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Laparoscopy-assisted jejunal resection for bleeding leiomyoma

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Abstract. We report a case of successful resection of a jejunal leiomyoma using a minimally invasive technique. By combining the procedures of push enteroscopy and laparoscopy, jejunal resection can be performed expeditiously without laparotomy.

Key words: Laparoscopic bowel resection — Leiomyoma — Jejunum — Push enteroscopy

With the use of modern enteroscopes, ⩾60 cm of the proximal jejunum can be placed within reach of the endoscopist. Push enteroscopy is particularly valuable for the diagnosis and therapy of enteric bleeding of obscure origin [2]. When enteroscopy and laparoscopy are combined, bleeding lesions located in the proximal jejunum can be resected via a minimally invasive technique without laparotomy. The following case report describes our experience with this novel combined procedure.

Case report

A 65-year-old man with a history of cardiomyopathy and chronic renal failure was admitted with syncope and tarry stools of several days' duration. Physical examination showed pallor, postural hypotension, borborygmi, and melena. Laboratory examination showed a hematocrit of 26%, BUN of 67 mg/L, and creatinine of 2.3 mg/L. Endoscopy of the foregut, up to the third portion of the duodenum, revealed no blood or bleeding sources; colonoscopy showed blood-stained residual lavage fluid only. Push enteroscopy, performed the following day under fluoroscopic control, revealed a 1.5-cm polypoid lesion 70–80 cm distal to the ligament of Treitz, with slow but active oozing (Fig. 1).

Snare excision was precluded because the lesion was at the limit of endoscopic access. Under general anesthesia in the operating room, push enteroscopy was performed to locate the lesion. Once it was in view, laparoscopy was undertaken via a subumbilical port. After the omentum and transverse colon were lifted by forceps passed via a right upper quadrant port, the lighted segment of jejunum was readily visible. A 14-mm port was placed opposite the lighted jejunum, which was picked up with laparoscopic bowel forceps. The enteroscopic view assured our surgical team of the correct location. The enteroscope was then withdrawn. The identified loop of jejunum was exteriorized through the port site using an umbilical tape threaded through an avascular window close to the mesenteric border (Fig. 2). Resection and manual end-to-end anastomosis was performed on the surface of the abdomen. The entire procedure took <1 h, including enteroscopy. The patient was discharged on day 2. Pathology showed a leiomyoma with evidence of bleeding.

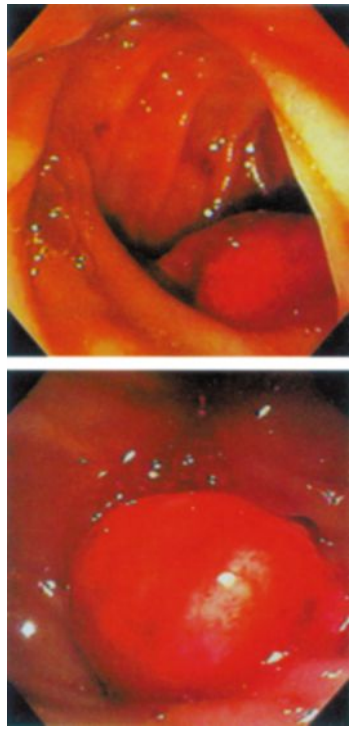

Fig. 1. Enteroscopic views of a bleeding polypoid lesion in the proximal jejunum.

Discussion

Laparoscopic mobilization followed by exteriorization and resection is an effective technique in laparoscopy-assisted colon resections [1, 3]. The combination of endoscopic localization and laparoscopic resection is particularly applicable for the mobile part of the gastrointestinal tract, which is within reach of the endoscope. As illustrated by this case, a rapid and minimally invasive operation on the small bowel is possible using this technique. Once the bowel is exteriorized via a port site, any surgical procedure can be per-

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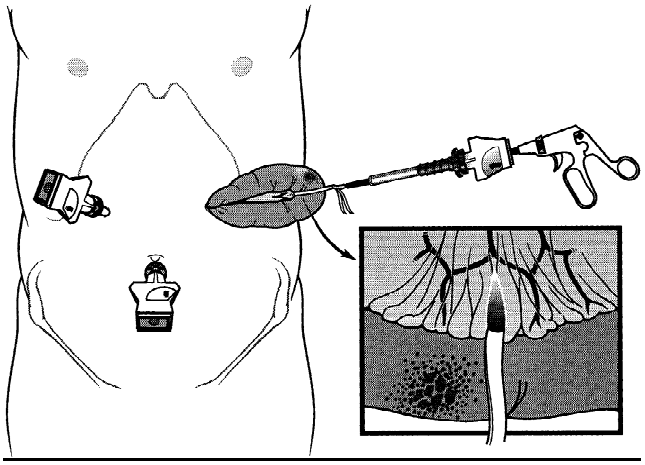

Fig. 2. Method of exteriorization of a loop of jejunum. The umbilical tape has been threaded through an avascular window of the mesentery adjacent to the bowel, which was brought out by gentle traction through the 1.4-cm port site.

formed, including resection and anastomosis, enterotomy, stricturoplasty, or open ablation of luminal lesions.

In this era of increasing laparoscopic sophistication, elaborate and intricate laparoscopic maneuvering needs longer operating time, uses more supplies, and incurs more risks to the patient. Until totally laparoscopic operations can be performed more expeditiously, laparoscopy-assisted operations will continue to be preferable because of their simplicity.

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References

1. Chung RS (1997) Colectomy for sigmoid volvulus. Dis Colon Rectum 40: 363–365
2. Technology Assessment Committee, American Society of Gastrointestinal Endoscopy (ASGE) (1991) Status evaluation: enteroscopy. Gastrointest Endosc 37: 673–677
3. Zucker KA, Pitcher DE, Martin DT, Ford RS (1994) Laparoscopic-assisted colon resection. Surg Endosc 8: 12–18