

Restoration of colonic patency of a completely obstructed Crohn's stricture using the combined antegrade-retrograde dilation procedure

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Combined antegrade-retrograde endoscopic dilation (CARD) is often performed in complete esophageal obstructions secondary to malignancy, radiotherapy, or both. We report a case of complete rectal obstruction secondary to a Crohn's stricture treated by the CARD procedure.

A 30-year-old woman with a 19-year history of ileocolic Crohn's disease, complicated by rectoanal strictures requiring multiple endoscopic dilations and an anal fistula requiring a Seton placement 9 years prior, had undergone a partial transverse colectomy with transverse colocelecal anastomosis secondary to a motor vehicle accident (not related to Crohn's disease) 15 years prior. Home medications included adalimumab 40 mg every 2 weeks. A colonoscopy performed 18 months earlier showed a very tight distal rectal stricture. After digital dilation of the stricture to an estimated 16 mm, the entire colon, including the anastomosis, appeared unremarkable. The procedure was complicated by a perforation at the transverse colocelecal anastomosis. An emergent exploratory

laparotomy was performed, with lysis of adhesions, ileocelectomy, ileocolic anastomosis, and diverting loop ileostomy (Fig. 1). The postoperative course was

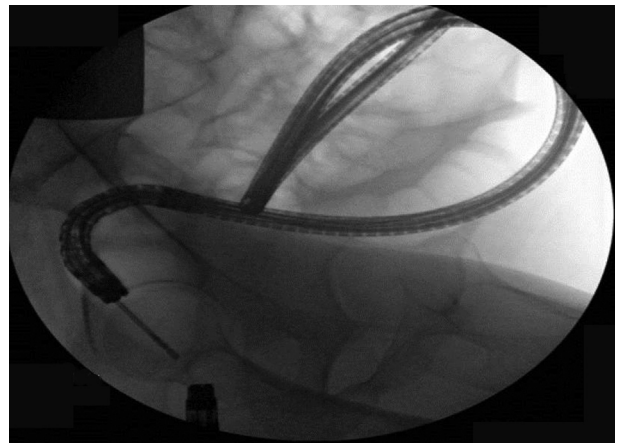


Figure 2. Fluoroscopic view showing the rectal obstruction with alignment of the pediatric colonoscope passed through the stoma and the therapeutic linear echoendoscope passed through the rectum.

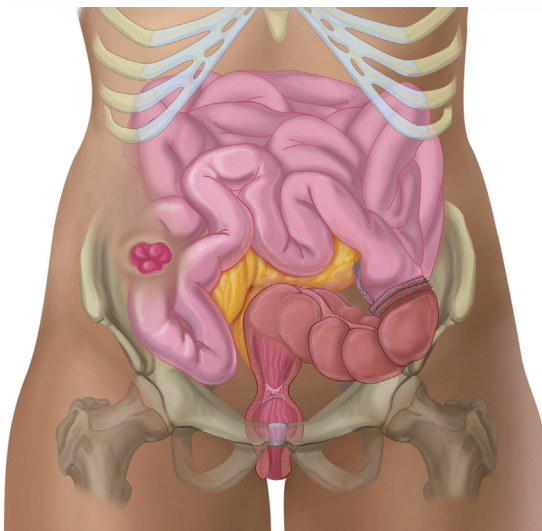


Figure 1. Patient's anatomy: diverting loop ileostomy, ileocolic anastomosis, and rectal obstruction secondary to the stricture.

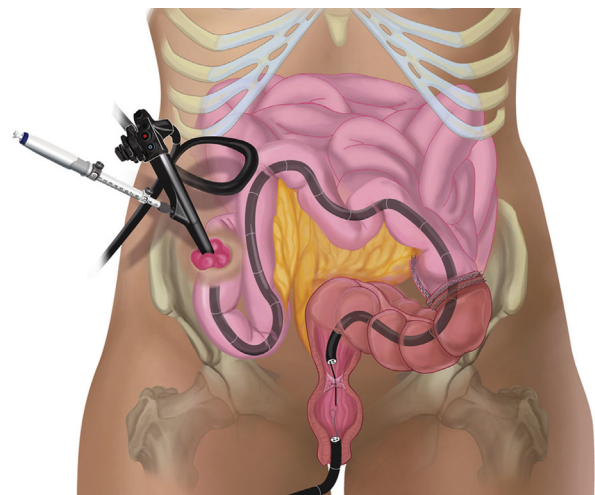


Figure 3. Passage of guidewire across the rectal obstruction.

Written transcript of the video audio is available online at www.VideoGIE.org.

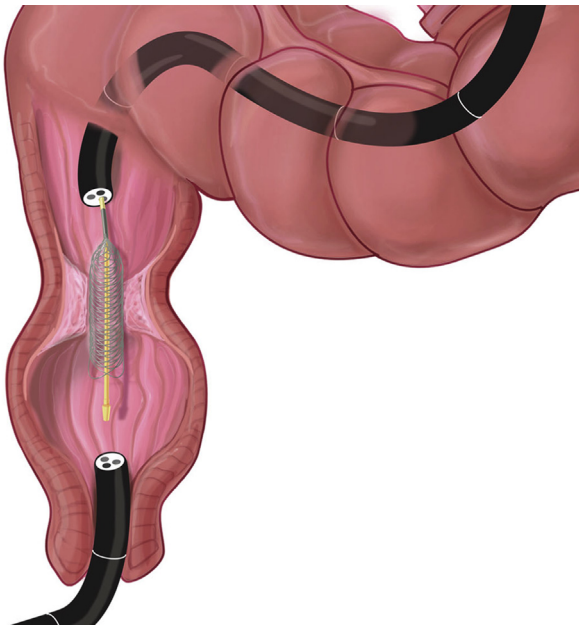


Figure 4. 10 mm × 10 cm fully covered biliary metal wall stent across the stricture.

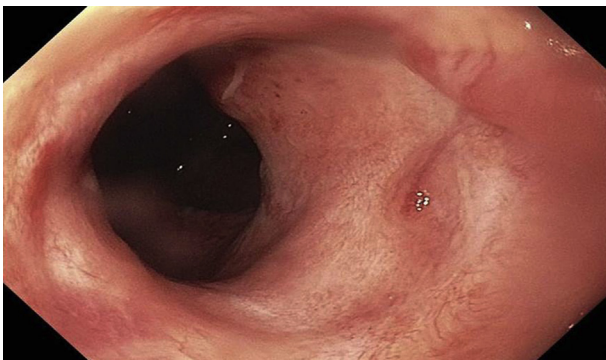


Figure 5. A stable and widely patent rectal stricture at 3 months after combined antegrade-retrograde dilation procedure.

complicated by an intra-abdominal abscess requiring CT-guided drainage and a left-sided pleural effusion requiring thoracentesis, antibiotics, and total parenteral nutrition.

The patient now experienced intermittent high output and peristomal leakage leading to severe contact dermatitis. We planned to take down the diverting loop ileostomy. A flexible sigmoidoscopy with a guidewire revealed a complete obstruction 2 cm proximal to the dentate line. After a multidisciplinary discussion, we pursued a novel rectal CARD approach ([Video 1](#), available online at www.VideoGIE.org).

Two endoscopes were separately passed in an antegrade (through the ileostomy) and a retrograde (through the anus) fashion to reach the obstruction. Under fluoroscopic guidance, a 0.035 guidewire was passed through a needle in the center of the obstruction ([Figs. 2 and 3](#)).

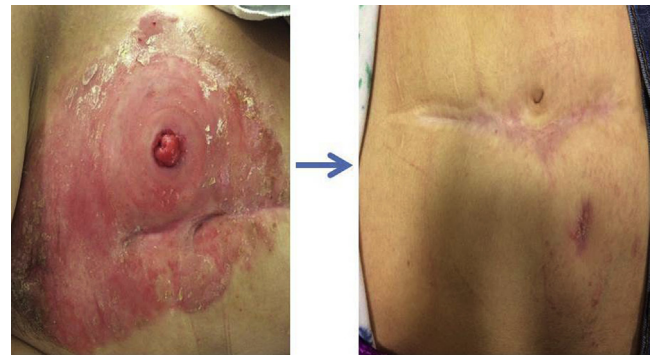


Figure 6. Complete resolution of peristomal dermatitis 4 months after the diverting loop ileostomy takedown.

A through-the-scope CRE balloon dilator (Boston Scientific, Marlborough, Mass) was used to open a track to 8 mm, whereupon a 100 mm × 10 mm fully covered biliary metal wall stent was placed into the stricture ([Fig. 4](#)). Flexible sigmoidoscopy 2 months later showed a patent stricture with a 1-cm luminal diameter, the stent was removed, and the stricture was dilated to 15 mm. The patient underwent serial dilations to 18 mm until the stricture appeared wide and patent 3 months after the CARD procedure ([Fig. 5](#)). A subsequent ileostomy takedown 4 months after the CARD procedure was successful. At the 4-month postoperative follow-up visit, the patient was feeling very well, had returned to work, had 4 to 5 bowel movements a day, had gained 15 pounds, experienced no symptoms of stricture, and enjoyed complete resolution of the dermatitis ([Fig. 6](#)).

Our case highlights the potential broader applications of the novel CARD procedure such as restoring colonic patency in a completely obstructed Crohn's stricture with an underlying stoma in place.

DISCLOSURE

Dr Moyer and Dr Mathew are consultants for Boston Scientific. Dr Williams and Dr Tinsley are consultants and speakers for Abbvie Pharmaceuticals. All other authors disclosed no financial relationships relevant to this publication.

Abbreviation: CARD, combined antegrade-retrograde endoscopic dilation.

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