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. GI leak is a known adverse event of SG, reported in up to 3% of patients, 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. 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. 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).
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...
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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