

Double Colorectal Cancer Only Diagnosed by Computed Tomographic Colonography

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Key Words

Colorectal cancer · Obstruction · Computed tomography · Colonography · Virtual colonoscopy

Abstract

A 58-year-old woman presented to her physician with rectal bleeding and intermittent diarrhea. Optical colonoscopy revealed a bulky tumor which was diagnosed as rectal cancer. She was referred to our institution for further evaluation and treatment. Slim optical colonoscopy showed an obstructive cancer in the rectosigmoid junction and no information of the proximal side of the obstruction. The patient then underwent computed tomographic (CT) colonography for further evaluation of the proximal side. Three-dimensional endoluminal 'fly-through' images revealed another protruded lesion in the proximal side of the obstruction. Diagnosis of synchronous double cancer was made by CT colonography. This CT data was not only used to create three-dimensional images but also to decide on a preoperative clinical staging. Laparoscopy-assisted high anterior resection was performed and T3 rectal cancer and T1 sigmoid colon cancer were confirmed in the resected specimen. Follow-up optical colonoscopy revealed no other tumors. CT colonography has recently become a popular preoperative examination tool with significant improvement in quality of image due to a rapid progress in computer technology. CT colonography correctly showed synchronous double cancer in our case and provided crucial information for planning surgery. We recommend that CT colonography should be used for evaluating the proximal side of obstructive colorectal cancer.

Introduction

In patients with obstructive colorectal cancer, where conventional colonoscopy cannot traverse obstruction, clearance of the proximal colon remains a problem.

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Case Report

A 58-year-old woman presented to her physician with rectal bleeding and intermittent diarrhea. Conventional colonoscopy revealed a bulky tumor which was diagnosed as rectal cancer. She was referred to our institution for further evaluation and treatment. Slim optical colonoscopy (PCF-P240AL/I, Olympus, Tokyo, Japan) showed obstructive cancer in the rectosigmoid junction ([fig. 1](#), arrow A) and no information of the proximal side of the obstruction. The patient then underwent multidetector-row computed tomographic (CT) colonography (virtual colonoscopy) for further evaluation of the proximal colon. Three-dimensional endoluminal ‘fly-through’ images revealed another protruded lesion ([fig. 2a](#), arrow B) in the proximal side of the obstruction. Diagnosis of synchronous double cancer was made by CT air-contrast enema image ([fig. 2b](#), arrows A and B). CT colonography showed no other tumors proximal to the obstruction. This CT data was not only used to create three-dimensional images but also to decide on a preoperative clinical staging. Laparoscopy-assisted high anterior resection was performed and T3 rectal cancer and T1 sigmoid colon cancer were confirmed in the resected specimen ([fig. 3](#), arrows A and B). The postoperative course was uneventful. Follow-up conventional colonoscopy revealed no other tumors.

Discussion

Between 4.6 and 11% of patients with colorectal cancer have a second synchronous cancer [1–3]. Preoperative evaluation of the whole colon and rectum in patients with colorectal cancer is widely recommended [4]. Optical colonoscopy is the current gold standard method as it examines the whole colon and rectum. However, preoperative examination by optical colonoscopy may be hampered by occlusive colorectal cancer, and failure to find the presence of a synchronous cancer will change the surgical approach from circumscribed resection to resection of the involved segments [3]. CT colonography might be offered in preference to barium enema for incomplete colonoscopy [5, 6]. CT colonography has recently become a popular preoperative examination tool with significant improvement in quality of image due to a rapid progress in computer technology [7, 8]. CT colonography correctly showed synchronous double cancer in our case and provided crucial information for planning surgery. We recommend that CT colonography should be used for evaluating the proximal side of obstructive colorectal cancer, as it is well tolerated and less invasive [6, 9].

Fig. 1. Optical colonoscopy showing an obstructive cancer in the rectosigmoid junction (arrow A).

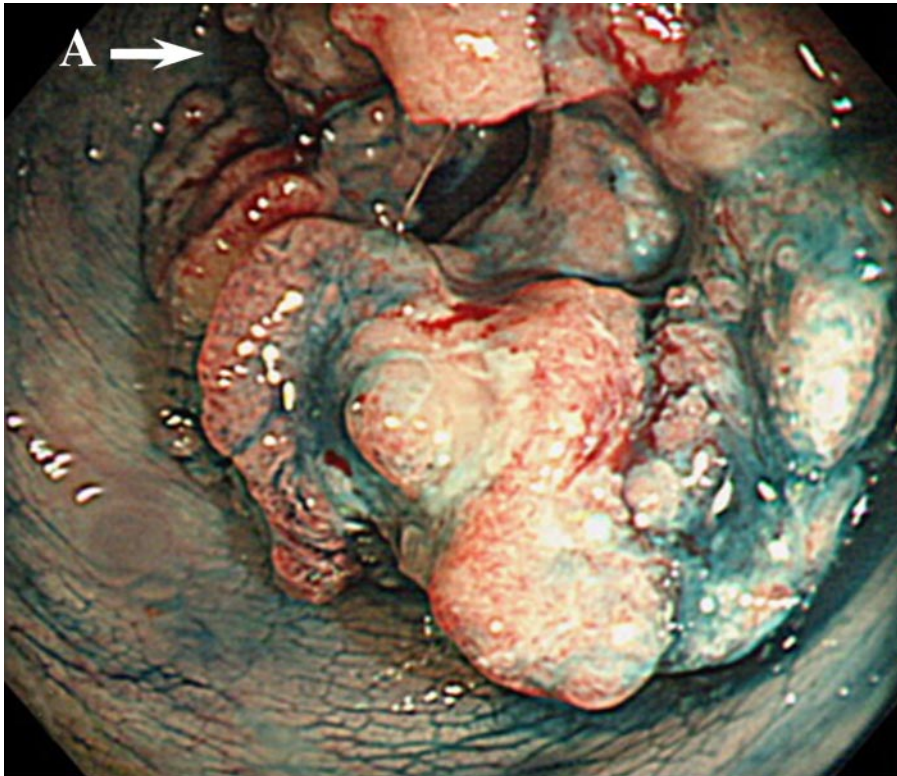


Fig. 2. CT colonography images. **a** Fly-through image revealing another protruded lesion (arrow B) proximal to the obstruction. **b** CT air-contrast enema image showing synchronous double colon cancer (arrows A and B).

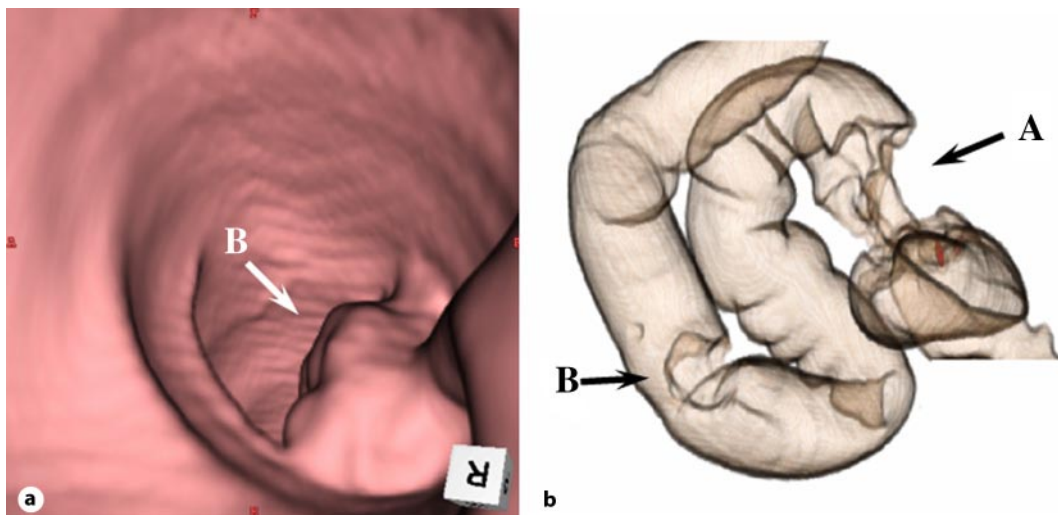
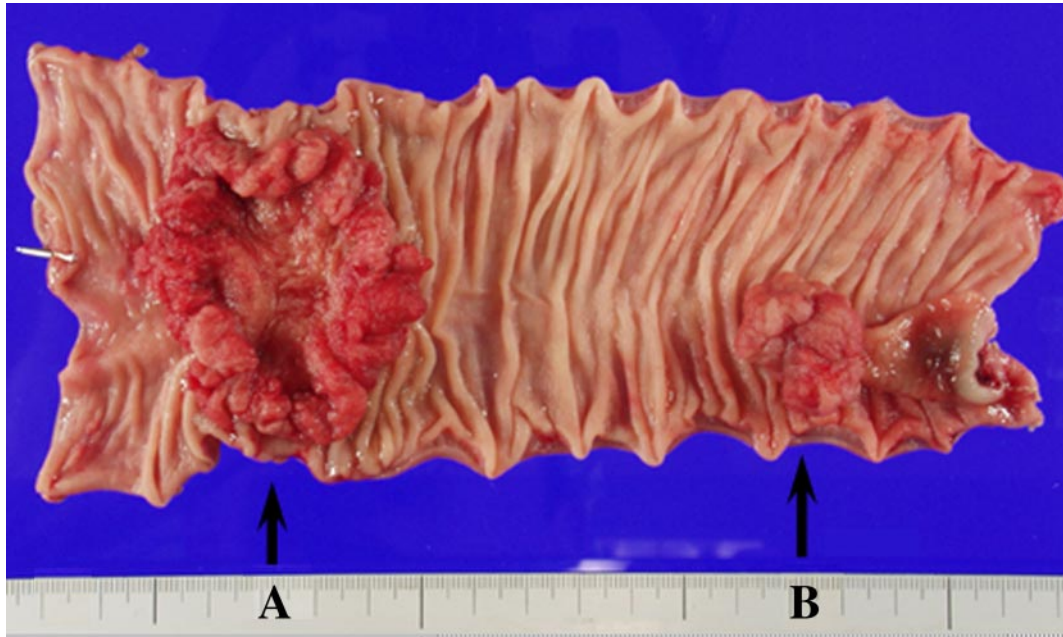


Fig. 3. Resected specimen showing T3 rectal cancer (arrow A) and T1 sigmoid colon cancer (arrow B).



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