



A unique twist following treatment of a sleeve gastrectomy leak: a multidisciplinary approach

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Sleeve gastrectomy (SG) is currently the most common bariatric surgery procedure performed.¹ GI leak is a known adverse event of SG, reported in up to 3% of patients,² and is often the result of increased intraluminal pressure exceeding the strength of tissue and/or the staple line. Although there is a growing endoscopic armamentarium to manage these adverse events, refractory leaks often require surgical intervention.³⁻⁶ We describe a complex case of a leak after SG that, despite operative management, required a multidisciplinary approach involving endoscopic and surgical treatment strategies (Video 1, available online at www.giejournal.org).

A 41-year-old woman underwent a laparoscopic sleeve gastrectomy at an outside institution that was complicated by a leak at the proximal staple line and severe stenosis in the mid-body of the gastric sleeve. Endoscopic interventions were attempted, but were ineffective, and she ultimately underwent a laparoscopic procedure in which a Roux-en-Y gastrojejunostomy was created, with the Roux limb being used to drain the leak site (Fig. 1). Despite definitive therapy of the leak, she continued to experience significant epigastric abdominal pain, nausea, and vomiting, requiring frequent intravenous infusions. She was subsequently referred to our institution for further management.

Upper GI series demonstrated oral contrast passing down 2 lumens, the Roux-en-Y gastrojejunostomy, and the gastric sleeve (Fig. 2). Upper endoscopy findings were notable for a widely patent gastrojejunostomy (Fig. 3) and a severely stenotic and spiraled sleeve gastrectomy, resulting in food and gastric contents pooling in the stomach and refluxing into the Roux limb, which was thought to be a major contributor to her pain and vomiting. She underwent several attempts at endoscopic dilation without significant improvement in her symptoms.

Her case was discussed at a multidisciplinary review committee involving interventional endoscopy and bariatric surgery. Given her unique anatomy with 2 outflow tracts, the decision was made to try closing off the gastric sleeve endoscopically such that food and enteric contents would preferentially pass through the Roux-en-Y gastrojejunostomy, thereby avoiding passage through the stenotic and spiraled gastric sleeve. Although the durability of an endoscopic closure like this was unknown, the thought was to try this minimally invasive approach first, with the option to pursue a more definitive surgical closure if symptoms improved.

The gastric sleeve lumen was closed via endoscopic suturing (Fig. 4) with the use of an endoscopic suturing device (Overstitch, Apollo Endosurgery, Austin, Tex, USA). The

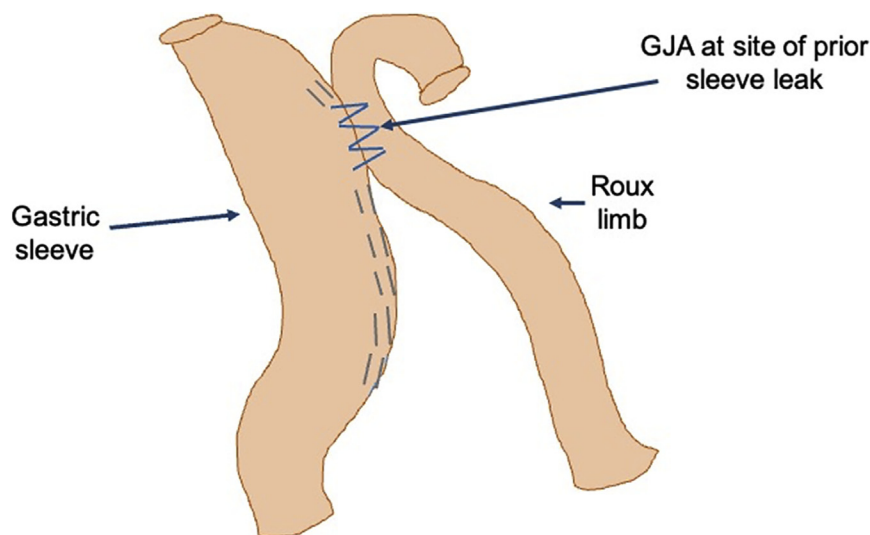


Figure 1. Cartoon depiction of Roux-en-Y gastrojejunostomy.



Figure 2. Upper GI series demonstrating passage of oral contrast down 2 lumens: gastric sleeve and Roux-en-Y gastrojejunostomy.



Figure 3. Endoscopic visualization of gastrojejunal anastomosis and gastric sleeve.

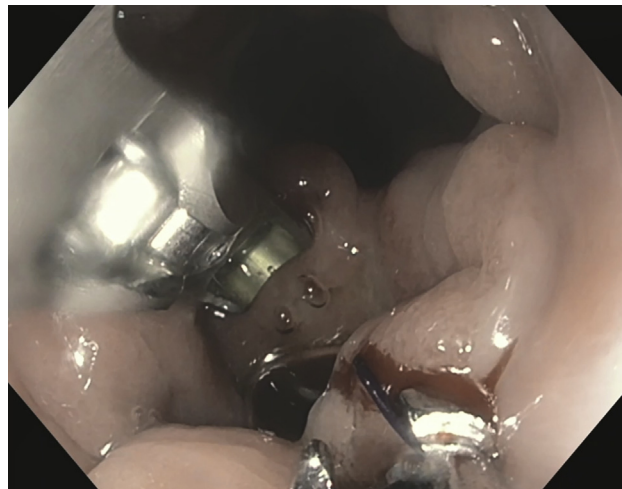


Figure 4. Endoscopic suturing of the gastric sleeve lumen.

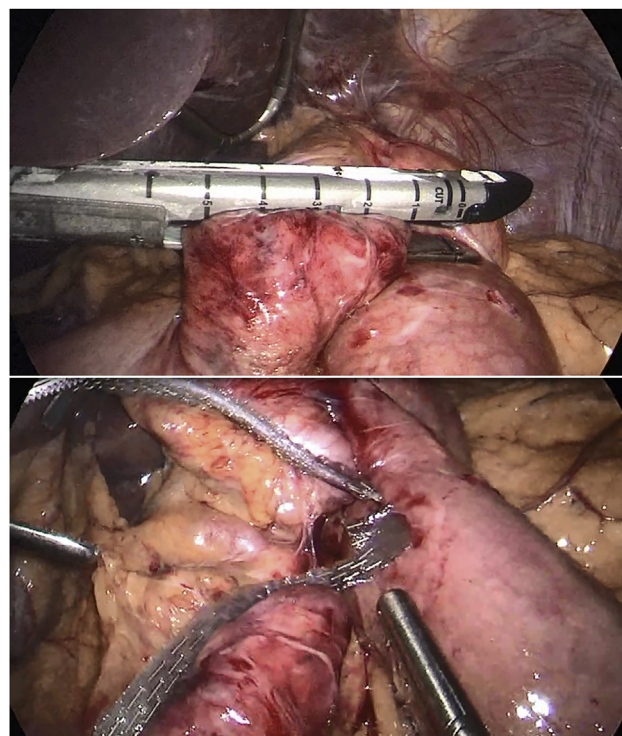


Figure 5. Laparoscopic transection of gastric sleeve and Roux limb of gastrojejunostomy.

patient experienced temporary relief; however, symptoms recurred 4 weeks later. Given the initial success with this minimally invasive approach, the decision was made to pursue a more invasive but durable approach that involved laparoscopic transection of the gastric sleeve (Fig. 5). Postoperative upper GI series demonstrated exclusive passage of oral contrast through the gastrojejunal

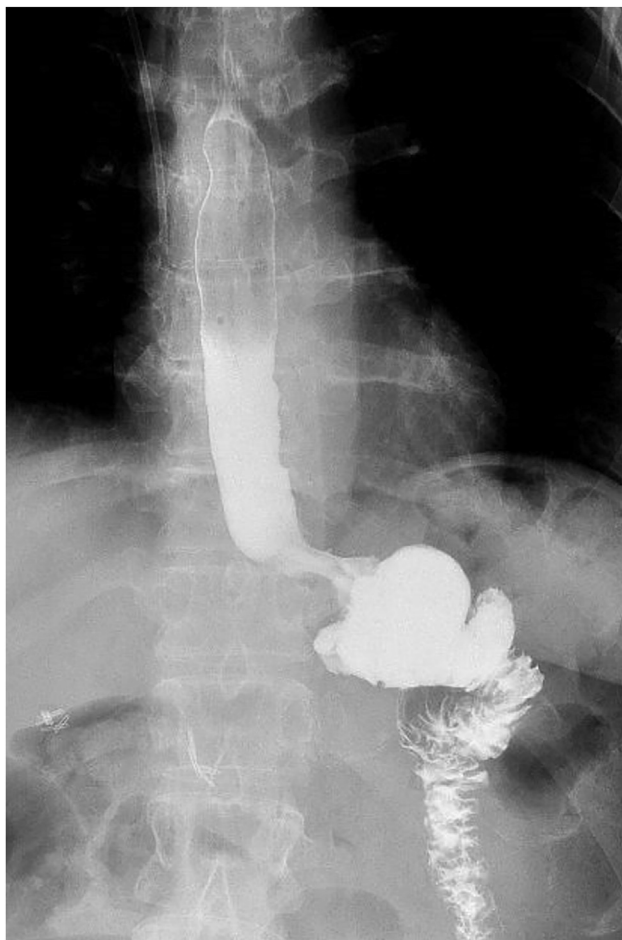


Figure 6. Upper GI series demonstrating passage of oral contrast exclusively through gastrojejunostomy into Roux limb.

anastomosis (Fig. 6). The patient's symptoms improved markedly postoperatively, and at 1 year of follow-up, she continues to tolerate a regular diet without vomiting, dysphagia, or gastroesophageal reflux disease.

This unique case highlights how endoscopic techniques may be initially used as a less-invasive treatment strategy to set the stage for more definitive surgical management. Furthermore, this case underscores the importance of a multidisciplinary approach to these complex cases.

DISCLOSURE

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Abbreviation: SG, sleeve gastrectomy.

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