



If at first you don't succeed... a complicated course of endoscopic reversal of a gastric bypass

Kevin D. Platt, MD,¹ Oliver A. Varban, MD,² Allison R. Schulman, MD, MPH^{1,2}

Marginal ulcer remains a common adverse event after Roux-en-Y gastric bypass (RYGB). Despite treatment with antisecretory therapy, up to a third of patients with recalcitrant ulcers may require surgical revision.¹⁻⁴ In suboptimal surgical candidates or in patients who have failed attempts at surgical intervention, endoscopic techniques may be a preferable or required approach. Case reports have described uncomplicated endoscopic bypass reversal to treat refractory marginal ulcers.⁵ Here, we describe a more complicated, protracted case of a refractory marginal ulceration requiring endoscopic reversal, highlighting the potential for an oscillating, yet

salvageable, approach (Video 1, available online at www.giejournal.org).

A 41-year-old woman with a distant history of open RYGB requiring a complex surgical revision re-presented several years later with abdominal pain, vomiting, and failure to thrive. The patient had an extensive evaluation at outside institution, including numerous endoscopic procedures without a clear anatomic cause, and she was ultimately taken to the operating room for reversal of her bypass. This procedure was aborted because of significant adhesions and was also complicated by considerable bleeding, requiring reoperation.

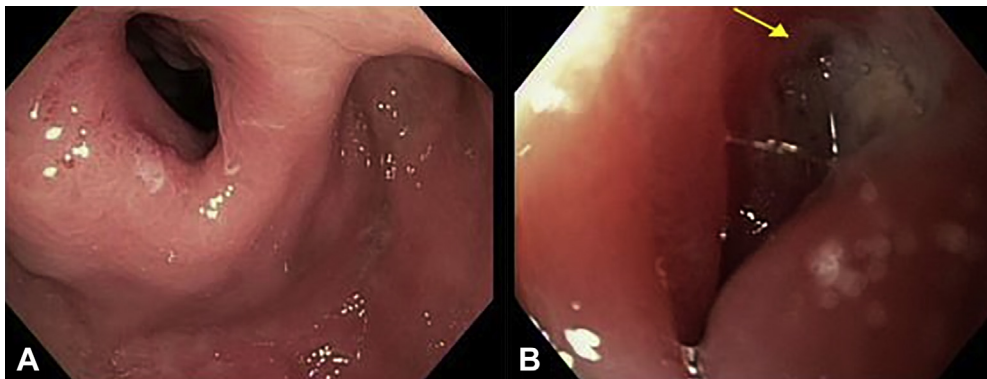


Figure 1. Stenosis of the gastrojejunal anastomosis with deeply cratered marginal ulceration on jejunal aspect (arrows) (A) visualized on closer inspection (B).



Figure 2. EUS-guided contrast injection following access of the gastric remnant in preparation for lumen-apposing metal stent deployment (A), also visualized on fluoroscopy (B).

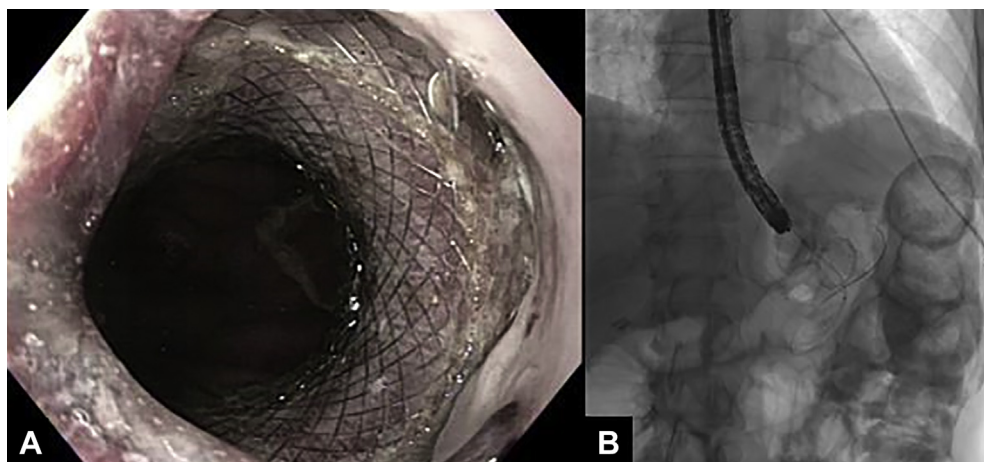


Figure 3. Endoscopic (A) and fluoroscopic (B) images after deployment of a lumen-apposing metal stent to reconstitute connection between gastric pouch and remnant.



Figure 4. Completion of Roux-en-Y gastric bypass reversal with endoscopic suturing closure of the gastrojejunal anastomosis.

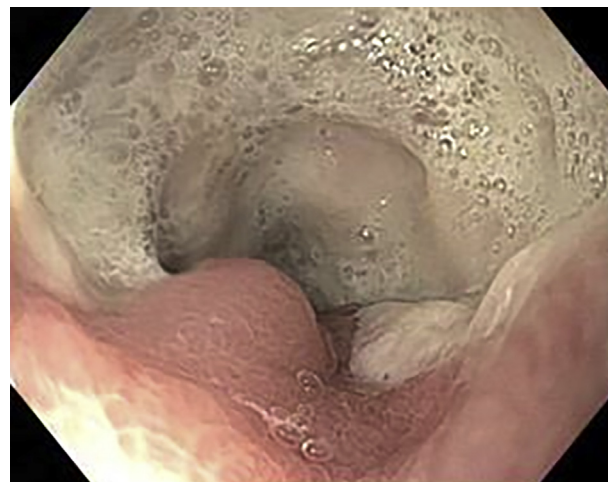


Figure 5. Recurrent large marginal ulceration following embolization of a branch of the left gastric artery.

Since that time, symptoms progressed. She underwent EGD, which was notable for stenosis of the gastrojejunal anastomosis as well as a marginal ulcer on the jejunal aspect (Fig. 1). Serial balloon dilations were performed; however, symptoms persisted, ultimately requiring enteral tube feeding.

Her case was presented at a multidisciplinary conference. Given the inability to reverse her RYGB surgically, the decision was made to proceed with endoscopic reversal. The gastric remnant was identified and accessed endosonographically (Fig. 2). A 20- × 10-mm electrocautery enhanced lumen-apposing metal stent was successfully deployed to reconstitute the connection between her pouch and remnant stomach (Fig. 3). After placement, the stent was dilated with a hydrostatic balloon, at which point significant bleeding was visualized. Despite endoscopic

efforts, urgent angiography was ultimately required. Active extravasation was seen from a small branch of the left gastric artery, and coiling was successful.

The patient ultimately recovered, and endoscopic reversal was completed by closure of the gastrojejunal anastomosis with suturing (Fig. 4). Unfortunately, several weeks later, her pain recurred. EGD revealed a large pouch ulcer due to ischemia from prior embolization (Fig. 5). Repeat endoscopic suturing was performed to oversee the ulcer.

Several months later, the patient represented with acute pain and vomiting. EGD revealed migration of the lumen-apposing metal stent into the gastric remnant, and this was removed. A longer, fully covered self-expandable metal stent was placed and fixated (Fig. 6). There was evidence of recurrent marginal ulceration, which was re-treated with endoscopic suturing.

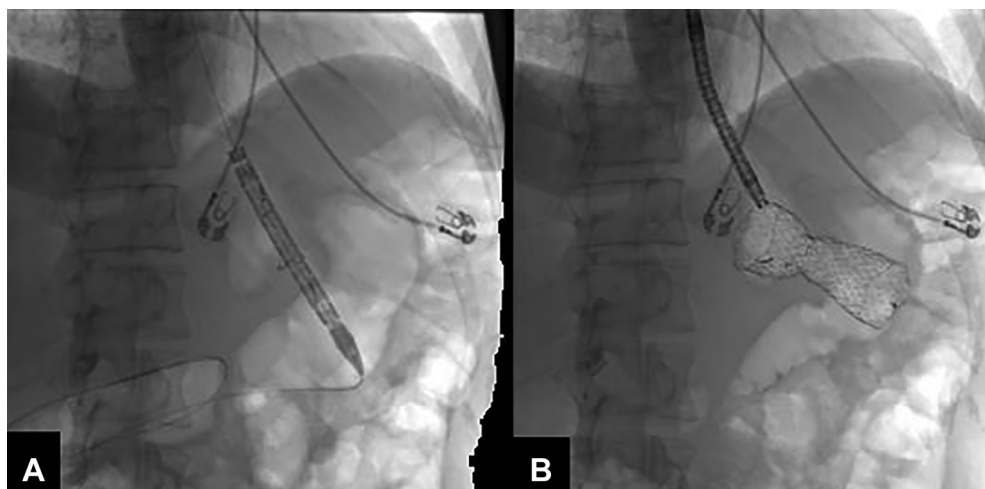


Figure 6. Fluoroscopic image before (A) and after (B) deployment of fully covered self-expandable metal stent to maintain fistulous connection between the gastric pouch and remnant.

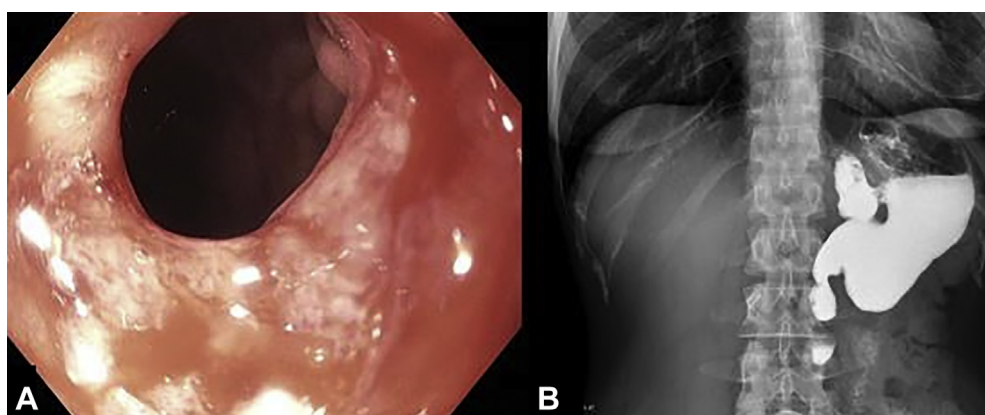


Figure 7. Endoscopic (A) and upper GI series (B) demonstrating patent gastro-gastric fistula.

The patient felt well for several months, until she again presented with obstructive symptoms. Repeat EGD revealed migration of the fully covered self-expandable metal stent. Given the chronicity and complete epithelization of the fistulous tract, the decision was made not to replace the stent. An upper GI series 4 weeks later demonstrated a patent gastro-gastric fistula (Fig. 7). At 6 months of follow-up, she continues to see our surgical colleagues regularly to discuss next steps or definitive operative intervention should symptoms recur.

This video highlights the complicated, yet salvageable, course of an endoscopic reversal of RYGB for recalcitrant marginal ulcer after failure of surgical intervention. As demonstrated in this case, multiple stent placements and repeated endoscopic suturing may be required to achieve this successful outcome. Furthermore, should future surgical interventions be entertained, endoscopic

management may provide temporization and nutritional optimization during a time at which operative options are suboptimal.

DISCLOSURE

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Abbreviation: RYGB, Roux-en-Y gastric bypass.

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Division of Gastroenterology, University of Michigan, Ann Arbor, Michigan (1), Department of Surgery, University of Michigan, Ann Arbor, Michigan (2).

If you would like to chat with an author of this article, you may contact Dr Platt at plattk@med.umich.edu.

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