (29%) were operated on during their first hospitalization. the remaining 119 patients treated conservatively underwent CT within 72 hours of admission. Forty-three of 132 patients (33%) older than 50 years of age required operation during their first attack, compared with 5 in 35 patients (15%) younger than 50 years of age ($p = 0.02$), although on CT severe diverticulitis was found in 34 of 132 patients (26%) older than 50 years of age and in 13 of 35 patients (37%) younger than 50 years of age ($p = 0.13$). of the 119 patients treated conservatively, 8 of 30 patients (28%) younger than 50 years of age experienced recurrences or complications after their first discharge, compared with 12 in 89 patients (13%) older than 50 years of age ($p = 0.04$).

Conclusion: Patients younger than 50 years of age were significantly more prone to recurrences and complications after conservative treatment of their , whereas older patients required operation significantly more often during their first hospitalization.

PP 39

Routine Histopathological Examination of Appendectomy Specimens: Is There Any Benefit To Patients?

Arif Emre ¹, Sami Akbulut ², Zehra Bozdog ³, Mehmet Yilmaz ², Murat Kanlioz ¹, Rabia Emre ⁴, Nurhan Sahin ³

¹ Department of Surgery, Malatya State Hospital, Turkey

² Department of Surgery, Inonu University Faculty of Medicine, Turkey

³ Department of Pathology, Malatya State Hospital, Turkey

⁴ Malatya Public Health Center, Malatya, Turkey

Introduction: Acute appendicitis is defined as an inflammation of the inner lining of the appendix vermiformis, which then spreads to other parts of the organ. Various etiologies for this clinic-pathologic condition have been identified, but luminal obstruction is considered the most critical factor as it triggers the inflammatory process. Although lymphoid hyperplasia and fecaliths are the most common causative factors of luminal obstruction, other less frequent factors have been associated with the condition, including various infectious diseases and appendiceal malignancy.

Objectives: To analyze the clinical benefit of histopathological analysis of appendectomy specimens from patients with an initial diagnosis of acute appendicitis.

Material/Patients and Methods: The demographic and histopathological data of 1255 patients (712 males, 543 females; age range: 17-85 years old) who underwent appendectomy to treat an initial diagnosis of acute appendicitis between January 2009 and January 2012 at

our institute were retrospectively analyzed. Patients who underwent incidental appendectomy during other surgeries were excluded from the study.

Results: Ninety-four percent of the appendectomy specimens were positive for appendicitis. of those, 880 were phlegmonous appendicitis, 148 were gangrenous appendicitis with perforation, and the remaining 88 showed the unusual histopathological findings. in the 88 specimens with unusual pathology, fibrous obliteration was observed in 57, carcinoid tumor in 11, E. Vermicularis parasite infection in eight, granulomatous inflammation in six, appendiceal endometriosis in two, and one specimen each showed mucocele, eosinophilic infiltration, Taenia supp parasite infection, and appendicular diverticulitis. All carcinoid tumors were located in the distal appendix and showed a mean diameter of 5.7 ± 3.1 mm (range: 3-12 mm). Six of the 11 carcinoid tumors were defined by histopathology as involving tubular cells, and the other five as involving enterochromaffin cells. in addition, six patients had muscularis propria invasion, two patients had submucosa invasion, two patients had mesoappendix invasion, and one patient had serosal invasion. All patients with tumors survived and remained disease-free during the mean follow-up period of 12.9 ± 9.5 months.

Conclusion: When the ratio of unusual pathological findings for appendectomy specimens is considered, it is evident that all surgical specimens should be subjected to careful histologic examination.

PP 40

Unusual Histopathological Findings in Appendectomy Specimens From Patients with Suspected Acute Appendicitis

Mehmet Yilmaz ¹, Sami Akbulut ¹, Koray Kutluturk ¹, Nurhan Sahin ², Ebru Arabaci ¹, Cengiz Ara ¹, Sezai Yilmaz ¹

¹ Department of Surgery, Inonu University Faculty of Medicine, Turkey

² Department of Pathology, Inonu University Faculty of Medicine, Turkey

Introduction: Appendicitis remains one of the most common acute conditions of the abdomen, and suspected cases are frequently treated with emergency appendectomy. This condition may be brought on by several different physiopathological processes, but luminal obstruction is considered the most important triggering factor of the underlying inflammation. Lymphoid hyperplasia and fecaliths are the most frequently observed etiologies of luminal obstruction. Apart from these usual factors, numerous other less frequent (and thus 'unusual') factors have been identified as having caused the clinical symptoms that indicated the suspicion of acute appendicitis with or without histopathologic evidence for acute appendicitis

Objectives: This study investigated the prevalence and implications of unusual histopathological findings in appendectomy specimens from patients with suspected acute

appendicitis

Material/Patients and Methods: The demographic and histopathological data of 1621 patients (≥16 years-old) who underwent appendectomy to treat an initial diagnosis of acute appendicitis between January 1999 and November 2011 were retrospectively assessed. Microscopic findings were used to classify the patients under six categories: Appendix vermiformis, phlegmonous appendicitis, gangrenous appendicitis, perforated appendicitis, suppurative appendicitis, and unusual histopathologic findings. The demographic and clinicopathologic characteristics of patients with unusual histopathologic findings were evaluated in detail, and re-analysis of archived resected appendix specimens were carried out.

Results: At total of 912 males and 709 females, from 16 to 94 years old, were included in the study and comprised 789 cases of suppurative appendicitis, 370 cases of appendix vermiformis, 243 cases of perforated gangrenous appendicitis, 53 cases of flegmoneous appendicitis, 32 cases of gangrenous appendicitis, and 134 (8.3%) cases of unusual histopathological findings. The unusual histopathological findings included fibrous obliteration (n=62), enterobius vermicularis (n=31), eosinophilic infiltration (n=10), mucinous cystadenoma (n=8), carcinoid tumor (n=6), granulomatous inflammation (n=5), adenocarcinoma (n=4; one of them mucinous), and mucocele (n=3), adenomatous polyp (n=1), taenia supp(n=1), ascaris lumbricoides(n=1), appendiceal diverticula (n=1), and B cell non-hodgkin lymphoma (n=1). None of the 11 patients with subsequent diagnosis of tumor were suspected of cancer prior to the appendectomy.

Conclusion: Even when the macroscopic appearance of appendectomy specimens is normal, histopathological assessment will allow early diagnosis of many unusual diseases.

PP 41

Treatment and Clinical Prognosis in Intraoperative Cyst Hydatid Cases

Ali Harlak¹, Eyup Duran², Oner Menten¹, Ismail Hakki Ozerhan¹, Nail Ersoz¹, Erkan Ozturk¹, Turgut Tufan¹

¹ Gulhane School of Medicine, Department of General Surgery, Turkey

² Elazig Military Hospital, Department of General Surgery, Turkey

Introduction: Cyst hydatids are usually seen in the liver and to the majority of extrahepatic cyst hydatids cases, hepatic involvement accompanies.

Objectives: We aim to discuss the prognosis, the treatments implemented, and the results of the treatments of intraoperative cyst hydatids cases.

Material/Patients and Methods: 7 intraoperative cyst hydatids were identified that were treated in 1998-2007. Data were collected retrospectively, the patients were called by phone and asked about recurrence and their complaints.

Results: Out of the patients 6 were male and 1 was female. Mean age was 30 (20-84). 2 of the patients were admitted with complaint of acute abdomen, 4 of them with abdominal pain, and 1 of them with fatigue. The other 3 were diagnosed as a result of examinations for other reasons. In all patients hepatic cyst hydatids coexisted. In the same session, cystotomy drainage operation was done to the hepatic cyst. Mean follow-up period were calculated as 50 months (2-120). As a result of the contacts to the patients it is found out that all patients are alive and no symptoms exist to indicate recurrence.

Conclusion: In intraoperative cyst hydatids cases, extrahepatic cysts are usually confined by the omentum, and can be removed completely. After cystectomy and treatment with albendazole, recurrence is not seen for long time.

PP 42

Repair of Tension-free Inguinal Hernia With Polypropylene Mesh: Is Drain an Advantage?

Cumhur Deger², Ali Kagan Coskun², Fehmi Celebi¹, Akgun Oral⁴, Eyup Duran³, Mustafa Tahir Ozer³, Ahmet Bal², Taner Yigit¹

¹ Ataturk University, School of Medicine, Department of General Surgery, Turkey

² Erzurum Maresal Cakmak Military Hospital, Department of General Surgery, Turkey

³ Gulhane School of Medicine, Department of General Surgery, Turkey

⁴ Ataturk University, School of Medicine, Department of Pediatric Surgery, Turkey

Introduction: Repair of inguinal hernia is one of the often performed surgical procedures

Objectives: In this study it is evaluated whether drain application is advantageous in patients who underwent repair of tension-free inguinal hernia.

Material/Patients and Methods: The records of 161 patients who underwent repair of tension-free inguinal hernia operation were evaluated. Two groups were constructed according to whether drain was applied or not. Those to whom drain was not applied were group 1 (n:84), those to whom applied were group 2 (n:77). Patients were evaluated in terms of seroma, development of wound site infection, and recurrence.

Results: In group 1, 14 patients had wound site infection, 16 had seroma, and 1 had recurrence. In group 2, 12 had wound site infection, 15 had seroma and none had recurrence. When parameters are evaluated no difference in two groups were observed.

Conclusion: When parameters are evaluated between the two groups no advantage of drain was observed in the postsurgical period.

PP 43

A Rare Complication After Appendectomy: Stump Appendicitis. Report of a Case.

Burak Veli Ulger , Ahmet Turkoglu , Omer Uslukaya , Abdullah Oguz , Mesut Gul

Dicle University, Medical Faculty, Department of General Surgery, Diyarbakir, Turkey

Case Report: Introduction: Stump appendicitis is an uncommon late complication of appendectomy. a prior history of appendectomy can delay the diagnosis. Stump appendicitis should be considered in patients with right lower quadrant pain and a surgical history of appendectomy. It may complicate open or laparoscopic appendectomy. Stump Appendicitis can be diagnosed with Computerized tomography in 46.6% of cases. We report a case of stump appendicitis 10 years after open appendectomy. the patient was operated and discharged from the hospital four days after operation without any complications **Case Report:** A twenty-nine years old man presented with abdominal pain which mainly localised at the right lower quadrant of the abdomen. He had an history of prior appendectomy ten years ago and a McBurney incision scar was seen in physical examination. Physical examination also revealed tenderness, muscular rigidity and rebound at the right lower quadrant of the abdomen. a complete blood count showed white blood cell (WBC) count $20,7 \times 10^3$ /mcl. Abdominal CT scan revealed Acute appendicitis. He underwent an appendectomy through a paramedian incision. Histopathologic examination revealed phlegmoneus appendicitis. the patient was discharged uneventfully on fourth day after surgery. **Conclusion:** Stump appendicitis is a rare cause of acute abdomen and should be taken into consideration in the differential diagnosis in any patient with right sided abdominal pain and a history of prior appendectomy.

PP 44

Unusual Cause of Gastric Outlet Obstruction: Focal Nodular Hyperplasia of the Liver

Cengiz Eris¹, Kamil Yildiz¹, Mehmet Odabasi¹, Sami Akbulut², Hasan Abaoglu¹, Erkan Ozkan¹

¹ Department of Surgery, Haydarpasa Numune Training and Research Hospital, Turkey

² Department of Surgery, Diyarbakir Education and Research Hospital, Turkey

Case Report: Gastric outlet obstruction (GOO) is a clinical syndrome characterized by abdominal pain, nausea and postprandial vomiting. This clinical condition is often caused by peptic ulcer disease, pyloric stenosis, obstruction of pylorus with foreign bodies such as phytobezoar, congenital duodenal web, malign diseases and external masses compressing to the distal part of stomach. Development of GOO due to

lesions originating from the liver is very rare and so far only a few cases were presented. in this study we present a case of 23 year old woman having gastric outlet obstruction secondary to focal nodular hyperplasia. the patient admitted to our clinic with nausea, vomiting, abdominal pain and distension. We found a mass at epigastrium extending to right hypochondrium with deep palpation. in radiologic examination an exophytic 7 cm. mass was found originating from liver and extending caudal and compressing pyloric region of the stomach. Gastrointestinal endoscopy revealed a normal endoscopic findings except external compression on pylorus. At laparotomy there was an irregular and exophytic mass originated from liver, causing to gastric outlet obstruction. the mass was resected with a 1 cm. clear margin. Histopathology of the mass was reported as focal nodular hyperplasia. the case presented in this study with GOO caused by focal nodular hyperplasia is the first case published in the literature.

PP 45

Factors Effecting Mortality in Patients with Penetrating Thoracic Trauma

Ongel Kurtulus⁷, Emin Uysal¹, Serkan Dilmen², Halil Akbulut³, Umit Aydogan⁴, Eyup Duran⁵, Sanem Aslihan Dilmen⁶, Ongel Kurtulus⁷

¹ Bagcilar Training and Research Hospital, Department of Emergency Medicine, Istanbul, Turkey

² Elazig Military Hospital, Department of Emergency Medicine, Turkey

³ 4. Air Force Base Department of Family Medicine Kazan, Turkey

⁴ Gulhane School of Medicine, Department of Emergency Medicine , Turkey

⁵ Elazig Military Hospital, Department of General Surgery, Turkey

⁶ Ankara Physical Therapy and Rehabilitation Training and Research Hospital, Turkey

⁷ Suleyman Demirel University, School of Medicine, Department of Family Medicine, Turkey

Introduction: In today's world, trauma is one of the most important basic public health problems. Injuries occur in people in all age groups and in both sexes; however, young males are effected more commonly. Thorax injuries are responsible for nearly one fourth of the trauma-induced mortalities. Thorax injuries are of great importance since thorax traumas may affect esophagus, heart, diaphragm and major veins as well as ribcage and lungs.

Objectives: we aimed to analyze reasons of mortality.

Material/Patients and Methods: This retrospective study was conducted on the records of 437 patients. Patient data were entered into the standard forms (age, gender, time span of arrival to hospital, amount of bleeding.) ISS and RTS scores, injury organ or region, transfusion volume etc.).

Results: Thus, in the scope of the present study, general mortality rate of the thoracic injuries in the emergency service was recorded to be 1.6%.

Conclusion: Our studies on penetrating thoracic patients, hypovolemic shock, ISS-RTS scores, time and organ injury (heart, aorta etc.) offered to be the most important reason of mortality.

PP 46

The Effect of Fibrin Glue on the Intensity of Colonic Anastomosis in Peritonitis: Experimental Randomized Controlled Trial on Rats

Metin Senol¹, Mehmet Mustafa Altintas², Ayhan Cevik², Nejedet Bildik²

¹Department of General Surgery, Nevsehir State Hospital, Nevsehir Turkey

²Departments of General Surgery Kartal Education and Research Hospital, Istanbul Turkey

Introduction: Anastomotic leakage after colon anastomosis is the most frequent and most feared complication with its highest mortality rate.

Objectives: In this study, we aimed to expose the impact of performing fibrin glue on sutured colocolic anastomosis, in the presence of experimental peritonitis, on anastomosis safety.

Material/Patients and Methods: In this experimental study, the rats were divided into two groups as Control Group (Group 1-3) and Experimental Group (Group 2-4). They were also divided as Clean Abdomen (Group 1-2) and Infected Abdomen (3-4). In order to generate peritonitis, Group 3 and 4 were given intraperitoneally 2 ml of E.coli (ATC 25227) and were waited for 12 hours. Full-thickness incisions were made on the proximal colon of both groups. The control group's anastomoses were conducted only with sutures whereas in experimental group fibrin glue was applied over the sutures. The samples were taken on the 10th day. The samples taken were first subjected to an anastomosis bursting pressure test followed by histopathological examinations and later a test to detect the level of hydroxyproline in the tissue.

Results: Highest values for average levels of hydroxyproline in the tissues and anastomotic bursting pressures were detected when fibrin glue was applied on sutured anastomosis in a clean abdomen. In the histopathological staging performed in line with Ehrlich-Hunt model, lowest values were detected during the presence of peritonitis.

Conclusion: As a result, it has been established that the use of fibrin glue over sutured colocolic anastomosis, both in clean abdomen and in the presence of peritonitis, had increased anastomosis safety.

PP 47

Acute Popliteal Artery Thrombosis After Blunt Trauma

Serkan Dilmen¹, Emin Uysal², Eyup Duran³, Sanem Aslihan Dilmen⁴, Necati Salman⁵, Deniz Arslan⁶, Gulsen Ersoy⁷, Orhan Cinar⁶

¹Elazig Military Hospital, Department of Emergency Medicine, Turkey

²Bagcilar Training and Research Hospital, Department of Emergency Medicine, Turkey

³Elazig Military Hospital, Department of General Surgery, Turkey

⁴Ankara Physical Therapy and Rehabilitation Training and Research Hospital, Turkey

⁵Erzurum Military Hospital, Department of Emergency Medicine, Turkey

⁶Gulhane School of Medicine, Department of Emergency Medicine, Turkey

⁷Dr. Munif Islamoglu Kastamonu State Hospital, Turkey

Case Report: Acute arterial thromboses may rarely occur with direct compression after traumatic artery injuries and thrombosis may be rarely localized at popliteal artery. We present an acute popliteal artery thrombosis case due to blunt trauma. A 35-year-old male patient, previously healthy, was admitted to the emergency after a crush injury. His complaints were pain and feeling of coldness at the right knee and cruris. He had purple ecchymosis and dermabrasions; 4x4 cm on the right knee and 5x7 cm on the right popliteal fossa. Right popliteal pulse was filiform, right tibialis posterior and dorsalis pedis pulsations were not palpable. Color Doppler ultrasound showed thrombus in the distal part of right superficial femoral artery and in the right popliteal artery, and it showed incomplete flow pattern and flow. Lower extremity MR angiography showed completely interrupted flow in trifurcation region of the right popliteal artery. Thrombus in popliteal artery was extracted by embolectomy. The patient's complaints finished and his lower limb pulses were palpable after embolectomy. For extremity traumas, peripheral pulses must be examined and vascular lacerations must be excluded undoubtedly. Peripheral colour doppler ultrasound and MR angiography should be used for diagnosis in uncertain cases.

PP 48

The Impact of Preoperative Breast Magnetic Resonance Imaging (mri) on Surgical Planning of Newly Diagnosed Breast Cancer Patients-analysis of 112 Patients.

Zafer Kilbas, Ramazan Yildiz, Erkan Ozturk, Mustafa Oner Mentem, Semih Gorgulu

Gulhane Military Medical Academy, Department of General Surgery, Turkey

Introduction: Breast magnetic resonance imaging (MRI) has emerged as a sensitive tool for evaluation of breast cancer especially in terms of local extension, multifocality/multicentricity, bilaterality, compared with conventional imaging methods of mammography and ultrasonography (US). However, the routine use of MRI for determining local therapy of early stage breast cancer remains controversial.

Objectives: To analyse the effectiveness of MRI on surgical planning and detecting multicentricity/bilaterality

Material/Patients and Methods: Data of 112 breast cancer patients were retrospectively analysed. Conventional imaging methods (Breast US and mammography) and Breast MRI was compared in terms of detecting multifocality/multicentricity, bilaterality and altering the surgical management. Sensitivity, specificity, positive predictive value and negative predictive value of MRI were calculated.

Results: Breast MRI have changed surgical planning in 25 (16:beneficial and 9: unnecessary) of 112 patients. in 8 patients, MRI changed surgical procedure from lumpectomy to mastectomy because of multicentricity and multifocality. Also in two patients, MRI detected contralateral synchronous breast cancer and altered the management. on the other hand, in 7 patients MRI caused unnecessary additional surgery for benign disease.

Conclusion: MRI has greater sensitivity than conventional mammography in detecting additional occult breast cancers, especially in patients with dense breasts. Preoperative breast MRI should be considered for selected patients being treated with breast conservation therapy, especially in young patients with dense breast. Evidence consistently shows that MRI changes surgical management, usually from breast conservation to more radical surgery.

PP 49

The Value of Early Mammographic Screening After Breast Conserving Surgery and Radiotherapy

Lutfi Dogan , Mehmet Ali Gulcelik , Niyazi Karaman , Yavuz Selim Kahraman , Cihangir Ozaslan , Erhan Reis

Ankara Oncology Training and Research Hospital,
Department of General Surgery, Ankara, Turkey

Introduction: The objective of mammographic screening after breast conserving surgery (BCS) and radiotherapy (RT) is the early diagnosis of local recurrences and metachronous breast cancer.

Objectives: To explore the impact of early mammographic screening after RT treatment on the early diagnosis of recurrences and further radiological evaluation and breast biopsies.

Material/Patients and Methods: Two hundred and seventy eight patients treated with BCS and RT and followed-up regularly and checked with bilateral mammography (MG) at least once in postoperative two years were evaluated retrospectively. the patients screened with MG in 6 months after RT constituted Group 1 and the others Group 2.

Results: One hundred and fifty seven patients in Group 1 were screened with MG in 15 weeks (6-24) after RT. Additionally, 34 patients were evaluated with ultrasonography and 6 with breast MRI. Six patients were also diagnosed with excisional biopsy after stereotactic guide wire localization and none of them proven to be malignant. One hundred and twentyone patients in Group 1 were screened with MG in 32 weeks (24-62) after RT. Excisional biopsy was needed for only one patient with a calcified breast nodule in Group 2 and it was proven to be malignant. There was no statistically significant relation between the preoperative and postoperative MG findings. the patient in Group 1 had been found to be evaluated with more numbers of additional radiological interventions than the patients in Group 2 (p:0.01).

Conclusion: The time after RT, rather than the time after surgery, should be taken into consideration for the timing of initial MG screening after BCS.

PP 50

Second-look Axillary Ultrasonography Can Be Beneficial in Staging Lymph Node Status?

Zafer Kilbas ¹, Turan Ilica ², Ramazan Yildiz ¹, Erkan Ozturk ¹, Oner Menten ¹, Semih Gorgulu ¹

¹ Gulhane Military Medical Academy, Department of General Surgery, Turkey

² Gulhane Military Medical Academy, Department of Radiology, Turkey

Introduction: Axillary lymph node metastases is one of the leading prognostic factors for breast cancer and knowledge of preoperative axillary lymph node (ALN) status is crucial for the management of the patients.

Objectives: In this study, the role of second-look axillary ultrasonography after getting the breast cancer diagnosis was investigated in clinically node negative patients

Material/Patients and Methods: 85 breast cancer patients with clinically node negative disease were included in the study. Patients were re-evaluated with detailed preoperative axillary ultrasonography by a single radiologist. Asymmetric cortical thickening, focal cortical mass and/or thickening, and effacement or replacement of the fatty hilum were accepted the criterias to identify positive lymph nodes. the results of the ultrasonography was compared with the histopathologic examinations of the lymph nodes. Sensitivity, specificity, positive predictive value and negative predictive value were calculated.

Results: with the final histopathologic examination, 38 (45 %) of these 85 patients had axillary lymph node metastases. Second-look ultrasonography could detect 32 of 38 patients in the preoperative period. in terms of detecting metastatic lymph nodes, the sensitivity, specificity, PPD and NPV of axillary ultrasonography were 85%, 80%, 82% and 84% respectively.

Conclusion: Detailed axillary ultrasonography with the aim of detecting metastatic lymph nodes can give additional information when compared to first look ultrasonography.

If a patient is identified as having a high probability of ALN metastases, the surgeon can eliminate the sentinel node biopsy procedure and advance directly to ALN dissection.

PP 51

Inflammatory Pseudotumor Mimicking Combined Hepatocellular Carcinoma and Cholangiocarcinoma: Report of Rare Case

Ikuo Nakamura, Yuji Imuro, Nobukazu Kuroda, Tadamichi Hirano, Toshihiro Okada, Yasukane Asano, Kazuhiro Suzumura, Jiro Fujimoto

Department of Hepato-biliary-pancreatic Surgery, Hyogo College of Medicine, Japan

Introduction: Inflammatory pseudotumor (IPT) of the liver is a benign tumor with a good prognosis. However, it is difficult to distinguish clinical and radiological findings of IPT from malignant liver tumors.

Objectives: We report a case of IPT mimicking combined hepatocellular carcinoma and cholangiocarcinoma.

Material/Patients and Methods: A forty-four year old male patient presenting with no symptom was admitted to our department. He had been treated with antiviral therapy for hepatitis B at the department of Gastroenterology in our hospital for 20 years. Recently, the levels of alpha-fetoprotein (AFP) was elevated to 195 ng/ml and abdominal computed tomography (CT) revealed a solid and heterogenous mass measuring 17 mm at liver segment VIII. the part of the tumor in CT showed to be enhanced strongly and the other part to be enhanced marginally. the liver tumor was diagnosed as combined hepatocellular carcinoma and cholangiocarcinoma preoperatively.

Results: Partial resection of the liver was performed. the patients was discharged uneventually in the postoperative period. Histological examination of the specimen demonstrated IPT of the liver.

Conclusion: Even though inflammatory pseudotumor of the liver is a rare case, it may occur and it should be considered in the differential diagnosis of tumors of the liver.

PP 52

Gallstone Obstruction in Anastomotic Stricture Without Bilio-enteric Fistula: A Very Rare Case

Burak Veli Ulger¹, Ahmet Turkoglu¹, Abdullah Oguz¹, Omer Uslukaya¹, Cemil Goya²

¹Dicle University Faculty of Medicine Department of General Surgery, Diyarbakir, Turkey

²Dicle University Faculty of Medicine Department of Radiology, Diyarbakir, Turkey

Case Report: Introduction Gallstone ileus is a rare but serious complication of cholelithiasis. Although this

disorder is a rare cause of small bowel obstruction(1 to 2%), it accounts up to 25% of non-strangulated small bowel obstructions in patients older than 65 years. the size of the gallstone plays an important role in the formation of obstruction. Generally, obstruction due to gallstones occurs in the terminal ileum (65%) and the ileocaecal valve. Although the most frequent mechanism of gallstone ileus is migration of the gallstone through a gallbladder-duodenal fistula (68.0%-96.5%), there have been cases of bowel obstruction caused by gallstones without any findings of bilio-enteric fistula during the operation. . Abdominal CT scan is the optimal way to diagnose the gallstone ileus. It can identify the site and nature of the obstruction. Case Report We report an fifty-five years old man presented with nausea and vomiting, abdominal pain, progressive abdominal distension and obstipation. He had an history of prior segmental small bowel resection due to strangulation ten years ago. the physical examination revealed a distended abdomen, with no palpable masses and no hernias. Abdominal CT scan revealed intestinal distension and two individual radio opaque gallstones in the lumen of the ileum. Laparotomy revealed distended loops of small bowel and a clear transition zone from dilated to collapsed bowel just proximal to the previous ileo-ileal anastomosis. Two individual stones were palpated at this site. the stones were propelled backwards through the jejunum and then the patient underwent enterolithotomy. No sign of bilio-enteric fistula was observed during the operation. the patient was discharged uneventfully on sixth day after surgery. Conclusion Gallstone ileus can be seen without a bilio-enteric fistula and the gallstones can impact proximal to an anastomotic stricture.

PP 53

The Place of Alkaline Phosphatase Intestinal Isomerase, Lactate Dehydrogenase and D-dimer Enzyme Levels in Early Diagnosis of Acute Mesenteric Ischemia in Rats

EmIn Lapsekili¹, M.Öner Menteş¹, Müjdat Balkan¹, Armağan Günel², Halil Yaman³, Yusuf Peker¹

¹Gulhane Military Medical Academy, Faculty of Medicine, Department of General Surgery, Turkey

²Gulhane Military Medical Academy, Faculty of Medicine, Department of Pathology, Turkey

³Gulhane Military Medical Academy, Faculty of Medicine, Department of Biochemistry, Turkey

Introduction: The most important reason of high mortality in mesenteric artery ischemia is the delay in treatment as a result of late diagnosis.

Objectives: Changes in the levels of Alkaline Phosphatase Intestinal Isomerase, Lactate Dehydrogenase and D-dimer enzymes in acute mesenteric ischemia were examined

Material/Patients and Methods: 30 Wistar rats were divided into; Control group, Sham (laparotomy, non-ischemic), 2. Hour ischemia group, 4. Hour ischemia group, 6. Hour ischemia group. Abdominal exploration was performed

after blood collection and samples from ischemic bowel were examined pathologically. After leaving the serum; LDH, ALP intestinal isomerase and D-dimer levels were examined separately for each time group.

Results: D-dimer did not differ between groups. Difference was observed between control group and 4. hour ischemia group according to LDH levels. ALP intestinal isomerase did not differ between groups. When groups were allocated as ischemic and non-ischemic, LDH levels were statistically different while ALP intestinal isomerase and D-dimer levels were not.

Conclusion: Consequently, ALP intestinal isomerase enzyme levels did not increase significantly in the early phase of AMI but could contribute to the diagnosis after 6. hour. D-dimer levels did not rise in rats in early phases, LDH levels- especially 4. hour-increased to the levels that could affect the diagnostic decision-making.

PP 54

Jejuno-jejunal Intussusception Due To Peutz - Jeghers Syndrome - Case Report

Miodrag Lazic , Marija Dimitrijevic , Suncica Mihajlovic

Emergency Center, Clinical Center Nis, Serbia

Case Report: Introduction: Peutz-Jeghers syndrome is a rare syndrome inherited in autosomal dominant pattern characterized by intestinal and extraintestinal polyps and mucocutaneous pigmentation. Possible surgical complications are abdominal pain, gastrointestinal obstruction, bleeding and perforation. the risk of gastrointestinal and extraintestinal malignancies is significantly increased in patients with this syndrome. Material and methods: We present a case report where the twenty year old male was admitted into Emergency Center as an emergency case with clinical signs of intestinal obstruction. in previous medical history he reported that as a 9 year old boy he had surgical intervention because of the similar symptoms. in family history, his mother had Peutz Jeghers syndrome. Results: Intraoperative findings showed intestinal intussusception caused by 4 polypous tumors of small intestine, 2 on jejunum and 2 on ileum. Three resections of small intestine were performed, parts with polypous tumors were removed in total length of 70cm with termino-terminal anastomosis. Patient presented mucocutaneous pigmentation around his lips and buccal mucosa and later pathohistological findings confirmed the diagnosis of Peutz-Jeghers syndrome. Conclusion: Intussusception is a rare but complex complication and often the first sign of the existence of Peutz Jeghers syndrome. Patients with this syndrom should have regular monitoring according the official protocols because of the increased risk of cancer with the purpose of early diagnosis and appropriate treatment due to decrease the number of surgical interventions.

PP 55

Diagnostic Accuracy of Mr Imaging in Assessing Axillary Status in Breast Cancer Patients

Zafer Kilbas , Ramazan Yildiz , Inanc Guvenc , Erkan Ozturk , Yusuf Peker

Gulhane Military Medical Academy, Department of General Surgery, Turkey

Introduction: Use of MRI in the preoperative evaluation of breast cancer patients has increased significantly over the last years because of its well-documented sensitivity for detecting additional occult breast cancer. But its effect on assessing the axillary status has not been well documented.

Objectives: Aim of this study was to investigate the role of MRI in detecting the axillary lymph node metastases.

Material/Patients and Methods: Datas of 608 breast cancer patients who underwent curative surgery were retrospectively analysed. and of these 608 patients, only the patients having preoperative MRI exam of breast were enrolled in this study. the test was accepted as true positive when the test was positive and final pathology was positive in terms of axillary lymph node metastases. and it was false negative when the test was negative but final pathology was positive. Sensivity, specificity, positive predictive value and negative predictive value of MRI were calculated.

Results: Totally 109 patients fullfilling the criteria were included. the results were as following: True positive: 35, true negative: 55, False positive: 2, False negative: 17. and the sensitivity, specificity, positive predictive value and negative predictive value of MRI were 67%, 96.5%, 94.5%, 76% respectively.

Conclusion: Gold standard method of axillary staging is still surgical dissection. But it has disadvantages of increasing morbidity. So, imaging studies will play an important role in assessing the axilla and maybe there will be no need for surgical dissection. Defining the exact role of MRI in selecting the patients who will benefit from avoiding axillary dissection may require a prospective evaluation.

PP 56

Correlation Between Preoperative Parathormone Level and the Accuracy of Parathyroid Scintigraphy in Primary Hyperparathyroidism

Zafer Kilbas¹, Ramazan Yildiz¹, Eyup Duran², Erkan Ozturk¹, Semih Gorgulu¹, Mustafa Oner Mentec¹, Yusuf Peker¹

¹ Gulhane School of Medicine, Department of General Surgery , Turkey

² Elazig Military Hospital, Department of General Surgery, Turkey

Introduction: Surgical management of primary hyperparathyroidism (PHPT) has shifted from traditional bilateral neck exploration towards minimal invasive surgery. Tc-99m sestamibi scintigraphy played major role in this shift. Although MIBI scan is known as a sensitive and specific test, some false-negative results occur.

Objectives: To investigate the correlation between preoperative parathormone levels and the accuracy of MIBI scan.

Material/Patients and Methods: Data of patients with PHPT was collected retrospectively. We analyzed patients who had preoperative parathormone (PTH) level and parathyroid MIBI scintigraphy. The scan was accepted to be false negative if it did not detect the adenoma, while it was true positive if it can.

Results: of the 97 patients, 72 patients had MIBI scan. the median value of preoperative PTH was 190 pg/mL with a range of 64-2076 pg/mL. the sensitivity of MIBI scan in patients over and under 190 pg/ml was compared. the sensitivity of MIBI scan was higher in patients with a PTH level of more than 190 pg/ml when compared to patients with a PTH level of lower than 190 (88% vs 82% and $p < 0.05$).

Conclusion: There exist correlation between preoperative parathormone level and parathyroid scintigraphy accuracy. MIBI scans are more likely to be correct with higher preoperative PTH level.

PP 57

Tchnetium-99m-sestamibi Scintigraphy of Parathyroid Adenoma: Effect of Tumor Size on Preoperative Detectability

Zafer Kilbas¹, Eyup Duran², Ramazan Yildiz¹, Erkan Ozturk¹, Mustafa Oner Menten¹, Semih Gorgulu¹

¹Gulhane School of Medicine, Department of General Surgery, Turkey

²Elazig Military Hospital, Department of General Surgery, Turkey

Introduction: Localizing studies including parathyroid scintigraphy with Tc-99m sestamibi are the key for determining the optimal surgical strategy in patients with primary hyperparathyroidism. Although MIBI scintigraphy is a sensitive and specific test, negative results are inevitable.

Objectives: To explore whether parathyroid adenoma size could predict the likelihood of the positive results on parathyroid scintigraphy.

Material/Patients and Methods: Data of 102 patients who were operated between 2002 and 2012 with primary hyperparathyroidism was collected. We analyzed only the patients who had preoperative parathyroid scintigraphy results. a scan was negative if it did not detect the adenoma, and it was true positive when the adenoma was corrected with histopathologic examination. the correlation between the sensitivity of the scintigraphy and tumor size was calculated.

Results: of 102 patients having parathyroidectomy for primary hyperparathyroidism, 59 had parathyroid scintigraphy with Tc-99m sestamibi. the adenoma size was between 0.4 cm and 4 cm, with a median value of 1.5 cm. Adenomas sized bigger than 1.5 cm were more likely to have true positive scans than adenomas smaller than 1.5 cm (90% vs 82%, $p < .001$).

Conclusion: Localizing studies constitutes a major role to detect the hyperfunctioning gland. MIBI scintigraphy was able to detect adenomas with greater size. Adenoma size was found to significantly correlate with positive sestamibi scan results.

PP 58

Tyrosine Phosphorylation of Focal Adhesion Anchoring Protein Promotes Invasiveness in Human Pancreatic Cancer Cells

Hirotaka Okamoto¹, Toshiyuki Kusama¹, Hideki Fujii¹

¹University of Yamanashi, Faculty of Medicine, Department of Gastrointestinal & Breast, Endocrine Surgery, Japan

²Tsuru Municipal Hospital, Department of Surgery, Japan

Introduction: Focal adhesion anchoring proteins, such as FAK and CAS, is a protein tyrosine kinase that facilitates integrin receptor signals controlling cell motility, survival, and proliferation.

Objectives: Here, through comparisons of human pancreatic cancer cell lines, we investigate that non-receptor protein tyrosine kinase activity and tumor cell invasive capability in vitro.

Material/Patients and Methods: Three human pancreatic cancer cells, PSN-1, MiaPaca II, Panc 1 were cultured and used. Cancer cell invasiveness were measured by a monolayer invasion bioassay. FAK and CAS tyrosine phosphorylation were measured with immunoblotting and immunoprecipitation.

Results: Invasion capability of pancreatic cancer cells were as follows; PSN-1>MiaPacaII>Panc 1. Tyrosine phosphorylation intensity level of FAK and CAS were also coincident with invasion capability, although protein expression in these cell lines was same level. Herbimycin A, protein tyrosine kinase inhibitor, inhibit not only tyrosine phosphorylation but also the invasiveness of these cells.

Conclusion: These results suggest that FAK and CAS tyrosine phosphorylation promotes tumor cell invasiveness and these phosphorylation level was coincident with tumor cell invasive capability

PP 59

Obesity Worsened Gastrointestinal Quality of Life in Patients with Gastrointestinal Symptoms

Tonguç Utku Yilmaz

Kocaeli University, School of Medicine, Department of General Surgery, Turkey

Introduction: Excess body weight has also been associated with an increased risk of all-cause mortality. Gastrointestinal quality of life is a unique way of estimating personal perception of GI symptoms. Dysregulation of the mechanism that control food intake and energy expenditure is a key to the development of obesity

Objectives: The aim of this study is to evaluate whether obesity worsens gastrointestinal quality of life score among the patients with gastrointestinal symptoms

Material/Patients and Methods: The BMI of patients with gastrointestinal symptoms that came to outpatient clinic were measured. The symptoms were divided into nausea, epigastric pain, heartburn, anal pathologies, and lower abdominal pain. Demographic information of the patients were obtained. The patients filled the gastrointestinal quality of life questionnaire.

Results: Total 1250 patients came to the general surgery outpatient department. More than half of the patients were overweight (32.4%) or obese (40.1%). The mean age, BMI and GIQLI scores of the patients were 46.3, 31.1 and 89.9 respectively. Regarding age, no significant difference was found between the gastrointestinal symptoms. The patients with lower abdominal pain have significantly lower BMI the female patients with epigastric pain and heartburn were significantly higher than the male patients with the same symptoms. The quality of life was significantly worsened in patients with epigastric pain, whereas quality of life significantly increased in patients with lower abdominal pain.

Conclusion: Obesity is worsening the gastrointestinal quality of life.

PP 60

The Role of Carbon Dioxide Insufflation in Preventing Postoperative Peritoneal Adhesions in Rats

Harun Karabacak¹, Tonguç Utku Yilmaz²

¹Gazi University, School of Medicine, Department of General Surgery, Turkey

²Ankara Training and Research Hospital, Department of General Surgery, Turkey

Introduction: Laparoscopic operations are associated with less trauma to peritoneum, lower bleeding, less invasive to intra abdominal organs and tissues, reduced manipulation of structures distant from the operative site, lower contamination with foreign bodies such as glove powder, starch powder, gauzes, operation materials, etc and early

recovery

Objectives: There are many reports about the superiority of the laparoscopic procedures than conventional operations for reducing the incidence of postoperative adhesions. Relationship between laparoscopy and postoperative adhesions has been studied on the basis of the less tissue trauma effect of laparoscopy and it has been compared with open surgery about the effects on adhesion formation. In this study we explored the role of capnoperitoneum for the prevention of the postoperative adhesion formation.

Material/Patients and Methods: Thirty Wistar Albino type female rats whose weight ranging from 250 ± 20 g were used. The rats were divided into 5 groups and each group consisted of six rats. Group 1 represented the Sham group while the Group 2 represented the control group. On the other hand, midline laparotomy was performed in Group 3 after carbon dioxide insufflation for 15 minutes. Then the scraping model was created. Group 4 underwent midline laparotomy after carbon dioxide insufflation for 15 minutes. Then the scraping model was created. The incision was closed by 3/0 vicryl after the procedure. After that carbon dioxide insufflation was applied for 45 minutes. Group 5 underwent midline laparotomy. After creating the scraping model carbon dioxide insufflation was applied for 45 minutes. The anterior abdominal wall was removed by making an inverted-U shaped incision to anterior abdominal wall of whole rats and all the adhesions in the abdomen were examined and recorded. The tissue samples obtained were examined histopathologically and biochemical MDA and PAI studies were performed.

Results: statistically significant difference was observed between the groups relating to the inflammation, fibrosis and adhesion results (p<0.05). The findings associated with fibrosis, inflammation and adhesion were gradually decreased from Group 1 to Group 5. There was no statistically significant difference between the groups according to the PAI 1 levels. (p> 0.05). There was statistically significant difference between the groups associated with MDA levels. (p< 0.05).

Conclusion: Our results suggest that CO₂ pneumoperitoneum has positive effects on development of postoperative intraperitoneal adhesions. It is impossible to say that the adhesion formation is reduced with mechanical effect due to creating the scraping model. The pathophysiological basis of postoperative adhesion formation is well-characterized. However, we think that capnoperitoneum reduces the postoperative adhesion formation via anti-inflammatory mechanism. Further studies are required to investigate this mechanism.

PP 61

Vacuum Assisted Closure (vac) and Baby Nipple (bp) Combined Treatment of Entero-athospheric Fistula

Nazlı Zeybek , İsmail Hakki Özerhan , Yaşar Subutay Peker , Mehmet Fatih Can , Yusuf Peker

Gülhane Millitary Medical Academy, Department of General Surgery, Ankara, Turkey

Case Report: Entero-athospheric fistulas (EAF) are rare complication of open-abdomen, which fistula tract length is equal to intestinal wall thickness. It is hard to keep EAF output under control so increased morbidity-mortality is inevitable. Several closure techniques are reported. We aimed to discuss an easy, effective, rare VAC+BN technique for EAF which total parenteral nutrition (TPN) is not needed and patient is prevented from its complications. 51-years-old patient who was evaluated as open-abdomen after hysterectomy with complication of EAF at jejunal level applied to our clinic. EAF output was taken under control and damage of surrounding tissue was prevented without stopping oral feeding, by BN+VAC technique till to the development of granulation tissue. 5-months later, resection+side-to-side jejunal anastomosis was applied. Mesh-herniorrhaphy was performed 6 months later and patient was discharged without complication. Abdominal wall reconstruction for this tough, life-threatening complication may take upto 6-12 months in which enteral feeding instead of TPN may decrease morbidity and mortality. It is a easy and effective treatment for preoperative preparation of EAF which also prevents the complications of TPN before surgery by providing enteral nutrition.

PP 62

A New Approach for Flank Hernia: Fence Darning Technique (fdt)

Nazlı Zeybek , Yaşar Subutay Peker , Mehmet Fatih Can , Gökhan Yağcı , Abdurrahman Şimşek , Yusuf Peker

Gülhane Millitary Medical Academy, Department of General Surgery, Ankara, Turkey

Introduction: Flank hernias (FH) are hard to repair because of the lack of connective tissue at surgical-site. Gold-standart for treatment is mesh-herniorrhaphy.

Objectives: At this comparative-retrospective study, we aimed to share the results of FDT applied to FH.

Material/Patients and Methods: 18(%0.05) of 3013 anterior-abdominal defects repaired at our clinic in last 10 years were FH which are grouped as group1:11 cases of mesh-herniorrhaphy, group2:7 cases of FDT and evaluated retrospectively.

Results: Male/femaleratio:8/1. Meanage:41years(21-63). Mean operation duration:82±69min(53-127) group1,

174±48min(95-279) group2. VAS:3.8 group1, 3.4 group2. Hospital-stay:5.3days group1, 4.9days group2. Drains of all patients were drawn off when drainage was 10cc/24hr. Draw-off duration was 5days(3-10). 2 patients had chronic pain as a result of meshoma and 1 had surgical site infection in group1. Mesh excision was applied to 2 patients. Hospital-stay were equal for two groups (p=0.05), operation duration was shorter in group1(p<0.001), chronic pain, and feel of foreign body was non in group2(p<0.001). Mean follow-up was 39mo(28-72) and no relaps occurred.

Conclusion: FDT with tension-free, flexible, having larger pores and less prosthetic material will guide the development of new megapored meshes with its less rate of complication and is an alternative for current herniorrhaphies.

PP 63

New Treatment Approach for Hydatid Cyst of Liver; Results of Vessel Sealing System Used Surgical Treatment

Nazlı Zeybek , Yaşar Subutay Peker , Mehmet Fatih Can , Murat Urkan , İsmail Hakki Özerhan , Yusuf Peker

Gülhane Millitary Medical Academy, Department of General Surgery, Ankara, Turkey

Introduction: Hydatid cyst of liver (HCoL) is an important public health problem in endemic areas of the eastern countries. Different surgical techniques are applied for treatment but performing vessel sealing system to HCoL is a rare case.

Objectives: In this study, we wanted to evaluate the results of HCoL patients whom were treated surgically by harmonic scalpel.

Material/Patients and Methods: 37 of 131 hepatic hydatid cyst patients between 2006 and 2011 who were surgically treated with partial cystectomy by using vessel sealing system were retrospectively evaluated.

Results: The mean operation time was 79,4 (min 47, max 137) minutes and mean blood loss was 24,8 (min 6, max 140) cc. the mean postoperative hospital stay was 9,6 days (min 5, max 42). Postoperative complications occurred in 5 patients. the only major complication was biliary leakage in four patients, which were treated by percutaneous drainage. All the patients were followed up by ultrasound and if necessary by computerized tomography at 3, 6 and 12 months, and yearly thereafter. No recurrence and mortality was noted.

Conclusion: It is concluded that partial cystectomy with harmonic scalpel is a safe and effective method for the treatment of hepatic hydatid disease with promising postoperative results.

PP 64

An Effective Treatment for Radiation Enteritis, Hyperbaric Oxygen Treatment

Nail Ersöz¹, Yaşar Subutay Peker¹, Muharrem Oztas¹, Mesut Mutluoğlu², Şenol Yıldız², Yusuf Peker¹

¹Gülhane Military Medical Academy, Department of General Surgery, Ankara, Turkey

²Gülhane Military Medical Academy, Underwater and Hyperbaric Medicine, Ankara, Turkey

Case Report: One of the indications for hyperbaric oxygen treatment (HBOT) is radiation enteritis (RE) because of its benefits for wound healing. In this case, we aimed to share our experiences about patient with medical treatment resistant RE after radiotherapy for rectal carcinoma. 60-years-old-female patient with rectal adenocarcinoma was planned for neoadjuvant chemoradiotherapy. Patient had severe RE with symptoms of nausea-vomiting-diarrhea (upto 14times-per-day) after completing chemoradiotherapy with neutropenia. No microbiological finding were found significant. Abdominal CT supported the diagnosis with widespread intestinal wall edema. Medical therapy had no benefit for patient. Beside, this caused abdominopelvic surgery to be postponed. HBOT was planned for patient as a last resort. Patient had no symptom of radiation enteritis after 10 dose of HBOT under 2.4ATA with duration of 120minutes. CT findings of radiation enteritis regressed after HBOT. HBOT supplies high concentration of oxygen in high pressured rooms. The toxic effect of radiotherapy for tissues with high mitosis such as gastrointestinal-mucosa is detoxified with oxygen. Beside the therapeutic effect of HBOT on RE, performing intestinal resection-anastomosis to edematous intestine may cause higher risk of mortality-morbidity, where HBOT also regresses intestinal edema.

PP 65

An Unusual Intestinal Invagination: Terminal Ileum and Meckel Diverticulum Invagination Into Ascending Colon

Ramazan Yıldız¹, Murat Urkan¹, Yaşar Subutay Peker¹, Taner Yiğit¹, Abdurrahman Şimşek¹, Yusuf Peker¹

Gülhane Military Medical Academy, Department of General Surgery, Ankara, Turkey

Case Report: Invagination is usually seen on childhood and rare at adults, where invaginating meckel diverticulum is extremely rare. In this case, we want to share our experiences about an invagination entity which terminal ileum and meckel diverticulum invaginates into ascending colon (enterocolic invagination). Data of a patient with prediagnosis of plastrone appendicitis whom surgery was performed with final diagnosis of enterocolic invagination, is examined retrospectively and presented with literature

review. 17 years old male patient with abdominal pain and nausea was evaluated. Pain was localised to right lower quadrant of abdomen with palpable mass. Gas-liquid levels was obtained from abdominal graphy with WBC and D-Dimer values significantly increased. Abdominopelvic tomography reported right lower quadrant mass with prediagnosis of plastron appendicitis. Surgical exploration showed, invagination of terminal ileum and meckel diverticulum into ascending colon. Because de-invagination was not successful necrosis was present, patient was treated with ceacum and terminal ileum excision with ileocolic anastomosis. Enterocolic invagination is one of the invagination types and also a meckel diverticulum complication. Although malignancy is common reason for adult onset intusseption, benign entities as meckel diverticulum must be remembered at young adults.

PP 66

Factors Effecting Spontaneous Closure of Postoperative Biliary Fistula After Hepatic Hydatid Cyst Surgery

Nazlı Zeybek¹, Hakan Dede², Deniz Balci³, Ali Kağan Coşkun¹, İsmail Hakkı Özerhan¹, Yaşar Subutay Peker¹, Yusuf Peker¹

¹Gülhane Military Medical Academy, Department of General Surgery, Ankara, Turkey

²Etişmeşgut Military Hospital, Department of General Surgery, Ankara, Turkey

³Ankara University, School of Medicine, Department of Surgery, Ankara, Turkey

Introduction: Hepatic hydatid cyst (HHC) is a worldwide distributed disease which minor and major complications after surgery and percutaneous drainage (PD) are 33.0% and 25.1%. Postoperative biliary fistula (PBF) is one of the common complications of HHC surgery.

Objectives: Predicting the factors effecting spontaneous closure of PBF.

Material/Patients and Methods: We reviewed retrospective data of 282 patients who underwent surgery or PD for HHC from 01.01.2000 to 31.12.2010. We searched the predictive factors for spontaneous closure of the fistula.

Results: 282 patients, two groups were settled. Group 1 was patients with PBF (n=46, %16.3) and group 2 was patients without PBF (n=236). All PBF occurred in postoperative five days and only in surgically treated (n=243, %86.2) patients. Output of fistula, time till closure, preoperative immunologic, biochemical and microbiological parameters and type of treatment were analysed for association with spontaneous closure. Fistula output was found to be statically significant predictor for spontaneous closure of PBF. It was found that fistulas with >102.5ml/day output were 121.5 times more manipulated for closure instead of spontaneous closure when compared to ones with <102.5ml/day (p<0.01).

Conclusion: In conclusion, spontaneous closure of fistula should not be expected when fistula output is more than 102.5 ml/day and surgical treatment should be planned in

order to decrease the time of hospital stay.

PP 67

Thymoquinone Prevents the Liver Injury Induced by Radiotherapy and Biliary Duct Ligation

Nazif Zeybek¹, Fahrettin Yildiz², Levent Kenar³, Ayşe Eken⁴, Bülent Kurt⁵, Bahar Dirican⁶, Yaşar Subutay Peker¹, Yusuf Peker¹

¹Gülhane Military Medical Academy, Department of General Surgery, Ankara, Turkey

²Gaziantep University School of Medicine, Department of General Surgery, Gaziantep, Turkey

³Gülhane Military Medical Academy, Department of Chemical-biological-radiation-nuclear Medical Defence, Ankara, Turkey

⁴Gülhane Military Medical Academy, Department of Pharmaceutical Sciences, Ankara, Turkey

⁵Gülhane Military Medical Academy, Department of Pathology, Ankara, Turkey

⁶Gülhane Military Medical Academy, Department of Radiation Oncology, Ankara, Turkey

Introduction: Both radiotherapy-obstructive jaundice impair hepatic function, but combined insult hasn't been examined.

Objectives: In this study we aimed to investigate the one-by-one and combined effect of thymoquinone in rat liver against liver injury induced by bile duct ligation and radiotherapy.

Material/Patients and Methods: Wistar-albino rats were recruited as follows; group1 rats subjected to simple laparotomy known as the sham-group; group2 rats subjected to bile duct ligation (BDL); group3 rats subjected to radiotherapy after BDL; group4 exposed to radiation after BDL rats than treated with thymoquinone.

Results: Radiotherapy after BDL resulted increase in AST-ALT-GGT levels. Glutathione(GSH) and superoxide dismutase(SOD) levels in liver homogenate were significantly increased in the group3 when compared to group1-2. with all, malondialdehyde(MDA) levels in liver homogenate were significantly decreased in the group3 when compared to group1. on the other hand, the levels of GSH in group4 were significantly lower than that of group3 (P<0.001). in group4, the levels of MDA were significantly higher than of group2 and group3(P<0.03, P<0.02, respectively).

Conclusion: These results suggest that treatment of thymoquinone maintains antioxidant defenses, reduces oxidative liver injury, cytokine damage, and necro-inflammation in rats subjected to radiotherapy and BDL.

PP 68

Is There a Correlation Between Preoperative Pth Level and Detectability of Ultrasonography in Primary Hyperparathyroidism?

Eyup Duran¹, Zafer Kilbas², Ramazan Yildiz², Erkan Ozturk², Yusuf Peker²

¹Elazig Military Hospital, Department of General Surgery, Turkey

²Gulhane School of Medicine, Department of General Surgery, Turkey

Introduction: Primary hyperparathyroidism is a common disorder, and for now the only reliable treatment is surgery. with the help of the revolutionised localization techniques (ultrasonography and scintigraphy), traditional bilateral neck exploration replaced with the minimally invasive surgical management.

Objectives: To investigate whether there is a correlation between the preoperative PTH level and detectability of parathyroid ultrasonography.

Material/Patients and Methods: Data of patients with primary hyperparathyroidism was collected retrospectively. We analyzed patients who had preoperative parathormone level and ultrasonographic examination. Ultrasonography was accepted to be false negative if it did not detect the adenoma and it was true positive when it detected the adenoma. Sensitivity, specificity, PPD and NPD values were calculated.

Results: 74 patients were enrolled in the study. the median preoperative parathormone level was 190 pq/ml with a range of 64 and 2076 pg/mL. Overall %95 of patients with a parathormone level >190 pg/mL had a positive parathyroid ultrasonography and overall %91 of patients with a parathormone level < 190 pg/mL had a positive parathyroid ultrasonography. But the difference was not statistically significant.

Conclusion: Parathyroid ultrasonography is a cheap and easy way to localize the hyperfunctioning gland. There exist a weak correlation between preoperative parathormone level and parathyroid ultrasonography accuracy. Preoperative parathormone levels may be helpful in predicting parathyroid ultrasonography accuracy.

PP 69

Molecular Mechanisms of 18F-fluorodeoxyglucose Accumulation in Colorectal Cancer

Masayoshi Iwamoto¹, Kenji Kawada¹, Yuji Nakamoto², Yoshiharu Sakai¹

¹Department of Surgery, Graduate School of Medicine, Kyoto University, Kyoto, Japan

²Department of Imaging and Nuclear Medicine, Graduate School of Medicine, Kyoto University, Kyoto, Japan

Introduction: Positron emission tomography (PET) with 18F-Fluorodeoxyglucose (FDG) has been widely used in the management of colorectal cancer (CRC). We recently demonstrated FDG accumulation is significantly higher in CRC with KRAS mutation than in those with wild-type KRAS by a retrospective study with 51 CRC patients (Clin Cancer Res. 2012,18,1696-703).

Objectives: The purpose of this study is to investigate the molecular mechanisms how FDG is accumulated in CRC, especially focusing on KRAS gene.

Material/Patients and Methods: Using paired isogenic CRC cell lines that differ only in the mutational status of KRAS gene, we measured FDG accumulation in vitro. We also investigated the roles of glucose transporter-1 (GLUT1) and hexokinase type-II (HXK-II) which are 2 major constituents of glucose metabolism. In addition, we evaluated FDG accumulation in vivo in a xenograft mouse model by small animal PET scanner.

Results: In vitro assays, CRC cells with mutated KRAS showed significantly higher FDG accumulation compared with their isogenic cells with wild-type KRAS. We also confirmed that FDG accumulation was significantly suppressed by transfection with KRAS siRNA. The expression levels of GLUT1 and HXK-II were significantly higher in CRC cells with mutated KRAS than in those with wild-type KRAS. Small animal PET showed that FDG accumulation was significantly higher in the xenografts with mutated KRAS than in those with wild-type KRAS.

Conclusion: KRAS mutation increase FDG accumulation into CRC cells, possibly by up-regulation of GLUT1 and HXK-II. FDG-PET may be useful for predicting the KRAS status of CRC noninvasively.

PP 70

Prediction of Postoperative Hepatic Failure After Liver Resection for Hepatocellular Carcinoma: Significance of the Aspartate Aminotransferase-to-platelet Ratio Index

Shogo Tanaka, Yuji Iimuro, Tadamichi Hirano, Seikan Hai, Ikuo Nakamura, Kazuhiro Suzumura, Yuichi Kondo, Jiro Fujimoto

Hyogo College of Medicine, Department of Hepato-biliary-pancreatic Surgery, Japan

Introduction: The serum aspartate aminotransferase-to-platelet ratio index (APRI) has been identified as a biomarker for hepatic fibrosis. Liver cirrhosis is a risk factor for hepatic failure after hepatic resection for hepatocellular carcinoma (HCC).

Objectives: We investigated if preoperative APRI can predict postoperative hepatic failure after liver resection.

Material/Patients and Methods: Potential preoperative risk factors for postoperative hepatic failure and APRI were evaluated in 459 patients who underwent liver resection for HCC. Prognostic significance was evaluated in univariate and multivariate analyses.

Results: Postoperative hepatic failure developed in 18 patients (3.9%) and caused death in 8 (1.7%). APRI correlated with the histological degree of hepatic fibrosis, and was significantly higher in patients who developed postoperative hepatic failure (median: 1.7) than in those without hepatic failure (median: 0.94, $p = 0.011$). Increased serum total bilirubin, increased serum aspartate aminotransferase, prevalence of histologic liver cirrhosis, and increased APRI were possible preoperative risk factors for postoperative hepatic failure in univariate analysis. Increased APRI ($p = 0.004$, odds ratio 1.39) alone emerged as an independent risk factor in multivariate analysis. The incidence of postoperative hepatic failure in cases with $APRI \geq 1.3$ (13/168, 7.7%) was significantly higher than that in cases with $APRI < 1.3$ (5/291, 1.7%, $p = 0.02$). However, severity and mortality were not associated with APRI. **Conclusions:** An increased preoperative APRI (≥ 1.3) may be a preoperative predictor of hepatic failure following liver resection for HCC.

Conclusion: An increased preoperative APRI (≥ 1.3) may be a preoperative predictor of hepatic failure following liver resection for HCC.

PP 71

Nursing Care After the Pancreas Transplantation

Özlem Ögütli

Gulhane Military Medical Academy, Department of Cardiology, Turkey

Case Report: Transplantation of the pancreas is the only treatment currently available that reliably offers insulin independence and normal glucose metabolism for patients with type 1 diabetes mellitus. Islet transplantation may ultimately supersede solid-organ pancreas transplantation in regularly providing insulin independence for diabetic patients. General advanced in medical science, including refinements in surgical techniques, improvements in organ retrieval and preservation methods, advances in the prophylaxis and the treatment of infection and the experience gained in donor and recipient selection have undoubtedly played a role in the success of patient transplantation. Today, 1-year patient survival rate is %94-98 in the world. Nurses of transplantation team have an importable part at transplantation process. the aim of this article is emphasize the importance of nursing care after the transplantation for preventing complications, diagnosing early, treating, continuing the organ function, providing homeostatis.

PP 72

Effect of Orthognathic Surgery on Body Composition and Nutritional Status: Do We Need Nutritional Supplements?

Hakan Bulam , Kemal Findikioglu , Ozgur Hurkal , Ayse Gulsen , Selahattin Ozmen

Gazi University, School of Medicine, Department of Plastic Reconstructive and Aesthetic Surgery, Ankara, Turkey

Introduction: Daily energy requirements increase after maxillofacial surgery. Along with this, patients experience nutritional problems after a jaw surgery especially if intermaxillary fixation is done. Despite the importance of nutrition for these patients, only a few study concerning this problem have been designed in literature.

Objectives: The aim of the study was to investigate the body fat, muscle and mineral composition changes and the requirement of nutritional supplements in patients having an orthognathic surgery.

Material/Patients and Methods: Fifteen patients who underwent orthognathic surgery and BMI < 25kg/m² were included in this study. Patients were evaluated before the surgery and postoperative days 7 and 21. Nutritional status was assessed by albumin, prealbumin, CRP levels and lymphocyte count in blood. Body composition was assessed with body composition analyzer. a diet schedule and calculated caloric requirement plan was prepared for each

patient.

Results: Patients were lost a mean 1100 gr of body their body weights . But there was no significant changes in body weights and BMI (p=0.11, p=0.16). in body composition analysis no significant differences were found in the means of skeletal muscle weight, fat weight, mineral weight and intracellular/extracellular water distribution on 7 th and 21 th day.

Conclusion: Despite of other few reports of significant decrease in body weight after ortognathic surgery, we observed that in otherwise healthy individuals there was no significant changes in body weight, fat, muscle and mineral composition of body and nutritional parameters in blood. We recommend all maxillofacial clinics to plan the diet program of each patient individually according to their results in body composition analysis.

PP 73

The Impact of Anatomical Resection for Single Hepatocellular Carcinoma

Seikan Hai , Yuji Iimuro , Tadamichi Hirano , Kazuhiro Suzumura , Ikuo Nakamura , Yuichi Kondo , Shogo Tanaka , Jiro Fujimoto

Department of Surgery, Hyogo College of Medicine, Japan

Introduction: Anatomical resection for hepatocellular carcinoma (HCC) has been theoretically considered preferable for eradicating portal venous tumor spread. However, the significance of anatomical resection is controversial with respect to the survival in HCC.

Objectives: We therefore investigated this issue to clarify the benefit of anatomical resection for HCC.

Material/Patients and Methods: The clinical data from 175 patients who underwent hepatic resection for solitary HCC ≤ 5 cm between January 2001 and December 2011 were retrospectively reviewed. the patients were classified into two groups: Anatomical resection (AR; n=115) and non-anatomical resection (NAR; n=60), and the clinicopathological features of these two groups were compared.

Results: There were no significant differences in the gender ratio, age, positive rate of virus markers and serum concentration of tumor markers between the groups. the proportion of patients with impaired liver function was significantly higher in the NAR group. Non-anatomical resection was significantly associated with a shorter operative time, smaller resected liver volume and smaller amount of blood loss. Although pathological liver cirrhosis was seen significantly more in the NAR group, no significant differences were detected between the groups in the prognostic factors, including the tumor differentiation, surgical margin, vascular invasion and intrahepatic metastasis. the incidence of mortality or morbidity, in-hospital days, disease-free survival and overall survival did not differ between the groups.

Conclusion: for a solitary HCC ≤ 5 cm, our results suggest that the procedures used for hepatic resection may be

established based on the preoperative liver function, without any apparent benefit of AR.

PP 74

Can Polyglactin Mesh Be Used for Prevention of Seroma After Mastectomy: An Experimental Study

Levent Yeniay¹, Omer Vedat Unalp¹, Alper Uguz¹, Tayfun Yoldas¹, Mutlu Unver¹, Avni Can Karaca¹, Osman Zekioglu², Rasih Yilmaz¹

¹Ege University, School of Medicine, Department of General Surgery, Turkey

²Ege University, School of Medicine, Department of Pathology, Turkey

Introduction: Seroma formation is still a common problem in breast surgery. Seroma formation is associated with morbidity and financial loss. Fibrin glue was used in several studies for solution but the results were controversial. On the other hand surgical meshes are promising to prevent the seroma formation.

Objectives: To evaluate the effectiveness of polyglactin mesh usage in preventing the seroma formation after mastectomy either with fibrin glue usage or alone.

Material/Patients and Methods: Forty-eight female Sprague-Dawley rats were randomly assigned to four groups. Each underwent radical mastectomy, axillary lymph node dissection and disruption of the dermal lymphatic vessels. Group 1 is the control group (n=12). 1x1cm polyglactin 910 mesh (Vicryl, Ethicon Johnson&Johnson USA) is placed over the chest wall under the skin flaps prior to closure in group 2 (n=12). The animals in the group 3 received 0.5mL fibrin glue (Baxter Healthcare Ltd United Kingdom) topically throughout the wound before the closure (n=12). The animals in the group 4 (n=12) received 0.5 mL fibrin glue topically throughout the wound and 1x1 cm polyglactin 910 mesh is placed under the skin flaps prior to the closure. Full thickness tissue samples from both the chest wall and the skin were harvested. The harvested tissue samples were evaluated by a single pathologist in a blind fashion.

Results: The mean seroma volume of the control group was 1,536mL where the mean seroma volume of the groups 2, 3 and 4 were 1.189, 0.438 and 0.556 respectively. Mean seroma volume was significantly lower; adhesion index and foreign body reaction was higher in group 4.

Conclusion: Although various studies show controversial results to prevent the seroma formation. This experimental study is an evidence that fibrin glue and polyglactin mesh reduces seroma with increasing inflammatory reaction.

PP 75

A Case of Intraductal Papillary Mucinous Carcinoma (ipmc) Arising in Jejunal Heterotopic Pancreas

Shozo Miyano

Juntendo Nerima Hospital, Japan

Introduction: Heterotopic pancreatic tissue has been found in the stomach and duodenum, but a jejunal location is less common. Furthermore malignancies in heterotopic pancreas are very rare.

Objectives: We report a case of IPMC arising in jejunal heterotopic pancreas and discuss it based on a review of the literature.

Material/Patients and Methods: A 79-year-old man who had no symptom. He was introduced to our hospital due to care hepatocellular carcinoma (HCC) of the left hepatic lobe. After a detailed examination, Computed tomography of the abdomen and Positron emission tomography demonstrated a mass located in small intestine. We performed operations for HCC and a small intestinal mass. Intraoperatively, a mass was palpated elastic hard in the jejunum 5cm distal to the ligament of Treitz. Then partial hepatectomy (S3) and partial jejunectomy were performed.

Results: Histopathological examination showed that a small intestinal mass was Intraductal papillary mucinous carcinoma (IPMC) with invasion arising from heterotopic pancreas. Immunohistochemically, IPMC showed positive reactions for MUC2 and negativity for MUC1, therefore it was proved intentional type of IPMC.

Conclusion: In this case report, we describe an extremely rare case of IPMC arising in jejunal heterotopic pancreas.

PP 76

A Case of Gastric Cancer Associated with an Ectopic Pancreatic Ipmc in the Gastric Wall

Shouhei Fujita

Juntendo Nerima Hospital, Japan

Introduction: We present a case of a 65-year-old woman with an ectopic pancreatic intraductal papillary-mucinous carcinoma (IPMC) in the gastric wall. A brief overview of the management of an ectopic pancreatic IPMC is included.

Objectives: The patient was a 65-year-old woman. During preoperative examination, a 4-centimeter-large gastric submucosal tumor was noted in the posterior wall of the lesser curvature of the gastric angle. Upper digestive tract endoscopy was performed during the postoperative follow-up, and this revealed a 1-centimeter-large ulcerative lesion in the lesser curvature in the middle of the stomach. Biopsy findings led to the diagnosis of gastric cancer, and therefore surgical treatment was decided.

Material/Patients and Methods: Intraoperative findings showed no ascites, and there was no apparent lymph node

enlargement or invasion of other organs. In addition, the ulcerating lesion and the submucosal tumor were not interconnected; therefore, distal gastrectomy was performed.

Results: The histopathological diagnosis revealed that the ulcerative lesion was a gastric cancer (tub1+2), whereas the gastric submucosal tumor was a MUC1/MUC6-positive adenocarcinoma. Structures resembling those of pancreatic ducts and Langerhans islets were found around the cancer. Both chromogranin a and synaptophysin were positive, leading to the diagnosis of an ectopic pancreatic intraductal papillary-mucinous carcinoma (IPMC) in the gastric wall, arising from an ectopic pancreas.

Conclusion: Only 30 cases of IPMC arising from an ectopic pancreas have been reported thus far, including those reported overseas. Here, we report a very rare case, along with a discussion based on the literature.

PP 77

Calcaneal Avulsion Fracture

Kenan Koca , Yusuf Erdem , Hseyin Özkan , Cemil Yıldız , Mustafa Başbozkurt

Gülhane Medical Military Academy, Department of Orthopaedic and Traumatology, Turkey

Introduction: Calcaneal avulsion fractures are seen most frequently in elderly, osteoporotic and diabetic patients. These injuries are caused by contraction of the gastrocnemius-soleus muscle complex. Early recognition and treatment is imperative in these cases.

Objectives: Most of the displaced fractures of calcaneal tuberosity requires surgical treatment which includes open reduction and internal fixation.

Material/Patients and Methods: A 62-year old woman with diabetes who had a vehicle traffic accident, presented to our department with a calcaneal avulsion fracture. Subsequent operative fixation was achieved with two 3,5 cm screws. Achilles tendon lengthening was required on the surgical intervention. Long leg cast immobilization was applied for 6 weeks.

Results: Bone healing was seen at postoperative 6 weeks. Postoperatif 4 months patient has no pain while walking and there was no restriction at ankle and foot movements.

Conclusion: These fractures must be treated with surgical reduction and internal fixation to restore hindfoot anatomy. This may be the best possible result for patients with this injury. According to this we can say definitive treatment requires fixation with screws, pins, wires, anchors and etc. at the end.

PP 78

Should Complementary Axillary Lymph Node Dissection (calnd) Be Applied To Micrometastatic Sentinel Lymph Node Biopsy(mslnb) Positive Patients At Early Breast Cancer (ebc)?

Ramazan Yıldız , Zafer Kilbaş , Erkan Öztürk , Yaşar Subutay Peker , Öner Menteş , Semih Görgülü , Yusuf Peker

Gülhane Military Medical Academy, Department of General Surgery, Ankara, Turkey

Introduction: ALND is replaced by SLNB, resulting less postoperative morbidities. CALND is standart for macrometastatic SLNB positive patients with debate of its contribution to survivalance.

Objectives: Our aim is to debate CALND at MSLNB positive patients.

Material/Patients and Methods: Data of 206 SLNB applied EBC patients in our clinic between 2007-2012 is evaluated retrospectively

Results: 55(26.7%) patients were evaluated as SLNB+. CALND was applied to all macrometastatic SLNB+ patients which only 10 patient had tumour stage advancement. 7 of 55 patient were evaluated as MSLNB+. Frozen section at two partients were suspicious, resulting CALND with no additional surgery to other 5 MSLNB+ patients. No additional ALN positivity was found on 2 MSLNB+, CALND applied patients. Mean age was 42.57years(37-52) and mean follow-up was 28.14months(17-43) with no relapses.

Conclusion: 40-70% of BC patients are only SLNB+ and contrabution of CALND to survey is argued nowadays where rate is higher at MSLNB+ patients. Non-SLN metastasis is reported as 27% at macrometastatic SLNB positivity, where as %10 at MSLNB positivity. CALND seems not effecting the tumour stage of 90-93% of MSLNB positive patients. Postoperative survey and relaps rates are reported to be equal for only SLNB and SLNB+CALND applied micrometastatic EBC patients. At our study; only 10(20%) patients of macrometastatic SLNB+CALND had tumour stage advancement where non of 2 MSLNB positive and CALND applied patients had tumour stage advancement and no relapses were found at CALND not applied patients.

PP 79

Our Breast Cancer (be) Surgery Experience of 664 Cases

Ramazan Yildiz , Zafer Kilbaş , Erkan Öztürk , Yaşar Subutay Peker , Öner Menteş , Semih Görgülü

Gülhane Military Medical Academy, Department of General Surgery, Ankara, Turkey

Introduction: Breast cancer (BC) is the most common cancer type seen in women. Evidences suggest better results with breast preserving surgery techniques.

Objectives: In this study, we aimed to communicate our surgical practice and experience based on the latest improvements on BC surgery.

Material/Patients and Methods: Data of 664 BC patients operated in our clinic between 2000-2012 were evaluated retrospectively.

Results: Patients had average age of 49.9(25-91years). 480(72.2%) patients had infiltrative ductal carcinoma (IDC), 40(6.0%) had infiltrative lobular carcinoma (ILC), 45(6.7%) had mixed, 16(2.4%) had micropapillary, 6(0.9%) had tubular, 13(1.9%) had mucinous, 10(1.5%) had medullary carcinoma, 1 had liposarcoma, 1 hamartoma, 1 had stromal sarcoma, 1 had adonocystic carcinoma, 1 had metaplastic carcinoma, 1 had metastatic (liver) carcinoma, 5(0.7%) had Paget + IDC, 2(0.3%) had angiosarcoma, 30(4.51%) had ductal carcinoma insitu (DCIS), 6(0.9%) had lobular carcinoma insitu, 1 had apocrine carcinoma insitu, 2(0.3%) had LCIS+DCIS and 1 had insitu micropapillary carcinoma. Histopathologic results of patients were; 42(6.3%) stage0, 200(30.1%) stage1, 165(24.8%) stage2A, 96(14.45%) stage2B, 23(3.46%) stage3A, 5(0.75%) stage3B, 59(8.8%) stage3C and 13(1.95%) stage4 tumour. Performing modified radical mastectomy (MRM) according to years are: 69.1%(2000), 65%(2001), 64%(2002), 48%(2007), 47%(2008), 33%(2009), 24%(2010), 29%(2011), 35%(2012).

Conclusion: Recent developments in surgical techniques and adjuvant therapy modalities, mastectomy+axillary dissection has been largely replaced by breast protective surgery and sentinel lymph node biopsy (SLNB) in last 20years. MRM application ratio decreased (69%-24%) as SLNB increased proportionally. Similarly, as a result of increased patient awareness, better BC screening protocols and preoperative diagnostic modalities, early stage diagnosed BC rates increasing.

PP 80

Age Dependent (<35 and >70) Prognostic Evaluation of Patients with Breast Cancer

Ramazan Yildiz , Zafer Kilbaş , Yaşar Subutay Peker , Erkan Öztürk , Öner Menteş , Semih Görgülü

Gülhane Military Medical Academy, Department of General Surgery, Ankara, Turkey

Introduction: Breast cancer is the most common cancer of women.

Objectives: In this study, we aimed to compare breast cancer related characteristics between two different groups (<35,>70years).

Material/Patients and Methods: Data regarding the 664 breast cancer patients operated in our clinic between 2000-2012 was collected retrospectively.

Results: Group1 (>70years) of 62 patients with average of 72.5(70-91years) and group2 (<35years) of 52 patients with average of 31.3(25-35years) were evaluated. Tumor types were; infiltrative ductal carcinoma(IDC) 42-47, mucinous 6-0, medullary 0-1, tubular 1-0, infiltrative lobular carcinoma (ILC) 5-1, micropapiller 1-0, mixed 0-1, Paget+IDC 0-1, insitu carcinoma 1-1, and angiosarcoma 1-0 patients in groups1-2. Mean tumor-size was 2.3(0.6-13cm)-2.4(0.5-5.5cm), lymphatic metastasis was 38.7%(24)-51.9%(27), modified radical mastectomy(MRM) performed was 36-24, mastectomy+sentinel lymph node biopsy(SLNB) performed was 9-3, lumpectomy+SLNB performed was 10-8, lumpectomy+axillary dissection (ALND) performed was 6-10, simple mastectomy performed was 1-0, ROLL biopsy performed was 0-1, subcutaneous mastectomy+reconstruction performed was 0-5 cases in group1-2 respectively with 1 inoperable patient in group1. 1-1 patient had stage0, 24-13 had stage1, 15-12 had stage2A, 7-2 had stage2B, 6-7 had stage3A, 0-1 had stage3B, 7-3 had stage3C and 1-2 had stage4 tumour in group1-2. Estrogen-receptor was 72.5%(45)-63.4%(33), progesterone-receptor was 70.9%(44)-53.8%(28), and CerbB2 was 17.7%(11)-38.4%(20) positive at group1-2.

Conclusion: Lymph node metastasis is more common, CerbB2 is higher, pathological-grade and tumor-stage are more advanced in group2 according to statistics (p<0.05) that is consistent with literature.

PP 81

Sentinel Lymph Node Biopsy Using Radioisotope or Blue Dye in Thyroid Cancer, Review of Literature

Zafer Kilbas¹, Eyup Duran², Mustafa Tannriseven², Semih Gorgulu¹

¹Gulhane School of Medicine, Department of General Surgery, Turkey

²Elazig Military Hospital, Department of General Surgery, Turkey

Introduction: The concept of sentinel lymph node (SLN) is standart method to assess lymph node spread in some solid organ tumors (such as malign melanoma, breast and gastric cancer) but the usefulness of SLN biopsy in thyroid cancer is controversial.

Objectives: The aim of this study is to review the identification rates of SLN detection techniques.

Material/Patients and Methods: The pubmed database was searched for the following terms: SLN and throid cancer. All papers cited until january 2003 were reviewed.

Results: 20 studies were included. Based on the technique used for SLN identification, studies were divided into two groups. There were 14 studies in which the blue dye technique was used. the overall sentinel node idetification rate was %84 in 1149 patients. 6 studies used radioisotope techniques and the overall rate was %96 in 214 patients.

Conclusion: Identification rates of blue dye and radioisotope techniques are found to be accurate in detecting SLN in thyroid cancer patients. Radioisotope technique can be preferred as it is demonstrated higher SLN detection rate.

PP 82

Honey Based Topical Therapy: A Better Way of Managing Burn Injuries?

Myat Soe Thet¹, Gizem Yuksel¹, Selen Yildirim¹, Ahmed Omar Ali¹, Osman Yuksel², Guldal Yilmaz³

¹English School of Medicine, Faculty of Medicine, Gazi University, Ankara, Turkey

²Department of General Surgery, Faculty of Medicine, Gazi University, Ankara, Turkey

³Department of Pathology, Faculty of Medicine, Gazi University, Ankara, Turkey

Introduction: Burn injury is still a major cause of mortality and morbidity despite modern methods of medical care. the main complication is infection. Management is difficult, and it is costly due to the infection and delay of wound healing.

Objectives: This short review aims to focus on the role of honey-based topical therapy in burn injury management compared to the widely used standard hospital protocol of silver containing compounds.

Material/Patients and Methods: Data sources such as PubMed/MEDLINE, reference lists, and databases were used to seek clinical trials, research articles including in-vitro studies, as well as reviews comparing honey with other silver compounds in management of burn injury.

Results: One review article analyzed seven clinical trials having results that honey-based therapy is superior to traditional management of burn wound injury although quality of studies was low. Many other studies showed that honey has bactericidal and anti-inflammatory effects. Rate of re-epithelialization and healing is significantly faster with honey. Unlike silver sulphadiazine, honey does not induce cytotoxic injury and systemic side effects. Honey is also reported to have antibacterial properties against *Pseudomonas* spp. and MRSA that are commonly found in burn injuries.

Conclusion: All clinical evidence suggests that honey-based treatment is superior to the traditional silver containing compounds in the management of burn injuries, although large randomized clinical trails are needed to confirm. Honey-based treatment can be a very good alternative for the management of burn wound injuries in both children and adults because of its cost effectiveness, faster wound healing along with lesser side effect and complication rate.

PP 83

Less Invasive Surgical Strategy for Polycystic Liver Disease

Jota Watanabe, Kei Tamura, Takaaki Takebayashi, Hajime Sato, Eitaro Ito, Masahide Hatano, Fumiki Kushihata, Yasutsugu Takada

Ehime University, Graduate School of Medicine, Department of Hbp Surgery and Transplantation, Japan

Introduction: Polycystic liver disease (PLD) is a rare affliction and frequently associated with polycystic kidney disease. Most of patients are asymptomatic but some symptomatic patients require conservative or surgical treatment.

Objectives: The purpose of this study was to present our experience in laparoscopic procedures for patients with severe symptomatic PLD.

Material/Patients and Methods: Four patients were referred to our center for laparoscopic surgery of PLD. We measured the liver reproduction rate of liver for patients with PLD after operation.

Results: Laparoscopic procedures were left lateral segmentectomy in one, and deroofting and fenestration procedures in three patients. No major complications were recorded with laparoscopic procedures. the symptoms were disappeared in all cases, but symptomatic recurrence occurred in one case two years later. Deroofting and fenestration procedures were performed for this patient again. the liver reproduction after operation rate of PLD was 111% on the average.

Conclusion: Laparoscopic procedure appears to be a useful and effective approach for symptomatic PLD. Careful selection of patients and meticulous surgical technique are recommended in the less invasive surgical strategy of PLD.

PP 84

Changes in Leptin, Ghrelin and Nesfatin Levels in Patients with Acute Pancreatitis

Burak Veli Ulger¹, Mesut Gul¹, Omer Uslukaya¹, Abdullah Oguz¹, Hatice Yuksel², Abdullah Boyuk¹

¹Dicle University, Faculty of Medicine, Department of General Surgery, Diyarbakir, Turkey

²Dicle University, Faculty of Medicine, Department of Medical Biochemistry, Diyarbakir, Turkey

Introduction: Appetite hormone levels in rat models of acute pancreatitis have been demonstrated in several studies. But there are not enough clinical studies on this issue.

Objectives: Changes of leptin and ghrelin levels in patients with acute pancreatitis have been demonstrated in recent studies. We investigated the change of Nesfatin levels as well as Ghrelin and leptin levels, in patients with acute pancreatitis.

Material/Patients and Methods: A total of 40 patients was enrolled in this study. Two blood samples were obtained from each patient with acute pancreatitis. The first blood samples were obtained when the patients were admitted to the hospital. Second samples were taken from patients on the day of discharge. Plasma ghrelin, leptin and nesfatin concentrations were measured with RIA kit and analyzed based on clinical and biochemical parameters.

Results: At discharge, the ghrelin concentration was significantly higher than it was at admission ($2,39 \pm 0,88$ vs $3,23 \pm 2,08$ ng/mL [mean \pm SD], $p < 0,05$). Contrarily leptin and nesfatin levels were higher at admission and were found to be decreased at discharge. Mean Leptin level was $7,07 \pm 4,71$ ng/mL at admission and was $3,71 \pm 2,15$ ng/mL at discharge ($p < 0,05$), whereas mean Nesfatin level was $6,74 \pm 0,74$ ng/mL at admission and was $6,33 \pm 0,73$ ng/mL at discharge ($p < 0,05$).

Conclusion: We found that levels of appetite hormones are changed during the course of acute pancreatitis. More studies are needed to investigate the relationships between the severity of this disease and the levels of these hormones.

PP 85

Effects of Moxifloxacin and Tauroursodeoxicolic Acid on Bacterial Translocation in Obstructive Jaundice Following ; an Experimental Study

Huseyin Aksoy¹, Serhat Oguz¹, A. Cem İbiş¹, Şaban Gürçan², Tulln Yalta³, Tamer Sağiroğlu¹, İrfan Coşkun¹, Eyup Yeldan¹

¹Trakya University, School of Medicine, Department of General Surgery, Turkey

²Trakya University, School of Medicine, Department of Microbiology, Turkey

³Trakya University, School of Medicine, Department of Pathology, Turkey

Introduction: As a result of the gallduct surgery in patients with obstructive jaundice; sepsis and bacteremia is the most important cause of morbidity and mortality.

Objectives: In this paper; in rats with experimental obstructive jaundice, we aimed to investigate separately and together the effects of the changes in the mucosa of the small intestine, bacterial translocation formation, tauroursodeoxicolic acid and moxifloxacin on bacterial translocation.

Material/Patients and Methods: Each of them consists of two 8 rats were grouped a total of 5. In Sham group, the common bile duct channels of the rats were mobilized but not connected. Experimental obstructive jaundice was created by connecting the common bile duct channels of the other four groups. While the control group is not given the active ingredient, respectively suitable doses of tauroursodeoxicolic acid, moxifloxacin, and both agents together were given to the other three groups. In 10th days of the experiment; groups were sacrificed and blood and tissue cultures were obtained. Liver function tests were evaluated. Ileal tissue samples were examined histopathologically.

Results: In rats with experimental obstructive jaundice; impaired liver function tests, changes in the mucosa of the small intestine and bacterial translocation were observed. Tauroursodeoxicolic acid and moxifloxacin treatment did not affect the biochemical values, but on the small intestine mucosa was seen to be effective in a positive way. Although tauroursodeoxicolic acid treatment showed a positive effect on bacterial translocation treatment, this effect did not statistically significant. Any group given moxifloxacin showed no proliferation. As a result, moxifloxacin treatment in rats with experimental obstructive jaundice; we can say that there is a positive effect on bacterial translocation.

Conclusion: Today, due to the increasing resistance to bacterial infections in the gastrointestinal tract from the management difficulty drawn and new agents are needed. For this reason, we think that it is important this result we have obtained.

PP 86

The Effects of Propofol and Sevoflurane on Pulmonary Oxidative Stress in Patients Who Underwent Lobectomy with One Lung Ventilation

Ahmet Onat Bermede¹, Ali Abbas Yilmaz¹, Zekeriyya Alanoglu¹, Ozlem Selvi Can¹, Saban Yalcin², Cagil Vural³, Sacide Demiralp¹

¹Ankara University, School of Medicine, Department of Anesthesiology and Icu, Turkey

²Harran University, School of Medicine, Department of Anesthesiology and Icu, Turkey

³Ankara Numune Education and Research Hospital, Department of Anesthesiology and Icu, Turkey

Introduction: One lung ventilation for lobectomy causes pulmonary oxidative stress.

Objectives: We planned to compare the effects of propofol and sevoflurane on pulmonary oxidative stress in patients who underwent lobectomy with one lung ventilation.

Material/Patients and Methods: 28 patients with lung cancer who underwent lobectomy with one lung ventilation included to the study. General anesthesia in propofol group (n=14) maintained with infusion of propofol and remifentanyl and in the other group sevoflurane (n=14) was used in maintenance of general anesthesia. Intraoperative hemodynamic data, peripheral oxygen saturations, and one lung ventilation, anesthesia, surgery times were recorded. Blood samples were collected at the beginning, at the end of OLV from pulmonary and peripheral vein, 20 minutes of reoxygenation from peripheral vein. Serum MDA levels were studied as a marker of oxidative stress.

Results: Serum MDA levels were found to be increasing during OLV independently to anesthetic method with a statistically significance compared to beginning levels in each group. the beginning and pulmonary vein levels of serum MDA was not statistically significant between groups. MDA levels of propofol group were statistically significant lower than sevoflurane group after reoxygenation.

Conclusion: This was the first study evaluating the effects of anesthetic method on OLV induced oxidative stress from pulmonary vein samples. Total intra venous anesthesia with propofol infusion is an effective method and should be preferred to inhalation agents because of the positive effects on oxidative stress after reoxygenation in OLV.

PP 87

Metabolic Syndrome Prevalence in Patients with Cholelithiasis

Handan Pinar¹, Eyup Duran², Dogan Pinar³, Rafet Yigitbasi⁴

¹Elazig Public Health Authority, Turkey

²Elazig Military Hospital, Department of General Surgery, Turkey

³Elazig Military Hospital, Department of Otolithology Head and Neck Surgery, Turkey

⁴Goztepe Training and Research Hospital Department of General Surgery, Turkey

Introduction: Gallstone disease is a common problem in developed countries. Metabolic syndrome occurs on the basis of insulin resistance and associated with metabolic risk factors known as abdominal obesity, high blood pressure, atherogenic dyslipidemia, glucose intolerance and blood glucose elevation.

Objectives: This study was planned to evaluate metabolic syndrome and its components as a risk factor in cholelithiasis patients.

Material/Patients and Methods: The study designed in two groups; patient group with cholelithiasis and control group without cholelithiasis. There were 32 (%44) people in control group and 41 (%56) in patient group. Metabolic syndrome were investigated in patient and control groups according to National Cholesterol Education Program Adult Treatment Panel III (NCEP ATP III) criteria.

Results: 13 of 32 people in control group had metabolic syndrome, 19 of 41 patients in the patient group had metabolic syndrome. Incidence of metabolic syndrome were higher in patient group than control group. HDL value was found statistically lower in metabolic syndrome of all participants and the patient group with cholelithiasis (respectively p=0.0001, p=0.0001). We found higher triglyceride value in patient group with metabolic syndrome than control group with metabolic syndrome.

Conclusion: As a result, metabolic syndrome incidence in the patient group with cholelithiasis was not statistically higher than the control group in this study. However, we found high body mass index, high triglyceride levels, low HDL levels in patients group with cholelithiasis compared to the control group. the efforts to prevent the metabolic syndrome parameters will be able to reduce the cholelithiasis incidence effectively.

PP 88

Pulmonary Artery Dissection and Type B Aortic Dissection After Percutaneous Closure of a Patent Ductus Arteriosus.

Thomas Theologou, Susannah Love, Efthymios Kazantzidis, Hillary Fewins, Mark Field, Leslie Morrison, Manoj Kuduvalli

1The Institute of Cardiovascular Medicine & Science, 2Liverpool Heart & Chest Hospital. Departments of 3Interventional Cardiology, 4radiology, 5cardiothoracic & 6aortic Surgery Thomas Drive L14 3lp Liverpool, UK

Introduction: Dissection of the PA artery is a rare event and is an unusual complication of chronic pulmonary hypertension which in most cases is associated with congenital cardiac abnormalities. Closure of the PDA via the endovascular route is an already safe and established technique with minimal complications like residual shunts, haemolysis or embolization.

Objectives: We report the case of a 71 year-old female with Marfanoid features who had a PA dissection and a type B aortic dissection after percutaneous closure of a PDA with an Amplatzer® device

Material/Patients and Methods: The closure has been performed successfully by the interventional cardiologists who used an Amplatzer® Duct Occluder II.

Results: Two years after the patient presented in a district hospital with history of increasing shortness of breath and back lumbar pain. She discharged home with a presumed diagnosis of renal calculi. She re-presented in A&E after 2 days with the same symptoms, including: increasing back lumbar pain and more scapular pain, shortness of breath and tiredness. After a CT scan was performed a diagnosis of a type B dissection together with a PA dissection was established.

Conclusion: We report with this complex case with marfanoid features and previous aortic root and aortic valve replacement, that the closure of the PDA with an Amplatzer® device can be complicated with type B aortic dissection and PA dissection even in long time after the PDA closure.

PP 89

The Effect of Methylprednisolone and Tenoxicam on the Protection of Damage of the Nerve Physiormorphology Caused by Prolene Mesh

Zeki Ozsoy, Huseyin Ayhan Kayaoglu, Ozkan Namik, Erdinc Yenidogan

Gaziosmanpasa University, Faculty of Medicine, Department of General Surgery, Tokat, Turkey

Introduction: Groin hernia repairs are one of the most performed operations in general surgery practice. It was shown that entrapment of the nerves by the mesh or mesh

related fibrosis may play a role in ethiology of chronic pain after hernia repairs.

Objectives: The purpose of this study was to investigate the effect of methylprednisolone and tenoxicam on the protection of damage of the nerve physiormorphology caused by prolene mesh used in hernia repair.

Material/Patients and Methods: Fifty rats were randomly divided into 5 groups. Sciatic nerve was dissected in all rats after performing EEG on basal neural transport. in group 1, only sciatic nerve manipulation was performed. Other groups received a monofilament polypropylene cuff around the sciatic nerve. No additional procedure was performed in group 2. in group 3, 2 mg/kg single dose methylprednisolone; in group 4 and 5, 0.5 mg/kg/day methylprednisolone and 1 mg/kg tenoxicam was injected around the nerve and mesh for 4 weeks, respectively. Neural transport was evaluated by electromyography 4 weeks later and compared with pre-procedural values. Sciatic nerves including 1 cm around the mesh were excised. Inflammation and fibrosis were scored histopathologically.

Results: While basal latency was similar, postoperative latency was significantly different among groups. Latency was significantly longer in group 2 than the group 1. It was significantly shorter in group 3 when compared to group 2 (p=0.007). Preoperative and postoperative amplitudes were similar among groups. Denervation was significantly different among groups (p<0.05). Inflammation and fibrosis was significantly different among groups (p<0.05). the highest inflammation and fibrosis scores were detected in repetitive drug administrated groups.

Conclusion: Single dose methylprednisolone administration decreased nerve damage and inflammation. on the other hand, daily administration of methylprednisolone and tenoxicam for 4 weeks caused increased inflammation and fibrosis and wasn't affective on protection of nerve physiormorphology.

PP 90

The Comparison of Radiocolloid, Methylene Blue and Combined Methods for Detecting Sentinel Lymph Node in Breast Cancer Patients

Muhammet Kadri Colakoglu¹, GÖkhan Giray Akgul¹, Yilmaz Ozdemir¹, Erdinc Yenidogan², Mithat Camlibel¹, Mehmet Ali Gulcelik¹

¹Ankara Oncology Hospital, Department of General Surgery, Ankara, Turkey

²Gaziosmanpasa University, Faculty of Medicine, Department of General Surgery, Tokat, Turkey

Introduction: Sentinel lymph node sampling decreases the morbidity of breast conserving surgery with the prevention of unnecessary axillary dissection.

Objectives: The aim of this study to compare the success rates of radionuclide and methylene blue methods in detecting sentinel lymph nodes and evaluate the success rates of techniques or technique combinations in breast cancer patients.

Material/Patients and Methods: In this prospective study we evaluated 287 breast cancer patients referred to Ankara Oncology Training and Research Hospital between February 2006 and March 2010. Patients whom we performed methylene blue method alone was named as Group I, radiocolloid substance method alone as Group II and both methylene blue and radiocolloid method as Group III. Patients dispatched groups randomly. We calculated the overall success rate and success rates of each techniques separately.

Results: When considered for all groups overall sentinel lymph node detecting success rate was 83,3%. When considered for each group, success rate was 80% for group I (methylene blue alone group), 84,9% for group II (radiocolloid substance alone group) and 90,6% for group III (combined group). Statistically there was no difference between group I and group II ($p=0,425$) but there was a statistical difference between group I and group III ($p<0,05$).

Conclusion: The usage of vital dyes and radioactive colloidal substances alone has high success rates but combined method increases the success rate obviously.

PP 91

Endometriosis: Surgical Treatment and Results of a Case Series

Şahin Kahramanca¹, Cem Azili¹, Oskay Kaya¹, Köksal Bilgen², İbrahim Çolhan³, Rıza Deryol¹, Tevfik Küçükpunar¹

¹ Dişkapi Yıldırım Beyazıt Eğitim Araştırma Hastanesi Genel Cerrahi Kliniği, Turkey

² Ordu Üniversitesi Tıp Fakültesi Genel Cerrahi Ana Bilim Dalı, Turkey

³ Kurtalan Devlet Hastanesi, Siirt, Turkey

Introduction: Endometriosis is determined as functionally endometrial tissue out of the uterine cavity. the most common locations are in the pelvis, but they can be detected in the incisional scars after gynaecological surgery.

Objectives: We aimed to present our cases and to discuss the treatment protocol of the abdominal wall endometriosis under the light of the literature.

Material/Patients and Methods: We operated sixteen cases: nine were abdominal wall endometriosis and seven were benign mass. They referred to general surgery polyclinic with complaints of sore mass on the anterior abdominal wall related to the menstrual cycles. Abdominal ultrasonographies (USG) and/or computed topographies (CT) were obtained in the preoperative period.

Results: The mean age of 16 patients was 30.81(SD=6.348). There were masses on pfannenstiel (11), lower midline (3) or paramedian (2) incision scars. All patients had previous gynaecological surgery history. the mean time of the beginning of the symptoms was 39.8 months after the operations. Total excisions were done for all patients and endometriosis reported in pathological specimens.

Conclusion: Endometriosis is occasionally encountered in the extra-pelvic organs. the incidence after cesarean-section is 0.03-0.04%. Preoperative diagnosis rate is 20%-50%. Rising of pain and swelling due to menstrual cycles is important in differential diagnosis. USG, CT, MR and incisional biopsy are used for diagnosis. Excision of the mass with 5 mm free margins and avoiding of perforation regarding malignity risk are recommended. It is necessary to change surgical instruments in repairing period of surgery after excision step.

PP 92

Amyand Hernia: Is Always Appendectomy Necessary?

Şahin Kahramanca, Oskay Kaya, Hakan Güzel, Gülay Özgehan, Hasan Bostancı, Göktürk Gürsoy, Tevfik Küçükpunar, Hülagü Kargıcı

Dişkapi Yıldırım Beyazıt Eğitim Araştırma Hastanesi Genel Cerrahi Kliniği, Turkey

Introduction: Amyand hernia is determined as the presence of normal or inflamed appendix in the hernia sac. It is commonly encountered in adult patients or in children up to 1 year of age.

Objectives: We aimed to discuss the treatment protocol of amyand hernia cases under the light of the literature.

Material/Patients and Methods: There were 15 patients included the study in 1974-2010. They were admitted to hospital for elective or incarcerated inguinal hernia repair and appendix was found incidentally in hernia sacs, so appendectomy operations were performed additional procedure to hernioraphy.

Results: The mean age was 40.36(std dev 21.823), female/male ratio was ¼. Thirteen patients had right, one had bilateral inguinal hernia. One had left inguinal hernia but also situs inversus. Eleven cases were operated in elective condition, five patients for incarcerated hernia. Appendectomies were done for all of them. Appendectomy specimens were showed acute inflammation in histopathological examination for five cases.

Conclusion: Etiology of amyand hernia is still unknown but generally accepted theory is elevated intraabdominal pressure. Elderly and diseases which elevated intraabdominal pressure are the conditions supporting the theory. Amyand hernias are seen in all age groups but generally in elderly and male gender. It is seen in postmenopausal ages in women. Operation in the presence of non-inflamed appendix in the sac is controversial but inflamed appendix undoubtedly should be operated. This time, in these cases mesh usage is controversial due to the risk of infection.

PP 93

Total Extensor Mechanism Reconstruction of the Hand with Two Free Flaps and Tensor Fascia Lata Tendon Graft

Ismail Sahin , Mustafa Nisançi , Dogan Alhan , Andac Aykan , Serbulent Guzey , Selcuk Isik

Department of Plastic and Reconstructive Surgery, Gulhane Military Medical Academy, Etlik, Ankara, Turkey

Introduction: Extensor tendon injuries of the forearm can be present in many different ways from a partial laceration up to total deficit.

Objectives: In this report we aimed to present our reconstruction approach to a total extensor system injury case.

Material/Patients and Methods: A 21-years-old male patient was presented with a traffic accident injury. At clinical examination right arm was amputated from the mid-humeral level. Additionally there was a large soft tissue defect at the posterior part of the left forearm with a total extensor mechanism (ECR, EDC, ECU, EPL, EPB, EIP, EDM) loss. No flexor system injury was observed. Ulna and radius were exposed. Tensor fascia lata tendon graft (30 cm) was harvested and inset between common extensor muscle stump and distal extensor tendon stumps of each finger at MCP joint level. Hand dorsum, wrist and distal portion of the tendon graft were covered with free adipofascial ALT flap, which anastomosed to the radial artery end to end. At the proximal zone tendon graft was covered with free rectus muscle flap, which anastomosed to the same artery end to side.

Results: At the 7th month postoperatively; he could make extension to his wrist up to 30° and could make extension to his 1st finger distal phalanx freely. At each MCP joint an extension range nearly up to 0° was determined.

Conclusion: To achieve better hand functions, upper extremity reconstruction is so important and it has to be forced despite all the difficulties.

10-55 %. Although, surgery is the main treatment options for these tumours treatment may be a challenging problem because of the highly aggressive behaviour.

Objectives: In this paper we aimed to present a case, who had a highly aggressive radiation induced angiosarcoma and died 6 months after the diagnosis although two surgeries at this period.

Material/Patients and Methods: 78-years-old female patient, who had a breast conservative therapy 9 years ago, was presented with reddish coloured nodular lesion on her left, previously irradiated breast. Incisional biopsy was performed and it was reported as angiosarcoma. Patient underwent total mastectomy and skin grafting initially and then wide local re-excision, due to local recurrence, was performed two months later. But, lesions of recurrence were observed more aggressively 2 months later again. Additional surgery could not performed because of the general condition of the patient, who was died at the 6th month after diagnosis.

Results: Radiation-induced angiosarcomas are challenging problems with a long latency period and highly aggressive clinical behaviour. Although surgery is the main treatment option, sometimes wide local excision of the tumour with clear margins may not be enough for the treatment and local recurrences can be observed like our patient.

Conclusion: Clinicians must be aware of newly developed painless vascular lesions at the irradiated zone of breast conservation therapy patients.

PP 95

Biomechanical Analysis of the Effect of Mesenchymal Stem Cells on Mandibular Distraction Osteogenesis

Andac Aykan ¹, Serdar Ozturk ¹, Ismail Sahin ¹, Senih Gurses ², Ali Ugur Ural ³, Selcuk Isik ¹

¹ Department of Plastic and Reconstructive Surgery, Gulhane Military Medical Academy, Ankara, Turkey

² Department of Engineering Science, Middle East Technical University, Ankara, Turkey

³ Department of Hematology, Gulhane Military Medical Academy, Ankara, Turkey

Introduction: Despite the successful results, distraction osteogenesis has still major clinical disadvantages such as requirement of long treatment period, risk of poor bone formation and delay in bone formation.

Objectives: The purpose of this study was to investigate the effects of bone marrow-derived stem cells on consolidation period by using a new biomechanical testing method on sheep mandible model.

Material/Patients and Methods: Eight sheep underwent bilateral mandibular osteotomies. After latency period, bone distraction was activated. Mesenchymal stem cells were transplanted into the gap of left mandibular distracted callus on the first day of consolidation period. The sheep were then randomly divided into two groups (Group-A = 4, Group-B = 4). Group-A and Group-B animals were sacrificed on 3th and

PP 94

Radiation Induced Angiosarcoma Following Breast Conservation Therapy: Case Report

Dogan Alhan ¹, Serbulent Guzey ¹, Ramazan Yildiz ², Andac Aykan ¹, Ismail Sahin ¹, Selcuk Isik ¹

¹ Department of Plastic and Reconstructive Surgery, Gulhane Military Medical Academy, Etlik, Ankara, Turkey

² Department of General Surgery, Gulhane Military Medical Academy, Etlik, Ankara, Turkey

Introduction: Radiation-induced angiosarcoma is a well-known complication of radiotherapy that follows breast conservation surgery. The prognosis of angiosarcoma after radiotherapy is poor, with a 5-year survival rate of between

6th weeks of consolidation respectively. Fracture pattern and localization, bone regeneration ratio and density, stress distribution of 16 distracted hemimandibles were evaluated by computerized tomography and biomechanical analysis.

Results: Two different fracture patterns were observed in the two groups. The left halves of mandibles exhibited horizontal fracture out of the distraction zone and the cross-sectional area was compact bone [H (-) C], while the fracture patterns of control sides were oblique which passed through the distraction zone with a propensity of trabecular bone [O (+) T]. Stress distribution at critical cross-section of distraction region was not different in two halves of mandibles. However, bone regeneration ratios and regenerated bone densities were significantly higher in left sides ($p < 0.05$).

Conclusion: Transplantation of mesenchymal stem cells promotes maturity of the distracted callus.

PP 96

Mandibular Distraction Osteogenesis with Newly Designed Electromechanical Distractor

Andac Aykan¹, Serdar Ozturk¹, Rifat Ugurlutan², Fatih Zor¹

¹Department of Plastic and Reconstructive Surgery, Gulhane Military Medical Academy, Ankara, Turkey

²3rd Main Jet Base Infirmary, Konya, Turkey

Introduction: Recent years have seen a rapid rise in the number and types of distraction devices, for maximizing patient comfort and psychological and physical acceptability. However, the distraction devices used today are not ideal for the procedure and act as a source of some of the problems

Objectives: The purpose of this study was to design a fully automatic electromechanical distractor for continuous mandibular distraction osteogenesis and investigate the efficacy of the newly developed distractor on sheep mandible model.

Material/Patients and Methods: Five sheep underwent unilateral mandibular osteotomy and mechanical component of Electromechanical Distractor was fixed mandibular distraction gap by pins. After a 5 days latency period, electromechanical distractor was activated at a rate of 0.30mm / 8 hours by electronic control unit. The bone was lengthened for 20 days without any intervention to the Electromechanical Distractor. Animals were sacrificed on sixth weeks after consolidation period and 5 distracted mandibles were examined by macroscopic observation and computerized tomography. Distracted bone length was measured by computerized tomography on sagittal slices.

Results: The device was tolerated without complications in all animals. New callus formation was observed on distraction gap. Radiological evaluation showed callus related radio dense area in the distracted gap. New callus length was found average 18.28 mm.

Conclusion: In this preliminary study, a newly designed electromechanical distractor was successfully used for callus formation of distraction gap and achieved continuous

lengthening during activation period spontaneously without any intervention. It's important for patients with future clinical applications to early discharge.

PP 97

Segmental Resection of the Third Portion of the Duodenum for the Treatment of Gastrointestinal Stromal Tumor: A Case Report

Fahretin Acar, Mustafa Şahin, Akin Çalişir

Selcuk University, School of Medicine, Department of General Surgery, Turkey

Case Report: Gastrointestinal stromal tumors (GIST) are the most frequent mesenchymal tumors of the gastrointestinal tract. The biological appearance of these tumors reaches from small lesions with benign appearance to aggressive sarcomas. Only 3-5% of GISTs are localized in the duodenum. A 65-year-old woman admitted our hospital for abdominal pain. Computed tomography showed a tumor measuring about 3 cm in diameter without any metastasis lesion and any signs of local infiltration. Gastroduodenal endoscopy revealed the presence of a submucosal tumor in the third portion of the duodenum, and biopsy revealed tumor cells stained positive for c-kit. These findings were consistent with a GIST and we performed a partial resection of the duodenum sparing the pancreas. The postoperative course was uneventful, and she was discharged on day 6. Surgical margins were negative. Histology revealed a GIST with a diameter of 3.2 cm and <5 mitoses/50 high power fields, indicating a low risk of malignancy. Therefore no adjuvant therapy with Imatinib was initiated. The present segmental duodenectomy can be applied in the treatment of GISTs or other low-grade malignancies.

PP 98

Idiopathic Granulomatous Mastitis: Comparison of Wide Local Excision with or Without Corticosteroid Therapy.

Alper Akcan, Bahadır Öz, Muhammet Akyüz, Hızir Akyıldız, Erdoğan Sözüer

Erciyes University, School of Medicine, Department of General Surgery, Turkey

Introduction: Idiopathic granulomatous mastitis (IGM) is a rare chronic inflammatory disease of the breast. At present, there is still no universally accepted management strategy for IGM. Nonetheless, wide local excision with or without steroid therapy is most commonly advocated.

Objectives: In this study, our purpose was to report our clinical experience in 74 IGM patients which were treated with wide local excision with or without steroid therapy.

Material/Patients and Methods: Fifty-three patients were treated with surgery (Surgery Group) and twenty-one patients treated with systemic steroid therapy with surgical

resection (Steroid & Surgery Group).

Results: The masses were quite hard and measured clinically 1.5-12.5 cm (mean 4.4 cm) in size in Surgery group and 1.7-11.2 cm (mean 4.8 cm) in Steroid & Surgery group. the other physical examination findings were overlying skin inflammation (22.6% and 19%), nipple inversion (9.4% and 15%), axillary lymphadenopathy (13.2% and 14.2%) and fistula (7.5% and 14.2%) in Surgery group and Steroid & Surgery group, respectively. in 47 patients (64.3%), clinical and radiological findings before surgery suggested a malignant neoplasm. in 17 patients (23.3%), benign breast diseases, such as periductal mastitis, intraductal papilloma, and fibroadenoma was considered. Wide excision was performed in all patients except 5. Recurrence developed in 4 (7.5%) patients in Surgery group.

Conclusion: Systemic steroid therapy with surgical resection is the recommended treatment strategy for IGM. Our findings are based on a retrospective study.

PP 99

A Simplified Technique for Laparoscopic Resection of Gastric Submucosal Tumors

Jan-sing Hsieh¹, Jui-ying Lee¹, Wen-chieh Fan²

¹ Department of Surgery, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan

² Department of Surgery, Kaohsiung Municipal Ta-tung Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan

Introduction: Recent advances in minimally invasive technique have made resection of gastric submucosal tumors (GSMTs) feasible via laparoscopic approach.

Objectives: The study describes the feasibility of laparoscopic management for gastric submucosal tumors using a gastric suspension technique.

Material/Patients and Methods: Patients diagnosed as having a GSMT were treated with a laparoscopic-assisted technique. by using our technique most tumors located at the anterior wall, lesser or greater curvature can be removed via exogastric resection. the posterior gastric tumors were removed via intragastric approach.

Results: Two men and four women, with ages ranging from 48 to 72 years (mean 52 ± 10 years) were treated. the tumors were located at the posterior and the anterior wall in 2 and 4 respectively. the resected tumor size ranged from 2 to 4.5 cm (mean 3.5±1.0 cm) in diameter. the mean operative time was 78 ± 18 minutes (range 65-105 min), and the mean postoperative hospital stay was 4.7 ± 1.0 days (range 4-6 days). No intraoperative complications were encountered and there was no death related to laparoscopic surgery.

Conclusion: Our laparoscopic-assisted gastric suspension method for management of GSMTs proves to be technically easy and cost effective in a reduced port manner. It can be recommended as an alternative of conventional laparoscopic gastric stapling procedure.

PP 100

Acute Appendicitis: Incision Type Trends in Last 50 Years

Şahin Kahramanca, Gülay Özgehan, Duray Şeker, Hakan Güzel, I. Burak İrem, Saygi Gülkan, Tevfik Küçükpınar, Hülagü Kargıcı

Dişkapi Yildirim Beyazıt Eğitim Araştırma Hastanesi
Genel Cerrahi Kliniği, Turkey

Introduction: In surgical treatment of acute appendicitis(AA), so many incision types were used all through the medical history. Post-operative morbidity, length of hospital stay and cosmetic concerns were the main factors that make surgeons to investigate to find the best incision type for surgical treatment of AA.

Objectives: Here, we discuss the historical development of incision types applied in the surgical treatment of non-complicated AA.

Material/Patients and Methods: The study was performed retrospectively by reviewing the medical records of patients operated by diagnosis of AA between 1962-2013. the types of incisions were McBurney(MB), Rocky-Davis(RD), infra-umbilical median incision(IUM) and laparoscopic surgery(LS). We grouped patients into 5 (G1-G5) according to decades.

Results: 4471 patients were analysed. the number of distribution of patients in groups 1-5 were 630, 1271, 1419, 465, 686, the mean ages were 27.3, 26.5, 28.7, 27.8, 31.1 respectively. in Groups 1-5 the percentages of MB preference were 93.7%, 89.1%, 71.1%, 68.0%, 69.1% and RD incision preference were 0.8%, 0.1%, 4.2%, 7.3%, 10.2% respectively. These numbers for IUM were 2.2%, 1.7%, 3.3%, 6.9%, 7% and LS the preference percentages were 0%, 0%, 0%, 0%, 7% respectively.

Conclusion: In last 50 years, MB incision dominates in total and all through the decades but in a descending trend. As in all fields of surgery LS showed a sharp rise in last decade. Aesthetics concern may be the cause of rising trend of RD. Wide usage of USG and CT help surgeons on pre-operative diagnosis of complicated cases. Most probably this can explain the rise of IUM in last decade.

PP 101

Is It Safe To Fully Adopt Laparoscopic Approach for the Treatment of Appendicitis? Comparison of Laparoscopic and Open Appendectomy in a University Hospital.

Erdinc Yenidogan, Zeki Ozsoy, Ismail Okan, Huseyin Ayhan Kayaoglu, Servet Tali, Mustafa Sahin

Gaziosmanpasa University, Faculty of Medicine,
Department of General Surgery, Tokat, Turkey

Introduction: Appendectomy may be performed laparoscopically or as an open operation. Although

laparoscopy is often used if the diagnosis is in doubt, it is a safe procedure for the treatment of acute appendicitis.

Objectives: We aimed to evaluate the patient and disease characteristics by comparing open and laparoscopic surgery for appendicitis.

Material/Patients and Methods: The study was conducted in Gaziosmanpasa University Faculty of Medicine between January 2011 and January 2012, laparoscopic approach was exclusively adopted for the treatment of appendicitis. the patient demographics, disease characteristics, pathological findings, morbidity, mortality, length of hospital stay were retrieved from patients file.

Results: 156 patients were included into the study. 98 patients were male and the rest was female. the mean age of patients was 29.80 ± 12.47 and 32.81 ± 13.97 for the patients underwent laparoscopic and open appendectomy, respectively ($p=0.160$). There was no difference between demographic features of patients who were operated by either technique. the mean interval time was 8.73 ± 12.69 and 4.44 ± 8.68 hours for laparoscopic and open surgery cases between admission and operation time with significant difference ($p=0.014$). Only the rebound was the statistically significantly different physical examination finding between groups ($p=0.003$). Drains were frequently placed in laparoscopic cases than open ones with significant difference ($p=0.006$). Moreover, the length of hospital stay was shorter in laparoscopy (1.83 ± 0.83 vs. 2.66 ± 1.69 ; $p<0.001$).

Conclusion: Laparoscopic appendectomy can be adopted safely and effectively for the treatment of appendicitis. the shorter length of hospital stay makes the procedure attractive without compromising patient safety.

PP 102

Evaluation of the Alvarado Score As a Diagnostic Tool for Appendicitis

Erdinc Yenidogan , Zeki Ozsoy , Ismail Okan , Huseyin Ayhan Kayaoglu , Servet Tali , Mustafa Sahin

Gaziosmanpasa University, Faculty of Medicine, Department of General Surgery, Tokat, Turkey

Introduction: Although technical developments for the diagnosis and its frequent occurrence, the diagnosis of acute appendicitis is still challenging. Correct diagnosis is important to prevent perforation or negative appendectomy.

Objectives: We aimed to evaluate the pathological findings of patients with appendectomy for acute appendicitis with regard to Alvarado score, USG and Abdominal CT.

Material/Patients and Methods: Patients who underwent appendectomy due to acute appendicitis between January 2011 and January 2012 in Gaziosmanpasa University Faculty of Medicine. the demographic findings, Alvarado scores, radiologic findings, histopathological characteristics, morbidity and mortality were all retrieved from patients files. the impact of Alvarado score on histopathologic findings, the difference between gender, age with regard to Alvarado were calculated.

Results: A total of 156 patients were included to the study. 98 patients (62 %) were male and 58 patients (38 %) were female. the mean age of patients was 31.41 ± 13.27 . 46 % of the patients (n:73) underwent laparoscopy. 13 % patients experienced minor morbidities whereas there was no mortality. the mean Alvarado score was 6.44 ± 1.49 in patients. 46 of them (30 %) had abdominal USG, 70 of them (44%) had abdominal CT, 22 of them (14 %) had both before the operation. the main component of Alvarado score exhibiting the difference was rebound. a positive correlation was found between low Alvarado score and negative appendectomy ($p<0.001$). the difference between age with regard to Alvarado score was statistically significant ($p=0.006$).

Conclusion: Alvarado score is a useful management tool to diagnose patients with suspected appendicitis. the main component of score relied on the decision was rebound.

PP 103

Breast Hamartoma: Clinicopathologic Analysis of 27 Cases and Literature Review

Yusuf Sevim¹, Tevfik Eker², Akin Firat Kocaay², Volkan Genc², Sancar Bayar³

¹ Ankara Penal Institution Campus State Hospital, General Surgery, Turkey

² Ankara University, School of Medicine, Department of General Surgery, Turkey

³ Ankara University, School of Medicine, Department of Surgical Oncology, Turkey

Introduction: Breast hamartoma is an uncommon breast tumor and comprise about 4.8 % of all benign breast masses. However, day to day with increasing social consciousness and thus becoming widespread breast screening, hamartomas have been diagnosed with greater frequency.

Objectives: In our center, 27 patients diagnosed with breast hamartoma during last 10 years, with clinicopathologic results are reported.

Material/Patients and Methods: The medical records of 27 patients with breast hamartoma, operated at Ankara University School of Medicine, Department of General Surgery between the years 2003 and 2013, were examined retrospectively.

Results: Twenty-seven patients, operated for palpable breast mass, and diagnosed as breast hamartoma were included in our study. All of our patients were female, and mean age was 41.8 ± 10.8 years. Mean size of lesions was identified as 3.9 ± 2.7 cm. Breast ultrasound was applied to all patients as preoperative imaging procedure. Preoperative fine needle aspiration biopsy was performed to 4 patients (14,8%). the most additional lesion was epithelial hyperplasia, diagnosed pathologically for 6 patients (22,2%). We identified lobular carcinoma in-situ, and invasive ductal carcinoma for each diagnosis in 1 patient (3,7%). There was only 1 patient (3,7%) reported as breast myoid hamartoma pathologically, and this hamartoma was stained smooth muscle actin, desmin, and CD 34 positively.

Conclusion: Consequently, breast hamartomas are rare benign lesions, and take place with few cases in the literature. So there is limited information about breast hamartomas. Large case series in the literature should provide more knowledge about this disease.

PP 104

Characterisation of Endogenous Cardiac Stem Cells

Thomas Theologou¹, Mark Field¹, Manoj Kuduvali¹, Georgina Ellison², Manoj Kuduvali¹, Bernardo Nadal-ginard²

¹Liverpool Heart & Chest Hospital, Institute for Cardiovascular Medicine & Science (icms), Liverpool, UK
²Liverpool Jm University, Biostem, 15-21 Webster Street, Liverpool, UK

Introduction: Our findings and those of others show that the adult myocardium, including human, harbours a population of resident (endogenous) cardiac stem cells (eCSCs). They are distributed throughout the myocardium, are clonogenic, self-renewing and multi-potent, in that they differentiate into the 3 main cardiac lineages; cardiomyocytes, smooth muscle and endothelial cells in vitro and in vivo

Objectives: The objective of this study is to determine whether eCSCs isolated from the different cardiac chambers are interchangeable or have distinct characteristics and progeny depending on the chamber of origin.

Material/Patients and Methods: c-kitpos CD45neg eCSCs were isolated by enzymatic digestion and Magnetic Activated Cell Sorting (MACS; Miltenyi®) from samples taken from the four chambers of the adult human heart. mRNA was isolated using Qiagen microRNA kit, and then reverse transcribed using first strand cDNA synthesis with random hexamers (Applied Biosystems). qPCR was performed using SYBR Green (BioRad®) on a MyIQ thermocycler (BioRad®) for specific genes representative of the primary and secondary heart field, and their chamber of origin developmental program.

Results: Figure 2. Expression of transcripts for HAND1, HAND2, PITX-2, TBX-5, TBX-20, HRT1 and HRT2 were found at differential levels in c-kitpos CD45neg eCSCs isolated from both the LA and RA.

Conclusion: This study is the first to show in humans that c-kitpos CD45neg eCSCs don't seem to have a 'chamber-specific' transcript footprint, however further analysis is needed to confirm these preliminary results.

PP 105

A Comparison of Surgical Outcome of Fasciocutaneous V-y Advancement Flap and Limberg Transposition Flap for Complicated Sacrococcygeal Pilonidal Sinus Disease

Alper Akcan, Bahadır Öz, Hasan Uzer, Muhammet Akyüz, Hizir Akyildiz, Erdoğan Sözüer, Engin Ok

Erciyes University, School of Medicine, Department of General Surgery, Turkey

Introduction: Various flap techniques have been well described for complex pilonidal sinus disease's (PSD) surgical treatment.

Objectives: The aim of this study was to compare the surgical outcome of fasciocutaneous V-Y advancement flap and limberg transposition flap used to treat complicated sacrococcygeal PSD.

Material/Patients and Methods: A total of 58 patients with complicated pilonidal sinus who underwent surgery within the last 7 years were evaluated retrospectively. Fasciocutaneous V-Y advancement flap was performed in 25 patients (Group VYF), and limberg transposition flap repair was performed in 33 patients (Group LTF).

Results: Mean operative time was 55 ± 19 min for the LTF group and 75 ± 25 min for the VYF group (P=0.01). When compared, complication rates were not significantly different (P =0.76). Mean duration of hospital stays were 4.3 and 5.8 days in the LTF and VYF groups, respectively. When length of hospital stay were compared, there was a significant difference between the groups (P =0.01).

Conclusion: Limberg transposition flap may be use in both primary and secondary cases of complicated PSD, because of the lower recurrence rate and less hospital stay time. Despite the risk of flap tip necrosis and longer operative and hospital stay time, most important advantage of fasciocutaneous V-Y advancement flap is the ability to close larger defects, but it should be reserved for complicated and recurrent cases.

PP 106

A Situation Leading Delay in Diagnosis: Non-traumatic Intestinal Perforations

Ahmet Türkoğlu, Zülfi Arikanoğlu, Burak Veli Ülger, Mesut Gül, Ömer Uslukaya, Abdullah Oğuz, İlhan Taş

Dicle University, School of Medicine, Department of Surgery, Turkey

Introduction: Non-traumatic small bowel perforation, is a rare cause of acute abdomen leading fatal complications.

Objectives: We aim to study the outcome of surgery in spontaneous small bowel perforations.

Material/Patients and Methods: A retrospective study was conducted which involved analysis of 30 patients treated for non-traumatic small bowel perforation. the clinical profile and outcome of the patients were studied.

Results: Out of 30 patients, there were 17 male and 13 female patients. The most common cause of perforation was non-specific inflammation (n=14;46,7%), followed by malignancies (n=8;26,6%), typhoid (n=2;6,7%), tuberculosis (n=2;6,7%), intussusception due to polyps (n=2;6,7%), Crohn disease (n=1;3,3%) and swallowed foreign body (n=1;3,3%). Ileostomy was the most frequent procedure (n=18;60%), followed by resection-anastomosis (n=9;30%) and primary repair (n=3;10%). Wound infection was the most frequent postoperative complication (n=12;40%), followed by enterocutaneous fistula (n=3;10%), wound dehiscence (n=3;10%) and acute respiratory distress syndrome (ARDS) (n=3;10%). The overall mortality rate was 36.7%. On admission, 8 (26,7%) patients had sepsis. In 6 (75%) of these developed mortality. Sepsis was significantly higher in patients who developed mortality (p=0,0275).

Conclusion: Non-traumatic small bowel perforation continues to be an important problem in surgical practice. Sepsis due to delayed presentation seems to be the most important factor for mortality.

PP 107

Vacuum Assisted Closure Experience of 103 Cases At a Single Clinic

*Erdoğan Mütevellil Sözüer , Muhammet Akyüz ,
Hizir Yakup Akyildiz , Abdül Ridvan Kulu*

Erciyes University, School of Medicine, Department of
General Surgery, Turkey

Introduction: Surgical wound infections are frequent complications that are often hard to take under control with wound dressing only. Increased time of hospital stay, antimicrobial drug usage and cost of therapy related to infections are major problems. Vacuum assisted closure (VAC) is a technique of wound therapy that has been widely used to treat infected wounds because of its effectiveness on healing.

Objectives: We aimed to review our single clinical experience of VAC and analyze its effectiveness on wound healing.

Material/Patients and Methods: One hundred and three patients who have been applied VAC therapy between July 2009 and January 2013 were reviewed retrospectively. Debridement performed if needed and wound samples taken for culture before the application of VAC therapy. VAC kits have been changed for 48-72 hours periods. Suitable VAC-kit and pressure level have been chosen depending on wound type and size.

Results: We evaluated 47 male and 56 female patients with average age of 47(21-82). Most common indications of VAC was large infected wounds (%80), large defects of tissue (%15) and enteric fistulas (%11). VAC was often applied after lower gastrointestinal (%60) and perianal (%14) surgery. E. coli was most frequently isolated cause of infection (%41). Average application time was 15 ±6,7 days and mean hospital stay was 14 ±5,2 days. VAC therapy was continued at home

for 42 patients. Hospital stay was shortened mean 12 ±3,9 days with home therapy. At the end of applications, primary wound closure was achieved in 59 patients and healing with granulation tissue was achieved in 33 patients. Eleven patients couldn't complete the therapy because of death, reoperation or technical reasons.

Conclusion: VAC therapy is safe and effective on large infected wounds with advantages of fast granulation tissue formation, early closure of wound, more comfortable mobilization of patients, preventing collection of exudate in wound, fewer need of wound dressing and shortened hospital stay.

PP 108

Anterior Abdominal Wall Mass in Abdominoplasty Case: Endometriosis

*Hakan Bulam , Sedat Tatar , Billur Sezgin , Kemal
Findikcioglu , Osman Latifoglu*

Gazi University, School of Medicine, Department of
Plastic Reconstructive and Aesthetic Surgery, Ankara,
Turkey

Case Report: INTRODUCTION Rectus diastasis and umbilical hernia are not rare among abdominoplasty cases. Incisional endometriosis should be considered for the patients who have undergone previous caesarian or gynecological surgery and have chronic pain on the anterior abdominal wall. OBJECTIVE We aimed to present an abdominoplasty case with coincidentally found endometriosis which is implanted on rectus sheath. CASE REPORT A-34-year-old woman was admitted to our clinic for her increased abdominal fatty tissue and skin laxity. In abdominal examination 2x2cm palpable, hard and non-sensitive mass was found under the left side of Pfannenstiel incision scar. In detailed history, it was understood that she had undergone one cesarean section 3 years before and intermittent pain around the left side of incision was developed 1 year after the cesarean section. Patient was consulted to Gynecology Department with a pre-diagnosis of incisional endometriosis. Preoperative abdomen MRI was performed. 18x10x21mm lobule contoured soft tissue mass, located in the left rectus abdominis and internal oblique muscle junction with contrast medium enhancement material was seen. During the operation pink-purple 18x20mm mass was observed on the rectus fascia. Complete excision and facial defect closure was performed. Then abdominoplasty was completed. No postoperative complication was seen and she was sent home on postoperative day 2. No cyclic pain or recurrence of episodic pain symptoms was seen on postoperative 26th month. CONCLUSION Although endometriosis is a mass mostly seen in the intrapelvic area; it can also be seen in the abdominal scars, umbilicus and breast and the extremities. Thus it is a diagnosis that the surgeons should consider in the presence of a mass and chronic pain increasing during the menstrual cycle or ovulation.

PP 109

Ultrasonographic Assessment of Optic Nerve Sheath Diameter After Epidural Blood Patch Due To Post-dural Puncture Headache

Ozlem Selvi Can , Menekşe Özçelik , Çiğdem Yıldırım Güçlü , Helin şahintürk , Ali Abbas Yılmaz

Ankara University Faculty of Medicine, Department of Anesthesiology, Turkey

Case Report: Objective: To investigate the potential of the ultrasound-based evaluation of the optic nerve sheath diameter (ONSD) in a patient treated with epidural blood patch (EBP) due to post-dural puncture headache (PDPH). Case: A 26-years old woman was operated on due to perianal abscess under spinal anesthesia. on POD #1 patient complained severe headache accompanied by nausea, vomiting and tinnitus. the diagnosis of PDPH was made and she was recommended to have bed rest, increased oral fluid intake and analgesics. on POD #2, her headache became worse (VAS 10). EBP was planned. Before EBP bilateral ONSD were measured with transorbital ultrasonography (Right: 4.5 mm; left: 3.6 mm). EBP resulted in a decreased VAS score of 4, with no nausea, vomiting or tinnitus ongoing. Patient was placed in prone position and ONSD measurements were repeated 5 min after EBP (Right: 4.9 mm; left: 4.9 mm). One hour after EBP she had no headache at all in sitting or prone position and her ONSD increased further (Right 5.9: mm; left: 4.8 mm). Twenty-four h. after EBP she discharged symptom-free with considerable improvement in ONSD measurements compared to pre-treatment ones (Right: 5.6; left: 5.5mm). Conclusion: In a patient with PDPH, gradual relaxation of the ONSD to normal range was observed bilaterally after EBP with simultaneous pain reduction. Ultrasonographic assessment of the ONSD appears valuable as a noninvasive technique in the diagnosis of PDPH linked to cerebrospinal fluid loss and monitoring of the treatment efficiency after EBP.

PP 110

The Role of Fibrinogen, Mean Platelet Volume and Platelet Distribution Width in Diagnosis of Acute Appendicitis

Şahin Kahramanca , Gaye şeker , Cem Azili , Hakan Güzel , Tevfik Küçükpınar, I. Hakan Kulaçoğlu

Diskapi Yildirim Beyazit Research and Training Hospital, Turkey

Introduction: Acute appendicitis is the most common disease requiring emergency surgical intervention. There is still need for objective tests in order to decrease negative appendectomy rates while preventing complications due to delay for diagnosis of AA.

Objectives: The purpose of this study was to investigate the diagnostic value of fibrinogen as acute phase reactant,

mean platelet volume (MPV) and platelet distribution width (PDW) in AA.

Material/Patients and Methods: We compared 951 patients whom were operated with diagnosis of AA with 594 healthy control group. the AA group was also grouped as negative appendectomy group (NAG), complicated appendicitis group (CAG) and non-complicated appendicitis group (NCAG). Sensitivity, specificity, predictive values of each test was calculated.

Results: The negative appendectomy rate was 16,9% in this study. the mean age was 30,67 years in positive appendectomy group (PAG); 68.9% of patients were male and 32,1% were female. MPV was found to be statistically lower, fibrinogen and PDW were statistically higher in AA group compared with healthy control group ($p < 0,001$). a statistically significant increase in fibrinogen level was found in PAG compared with NAG ($p < 0,05$), while MPV and PDW showed no significant difference ($p > 0,05$). When CAG and NCAG compared, again fibrinogen was found to be significantly higher in CAP ($p < 0,001$).

Conclusion: MPV and PDW are already present in CBC analysis, so they can be used to support the clinical diagnosis of AA with cost effectiveness. Fibrinogen can be a useful indicator for predicting complicated appendicitis.

PP 111

Small Cell Lung Carcinoma Presented As Metastasis Induced Acute Pancreatitis

Selami Ilgaz Kayilioğlu , Ömer Arda Çetinkaya , Tevfik Eker , Volkan Genç

Ankara University, School of Medicine, Department of General Surgery, Turkey

Case Report: Introduction: Although autopsy series report frequent metastasis of pancreas in cancer patients; metastasis induced acute pancreatitis (MIAP) is a rare condition. Moreover, MIAP as presenting manifestation of primary disease is extremely rare. Thereby, there is limited information about managing these patients. MIAP is estimated to carry poor prognosis. Case Report: 74-year-old, male patient was admitted to hospital with abdominal pain, vomiting, and dyspnea. Only significant medical history was a mass which was detected in right lower lobe of lung with thorax computerized tomography (CT) a year ago, and turned out to be benign by examination of bronchoalveolar lavage fluid. It was learnt that patient missed follow-ups, afterwards. Physical examination revealed icteric scleras and tenderness in abdomen in all quadrants. Laboratory showed elevated amylase (206U/L), lipase (349 U/L), direct bilirubin (4,7 mg/dl), lactate dehydrogenase (256U/L) and leukocytosis ($14,8 \times 10^9/L$). Blood gas analysis showed hypoxia and compensated metabolic alkalosis (pH:7,38). Abdomen CT showed peripancreatic inflammation, pancreatic mass (34 mm in greatest diameter) and multiple hypodense liver masses. the patient was managed conservatively with diagnosis of acute pancreatitis. Thorax CT revealed right

hilar mass. Ultrasound guided percutaneous biopsy of liver revealed metastasis of small cell lung carcinoma (SCLC). Patient clinically recovered and discharged in a total of 25 days. It is learnt that patient died due to respiratory failure after 2 months. Conclusion: MIAP may occur in course of a malignant disease and even as initial manifestation of the disease. According to literature SCLC seems to be most common cause of MIAP.

PP 112

Poor Prognosis of Neglected Squamous Cell Carcinoma of Scalp

Hakan Bulam, Omer Polat, Kemal Findikcioglu, Billur Sezgin, Cemalettin Celebi

Gazi University, School of Medicine, Department of Plastic Reconstructive and Aesthetic Surgery, Ankara, Turkey

Case Report: INTRODUCTION: Neglected squamous cell carcinomas (SCC) show progress in size and depth of invasion. These tumors have high risk of postoperative complications and mortality rates. The aim of this case report was to discuss the poor prognosis of stage 3C SCC and to underline the importance of informing the society about early refer to hospital in this disease. CASE REPORT: Sixty-eight-year-old male patient was admitted to our clinic with a 9X8cm tumor on his left parietal area of scalp. He had 10-year history of non-healing ulcer. Bone destruction and dura invasion were seen in Brain MRI. Paliative operation was planned with neurosurgeons. Defect reconstruction was done with two rotation flap. Patient was discharged from hospital on postoperative 11th day. Patient was lost in postoperative 3rd months during oncology follow-up. Second case was a eighty-three-year-old male patient who was admitted to our clinic with a 11X7cm tumor on his left parietal-frontal area of scalp. He had 8-year history of non-healing ulcer. Bone destruction and parenchyma invasion were seen in Brain MRI. Tumor was too close to superior sagittal sinus. Paliative operation was planned with neurosurgeons. Defect reconstruction was done with two rotation flap. Patient was discharged from hospital on postoperative 14th day. Patient was lost in postoperative 4th months during oncology follow-up. RESULT and CONCLUSION: Complete resection of tumor with mohs micrographic surgery is the gold standart treatment in squamous cell carcinoma patients but if tumor is invased to cranium R0 surgery has high mortality rates. Despite of the adjuvant radiotherapy after debulking surgery patients had short postoperative survival. Therefore society should be informed about early referring to hospital when they notice a spontaneously appeared unhealing wound.

PP 113

Effects of Acute Pancreatitis on Plasma Total and Lipid Bound Sialic Acid Levels: An Experimental Study in Rats

Omer Faruk Ozkan¹, Oztekin Cikman¹, Emir Charles Roach², Ahu Sarbay Kemik³, Fahri Gunes⁴, Muammer Karaayvaz¹

¹Canakkale 18 Mart University, School of Medicine, Department of General Surgery, Turkey

²Cleveland Clinic, Department of Pathobiology, USA

³Istanbul University, Cerrahpasa Medical School, Department of Biochemistry, Turkey

⁴Canakkale 18 Mart University, School of Medicine,

Department of Internal Medicine, Turkey

Introduction: Acute pancreatitis is an inflammatory process of the pancreas. Gallstones and alcohol abuse are most common causes of the disorder. Acinar cell injury plays a crucial role in the development of acute pancreatitis. A number of markers in serum have been investigated in recent years. This experimental study was designed to determine the plasma levels of total and lipid bound sialic acid in acute pancreatitis.

Objectives: We investigated the relationship between serum levels of total sialic acid, lipid bound sialic acid and acute pancreatitis in a rat model of a common bile duct ligation induced acute pancreatitis.

Material/Patients and Methods: Twenty five Sprague-Dawley male rats weighing 250-300g were divided into two groups (n=10: control, n=15: experimental). In the control group only a sham laparotomy was performed. In the experimental group, acute pancreatitis was induced by common pancreatobiliary tract ligation. After 36 hours rats were killed and amylase, serum total sialic acid, lipid bound sialic acid and lipid profiles were measured. Histopathological confirmation of acute pancreatitis was done using hematoxylin and eosin staining.

Results: Mean amylase, total sialic acid (TSA) and lipid bound sialic acid (LBSA) measurements in the experimental group were significantly higher than control group. There was no significant difference in the lipid profiles between two groups.

Conclusion: Increased levels of TSA and LBSA can be useful as specific marker in diagnosis of acute pancreatitis independent to serum lipid profile.

PP 114

Endometrioma Localized in the Rectus Abdominis Muscle: A Case Report

Omer Faruk Ozkan¹, Oztekin Cikman¹, Emir Charles Roach², Muammer Karaayvaz¹

¹Canakkale 18 Mart University, School of Medicine, Department of General Surgery, Turkey

²Cleveland Clinic¹ Department of Pathobiology, USA

Case Report: Background Endometrial tissue localized outside the uterine cavity is defined as endometriosis. It commonly has been demonstrated in the ovaries, peritoneal surfaces, vagina, rectum, urinary tract, pouch of Douglas and possibly any organ in the abdomen. Rectus abdominis endometriomas are very rare, with only 20 cases previously reported in history. Here we present a case of endometrioma localized in the rectus abdominis muscle with a brief review of literature. Case Report a 31 year old patient with a history of cesarean section was referred to our department with the complaint of pain starting from the left lower quadrant and radiating to the inguinal region. Her USG and MR imaging findings were found to be consistent with endometrioma localized in the rectus abdominis muscle (Figure 1). the mass, which was 2 cm in diameter, was surgically removed (Figure 2). Histopathological examination confirmed the pre-operative differential diagnosis (Figure 3). Conclusion When evaluating masses which have cyclic pain and growth localized to the abdominal surface, especially in pre-menopausal with a history of recent surgical operation, endometriomas must be considered in the differential diagnosis.

PP 115

Management of Prophylactic Drains After Abdominal Surgery: A Prospective Observational Study

Mehmet Fatih Can, Umit Alakus, Gokhan Yagci, Nazif Zeybek, Yusuf Peker, Sadettin Cetiner, Turgut Tufan

Gulhane Military Medical Academy, department of General Surgery, Turkey

Introduction: While the frequency of use of prophylactic drains for abdominal surgery continues to reduce, prophylactic drainage remains a sound parameter by which to monitor surgical space in early postoperative period.

Objectives: To explore surgeons' approaches to the postoperative management of prophylactic abdominal drains at a teaching hospital.

Material/Patients and Methods: The study was continued for three months. Patients without abdominal drain and those who had drains placed by interventional radiology were excluded. Type of abdominal surgery, malignancy, elective / emergency surgery, time to remove the drain(days), amount of drainage the day before removal and characteristic of the

drain content was recorded.

Results: Seventy-eight patients were observed over 468 patient days. 1.29 ± 0.73 (median \pm standard error) (range=1-4) drains were placed per patient. Sixty-two (79.5%) of patients had one drain and 16 (20.5%) had 2 or more drains. Time to remove the drain/first drain was 4.77 ± 0.37 (1-16) days. Second and third drains were removed 7.25 ± 0.77 and 10.5 ± 2.1 days after surgery, respectively. Amount of drain/first drain, second and third drains were 36.8 ± 7.5 , 27.8 ± 10.3 and 47.7 ± 24.2 ml, respectively ($p > 0.05$). In 87.2% of patients, the content of drain was serous fluid. Drains in patients with malignancy were removed later in the course than in other patients ($p = 0.007$). There was no difference between elective and emergency operations in terms of the day of removal.

Conclusion: At our institute, surgeons tend not to remove abdominal drains until the content is serous fluid. an interval is usually placed between drain removals when multiple drains exist. Most drains are removed between 3-6 days postoperatively.

PP 116

Can We Use Wood Light for Diagnosis of Vaginal Atrophy ?

Mustafa Ulubay², Mustafa Ozturk¹, Ugur Keskin², Ibrahim Alanbay², Ulas Fidan², Ali Ergun²

¹Etimesgut Military Hospital, Turkey

²Gata, Department of Obstetric and Gynecology, Turkey

Introduction: Wood light (WL) lamp is a device that emits ultraviolet (UV) light in the 365 nanometer range and is used by dermatologists to assess the diagnosis of various pigment and infectious disorders. in this presentation we want to share our preliminary experience in menopausal women where we had used Wood light lamp for the evaluation of vaginal atrophy.

Objectives: We like to share our preliminary experience in menopausal women where we had used WL lamp for the evaluation of vaginal atrophy. Although our starting point was the evaluation of vaginal fungal infection with WL. Interestingly, we had encountered pale royal green in the menopausal atrophic vagina with WL examination.

Material/Patients and Methods: We designed study for diagnostic accuracy of WL in atrophic vagina. This is the first study to use WL in the assessment of vaginal atrophy. We had studied 20 menopausal atrophic vagina (study group) and 20 control group (reproductive age women who had been reported normal vaginal flora by vaginal cultures).

Results: The whole study group (n=20) were visualized pale royal green with WL. Normal reproductive age women's vagina (control group n=20) does not fluoresce under the light of a WL.

Conclusion: In conclusion our preliminary result suggests that WL may be useful for detection of vaginal atrophy.

PP 117

Effects of Sirolimus and Seprafilm on Intraabdominal Adhesions

Salim Balin¹, Mehmet Eser¹, Kemal Eyvaz¹, Aylin Acar¹, Fatih Yegen¹, Kayhan Basak², Levent Kaptanoğlu¹

¹Dr L. Kirdar Kartal Education and Research Hospital, Department of General Surgery, Turkey

²Dr L. Kirdar Kartal Education and Research Hospital, Department of Pathology, Turkey

Introduction: Adhesions remain major problem following various abdominal procedures. an ideal method is not available to overcome this issue.

Objectives: In this current study we aimed to clarify effects of Sirolimus and Seprafilm on preventing adhesions.

Material/Patients and Methods: Sprague-Dawley Rats (weighing 250 ± 20 gr) were compromised. 3 groups were randomized as follows; in Group I (n=8) abdomen was closed after ceacal abrasion. in Group II (n=8) 10 * 30 mm Seprafilm was applied below the abdominal wall and finally in Group III (n=8) Sirolimus (0.5 mg/kg) was administered. Adhesions were classified quantitatively according to Nair's system.

Results: Statistically significant differences in terms of adhesion severity scores according to the Nair classification was found between Sirolimus and control group (p=0,03). Whereas, no statistically significant differences was found between seprafilm and control group (p=0,17). Similarly, no statistically significant differences was found between seprafilm and sirolimus group (p=0,64).

Conclusion: Utilizing physical barriers and pharmacological agents for reducing formation of adhesions is one of the main major problems of general surgeons. Intraperitoneal administration of rapamisin is much superior to most of the agents used in the prevention of adhesion formation. Adhesion inhibitory effect of sirolimus should be explored in larger studies and administration both Sirolimus and Seprafilm in combination should be considered.

PP 118

Perforation of Ascending Colon Tumor Mimicking Acute Appendicitis: A Case Report

Erol Arslan¹, Mehmet Ince², Ali Kilinc¹, Mustafa Cakar¹, Sebahattin Sari³, Kenan Saglam¹

¹Gülhane Military Medical Academia, Department of Internal Medicine, Ankara, Turkey

²Konya Military Hospital, Department of General Surgery, Konya, Turkey

³Gülhane Military Medical Academia, Department of Radiology, Ankara, Turkey

Introduction: The diagnoses associated with an acute abdomen vary according to age and gender. Infection,

obstruction, ischemia, or perforation can produce acute abdomen.

Objectives: Right abdominal pain is essential, especially in young patients. However, it can reflect other pathology such as diverticulitis and tumor perforation which is difficult to diagnose. We report the case of a perforated adenocarcinoma in the ascending colon, mimicking acute appendicitis.

Material/Patients and Methods: A 43-year-old male patient was admitted to the emergency room with complaints of tachycardia, poor appetite, weakness and fatigue that had lasted for 15 days and abdominal pain with fever that had lasted for 2 days. There is no any disease in the past and family history.

Results: on physical examination, rebound tenderness was observed over the right abdomen. Ascending colon mass with adjacent lymph node, liver metastasis and pneumoperitoneum were observed in radiologic findings. the diagnosis was peritonitis caused by perforation of the ascending colon cancer to retroperitoneal and peritoneal; therefore, an emergency operation was performed. We performed right hemicolectomy with end ileostomy and abscess drainage. Poorly differentiated adenocarcinoma was detected in the histological findings. Ileotransversostomy was performed and then chemotherapy was given three months later.

Conclusion: When young patients who had acute abdomen applied to hospital; appendicitis, mesenteric ischemia other inflammatory diseases can be thought. However, perforation or obstructions of colon tumors should be kept in mind. CT scan can be used to find correct cause of acute abdomen, if plain graphy and abdominal US are no adequate in diagnosis.

PP 119

The Comparison of the Nutritional Habits in Pregnants with Polyhydramnios and Those with Normohydramnios

Erol Mutlu², Ugur Keskin¹, Ali Ergün¹, Mutlu Ercan¹, Mustafa Ulubay¹, Sadettin GÜNGÖR¹

¹Gülhane Military Medical Academy, School of Medicine, Department of Obstetric and Gynecology, Turkey

²Çorlu Military Hospital, Department of Obstetric and Gynecology, Turkey

Introduction: Polyhydramnios is an important obstetric complication. the prevalence of polyhydramnios is 1-2 % at normal population, with 50%-60% of those cases as being idiopathic.

Objectives: The aim of this study was to evaluate the relationship between maternal nutrition type and polyhydramnios (PH).

Material/Patients and Methods: A prospective case-control study design was performed with 63 pregnant with idiopathic polyhydramnios (PH group) and 63 normohydramniotic pregnant (NH group). Maternal

nutritional, demographic, biochemical characteristics and perinatal outcomes of women whose pregnancy was complicated with PH were compared to those without PH.

Results: EFW and 50 gram OGTT values were detected significantly higher ($p < 0.05$ and $p < 0.01$) at PH group. Considering all patients, a positive correlation between 50 gr OGTT glycemia values and BMI and AFI values ($p < 0.001$ and $p < 0.05$). 84 % of the PH group consumed nutrients between the meals while only 49% of NH group did so. on the other hand, approximately half of the cases in PH group stated during the interview that they didn't take nutrients regularly, usually preferred snacks. Also when two groups were compared about nutrient choice between meals; the percentage of consuming fruits as first choice was significantly higher (92% vs 12%) for PH group. 90% of the cases in PH group stated that they consumed fruits "everyday", rate of regularly consuming fruits "everyday" was only 6% in NH group. There was no difference about kind of fruits consumed between the groups. However, the difference about the frequency of consuming fruits appears to be significant.

Conclusion: The nutrition is considered to have a role at polyhydramnios etiology. According to this results, it is likely that not the kind of fruits but its frequency, especially daily consumption has importance at the development of polyhydramnios.

PP 120

Can Mean Platelet Volume Predict Abortion ?

Murat Eroğlu¹, Uğur Keskin², Ali Osman Yildirim¹, Anil Saygi³, Ismet Gün³

¹ Gulhane Military Medical Academy, haydarpasa Teaching Hospital, Department of Emergency Medicine, Turkey

² Gulhane Military Medical Academy, School of Medicine, Department of Obstetrics and Gynecology, Turkey

³ Gulhane Military Medical Academy, Haydarpaşa Teaching Hospital, Department of Obstetrics and Gynecology, Turkey

Introduction: Platelets have a key role in haemostasis. It has been indicated that platelet size reflects platelet activity and is measured using mean platelet volume (MPV).

Objectives: The aim of this study is to investigate whether any MPV changes detectable with simple complete blood count (CBC) precede abortion development.

Material/Patients and Methods: One hundred and forty patients were included the present study. in this retrospective study, patients were divided into three groups according to the miscarriage type. Group 1 was threatened miscarriage (n: 54), group 2 was missed abortion (n: 46) and group 3 was control (n: 40).

Results: Mean age, gravidity, parity and previous miscarriage histories were similar in study groups. the median MPV of the patients was 8.48 fl with an interquartile range

(IQR) 6.3 – 13.2 for missed abortion, 8.10 fl with IQR 5.9 – 10.8 for TM and 8.0 fl with IQR 6.1-10.8 for normal pregnancy. There was no statistical difference ($p: 0.125$) between groups in terms of MPV.

Conclusion: It is not considered to use MPVs as a diagnostic test for unsuccessful pregnancies at the present time. There are need further studies to evaluate the relationship between abortion and MPV value.

PP 121

Clinical Usefulness of P16/cdkn2a Dna Methylation in Non Small Cell Lung Cancer

Sook Young Bae, Jae Hyun Kim, Ji Sun Kim

Dongnam Institute of Radiological & Medical Sciences, Department of Laboratory Medicine, Republic of Korea

Introduction: Aberrant DNA methylation is a common phenomenon in human cancer. the p16/CDKN2A gene is a tumor suppressor gene involved in the regulation of cell cycle progression that has been reported to be inactivated by promoter methylation in lung carcinomas at variable frequencies around the world.

Objectives: The purpose of this study was to investigate the methylation status of the promoter region of the p16/CDKN2A gene and the clinical usefulness of DNA methylation status in the Korean population.

Material/Patients and Methods: We analyzed methylation in benign pleural effusion and malignant pleural effusion groups according to cytopathologic exam and the before and after surgery blood of 11 NSCLC patients of various stages. DNA methylation was assessed by quantitative bisulfite pyrosequencing.

Results: There was no statistically significant differences in the methylation status between benign and malignant effusion. Similar results were identified for methylation ratio of before and after surgery blood.

Conclusion: Our results suggest that promoter methylation of p16/CDKN2A gene alone does not have diagnostic or monitoring value in Korean NSCLC population.

PP 122

Huge Perianal Abscess Following Lateral Internal Sphincterotomy in a Patient with Previous Limberg Flap Repair: A Case Report

Ozlem Nuraydin, Ahmet Gurer, Ozdedeoglu Mesut, Ozkardes Alper Bilal

Atatürk Research and Training Hospital, General Surgery Department, Ankara, Turkey

Introduction: Lateral internal sphincterotomy (LIS) is one of the most preferred surgical intervention for treatment of anal fissures around the world. Abscess formation in a patient who experienced LIS is usually due to a perianal

fistule. for a patient who has pilonidal disease , it is relatively difficult to diagnose the origin of fistule.

Objectives: Here we present a patient with perianal abscess who had a previous LIS and limberg flap surgery.

Material/Patients and Methods: A patient who had previously hemorrhoidectomy, LIS and limberg flap repair for pilonidal sinus was admitted to our polyclinics on 40th postoperative day with perianal and coccygeal pain, perianal erythema and swelling, continuous purulent flow. a huge (15x20x15cm) intergluteal abscess that spreads perineum and scrotum was visualised on physical examination. Patient was taken to operating room urgently and a drainage was performed. Although drainages were repeated at 30th and 40th postoperative day, cavity of the abscess had remained without any sign of depression. Following methylen blue injection from drainage site, it was noticed that the cavity was related with rectum and a different fistule opening on presacral region was visualised.

Results: Firstly drainage then cutting setons were applied and patient's complaints were relieved progressively. for one year follow-up, there was no recorded complication.

Conclusion: In a patient with perianal abscess pilonidal sinus and perianal fistules should be considered for differential diagnosis. Many studies showed the importance of MRI. Proper preoperative evaluation provide sufficient treatment and decreases the recurrence rates. Seton treatment is seemed to be a suitable treatment for fistules.

PP 123

A Classification Proposal for the Sacrococcygeal Pilonidal Sinus Disease (spsd)

Emlin Lapseklli¹, Mustafa Coşkun¹, Muharrem Öztaş², Murat Urkan³, Mehmet Fatih Can⁴

¹ Çorlu Military Hospital, Tekirdağ, Turkey

² Şirnak Military Hospital, Turkey

³ Eskişehir Military Hospital, Turkey

⁴ Gulhane Military Medical Academy, Faculty of Medicine, Department of General Surgery, Turkey

Introduction: In literature for SPSD treatment, all treatments are said to be adequate.

Objectives: Our aim is to introduce a proposal for the classification of SPSD and to create standart for subsequent studies.

Material/Patients and Methods: 150 patients were included. Classification of extensiveness was as follows; Grade 1: primary pits within 1 cm area lateral to imaginery intergluteal line. Grade 2: those outsides this area. Grade 3: pits under the imaginery line parallel to anal canal in the area between anal canal and the end of the coccyx. Grade 4: All recurrences

Results: In accordance with classification; %50,6 (n=76) patients were grade 1, %28,6 (n=43) were grade 2, %10 (n=15) were grade 3, %10,6 (n=16) grade 4.

Conclusion: Because there is no classification available in the literature up to now, a single pit and a large common

disease are being evaluated in the same way. However, an inactive sinus located in the intergluteal line will improve regardless of the technique used but from our clinical practice and experience, it is obvious that wide excision and flap reconstruction is needed to for the healing of widespread disease. It is considered that the future studies after a proper classification would be more realistic and regular.

PP 124

A Case with an Accidentally-left Reverdin Malleable After an Abdominal Surgery

Ahmet Gurer , Metin Eser , Gulden Kiyak , Alper Bilal Ozkardes , Gurkan Dumlu , Bulent Demirbas

Atatürk Research and Training Hospital, General Surgery Department, Ankara, Turkey

Introduction: Accidentally-left intraabdominal foreign body is a potential complication for abdominal surgery. Due to legal issues it is rarely documented. Abdominal surgery is prone to complications such as bowel obstruction, adhesions, abscess formation and fistulas. the patient can either stay symptomless or can be lost because of the complications that may occur.

Objectives: Here we present an accidentally-left reverdin malleable case who admitted with abdominal pain.

Material/Patients and Methods: The patient was operated on shot gun wound in another center and hemorrhage in the omentum alone was diagnosed and with achievement of hemostasis, the operation was terminated. the patient who didn't have any complaints after surgery, admitted to our clinic, on the 30th postoperative day, with abdominal pain. Only tenderness on right lower quadrant was observed. Abdominal graphics revealed a regular shaped opacity on the right lower quadrant extending to pelvis which may resemble foreign body.

Results: During exploration a reverdin malleable retractor was found in the right lower quadrant which extends towards rectovesical fossa and the retractor was taken out.

Conclusion: Since foreign bodies usually create aseptic fibrous inflammatory reaction and are encapsulated with the surrounding organs such as omentum, they might not present serious symptoms after the operation. the patient may stay symptom free for his lifetime or sometimes may be diagnosed coincidentally. in conclusion, while managing patients who have had abdominal surgery, foreign bodies that might be left accidentally in the abdomen should be taken into consideration.

PP 125

Laparoscopic Anterior Resection of Colon Cancer in Cirrhotic Patient with Portal Hypertension: a Case Report

Ji Sun Kim¹, Jae Hyun Kim²

¹ Dongnam Institute of Radiological and Medical Sciences, Gastrointestinal Cancer Center, Department of Colorectal Surgery, South of Korea

² Dongnam Institute of Radiological and Medical Sciences, Lung Cancer Center, Department of Thoracic Surgery, South of Korea

Case Report: Introduction Laparoscopic surgery in cirrhotic patients has week consensus. There were a few study with laparoscopic cholecystectomy or splenectomy in patients with cirrhosis and they concluded that laparoscopic cholecystectomy or splenectomy is feasible in cirrhotic patients, but few study of laparoscopic colorectal cancer surgery cirrhotic patients was reported. Objectives We described a case of laparoscopic colectomy for colon cancer in cirrhotic patient with portal hypertension. Because there was few study of laparoscopic colectomy in cirrhotic patient, this report can alert laparoscopic surgeon to laparoscopic surgery in cirrhotic patient. Methods a 49-year-old male who was a hepatitis B virus carrier with Child-Pugh class a disease and portal hypertension was referred to general surgery for sigmoid colon cancer; clinically stage I, T2N0M0. MELD score was 11.45 point. He had conventional laparoscopic anterior resection. Results the operative time was 125 minutes. No intraoperative complication was recorded. After 3 days later, he can drink water and diet at 4 days after surgery. Five days after surgery, there was no abnormality except large amount of ascites. Daily 1500ml to 1L ascites was maintained. After 30 days after surgery, he was diagnosed hepatorenal syndrome type 1. Postoperative 43 days, he was died with cerebral hemorrhage. Conclusion There was some study that concluded laparoscopic surgery can safely in cirrhotic patients. in this case, however, patient with good general condition was died with poor controlled ascites after simple laparoscopic colectomy. We should consider about laparoscopy or open surgery in cirrhotic patient with portal hypertension.

PP 126

Peptide Yy and Ghrelin in Acute Biliary Pancreatitis

Akin Aydogan¹, Seckin Akkucuk¹, Orhan Veli Ozkan², Mehmet Aydin³, Zafer Yonden⁴, Mustafa Ugur¹

¹ Medicine School of Mustafa Kemal University, Department of General Surgery, Hatay, Turkey

² Medicine School of Sakarya, Department of General Surgery, Sakarya, Turkey

³ Medicine School of Zirve University, Department of Physiology, Gaziantep, Turkey

⁴ Medicine School of Mustafa Kemal University, Department of Biochemistry, Hatay, Turkey

Introduction: Ghrelin and peptide YY have anti-inflammatory effects by inhibiting the proinflammatory cytokines. Both have protective effect on pancreas.

Objectives: We aimed to determine the anti-inflammatory and protective effects of these hormones.

Material/Patients and Methods: The study group included 28 patients with acute biliary pancreatitis and 38 controls. Ghrelin, peptide YY, IL-6, TNF- α , amylase, lipase, glucose, alanine aminotransferase, aspartate aminotransferase, leucocyte, and hematocrits were measured for three times in patient group.

Results: Ghrelin levels were tending to increase as the medication continued, but still were below the control group. At the other hand, peptide YY levels in all samples were higher than control group and this was statistically significant ($p > 0.001$). Serum TNF- α levels decreased as the treatment continued ($p < 0.05$), but IL-6 levels did not show any significant difference during medication. As expected, amylase and lipase were high in the first samples and turned to normal levels at the end of the treatment.

Conclusion: Ghrelin is proposed as a protective hormone for acute pancreatitis. Exogenous ghrelin exhibits protective activity in caerulein-induced pancreatitis. All in vivo and in vitro studies reported that exogenous PYY administration inhibited inflammation and had protective effects. This study indicates for the first time that endogenous PYY has protective effects on pancreatitis via inhibition of inflammation and these effects are stronger than ghrelin has.

PP 127

Narrow-band Imaging Endoscopy for Diagnosis of Endometrial Neoplasia, Pilot Study

Uğur Keskin¹, Mustafa Öztürk², Mutlu Ercan¹, Murat Dede¹, Müfit Cemal Yenen¹, Ali Ergün¹

¹Gulhane Military Medical Academy, School of Medicine, Department of Obstetric and Gynecology, Turkey

²Etimesgut Military Hospital, Department of Obstetric and Gynecology, Turkey

Introduction: Narrowband imaging (NBI) is a high-resolution endoscopic technique that enhances the structure of the mucosal surface without the use of dyes. The presence of abnormal micro capillaries detected by narrow band imaging (NBI) hysteroscopy.

Objectives: We aim of this study to investigate whether NBI could predict the histology of early endometrial neoplasia

Material/Patients and Methods: A total of 23 patients with endometrial pathology (n:6 endometrial polyp, n:10 Endometrial echo thickness, n:3 postmenopausal bleeding, n: 4 Abnormal uterine bleeding) were examined by NBI endoscopy, and visible endoscopy. Endoscopic evaluation was performed using an endoscope that was fitted with a NBI light source using 415- and 540-nm filters. 23 biopsys pecimens were taken using NBI; and 23 biopsy specimens with visible light

Results: Endometrial lesions were diagnosed histologically; two of the six endometrial polyp and were reported endometritis. All of the endometrial echo thickness was reported proliferative endometrium. Only one of the abnormal uterine bleeding and postmenopausal bleeding were reported a tipic hyperplasia and adenocarcinoma respectively.

Conclusion: NBI assisted hysteroscopy may be superior to hysteroscopy in the determination of endometrial pathologies. NBI could be a useful additional methodology for early detection of endometrial neoplasia.

PP 128

Lymphoepithelial Cyst of the Pancreas: Report of a Case

Hiromitsu Domen¹, Masanori Ohara¹, Noriko Kimura², Muzuna Takahashi¹, Takumi Yamabuki¹, Kazuteru Komuro¹, Nozomu Iwashiro¹, Masanori Ishizaka¹

¹Department of Surgery, National Hospital Organization Hakodate Hospital, Hakodate, Japan

²Department of Pathology, National Hospital Organization Hakodate Hospital, Hakodate, Japan

Case Report: Lymphoepithelial cysts (LECs) are a type of

true cyst that can mimic pseudocysts and cystic neoplasms. LECs are rare lesions; fewer than 90 cases have been reported in the literature. The case of a 60-year-old man with an LEC of the pancreas is reported. He was admitted with upper abdominal discomfort. Computed tomography showed a 64 mm x 39 mm cystic mass in the retroperitoneum behind the duodenum and pancreas. Magnetic resonance imaging revealed a right-sided mass on T1-weighted imaging, with a clear boundary between the mass and surroundings, except for the pancreas. The mass had an inhomogeneous intensity on T2-weighted imaging. Within the mass, small floating nodules with low intensity were seen. Endoscopic ultrasound showed many high echoic nodules and smaller grains scattered everywhere. Fine needle aspiration and cytologic examination were performed. Abundant degenerated or necrotic cells were found. There were also scattered large cells with constricted nuclei. The lesion was diagnosed as a retroperitoneal cyst, probably of pancreatic origin. Because a neoplastic lesion could not be ruled out, surgery was performed. The lesion was palpable on the dorsal side of the second portion of the duodenum. The mass was completely resected. Macroscopically, the mass had a thin partition wall and was multilocular. The cyst was filled with a cheese-like substance. Microscopically, the cyst wall was composed of multi-stratified squamous epithelium and lymphatic tissue with a developing lymph follicle. The cells had no atypia. The histopathologic diagnosis was LEC of the pancreas. The patient's postoperative course was good.

PP 129

Long-term Survival of Resected Advanced Gastric Cancer with Hepatic and Pancreatic Invasion: Report of a Case

Hiromitsu Domen¹, Masanori Ohara¹, Mizuna Takahashi¹, Takumi Yamabuki¹, Kazuteru Komuro¹, Nozomu Iwashiro¹, Masanori Ishizaka¹

Department of Surgery, National Hakodate Hospital, Hakodate, Japan

Case Report: Extended surgery is necessary to perform curative resection of gastric cancer with hepatic or/and pancreatic invasion. However, the prognosis of such cases is very poor. The value of extended organ resection for advanced gastric cancer has been debated for many years. We herein present a long-term survival case of advanced gastric cancer with hepatic and pancreatic invasion with extended surgery performed. A 64-year-old man was transferred to our division suspected of gastric cancer. Computed tomography showed the widespread irregular thickening of the stomach walls, close to liver and pancreas. Gastrointestinal fiberoscopy showed a large tumor in the upper to lower stomach, histologically diagnosed as tubular adenocarcinoma. Gastric cancer with hepatic and pancreatic invasion was diagnosed. Distant metastasis was not proven, complete resection was planned. At laparotomy, the tumor showed general expanding growth and invasion through the lateral segment of the liver

and pancreas. Total gastrectomy and combined resection of distal pancreas, spleen and left segment of the liver were performed. Hepatic and pancreatic invasion and lymph node metastasis was microscopically proven. Pancreatic fistula was occurred postoperatively. on postoperative days 40, he was discharged. He received two cycles of adjuvant chemotherapy. He has no sign of recurrence for 7 years and 8 months. Although the prognosis for patients with gastric cancer involving the liver or/and pancreas remains poor, a long-term survival case among the complete resection cases occasionally exists. We performed not excessive but extended surgery of advanced gastric cancer with hepatic and pancreatic invasion, and long-term survival was achieved.

PP 130

Epidermoid Cyst Occurring Within an Intrapancreatic Accessory Spleen: Two Case Reports

Takaaki Takebayashi , Hitoshi Inoue , Yoshikuni Yonenaga , Jota Watanabe , Akihiro Takai , Taiji Tohyama , Fumiki Kushihata , Yasutsugu Takada

Ehime University, Graduate School of Medicine, Department of Hbp Surgery and Transplantation, Japan

Case Report: INTRODUCTION: Epidermoid cyst occurring within intrapancreatic accessory spleens are exceptionally rare entities, with about 20 previously reported cases. All such cases were located in the pancreatic tail and a few of them indicated an elevation of the serum CA19-9 level. CASE REPORTS: Cases 1 and 2 were 57-year-old and 53-year-old women. All two cases were asymptomatic. Serum CA19-9 levels showed clearly elevated of two cases. They underwent a distal pancreatectomy with splenectomy. the surgical specimens were a well-demarcated, solitary cystic mass in the pancreatic tail. Microscopically, the cystic walls were lined with squamous and cuboidal epithelium, which were surrounded by normal splenic tissue and hyalinized fibrous tissue. Immunohistochemically, CA19-9 was positive in the monolayer and surface layer of the cuboidal epithelium. CONCLUSION: Epidermoid cysts occurring within intrapancreatic accessory spleens should be considered as differential diagnoses, when well-enhanced solid or cystic tumors are found in the pancreatic tail. Surgery with pathologic assessment is the only reliable means of diagnosis.

PP 131

The Effect of Intra-abdominal Adhesion Formation of Ankaferd Blood Stopper

Ali Uzunkoy

Harran Uludag University, School of Medicine, Department of General Surgery, Turkey

Introduction: Ankaferd Blood Stopper which is used

for the control of bleeding is a medicinal plant extract. It is also used intra-abdominal bleeding. However, there is not enough information about the impact on the intra-abdominal adhesions.

Objectives: This study was planned to investigate the effect of intra-abdominal adhesions of Ankaferd Blood Stopper

Material/Patients and Methods: 32 Wistar albino rats were divided into 4 groups. in the first group as the control group, approximately 2 cm laparotomy was only performed. the second group underwent laparotomy and cecal abrasion and 2 ml saline solution was given intra-peritoneally. in the third group, 2 ml Ankaferd Blood Stopper were given intra-peritoneally after laparotomies. the fourth group underwent laparotomy and cecal abrasion. in this group, 2 ml of Ankaferd Blood Stopper were given into abdominal cavity. All laparotomy incisions were closed continuously with 3.0 polyglycolic acid sutures. the all rats were sacrificed with excess ether dose at the 10th postoperative day and relaparotomy were performed and intra-abdominal adhesions were evaluated.

Results: According to the first and third groups, intra-abdominal adhesions was significantly higher in the other groups ($p < 0.05$). There was no difference between the groups in the first and third groups ($p > 0.05$). the degrees of intra-abdominal adhesions were not significantly difference between second and third groups ($p > 0.05$).

Conclusion: This study was shown that Ankaferd Blood Stoper has no negative or positive effect on the intra-abdominal adhesion formation.

PP 132

Depth of Burn Injuries After Epileptic Seizures: a Constant Challenge for the Burn Surgeon

Evangelos Sarantopoulos , Henrik Menke

Klinikum Offenbach GmbH, Department for Plastic, Aesthetic and Hand Surgery – Burn Unit, Germany

Introduction: Epilepsy is a common and diverse set of chronic neurological disorders characterized by seizures. Epilepsy is usually controlled, but not cured, with medication. However, over 30% of people with epilepsy do not have seizure control even with the best available medications. As a result, patients with epilepsy are prone to serious burn injuries.

Objectives: Definition of the depth of burn injuries after epileptic seizures.

Material/Patients and Methods: We would like to present 3 patients with burn injuries after epileptic seizures that were referred to our burn unit. Seizures occurred at home, while the patient was conducting daily household chores. Patient's age was between 31 and 38 years old, the total body surface area affected from the disease was between 1 and 18%. All patients suffered full-thickness burn injuries.

Results: In all patients débridement of the wounds was performed more than once due to the depth of the burn injuries.

Conclusion: Definition of the depth of burn injuries after epileptic seizures is a challenging condition for the burn surgeon, especially due to the usually unknown time the skin has been exposed. The possibility of a full-thickness burn injury should always be taken under account, leading to several operations and a prolonged hospitalization. Furthermore, patients with epilepsy should be better recognized as a high-risk group in order to implement a successful burns injury-prevention program.

PP 133

Teaching Aesthetic Surgical Skills on the Basis of Free Flaps

Evangelos Sarantopoulos, Henrik Menke

Klinikum Offenbach GmbH, Department for Plastic, Aesthetic and Hand Surgery – Burn Unit, Germany

Introduction: Successful and appropriate teaching of aesthetic surgery is probably one of the best options in order to avoid future complications after performing aesthetic surgical procedures. A number of surgical procedures in every plastic surgical field are essential during the residency. Although plastic surgical trainees do perform numerous procedures, aesthetic operations are usually “out of reach”.

Objectives: Presentation of a “training method” in order to improve aesthetic surgical skills during plastic surgical residency.

Material/Patients and Methods: From January 2008 until December 2011 we performed 71 free flaps for the reconstruction of the breast. 48 patients had a breast reconstruction with the DIEP-flap and 23 patients undergone a breast reconstruction using the TMG-flap. In order to cover the donor site defect of the DIEP-flap an abdominoplasty was performed. The same concept applies to the coverage of the TMG-flap’s donor site defect. We perform a thigh-lift in order to close the donor site.

Results: Closure of the donor-site defect in 52,1 % of our performed breast reconstructions was done by a plastic surgical trainee. Performance of such operations has led to improvement of surgical skills and self-confidence of the residents.

Conclusion: Introduction to aesthetic surgery through microsurgical reconstructive procedures seems like a paradox. Considering that the closure of the donor site defect of the DIEP- and the TMG-flap has the same principles as popular aesthetic operations (such as abdominoplasty and thigh-lift), it could be considered an appropriate method to teach anatomical details and necessary aesthetic surgical skills.

PP 134

Effects of Intraperitoneal and Systemic Sirolimus Administration on Postoperative Peritoneal Adhesions in Rats

Abdullah Inal¹, Tarkan Ünek², M. Serdar Saydam²

¹University of Erzincan, Mengucek Gazi Research Hospital, Department of Surgery, Erzincan, Turkey

²Dokuz Eylül University School of Medicine, Department of Surgery, Izmir, Turkey

Introduction: Consequences and complications due to postsurgical adhesions remain to be substantially high. Perilous complications such as inadvertent enterotomy during reopening of abdomen or bowel obstruction may cause not only morbidity but also mortality. Immunosuppressive drugs seem to have a positive effect on postoperative adhesion prevention. Sirolimus is a carbocyclic, lactone-lactam macrolide antibiotic with immunosuppressive, antitumoral, and antifungal properties. Currently sirolimus has clinical usage in posttransplantation immunosuppression and in coronary and peripheral artery vascular stents on routine basis with a relatively low adverse effect profile.

Objectives: We aimed to define and compare systemic and intraperitoneal effect of sirolimus on postoperative peritoneal adhesions.

Material/Patients and Methods: Three groups of rats for intraperitoneal sirolimus, systemic sirolimus, and control group have been constituted. A peritoneal adhesion model created on each rat. On postoperative 7. day all rats were surgically explored and evaluated with a macroscopic adhesion scoring system.

Results: After macroscopic evaluation scores assessed, there were statistically significant difference between three groups (intraperitoneal sirolimus, oral-systemic sirolimus, control). There were statistically significant difference between intraperitoneal sirolimus and control groups.

Conclusion: This study showed in a rat model that intraperitoneal sirolimus administration has significant effect on postoperative adhesion prevention.

PP 135

Prevention of Intraabdominal Adhesions by Local and Systemic Administration of Immunosuppressive Drugs

Kemal Peker¹, Abdullah Inal¹, Ilyas Sayar³, Duriye Gul Inal²

¹University of Erzincan, Mengucek Gazi Research Hospital, Department of Surgery, Erzincan, Turkey

²University of Erzincan, Mengucek Gazi Research Hospital, Department of Anesthesiology and Reanimation, Erzincan, Turkey

³University of Erzincan, Mengucek Gazi Research Hospital, Department of Pathology, Erzincan, Turkey

Introduction: Intraperitoneal adhesion formation is a serious surgical postoperative complication. Chronic pelvic pain, primary and secondary female infertility and intestinal obstructions are some of well-known serious postoperative problems which is associated with adhesion formation. Along with these findings, observed incidence of postoperative adhesion-related intestinal obstruction after visceral organ transplantation has remained very low.

Objectives: Using a rat model, we aimed to compare the effectiveness of systemic and intraperitoneally administered common immunosuppressive drugs for prevention of postoperative intraperitoneal adhesions.

Material/Patients and Methods: Peritoneal adhesions were induced in 98 female Wistar-Albino rats by cecal abrasion and peritoneal excision. Rats were randomly distributed into seven groups, each containing fourteen rats, and the standard experimental model was applied to all of rats. 14 days later rats were euthanized, intraperitoneal adhesions were scored and tissues were examined histologically using hematoxylin/eosin and Masson's trichrome staining.

Results: In all of experimental groups, decrease in fibrosis was statistically significant. Fibrosis was decreased most prominently in intraperitoneal tacrolimus group ($p=0.000$), and decrease was least in systematic cyclosporine group ($p=0.026$). Vascular proliferation was significantly decreased in all experimental groups ($p<0.05$) except for systemic tacrolimus group ($p=0.249$). Most prominent reduction in vascular proliferation was in systemic cyclosporine group ($p=0.001$).

Conclusion: Administration of immunosuppressive drugs are effective in prevention of intraperitoneal adhesions.

PP 136

Spontaneous Perforation of the Left Hepatic Duct: Case Report

Ismail Sert¹, Semra Salimoglu², Mustafa Emiroglu², Abdullah Inal³

¹ Van Regional Training and Research Hospital, Department of General Surgery, Van, Turkey

² Tepecik Training and Research Hospital, Department of General Surgery, Turkey

³ Erzincan University, school of Medicine, department of General Surgery, Turkey

Case Report: Spontaneous perforation of the bile duct (SPBD) is a rare status which causes peritonitis. A fifteen-year-old male patient treated with T tube drainage and Endoscopic Retrograde Cholangiopancreatography (ERCP) due to spontaneous perforation of the left hepatic duct and developed cholangitis at postoperative 8th month was presented in this report. The preoperative diagnosis of SPBD is rather difficult. Although the most common location is common bile duct, the possibility of hepatic duct perforation should be taken into mind. T tube drainage and ERCP are both effective and confident treatment of choice for these patients. It should be kept in mind that complication of cholangitis can

be seen not only in early period but also in late period.

PP 137

High B-value Diffusion-weighted Mr Imaging of Focal Liver Lesions At 3t

Seyda Andac, Yusuf Oner, Murat Ucar, Melike Guryildirim, Turgut Tali

Gazi University School of Medicine Department of Radiology, Turkey

Introduction: Imaging characterization of focal liver lesions (FLL) plays an important role in treatment planning.

Objectives: To investigate the effect of high b value diffusion weighted imaging in the characterization of FLL, and to compare it with moderate b value images at 3T.

Material/Patients and Methods: 64 patients with 146 lesions were included. All cases underwent DWI performed at two different b values ($b=600$ and $1000s/mm^2$) on a 3TMR scanner. The SNR and CNR together with ADC values were calculated automatically by placing ROIs on FLL, and on the normal right liver lobe parenchyma. Using the same ROI signal intensity ratio (SIR) was also calculated. The median SNR, CNR, ADC, SIR values obtained from different FLL and normal liver parenchyma at two b-values were statistically compared.

Results: Overall SNR and ADC was found to be decreased at high b-values ($p>0.05$). When benign and malignant FLL were grouped together, mean ADC of benign lesion were higher than the malignant ones at both b values ($p<0.01$).

Conclusion: High b value DWI of the liver at 3T provides more accurate diffusion data, improves in overall the sensitivity and specificity of the technique in FLL characterization by means of ADC measurements and SI ratio calculations.

PP 138

Efficacy of Photodynamic Therapy Versus Intravitreal Bevacizumab Injection for Chronic Central Serous Chorioretinopathy

Hasan Ali Tufan¹, Metin Ünlü², Sedat Arıkan¹, Selçuk Kara¹, Baran Gencer¹, Şengül Özdek²

¹ Canakkale University, School of Medicine, Department of Ophthalmology, Turkey

² Gazi University, School of Medicine, Department of Ophthalmology, Turkey

Introduction: Although central serous chorioretinopathy (CSC) has been described as self-limiting disease, approximately 5% of patients develop chronic disease which often presents bilaterally and may lead to permanent visual loss. No treatment for chronic CSC has been well-established yet.

Objectives: To compare the efficacy of photodynamic therapy (PDT) versus intravitreal bevacizumab (IVB)

injection for the treatment of CSC.

Material/Patients and Methods: The medical records of 16 eyes of 15 patients who received PDT (n=9) or IVB (n=6) for symptomatic chronic central serous chorioretinopathy (CSC) were retrospectively reviewed. Best-corrected visual acuity (BCVA), central macular thickness (CMT), and subretinal fluid (SRF) volume were compared between the two patient groups at baseline and at 1,3 and 6 months after treatment.

Results: Median BCVA was similar in both groups at all time points (p>0.05). the reduction of CMT was significant at the 1st and 3rd month (p<0.05), however, it was non-significant at the 6th month among two groups (p>0.05). SRF resorption was significantly better in the PDT group when compared to IVB group at the 1st and 3rd month (p<0.05), while it was non-significant at the 6th month (p>0.05).

Conclusion: Both PDT and IVB injection provided visual and anatomical recovery for chronic CSC. However, PDT appeared superior to IVB in terms of improving CMT and SRF throughout three months after treatment.

PP 139

Immediate Intraocular Pressure Changes and Subconjunctival Reflux After Intravitreal Bevacizumab Injection: Comparison Between 27-gauge and 30-gauge Needle

Hasan Ali Tufan¹, Selçuk Kara¹, Baran Gencer¹, Sedat Arikan¹, Şafak Korkmaz²

¹Canakkale University, School of Medicine, Department of Ophthalmology, Turkey

²Düzce Atatürk City Hospital, Department of Ophthalmology, Turkey

Introduction: A correlation between the introduced fluid volume into the vitreous cavity and immediate rise in the intraocular pressure (IOP) would be expected.

Objectives: To investigate the acute IOP changes and grade of subconjunctival reflux, depending on the bore size of the needles used while performing intravitreal bevacizumab injections.

Material/Patients and Methods: Data from 93 consecutive intravitreal bevacizumab (IVB) injections (2.5 mg/0.1 ml) of 87 patients were reviewed retrospectively. the main outcome measures were the postinjectional intraocular pressure (IOP), IOP mean elevation rate and reflux grade. All measures were compared according to the bore size of the needles (27-versus 30-gauge).

Results: A rise in IOP was observed immediately after the injection in both groups (p<0.01) and postinjection IOP was similar in two groups. Median IOP elevation rate was also greater in 30 gauge group when compared with 27-gauge group (%167 vs 83%, p<0.01). There was a greater reflux with the 27-gauge needle in comparison to the 30-gauge needle and the medians of the reflux grade were 1 (corresponding to a minimal reflux) and 0 (corresponding to no reflux), respectively. However, the difference was statistically nonsignificant (p>0.05).

Conclusion: A higher IOP elevation would be expected if a small-gauge needle is used for IVB injection. Ophthalmologists should be cautious about needle size choice especially in eyes with already compromised perfusion status.

PP 140

Bacterial Contamination of Needles Used for Intravitreal Injections: Comparison Between 27-gauge and 30-gauge Needle

Hasan Ali Tufan¹, Ahmet Vural², Baran Gencer¹, Selçuk Kara¹, Sedat Arikan¹, Erdem YÜksel³

¹Canakkale University, School of Medicine, Department of Ophthalmology, Turkey

²Canakkale University, School of Medicine, Department of Microbiology, Turkey

³Necip Fazil City Hospital, Department of Ophthalmology, Turkey

Introduction: It is well demonstrated that the surgical instruments including needles penetrating the ocular surface are frequently contaminated with bacteria at the time of procedure.

Objectives: To compare the contamination rate between 27-gauge (G) and 30-G needles used for intravitreal injection (IVT).

Material/Patients and Methods: Patients undergoing IVT injections were enrolled prospectively. Injections were performed with 27-G or 30-G needles under sterile conditions. All needle tips were collected and placed in brain-heart infusion broth. the contamination rates of needles were compared.

Results: A total of 109 patients participated in the study and a total of 126 IVT injections were performed. 49% of injections (58 patients) were performed using 27-gauge needles and 51% injections (n=51 patients) were performed using 30-gauge needle. No patient developed endophthalmitis. the overall contamination rate of the used needles were 13% for 27-G and 29% for 30-G. Culture-positivity was statistically non-significant between 27-G and 30-G needles. the most common bacteria isolated from the used needles are coagulase negative Staphylococcus.

Conclusion: Our results suggest that the contamination rate between 27- and 30-gauge needles is similar during IVT injection. Needle bore size seems not to be a possible risk factor for vitreous cavity contamination with ocular surface bacteria during IVT injection.

PP 141

Vogt-koyanagi-harada Disease Associated with Rheumatoid Arthritis

Hasan Ali Tufan¹, Ayla Akbal², Sedat Arikan¹, Baran Gencer¹, Selçuk Kara¹, Abdurrahman Tufan³

¹ Canakkale University, School of Medicine, Department of Ophthalmology, Turkey

² Canakkale University, School of Medicine, Department of Physical Medicine and Rehabilitation, Turkey

³ Gazi University, School of Medicine, Department of Internal Medicine, Division of Rheumatology, Turkey

Case Report: Objective: To report a case of Vogt-Koyanagi-Harada (VKH) disease associated with rheumatoid arthritis (RA). Methods: Case report with ocular examinations included best-corrected visual acuity (BCVA), fundus photography, fluorescein angiography (FA), and optical coherence tomography (OCT). Results: A 31-year-old white male patient referred to our eye clinic with the complaints of bilateral blurred vision and photophobia. He also complained of severe headache, tinnitus, morning stiffness and arthralgias. His past history revealed that he has been followed-up with RA since 2005. His ocular examination revealed bilateral panuveitis with serous retinal detachment. the diagnosis of VKH was made on the basis of clinical, FA and OCT findings. Conclusion: Herein, we described a quite rare case of VKH disease associated with RA. Both diseases share many similar genetic and environmental factors in their etiopathogenesis. Further investigations are required to confirm the association between these two autoimmune diseases.

PP 142

Survey on Surgeon's General Approach for Breast Cancer Surgery in Turkey.

Mustafa Emiroglu¹, Abdullah Inal², Enver Ilhan³, Kemal Peker², Mehmet Ali Gürçelik⁴, Ismail Sert⁵, Hülya Ellidokuz⁶, Didem Can⁷

¹ Tepecik Training and Research Hospital, Department of Surgery, Izmir, Turkey

² University of Erzincan, Mengucek Gazi Research Hospital, Department of Surgery, Erzincan, Turkey

³ Bozyaka Training and Research Hospital, Department of Surgery, Izmir, Turkey

⁴ Ankara Oncology Hospital, Ankara, Turkey

⁵ Van Training and Research Hospital, Department of Surgery, Van, Turkey

⁶ Dokuz Eylül University School of Medicine, Department of Preventive Oncology, Izmir, Turkey

⁷ Istanbul Training and Research Hospital, Department of Surgery, Istanbul Turkey

Introduction: General surgeons have different approaches for breast diseases and surgery for different

reasons. It is important to bring out this differences to develop a common understanding for treatment.

Objectives: Aim of this survey was to investigate surgeons' approach to benign and malign masses of breast.

Material/Patients and Methods: 453 general surgery specialist who were able to be reached between November 2012 and February 2013 in Turkey have answered 33 item questionnaire and results are presented descriptively.

Results: 12.6% percent of surgeons in Turkey have participated in the survey. Mostly surgeons from state hospitals participated in the survey(38.2%). 49.7% of participants have attended a scientific meeting in past two years. Needle biopsies were mostly employed diagnostic tool for breast masses (64.9%). Most common breast lesion in women between age of 20-45 were breast cysts(48.6%). Only 18.8% of surgeons were performing ultrasound examination. Breast conserving surgery in early-stage breast carcinoma practice was 69.1% among surgeons. Neoadjuvant chemotherapy use was 59.8% in locally advanced breast cancer. 22.7% percent of surgeons were doing surgery for stage 4 breast cancer as first approach treatment. Sentinel lymph node biopsy was being performed by 60%, and 49.2% of surgeons were using oncoplastic surgery techniques. 45.5% percent of surgeons think that role of surgery in breast cancer treatment will be reduced in future and 45% think there will not be any change.

Conclusion: 12.6% of participation does not represent general approach of surgeons in Turkey, but may be suggestive of main tendencies. Treatment preferences of surgeons in Turkey are mostly concordant with current worldwide treatment approaches.

PP 143

Manometric Evaluation of Intra-gastric Pressures in Patients with Hiatal Hernia.

Kemal Peker¹, Abdullah Inal¹, Mustafa Emiroglu²

¹ University of Erzincan, Mengucek Gazi Training and Research Hospital, Department of Surgery, Erzincan, Turkey

² Izmir Tepecik Training and Research Hospital, Department of Surgery, Izmir, Turkey

Introduction: Hiatal hernia is a condition in which parts of the abdominal contents, mainly the gastroesophageal junction and the stomach, are proximally displaced above the diaphragm through the esophageal hiatus into the mediastinum. Hiatal hernias have been reported to affect 10% to 50% of the population.

Objectives: Aim of this study is to investigate the relationship between intra-gastric pressure and incompetent cardioesophageal sphincter and hiatal hernia.

Material/Patients and Methods: The sample is composed of 81 individuals; 51.9% of which are male (n: 42) and 48.1% of which are female(n: 39) with median age of 42,00 and mean age of 42,29. Two groups have been constituted: A control group of healthy volunteers(G1) and a patient group with hiatal hernia(G2). All patients and controls underwent

gastric and esophageal manometry using a water perfused catheter with nine radially aligned channels attached to a hydraulic capillary infusion system.

Results: Mean intragastric pressure (IP) was 1,307 mmHg for G1 and, -105 mmHg for G2. Mean lower esophageal pressure (LES) were 13,1 mmHg and 11,6 mmHg, and upper esophageal pressure (UES) were 35,2 mmHg and 27,2 mmHg for G1 and G2, respectively. 24 hour pH metry test revealed 26.8% physiologic gastroesophageal reflux and 73.2% pathologic gastroesophageal reflux in G2. There were statistically significant difference between two groups for mean IP ($p < 0.001$) and mean LES pressures ($p < 0.05$).

Conclusion: This study shows that hiatal hernia causes significantly lower levels of intragastric pressures.

PP 144

Spontaneous Omental Haemorrhage - a Rare Anomaly

Martin Nnaji, Nhatuveetil Sreekumar, Christopher Vickery

Musgrove Park Hospital, Taunton, Somerset, UK

Introduction: Spontaneous rupture of an omental artery is rare

Objectives: We present an 80 year old male with known gall stone disease who presented with sudden onset central abdominal pain with no history of abdominal trauma or bleeding disorders, and a normal coagulation profile. Contrast-enhanced abdominal computerised tomography revealed a large haemoperitoneum and extravasation of contrast from the greater omentum.

Material/Patients and Methods: Flush aortography and selective splenic angiography identified contrast extravasation from an omental branch of the left gastroepiploic artery. Through a right common femoral artery (CFA) access, selective microcatheterisation of the bleeding omental vessel was performed and three 2x2mm hydrocoils were deployed as distal as possible achieving successful embolisation of the bleeding vessel. There was no immediate complication.

Results: Subsequent contrast-enhanced abdominal computerised tomography on day 3 and day 7 post-embolisation revealed progressive resolution of the haemoperitoneum and no further extravasation of contrast. He was discharged on day 8 post embolisation in stable clinical condition.

Conclusion: Spontaneous omental haemorrhage from a ruptured omental artery is a rare anomaly and can be successfully managed by transcatheter arterial embolisation of the ruptured artery.

PP 145

Insulin Resistance and Clinical Outcome After Hernia Repair

Hüseyin Eken¹, Zafer Malazgirt², Kemal Peker¹, Servet Karagül³, Bülent Koca⁴, Faruk Çavdar⁵

¹Erzincan University, School of Medicine, Department of General Surgery, Turkey

²Samsun Medical Park Hospital, department of General Surgery, Turkey

³Niksar State Hospital, department of General Surgery, Turkey

⁴Korgan State Hospital, department of General Surgery, Turkey

⁵Yalova State Hospital, department of General Surgery, Turkey

Introduction: Inguinal hernias occur at approximate 3-8 % of population.

Objectives: It was aimed to compare the post operative insulin resistance and early term clinical outcomes at laparoscopic total extraperitoneal (TEP) repair and open mesh repair (Lichtenstein) in inguinal hernias at young males.

Material/Patients and Methods: A randomized, prospective and double blind study has been planned. 26 male patients that have type I or type II inguinal hernia according to Zollinger classification were operated by Lichtenstein technique or total extraperitoneal (TEP) technique. Insulin sensitivity measurement was performed to patients by hyperinsulinemic euglycemic glucose clamp technique at 1 day before operation and 30 minutes postoperative. An evaluation was performed in terms of complications, pain and life quality.

Results: There was no difference between Lichtenstein group and TEP group M values. There was significant difference between Lichtenstein group M values (mean 3,60±2,34) and TEP group M values (mean 2,05±1,39) in terms of postoperative M values. Complication rates and visual analog pain scale values of both groups were similar. In the short form 36 life quality assessment scale, TEP group patients composed higher scores in terms of emotional role at postoperative first week comparing to Lichtenstein group, at postoperative first month it was observed that the difference in terms of emotional role has disappeared.

Conclusion: At the small and medium size indirect inguinal hernia repairs at young males, Lichtenstein technique causes fewer injury at early time comparing to TEP technique, but at long term, similar improvement duration consists at the both group patients.

PP 146

Detection of Remaining Thyroid Tissue and Metastatic Lymph Node with Methylene Blue

Bayram Colak¹, Mehmet Erikoglu¹, Ahmet Yesilidag²

¹Necmettin Erbakan University, School of Medicine, Department of General Surgery, Turkey

²Necmettin Erbakan University, School of Medicine, Department of Radiology, Turkey

Introduction: Conditions such as edema and inflammation in the early phase and fibrosis in the later phase following initial thyroid surgery make the detection of anatomical structures difficult. Dissection in secondary thyroid surgery is also very difficult. Methylene blue is often used to stain tissues at many medical centers.

Objectives: In our study we present the case of a neck dissection using methylene blue stain to locate precisely the remaining thyroid tissue and lymph node

Material/Patients and Methods: The patient was a 39-year-old female patient who had had a total thyroidectomy and twice neck dissection. In her follow-up; the imaging obtained a year after the last neck dissection papillary thyroid ca metastases were detected on the lymph nodes. Before the operation the patient's lymph nodes were stained with methylene blue guided by ultrasonography and she was taken into surgery. Color change was achieved in all the lymph nodes and a neck dissection was performed.

Results: Papillary thyroid ca metastasis was detected in four of the eight removed lymph nodes

Conclusion: We believe that using methylene blue in recurrent cases will both prevent the risk of complications and inadequate surgery.

PP 147

Kissing Ulcer Penetrates the Liver

Mehmet Kamil Yildiz, Hasan Abuoğlu, Cengiz Eriş, Erkan Özkan, Emre Günay, Mehmet Odabaşı

Haydarpaşa Numune Education and Research Hospital, General Surgery Department, Turkey

Case Report: Acute massive hemorrhage of duodenal ulcer is a common emergency. Emergency endoscopic hemostasis for duodenal ulcer is regarded as the first-choice therapy and considered to be the gold standard treatment. Surgical treatment is a second choice after failure of endoscopic hemostatic therapy, and improves efficacy in these patients, but there is no decrease in mortality rate. An 78-year-old man with congestive heart failure who was undergoing regular follow-up in our hospital was transported to our emergency room with a chief complaint of upper GI bleeding. Her vital signs were: blood pressure, 90/60 mmHg; pulse, 105 regular beats per minute. His laboratory data revealed hemoglobin level of 5.2 g/dl, and platelet count

of $14.4 \times 104/\text{mm}^3$. a bleeding ulcer vessel trunk in the anterior and posterior duodenal epinephrine was injected in an attempt to control bleeding., active bleeding stopped, and endoscopy was completed (Anterior bulbus Forrest grade III-posterior IB). However, the following day, endoscopy revealed persistent active bleeding. He was taken to the operating room for exploration. Intraoperatively, kissing ulcer had penetrated the right lobe of the liver. a longitudinal incision through pylorus active bleeding ulcer gastroduodenal artery was found on the back wall, 3/0 PDS connected and bleeding has stopped.

PP 148

Effects of Curcumin in Experimental Intestinal Ischemia Reperfusion Model on Rats

Adem Karabacak, Bahadır Öz, Muhammet Akyüz, Hasan Uzer, Hızir Akyildiz, Alper Akcan, Erdoğan Sözüer, Engin Ok

Erciyes University, School of Medicine, Department of General Surgery, Turkey

Introduction: The use of curcumin has protectional effect on brain, spinal cord, heart etc. from ischemia and reperfusion injury as a pharmacological agent.

Objectives: To investigate the effects of curcumin in experimental intestinal ischemia reperfusion model on rats.

Material/Patients and Methods: We used 24 Wistar-Albino rats. We composed 3 groups each containing 8 rats. Rats in sham group were sacrificed 105 minutes observation after laparotomy. Sixty minutes reperfusion was performed following 45 minutes ischaemia in control group. We performed the study group by administration of 100 mg/kg curcumin intraperitoneally. We sacrificed all of the rats by taking blood samples to evaluate of the lactate after resection of ileum for detecting tissue malondialdehyd, superoxide dismutase, glutathione activities and histopathological evaluation.

Results: Lactate and MDA levels were significantly higher in control and study groups than sham group ($P < 0.001$). These levels were significantly lower in study groups. In Sham group SOD and GSH activities were higher. In control group these activities were statistically lower. Although definitive cell damage was determined in the control group, the damage in the study groups observed lower in different levels.

Conclusion: Administration of curcumin reduced the ischemia-reperfusion injury at small intestine.

PP 149

Primary Hydatid Cyst of Thigh Muscles

Sukru Erdogan¹, Yavuz Selim Kahraman¹, Sevim Turanli¹, Cengiz Dibekoglu²

¹Ankara Oncology Education and Research Hospital, Department of General Surgery, Ankara, Turkey
²Istanbul Florence Nightingale Hospital, Department of General Surgery, Istanbul, Turkey

Case Report: Primary cyst hydatid of the muscle was seen less than %1 over the cases because of the lactic acid and muscle contraction. Fifty three years old male patient was admitted to our hospital with pain and swelling on the medial side of the right leg for six months. Physical examination of the patient was palpable painless and soft 10x10 cm mass on the medial side of right thigh. Direct roentgenogram of femur was normal. the magnetic resonance imaging showed a 156x63x86 mm cystic mass surrounded by a thin capsules in the plans of multiple nodular lesions. Lower extremity arterial and venous doppler and abdominal ultrasound screenings were normal. Hydatid hemaglutinasyon test was negative. During the operation, between gracilis and sartorius muscles, 15 cm lesion containing multiple daughter cysts was observed. the cysts was totally removed with its capsule. the operation area was washed with hypertonic saline serum. Histopathological examination of the cyst was reported multiple scolecs with germinative epitheliums. the patient was discharged after two postoperative days with andazole without any complication.

PP 150

The Effect of Glutamine, N-acetyl Cystein and Methotrexate in Rat Models of Experimental Colitis.

Ismail Cem Eray , Ahmet Rencuzogullari , Kubilay Dalci , Orcun Yalav , Atilgan Tolga Akcam , Abdullah Ulku , Omer Alabaz , Gurhan Sakman

Cukurova University, School of Medicine, Department of Surgery, Turkey

Introduction: Because of Inflammatory bowel disease is a group of diseases caused by significantly inflammation, destroying agents have been tested for reduce the inflammation. a lot of substances. tested to treat on experimental models of colitis in rats as antioxidant agents. Decreased levels of antioxidant enzyme activities and glutathione have been identified in some studies of ulcerative colitis diseases

Objectives: In this study, it has been aimed to analyze the effects of N-Acetyl cysteine, glutamine and methotrexate on the experimental colitis model formed by use of TNBS

Material/Patients and Methods: for this purpose, 71 Wistar Albino rats have been used. No application except normal saline has been made on the control group. Ethanol group has been subjected to intrarectal ethanol enema, and its efficiency has been evaluated. Intraperitoneal NAC injection was made to the NAC group. Intrarectal MTX has been applied to the MTX group. 1g/kg glutamine has been added to the drinking water of the GLN-NAC experimental group's members; and intraperitoneal NAC injection has been made also for this group. Glutamine has also been added to the drinking water of the GLN-MTX group, and then the group has been subjected to intrarectal MTX. Weights of the rats have been recorded before and after the experiment. At the end of the experiment, the rats have been sacrificed. Distal colon has been removed and macroscopically analyzed by two pathologists who have not been informed about the concept of the study, and it has been sent to pathology for histopathological evaluation. in order to analyze antioxidant effect, samples from the damaged colon have been taken for measuring SOD and MDA levels.

Results: When the changes in weights have been compared, no change has been found in the control and ethanol groups while weight-loss has been observed in all groups on whom colitis was created. Although the treated group has been expected to experience less weight-loss, this result could not be observed. Weight-loss of the group subjected to MTX has been measured to be more than the weight loss of only the group on whom colitis has been created. Less weight-loss has been observed on the groups whose NAC and MTX treatments have been included glutamine. When morphologic damage scores were calculated; no morphologic damage has been observed on the control and ethanol groups. Damage scores has been all high on the groups on whom colitis have been created. Damage scores have been calculated to be law on the treated groups. the lowest scores have been measured on the groups given glutamine. When antioxidant efficiency was compared, SOD and MDA levels on colitis group were found to have increased significantly while treated groups were found to be similar with the control group; furthermore, there have been statistically significant differences among them. However, the efficiency on the group given glutamine has been calculated to be less compared to the other treatment methods.

Conclusion: We have observed that glutamine and NAC given with the purpose of preventing the effect of free oxygen radicals have positive effects, and they contribute more to recuperation morphologically when given together. the rats given MTX have been found to loose more weight compared to the other groups. Although it has been seen that giving Methotrexate as enema contributes positive effects on parameters, it is also thought that it may have negative effect on the symptoms of the experimental colitis

PP 151

Comparison of Early Surgical Alternatives in the Management of Open Abdomen: A Randomized Controlled Study

Ahmet Rencuzogullari¹, Orcun Yalav¹, Kubilay Dalci¹, Ismail Cem Eray¹, Cem Kaan Parsak¹, Gulsah Seydaoglu²

¹Cukurova University, School of Medicine, Department of Surgery, Turkey

²Cukurova University, School of Medicine, Department of Biostatistics, Turkey

Introduction: Abdominal compartment syndrome is a clinical condition secondary to a sudden increase in the intraabdominal pressure, which effects all organ functions especially respiratory, renal and cardiovascular functions.

Objectives: Abdominal compartment syndrome (ACS); is characterized with sudden and pathologic increase of the pressure of the abdomen who has a limited anatomic space. It is a highly mortal clinical entity if not treated promptly. Progressive increase of the intraabdominal pressure causes systemic response. Treatment of the ACS is based on decreasing the abdominal pressure. Clinical condition of the patient is the most important criteria in making the decision of decompressive laparotomy. in grade 3 and 4 ACS patients abdominal closure is not performed after decompressive laparotomy, instead, open laparostomy is preferred in order to keep the abdominal pressure in low ranges. in the present study we aimed to investigate two different temporary closure methods, Vacuum assisted closure (VAC) and Bogota bag techniques, in 40 patients who were performed decompressive laparotomy

Material/Patients and Methods: 40 patients who were admitted to the Çukurova University Medical Faculty Intensive Care Unit of General Surgery with ACS following trauma, prior abdominal surgery or other reasons and who were performed decompressive laparotomy as a part of their treatment were enrolled to the study. VAC and Bogota bag were performed as temporary closure methods and clinical, laboratory, mortality and morbidity results were compared

Results: Demographic features of the patients (age, sex, body mass index, comorbidities) were similar between the two groups. the most common reason of ACS was gastrointestinal perforation in 12 (30%) patients. the width of the incision decreased significantly faster in the VAC group. the patients were appropriate to primary closure of the fascia in 16,9 days in the VAC group and 20,5 days in the Bogota bag group. Arterial blood gas showed statistically significantly better results in SPO₂, PO₂, PCO₂ and pH values in the VAC group. the decrease in the abdominal pressure was similar on day 1, 4, 7 but was significantly lower on day 14 in the VAC group. 12 patients (30 %) died during the study, and 5 (12%) were in the VAC group whereas 7 (17,5%) were in the Bogota bag group

Conclusion: Based on these results, we suggest that VAC has certain advantages on Bogota bag as a temporary closure

method in the management of abdominal compartment syndrome.

PP 152

The Effect of N-acetyl Cystein and Methylprednisolone on Acute Pancreatitis in an Experimental Model

Hasan Elkan , Ismail Cem Eray , Kubilay Dalci , Ahmet Rencuzogullari , Orcun Yalav , Atilgan Tolga Akcam , Abdullah Ulku , Husnu Sonmez

Cukurova University, School of Medicine, Department of Surgery, Turkey

Introduction: The systemic manifestations of acute pancreatitis are responsible for the majority of pancreatitis-associated morbidity and mortality and are now believed to be due to the actions of specific inflammatory cytokines

Objectives: The purpose of this study was to examine the effect of N-acetylcysteine and methylprednisolone on cerulein experimental pancreatitis model by using short and long term results of amylase, lipase and histopathologic scores of pancreatitis and pulmonary complication

Material/Patients and Methods: The study was conducted with 64 Wistar-Albino adult rats weighing 175 to 240 gr and divided in to four groups which were divided in to two equal groups. Subcutan saline was injected to the rats in Group 1 for control group. Subcutan cerulein was injected to the rats in Group 2 for experimental pancreatitis group. in group 3, rats were injected with intraperitoneal N-acetylcysteine and subcutan cerulein and in group 4, rats were injected with intramuscular methylprednisolone with subcutan cerulein. Group 3 and 4 were accepted as two different treatment groups. Decapitation was performed 7 hours after injection to the first half of the groups and 24 hours after injection to the second half of the groups. the amylase and lipase values, pancreatitis and pulmonary complication scores at seventh hour were accepted as short-term results. the amylase and lipase values, pancreatitis and pulmonary complication scores at twenty fourth hour were accepted as long-term results. the histopathological evaluations were done by pathology specialist not informed about evaluated groups. the edema, vacuolization, inflammation and necrosis of pancreas were scored with scoring system varying 1 to 4 (schönberg). the edema, inflammation and peribronchitis of lung were scored with scoring system varying 1 to 3.

Results: for the presentation of experimental pancreatitis occurrence, the short and long term results of amylase, lipase and histopathologic scores of pancreas and pulmonary complication of control group compared with the results of other groups (group 2,3 and 4). the specimens of pancreas and lung of groups which were suffered from pancreatitis were underwent immune-histochemical study with myeloperoxidase and IL-8 stains for the presentation of neutrophil infiltration. Additionally, the correlation between pulmonary complication scores and staining of lung tissues with iNOS was examined. Due to possible increase of wet

weight of lung secondary to edema and inflammation, the ratio of wet/dry lung was analysed. When the short term results of amylase, lipase and histopathologic scores of pancreas and pulmoner complication of control group compared with the results of other groups, the differences exhibited statistical significance. on the other hand, when the long term results compared only pancreatitis group (Grup 2) demonstrated statistical significance. When the histopathological results of lung specimens of control group compared with the other groups, Group 2,3 and 4 have significant hemorrhagic areas, edema and peribronchial mononuclear cell infiltration. Neutrophile infiltration was demonstrated with myeloperoxidase and IL-8 painting in histopatologic specimens of lung and pancreas of Group2, 3 and 4. the direct correlation was established between histopathologic scores of pulmonary complication and iNOS painting. Dry/wet ratio of lung tissues was higher in group 2, 3 and 4, however no statistical significance was established. When the short-term results of amylase, lipase and histopathologic scores of pancreas and pulmoner complication of Group 2 (pancreatitis group) compared with the results of other treatment groups (Group 3 and 4), the differences between short- term results exhibited statistical significance. in the comparison of long-term results of amylase, lipase and histopathologic scores of pancreas and pulmonary complication between group 2 and 3, 4; group 4 (metal prednisolon) demonstrated statistical significance with respect to all parameters, but Group 3 (N-asetilsistein) exhibited statistical significance with respect to amylase, lipase and histopathologic pancreatitis scores. Hence, Group had no statistical difference according to pulmonary complication scores.

Conclusion: In this study, it was established that cerulein is an appropriate agent for experimental pancreatitis model and N-asetilsistein and metal-prednisolon had a therapeutic effect on experimental pancreatitis. Additionally, in short term metilprednisolon and N- asetilsistein had an effect on pulmonary complication, however according to our findings in long term N-asetilsistein had no potential for pulmonary complication

PP 153

The Prognostic Significance of Prame (preferentially Expressed Antigen of Melanoma) Expression in Breast Cancer

Kubilay Dalci ¹, Ahmet Rencuzogullari ¹, Orcun Yalav ¹, Ismail Cem Eray ¹, Yalcin Kecec ¹, Semra Paydas ²

¹ Cukurova University, School of Medicine, Department of Surgery, Turkey

² Cukurova University, School of Medicine, Department of Oncology, Turkey

Introduction: Cancer testis antigens are gene family generally considered as limited to tumor cells and not expressed in normal tissues except from testis and fetal tissues. MAGE, GAGE/PAGE, BAGE, LAGE/NYESO-1 and PRAME are the major members of the family of cancer testis antigens. It is known that cancer testis antigens have considerable roles

in cancer immunotherapy. It has been shown that, in some tumors, cancer testis antigens have prognostic significance

Objectives: The aim of this study is to detect the PRAME (Preferentially Expressed Antigen of Melanoma) in 54 patients with breast cancer and 37 patients with benign breast lesions.

Material/Patients and Methods: Reverse transcription polymerase chain reaction (RT-PCR) was used for fresh tissues and immunohistochemistry (IHC) for paraffin embedded blocks of the same tissues. RT-PCR and IHC results for PRAME was compared for the first time in this study.

Results: PRAME was found to be expressed in 50 % of the breast cancer and 25 % of the benign breast lesions. Using IHC method, (+), (++) and (+++) staining for PRAME expression were found in 29,6%, 31,5% and 3,7% of the cases, respectively in invasive component of the breast cancer. PRAME expression detected by both IHC and RT-PCR was compared with prognostic parameters. PRAME expression in breast cancer was found to be associated with high tumor grade and negative hormone receptor. We found an important association between PRAME PT-PCR and of PRAME IHC

Conclusion: Both RT-PCR in fresh tissues and IHC method in paraffin embedded tissues can be used to identify PRAME expression and the predictive role of PRAME expression

PP 154

The Preventive Effect of Ankaferd Blood Stopper in Experimental Peritoneal Adhesion Model

Gokhan Karaca ¹, M. Recep Pekcici ², Ahmet Kocael ¹, Faruk Pehlivanli ¹, Gülay Sariçam ¹, Esat Duymuş ², ŞÜkran Akgedik ³, Osman Güler ²

¹ Department of General Surgery, Ağrı State Hospital, Ağrı, Turkey

² Department of General Surgery Ankara Education and Research Hospital, Ankara, Turkey

³ Department of Pathology, Ankara Education and Research Hospital, Ankara, Turkey

Introduction: Ankaferd Blood Stopper (ABS) is an herbal extract attained from five different plants. It has a therapeutic potential to be used for the management of external hemorrhage and controlling gastrointestinal bleedings. To date the safety of ABS for intraperitoneal usage is not clear.

Objectives: In this study, we aim to investigate the affectivity and safety of using intraperitoneal ABS in experimental peritoneal adhesion model.

Material/Patients and Methods: Thirty two male Wistar Albino rats were used in the study. the rats were randomly divided into four groups: control, saline, ABS, laparotomy+cecal bleeding. on the 10th day, all rats were euthanized. the adhesions were evaluated by Nair's macroscopic adhesion classification and pathologically with Zühlke's microscopic adhesion classification.

Results: Macroscopic and microscopic comparison between ABS and saline groups didn't show any differences

but either ABS or saline were superior when compared to laparotomy+cecal bleeding group.

Conclusion: ABS was found equally affecting on the abdominal adhesions with saline and it has no negative effect on postoperative adhesion formation.

PP 155

Burkitt's Lymphoma of the Tongue Base: A Case Report with Review of the Literature

Dogan Pinar¹, Bulent Evren Erkul²,
Murat Salihoglu², Eyup Duran³, Hakan Cincik²

¹ Elazig Military Hospital, Department of Otorhinolaryngology, Turkey

² Haydarpasa Gulhane Military Academy, Department of Otorhinolaryngology Head and Neck Surgery, Turkey

³ Elazig Military Hospital, Department of General Surgery, Turkey

Case Report: Burkitt's lymphoma is an uncommon and highly aggressive type of Non-Hodgkin Lymphoma, which commonly affects young patients. Only three cases developing in the base of tongue have been described in literature. We report the case of a 22-year old man with Burkitt's lymphoma of the tongue base. the patient consulted to our clinic with complaint of difficulty in swallowing, which developed over 2 months of period. Physical examination and computed tomography revealed a nodular tumor located in the left side of tongue base. an incisional biopsy was performed under general anesthesia. the histological and immunocytochemical examination revealed Burkitt's lymphoma. We will discuss the epidemiologic, diagnostic and therapeutically modalities of Burkitt's lymphoma of the tongue base with review of the literature. Burkitt's lymphoma should be considered in the differential diagnosis of the tongue base masses in order to achieve early diagnosis and treatment.

PP 156

The Effects of Harmonic Scalpel, Scalpel and Monopolar Electrocautery on the Healing of Colon Anastomosis After the Colonic Resections

Gokhan Karaca², M. Recep Pekcici¹, Canan Altunkaya⁵, Vildan Fidanci⁶, Aytul Kilinc⁶, Huseyin Ozer³, Ahmet Tekeli⁴, Osman Guler¹

¹ Department of General Surgery Ankara Education and Research Hospital, Ankara, Turkey

² Department of General Surgery, Ağrı State Hospital, Ağrı, Turkey

³ Department of General Surgery, Hınıs State Hospital, Erzurum, Turkey

⁴ Faculty of Veterinary, 100. Yil University, Van, Turkey

⁵ Department of Pathology, Ataturk Education and Research Hospital, Ankara, Turkey

⁶ Department of Biochemistry, Ankara Education and Research Hospital, Ankara, Turkey

Introduction: Anastomotic leakage after the colon anastomosis is an important cause of mortality and morbidity in surgery. Minimal tissue damage is an important factor for anastomosis health. It is closely related to use the appropriate device.

Objectives: Effects of scalpel, harmonic scalpel, and monopolar electrocautery usage on the health of the colon anastomosis were investigated.

Material/Patients and Methods: 120 female albino Wistar rats were used. the rats were divided into three groups each containing 40 rats. Group A: Scalpel, Group B: Monopolar electrocautery, Group C: Harmonic scalpel. The groups were divided into four subgroups consisting 10 rats and analysed in the postoperative 1,3,5,7th days. Evaluation of the anastomosis health was assessed with the bursting pressures, biochemical and histopathological analysis.

Results: Tissue hydroxyproline levels didn't show any significant difference between the groups and subgroups. Mean bursting pressure of the Group a on the 5th day was significantly higher than group B and C (p<0,001). Fibroblast and fibrosis scores of the Group C on the 5th day were significantly higher than the other groups, but the results of bursting pressures and biochemical parameters didn't support the fibroblast and fibrosis scores. There weren't any significant difference between the groups about other histopathologic parameters.

Conclusion: The devices have found the similar effects on the wound healing. Despite the disadvantages of scalpel, it's efficacy on early wound healing is better than the other devices. the obliterating effect of harmonic scalpel on luminal organs is an important problem especially if an anastomosis is planned. Although the device provides a perfect hemostasis, this problem restricts the usefulness of the harmonic scalpel. We need further clinical studies to support our study.

PP 157

Tailgut Cyst Associated with Castleman's Syndrome

R.bahadır Celep¹, Şahin Kahramanca², Cem Azili², Mustafa Özsoy¹, Gülay Özgehan², Ata Türker ArikÖk³, Tevfik Küçükpınar²

¹Afyon Kocatepe University, School of Medicine, Department of General Surgery, Turkey

²Diskapi Yildirim Beyazit Training and Research Hospital, General Surgery, Ankara, Turkey

³Diskapi Yildirim Beyazit Training and Research Hospital, Department of Pathology, Ankara, Turkey

Case Report: Tailgut cysts (TC) are congenital lesions originated from embryogenic tailgut and localized in retrorectal space. They are observed more frequently in middle-aged female gender. Castleman's syndrome (CS) is a kind of lymphoproliferative disease characterized by enlargement of lymph nodes and generally interferes with lymphoma. Herein, a case of difficult differential diagnosis is presented in the association of TC and CS. 57 years old male patient with CS was admitted to surgical department with coccydynia. a mass was palpated and pelvic magnetic resonance imaging showed a 3-cm retrorectal cyst containing calcifications. His colonoscopy was normal. the lesion and the coccyx had surgically excised totally and the final pathology of the lesion was compatible with TC. TC is believed to arise from the remnants of the embryonic hindgut. Although nearly half of the patients are asymptomatic; the most common symptoms are sensation of mass and pain. the most important complications are development of infection and malignant degeneration. Infection leads serious complications. Radiologic interventions are generally inadequate in the differential diagnosis from other cystic lesions. the definitive diagnosis should always be confirmed by histological evaluation. Biopsy is not recommended. in order to avoid development of recurrence, infections and malignant degeneration complete surgical resection is the therapy of choice. We present a TC observed in a patient with multicentric form of Castleman's syndrome (CS) which caused confusion in the diagnosis. To our knowledge this is the first case of TC associated with CS in the literature.

PP 158

Unexpected Cardiac Arrest Just Before Surgical Operation

M. Enes Aydın, İrfan Güngör, Yusuf Ünal, Berrin Işık

Gazi University, Faculty of Medicine, Department of Anesthesiology and Reanimation, Turkey

Introduction: Surgery and anesthesia is not zero risk although taking all security measures.

Objectives: We aim to present unexpected cardiac arrest

in patient who planned septoplasty under general anesthesia.

Material/Patients and Methods: 47 years old-male was evaluated in Ear Nose and Throat Surgery department and scheduled septoplasty under general anesthesia. Preoperatively the patient was questioned and answered no having substance addiction, drug intake or allergic reaction. Patient was monitored and anesthesia induction was performed (80 mg lidocain, 500 mg Na-tiopental, 50 mg rocuronium, 0,2 µg/kg/min remifentanyl). EtCO₂ was measured (30 mmHg). Prophylactic antibiotic (1 gr Sefazolin) prednol 100 mg, ranitidine 50 mg was given. Anaesthesia was maintained by inhalation anesthesia. Just before surgical incision blood pressure was measured as 80/62 mmHg. Remifentanyl and isoflurane was stopped. Blood pressure was measured again (63/40 mmHg). 20 mg efedrine was performed intravenously but SpO₂ was dropped. Airway resistance was increased but breathe sounds was decreased. After that heart beats was stopped. Cardiopulmonary resuscitation was started accordance with ILCOR algorithms. Ventilation was maintained (Tidal volume:550ml, rate 12/min, FiO₂ 100%) in CMV mod. Heartbeat was normalized and 20 µg/kg/dk Dopamin+0,1 µg/kg/dk noradrenalin, 0,25 µg/kg/min perlinganit infused. Kristalloid and colloid solution was infused. 30 minutes later heart beat rate and blood pressure was normalized. Echocardiograph was performed emergently but there was no cardiac tamponade. Inotropic agents were stopped. Intravenous sugammadex was performed. Patient was taken to the intensive care unit after extubation. Patient was thoroughly questioned for having allergic history. Finally the patient said that he was allergic to antibiotics.

Results: Complication which may cause death can be seen during anaesthesiological or surgical operation. One of them anaphylactic shock.

Conclusion: Patient's medical history may be misleading.

PP 159

Initial Results and Effectiveness of Laparoscopic Hepatectomy

Fumiki Kushihata, Takaaki Takebayashi, Hajime Satoh, Hitoshi Inoue, Akihiro Takai, Jota Watanabe, Taiji Toyama, Yasutsugu Takada

Ehime University, School of Medicine, Department of Hepatobiliarypancreatic & Transplant Surgery, Japan

Introduction: The number of laparoscopic hepatic surgery has been increasing, but its technical aspect is still difficult and remains to be solved.

Objectives: We examined initial results and the effectiveness of the laparoscopic hepatectomy (LH).

Material/Patients and Methods: 29 Hepatocellular carcinoma (HCC), 15 metastasis liver cancer and others 4 cases are enrolled. 3 Re-hepatectomy cases are 2 HCC recurrence and one gastric cancer metastasis. As for liver dysfunction cases with high ICG (>30%), one HCC explosion in 2 cases. 37 pure laparoscopic hepatectomy and 15 hybrid hepatectomy were carried out. a procedure of pure

laparoscopic hepatectomy is as following; VSS (vessel sealing system) is adapted for surface hepatectomy, and CUSA for deep layer without Pringle maneuver and precoagulation. Hybrid hepatectomy: We took cholecystectomy / liver mobilization in laparoscopy and performed hepatectomy by CUSA in laparotomy.

Results: 6 lateral segmentectomy, 3 subsegmentectomy, and 43 partial hepatectomy cases. for average tumor diameter 2.7 cm, operation time 298 minutes, bleeding 286 ml, postoperative hospitalization 13 days. There is no postoperative complication. There were no definite differences between the two procedures among those parameters.

Conclusion: 1. Hybrid procedure was suitable for right-sided hepatectomy, otherwise pure laparoscopic hepatectomy for left sided hepatectomy especially in the introduction of LH. 2. Re-hepatectomy and the high ICG hepatectomy are safely undertaken by LH.

PP 160

Demonstration of Invisible Colonic Minute Perforations After Birdshot Injury

Ismet Emeklioglu¹, Cemalettin Aydin², Cuneyt Kayaalp²

¹ Department of Surgery, Odemis State Hospital, Turkey

² Department of Surgery, Inonu University, Turkey.

Introduction: Site of colonic injury after penetrating abdominal trauma is usually diagnosed intraoperatively and missed injuries cause considerable morbidity and mortality.

Objectives: We aimed to described an intraoperative diagnostic method for invisible openings on the colon due to a birdshot injury.

Material/Patients and Methods: A 30-yearold man was admitted to the hospital after sustaining gunshot pellet injuries to his abdomen, back, and extremities. Emergency laparotomy relieved splenic injury and free pellet fragments in the abdomen. Some pellet fragments were also palpated in the descending colon. Despite meticulous inspection of the colon and full mobilisation of the descenden colon, it failed to show the entrance of the pellets. an 18F catheter was passed through the anus, placed into the rectum and it was connected to a CO2 insufflator of the laparoscopy unit. the abdominal cavity was filled with normal saline and 1.5 liter of CO2 was inflated into the rectum.

Results: Five tiny (2-mm) openings on the retroperitoneal part of the descending colon were demonstrated with the help of the air bubbles. All of the openings were suture-ligated and his postoperative course was uneventful.

Conclusion: We believe that inflating the colon in cases of abdominal birdshot injuries may allow the demonstration of tiny perforations and provide immediate repairs of missed injuries.

PP 161

Clinical Importance and Diseases of Digestive Arterial Trunk Anastomoses, Review of Literatures

Mehmet Fatih Can¹, Mustafa Tanriseven², Eyup Duran⁴, Gokhan Yagci¹, Erkan Ozturk¹, Murat Tavlasoglu³

¹ Gulhane Military Medical Academy, Department of General Surgery, Turkey

² Diyarbakir Military Hospital, Department of General Surgery, Turkey

³ Diyarbakir Military Hospital, Department of Cardiovascular Surgery, Turkey

⁴ Elazig Military Hospital, Department of General Surgery, Turkey

Introduction: Arterial blood supply of the gastrointestinal tract is a three-level system composed of the coeliac trunk, and both superior and inferior mesenteric arteries. the three levels are joined together via arterial trunk anastomoses such as the so-called and well-known Riolan arcade or supramarginal arcade.

Objectives: The purpose of this study was to demonstrate the clinical importance and diseases of digestive arterial trunk anastomoses.

Material/Patients and Methods: Medline and Web of Science search was undertaken to identify relevant articles using terms "Riolan arch" "Villemin arch" and "marginal artery of Drummond".

Results: The coeliac trunk and the superior mesenteric artery are joined together via the pancreaticoduodenal arcades and the Bühler arcade. These anastomoses are divided during pancreatic resections but developed in the case of coeliac trunk stenosis. the mesenteric arteries are joined together by the Riolan, Villemin arcades and by the marginal artery of Drummond. This collateral circulation and the Riolan arcade in particular, is utilized during left colonic resection.

Conclusion: In the case of this collateral circulation insufficiency, inferior mesenteric artery reimplantation is necessary during abdominal aortic aneurysmectomy. Arteriopathy, more and more frequent due to population ageing is responsible for frequent obliteration of one or several digestive arterial trunks with subsequent development of collateral circulation.

PP 162

Treatment of Rectal Injury During Prostatectomy: Primary Repair or Diverting Colostomy

Eyup Duran¹, Mehmet Fatih Can², Ramazan Yildiz²

¹Elazig Military Hospital, Department of Surgery, Turkey

²Gulhane Military Medical Academy, Department of Surgery, Turkey

Introduction: Iatrogenic rectal injuries may be managed by primary repair or diverting colostomy.

Objectives: This review was designed to compare the effectiveness of primary repair and diverting colostomy.

Material/Patients and Methods: The literature was reviewed from May 2003 to February 2013. Data was obtained through Pubmed search. Published studies involving the treatment of rectal injuries during or after prostatectomy were included. 5 articles were included in this study.

Results: Of 19847 patients who underwent prostatectomy for prostate cancer treatment, 53 had documented rectal injuries. Primary repair was established in 45 patients and 8 patients were performed diverting colostomy. Only two patients developed retrourethral fistula and 1 patient underwent a second operation due to detachment at the injury site in primary repair patients. There were any complication in diverting colostomy patients.

Conclusion: Our review revealed 0.26% incidence of rectal injury. Primary repair is first choice for treatment of rectal injuries with low complication rates. We can perform diverting colostomy for patients with delayed diagnosis.

PP 163

Limited Loop Electrosurgical Excision Procedure May Be Used To Treat Severe Cervical Stenosis During Office Hysteroscopy In Postmenopausal Patient

U. Keskin, M. Dede, I. Alanbay, M. Ulubay, C. M. Ercan, M. C. Yenen,

Department of Obstetrics and Gynecology, Gulhane Military Medical Academy, Ankara, Turkey

Introduction: In postmenopausal patients, cervical stenosis can cause difficulty for the evaluation of the uterine cavity during office hysteroscopy. For cervical dilatation, many methods are used such as misoprostol, ultrasound guided dilatation and dilator. Loop electrosurgical excision procedure (LEEP) has been used to manage CIN (Cervical Intraepithelial Neoplasia). We report a case in which limited LEEP was performed during office hysteroscopy to pass the cervical canal.

Case Report: A 62-year-old women, G4P2A2 presented with postmenopausal vaginal bleeding. In transvaginal

ultrasonography evaluation, endometrial thickness was 13 mm. For evaluation of the endometrial pathology, office hysteroscopy was planned. Under general anesthesia, the surgeon performed to dilate the cervix under ultrasound guidance starting with a size 3,5 F dilator. The dilation of the external os was not achieved due to severe resistance, probably because of the intense scar tissue within the endocervical canal. The further dilatation was not possible. For pass of the intense scar tissue causing the cervical stenosis, we decided to perform a LEEP. Afterwards, the external cervical os was passed with office hysteroscopy successfully.

Conclusion: The limited LEEP may be considered as an alternative method to pass external cervical os in patient with severe cervical stenosis in case other methods are inadequate.

PP 164

Preparing Standardized Pouches in Experimental Studies Using the Button Technique

Billur Sezgin, Hakan Bulam, Kemal Fındıkçioğlu, Selahattin Özmen, Cemalettin Çelebi

Gazi University Medical School, Department of Plastic, Reconstructive and Aesthetic Surgery, Turkey

Introduction: In experimental studies undertaken especially in the field of plastic surgery, the preparation of standard subcutaneous or intramuscular pouches in animal models are quite frequent. When performing an experimental study, standardization is one of the key factors that make a scientific study valuable and worthy.

Objectives: In our clinic, we use the button technique when preparing standardized subcutaneous pouches in animal studies. Our technique is presented.

Material/Patients and Methods: In an animal study in which a standard subcutaneous pouch must be prepared in the dorsal aspect of the rat, first a standard skin incision is performed. Following the incision, the desired plane of dissection is found with the help of dissection scissors and minimal dissection is carried out in this plane. Finally, depending on the size and shape of the desired pouch, a pre-sterilized button is inserted into the minimally dissected area and advanced in a blunt fashion until the pouch is ready.

Results: The procedure results in a bloodless field along with a standard-sized pouch.

Conclusion: Standardization remains to be the backbone of experimental research along with all scientific studies. It puts forth the scientific value of the study and allows for precise repetition of the steps required to fulfill the path of testing the hypothesis. The button technique is a simple, cheap and practical way of creating standardized pouches in desired planes. It results in a bloodless dissection along with standardized pouches that can be modified in shape and size according to each study's needs.

PP 165**Combined Effectiveness of Honey and Immunonutrition on Bacterial Translocation Secondary to Obstructive Jaundice in Rats: Experimental Study**

Serhat Oguz^a, Cem Ibis^a, Saban Gurcan^b,
Ahmet Hatipoglu^a, Doğan Albayrak^a, Tülin Yalta^c,
Tamer Sağiroğlu^a, Cengiz Erenoglu^d

^a Department of General Surgery, Trakya University
Medicine Faculty, Edirne, Turkey

^b Department of Microbiology, Trakya University
Medicine Faculty, Edirne, Turkey

^c Department of Pathology, Trakya University Medicine
Faculty, Edirne, Turkey

^d General Surgery Clinic, Avicenna Hospital, Istanbul,
Turkey

Background; Obstructive jaundice is conducive to bacterial translocation (BT) by impairing the gut barrier, intestinal flora, host immune defense, and therefore carries a significant risk of morbidity and mortality due to septic complications. The objective of the present study is to evaluate whether honey and immunonutrition solutions together are effective on BT composed with experimentally biliary obstruction.

Materials and Methods; Forty adult, male, Sprague Dawley rats were used in the study. Animals were randomized and divided into five groups: Group I Sham (Sh), Group II Control (C/BDL), Group III, IV, V Supplementation groups were administered honey (BDL+H), immunonutrients (BDL+I) and honey plus immunonutrients (BDL+HI) respectively. Blood, liver, spleen, MLNs, ileal samples were taken via laparotomy under sterile conditions for microbiological, biochemical, and histopathological investigation.

Results; There were statistically significant differences of BT rates in other samples except MLNs of BDL+HI when compared to C/BDL ($p < 0.02$). The most commonly isolated bacteria were E.coli (71%). Mean mucosal thickness in terminal ileum was reduced significantly in C/BDL when compared with another groups, especially with BDL+HI ($p < 0.05$). Number of villi per centimeter were higher in the supplementation groups, especially BDL+HI; however, there wasn't statistically significant difference between C/BDL and supplementation groups ($p = 0.300$). Serum ALT levels were significantly reduced in BDL+H compared to C/BDL and BDL+I on tenth day respectively ($p < 0.05$, $p < 0.02$). However, the decrease in BDL+HI wasn't significant when compared with C/BDL and BDL+I respectively ($p = 0,897$, $p = 0,207$).

Conclusions; It becomes extremely important to find new immune supportive enteral products to prevent BT after obstructive jaundice that possibly results in biliary sepsis. With this study, from the moment the bile tract obstruction diagnosis was made, it was indicated that when immunonutrition solution was applied with honey having immunostimulant effects, BT decreased due to an additive effect and had positive effects on intestinal mucosa. Key Words: Obstructive jaundice, bacterial translocation, immunonutrition, honey.