

## Paratesticular Papillary Mesothelioma

Ran Linn<sup>a</sup>, Boaz Moskovitz<sup>a</sup>, Moshe Bolkier<sup>a</sup>, Mariana Munichor<sup>b</sup>, Dan Richter Levin<sup>a</sup>

Departments of <sup>a</sup>Urology and <sup>b</sup>Pathology, Rambam Medical Center, Faculty of Medicine, Technion – Israel Institute of Technology, Haifa, Israel

**Key Words.** Paratesticular mesothelioma · Malignant potential therapy

**Abstract.** A case of uncommon paratesticular mesothelioma in a young patient is presented. Its questionable malignancy, as well as the method of treatment are discussed.

### Introduction

Mesothelioma is an uncommon tumor that can be found anywhere along the cord, epididymis, and tunica vaginalis [1].

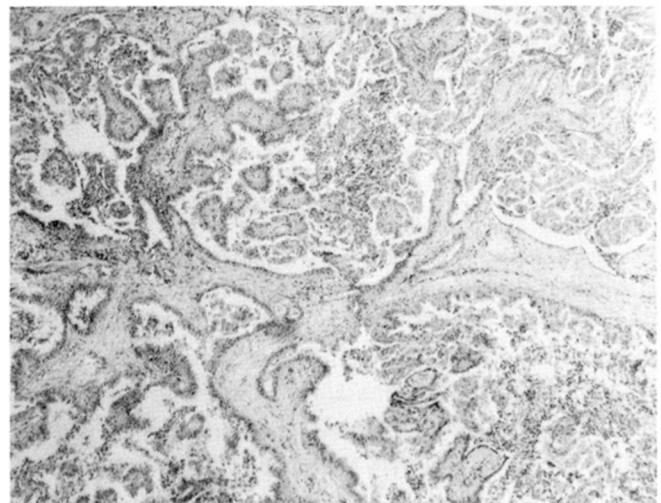
There is always a question as to whether this tumor is to be considered as benign or malignant [2, 3]. Herein we report a case of mesothelioma in a 20-year-old patient.

### Case Report

A 20-year-old soldier was referred to our hospital presenting symptoms of pain and swelling in the left testicle that began 3 weeks before admission. The patient had no history of previous operations or systemic diseases, and he was proven healthy otherwise. On physical examination a tender scrotum with slight swelling was noted along the left spermatic cord. Excretory urogram, pelvic and abdominal computerized tomograms showed no lymphadenopathy or any mass. Serum  $\alpha$ -fetoprotein and human  $\beta$ -chorionic gonadotropin were normal.

Operation was done through an inguinal approach. A number of small lesions along the spermatic cord, varying from 0.5 to 2 cm, was noted. A frozen section, taken after clamping the cord, was not conclusive, and the testis was replaced. A final pathological report revealed a paratesticular papillary mesothelioma without gross aty-

pia or mitosis (fig. 1). This lesion was defined by the pathologists as potentially malignant if the tumor is larger than 2 cm. The patient was re-operated and radical orchiectomy was performed. He refused any other treatment and was lost to follow-up.



**Fig. 1.** Papillary mesothelioma showing cytologically bland cells lining papillary formation. Note the mild nuclear pleomorphism and no mitotic activity. HE.  $\times 74$ .

## Discussion

Mesotheliomata are neoplasms arising from the serous membranes lining the body cavity [1]. Malignant tumors arise from within or the adjacent areas of the tunica vaginalis and along the epididymis and spermatic cord. The malignant potential of paratesticular mesothelioma remains controversial, but it is less than that of the pleura and peritoneum which has been proven as malignant [2, 3]. The tumors have been given various names such as papillary mesothelioma [4], papillary carcinoma, and malignant adenomatoid tumor [5]. The etiology is still unknown, also there were some reports that associate the mesothelium tumors with exposure to asbestos [6], prior scrotal procedures [7] or chronic irritation as a predisposing factor [8].

The management of paratesticular tumors remains questionable, and the natural history is still uncertain. The pathologists described our case as potentially malignant, this being based on the fact that the lesions were less than 2 cm in size [9]. Although there are several reports that define this tumor as benign [10, 11], there are some others that demonstrated metastases [6, 12]. Therefore the management of this tumor remains controversial. Nowadays there is no dispute concerning the method of operation. This must be performed through an inguinal approach. There is no question that radical orchiectomy should be done once there is proven pathology. In some publications there is a tendency to remove the testis whenever there is doubt [13]. We did not follow this in our case.

There is still debate whether a laparotomy and lymphadenectomy should be performed, or the patient should be followed up by periodic computerized tomograms. There are some authors who believe in radical orchiectomy alone [14], while others recommend a clinical staging laparotomy, and retroperitoneal lymphadenectomy if doubt exists regarding the malignant potential of the tumor [3].

## References

- 1 Jaffe, J.; Roth, J.A.; Carter, H.: Malignant papillary mesothelioma of tunica vaginalis testis. *Urology* 11: 647 (1978).
- 2 Antman, K.H.: Current concepts: malignant mesothelioma. *New Engl. J. Med.* 303: 200 (1980).
- 3 Kossow, A.S.; McCann, L.S.: Malignant mesothelioma of the testicular tunica. *J. Urol.* 126: 372 (1981).
- 4 Barbera, V.; Rubino, M.: Papillary mesothelioma of the tunica vaginalis. *Cancer* 10: 183 (1957).
- 5 Soderstrom, J.; Liedberg, C.F.: Malignant 'adenomatoid' tumor of the epididymis. *Acta path. microbiol. scand.* 67: 165 (1966).
- 6 Fligel, Z.; Kaneko, M.: Malignant mesothelioma of the tunica vaginalis propria testis in a patient with asbestos exposure. A case report. *Cancer* 37: 1478 (1976).
- 7 Golden, A.; Ash, J.E.: Adenomatoid tumors of the genital tract. *Am. J. Path.* 21: 63 (1945).
- 8 Rosai, J.; Dehner, L.P.: Nodular mesothelial hyperplasia in hernia sacs: A benign reactive condition simulating a neoplastic process. *Cancer* 35: 165 (1975).
- 9 McDonald, E.; Sago, A.L.; Novicki, D.E.; Bagnali, J.W.: Paratesticular mesotheliomas. *J. Urol.* 130: 360 (1983).
- 10 Tuttle, J.P.; Rous, S.N.; Harrold, M.W.: Mesotheliomas of spermatic cord. *Urology* 10: 466 (1977).
- 11 Deklerk, D.P.; Nime, F.: Adenomatoid tumors (mesothelioma) of testicular and paratesticular tissue. *Urology* 6: 635 (1975).
- 12 Fishelovitch, J.; Meiraz, D.; Keinan, Z.; Green, I.: Malignant mesothelioma of the testicular tunica vaginalis. *Br. J. Urol.* 47: 208 (1975).
- 13 Mostofi, F.K.; Price, E.B.: Tumors of the male genital system; in Atlas of tumor pathology, series 2, fasc. 8 (Armed Forces Institute of Pathology, Washington 1973).
- 14 Stein, N.; Henkes, D.: Mesothelioma of the testicle in a child. *J. Urol.* 135: 794 (1986).

Received: September 30, 1987

Accepted: September 30, 1987

Dr. Ran Linn  
Department of Urology  
University of Florida  
Gainesville, FL 32605 (USA)