

Rectosigmoid Stent for Obstructing Colonic Neoplasms

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Attempting proctoscopic placement of a rectosigmoid stent is proposed as a first step in treating obstructing rectosigmoid neoplasms. If stent placement is successful, elective colon resection can be performed following treatment of any coexisting medical problems that would complicate an emergency colon resection and after routine mechanical bowel preparation. [Key words: Large bowel obstruction; Emergency colon resection; Intraoperative colonic lavage; Surgical technique]

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Therapeutic options in the treatment of obstructing rectosigmoid neoplasms are limited by the inability to rapidly relieve the obstruction. The inability to relieve an acute colonic obstruction from a neoplasm necessitates an emergency operation, as opposed to sigmoid volvulus, which may be converted to an elective procedure. Elective colon resection has distinct advantages compared with emergency colon resection, and this benefit is manifest by the significantly decreased morbidity and mortality as compared with emergency colon operations.¹ Intraoperative colonic lavage facilitates the increased use of resection and primary anastomosis in the face of acute obstruction.² However, this technical advance still does not convert an emergency colon operation into an elective operation.

In two series describing intraoperative colonic lavage in patients requiring emergency colon resection, no patient developed clinical evidence of an anastomotic leak, but between 40 percent and 61 percent of the patients experienced other postoperative complications that were mainly medical.^{3,4} Elderly patients who present with concomitant medical problems in addition to an acute colonic obstruction that requires emergency operative intervention would most likely benefit from preoperative optimization through treatment of these associated conditions. Unfortunately, the time necessary for preoperative optimization is usually not available in the setting of acute obstruc-

tion unless that obstruction can be relieved. This can be done presently with an emergency diverting colostomy. However, this only substitutes a small emergency operation for a larger one.

Using a technique similar to that described for obstructing sigmoid volvulus, complete colon resection secondary to a rectosigmoid neoplasm can sometimes be relieved by proctoscopic placement of a thoracostomy tube stent proximal to the obstruction.

Following proctoscopic stent placement, mechanical bowel preparation and preoperative treatment of associated medical problems can be completed, and colon resection with primary anastomosis can then be performed electively, under optimal conditions.

TECHNIQUE

This 70-year-old female with a history of cardiac disease presented with a 36-hour history of obstipation, nausea, and vomiting and no bowel movement for two weeks. Her abdomen was tense and distended with hypoactive bowel sounds. Her abdominal radiographs suggested an obstruction of the sigmoid colon (Fig. 1). Proctoscopy revealed an obstructing neoplasm at 13 cm from the anal verge. Effacing this lesion with the proctoscope resulted in temporary relief of the obstruction with the passing of large quantities of flatus and feces, suggesting that this was a "ball-valve" type of obstruction. The proctoscope could not be passed beyond the neoplasm, and the passage of colon contents ceased when the proctoscope was withdrawn. A urinary tract infection was diagnosed, and the patient was started on intravenous antibiotic therapy.

The patient's complete obstruction recurred by the second hospital day (Fig. 2). Proctoscopy was repeated, and a 24 Fr thoracostomy tube was successfully advanced above the neoplasm, relieving the acute obstruction (Fig. 3). The stent was secured to the perianal skin using heavy silk suture.

Mechanical colon preparation was completed using both oral polyethylene glycol solution and

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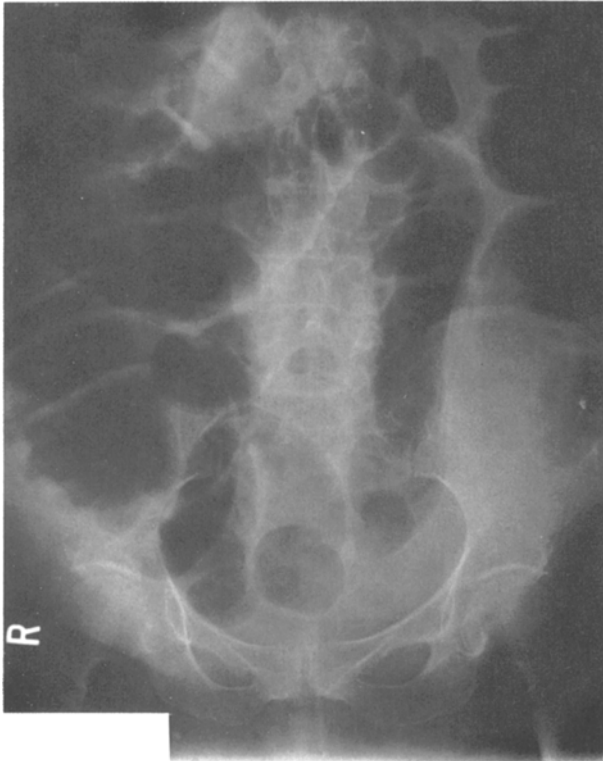


Figure 1. Admission abdominal radiograph demonstrates large bowel obstruction extending to sigmoid colon.

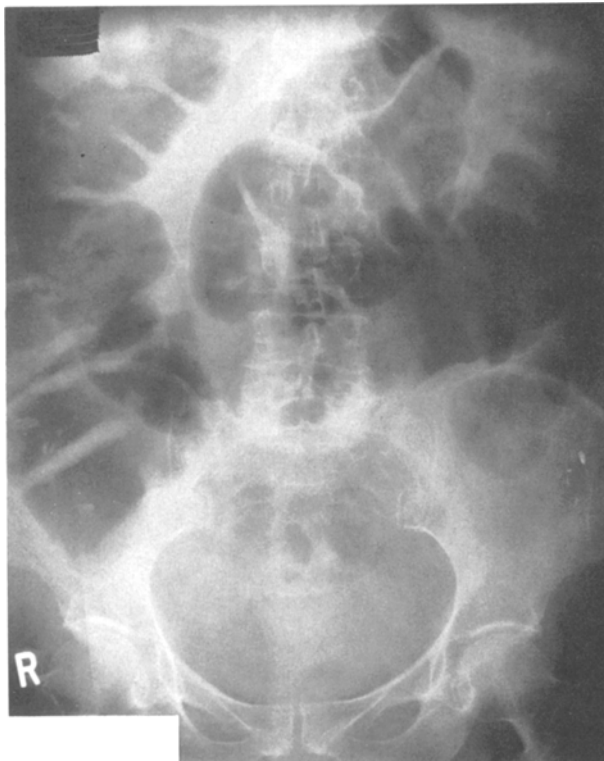


Figure 2. Abdominal radiograph taken on hospital day two demonstrates recurrent large bowel obstruction.

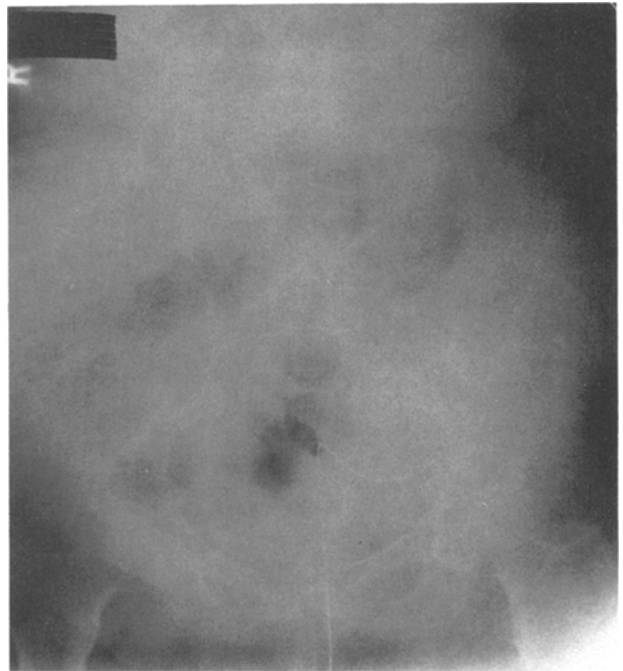


Figure 3. Abdominal radiograph taken following rectosigmoid stent placement reveals intraluminal stent and normal bowel gas pattern.

stent enemas. The urinary tract infection had cleared after the third day of antibiotics. The patient was admitted to the intensive care unit for preoperative placement of a pulmonary artery catheter.

On hospital day four, the patient was taken to the operating room, the rectosigmoid stent was removed, and she underwent low anterior resection with primary rectosigmoid anastomosis.

Pathologic examination of the specimen revealed a Dukes B₂ colon carcinoma.

The postoperative course was uncomplicated. The patient was discharged on postoperative day six, hospital day 10.

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