A case report of a contained gastric remnant perforation with Endoscopic Ultrasound-Directed Trans-gastric ERCP (EDGE) in a post-gastric bypass patient.

Tamar M. Gordis, MD[1]; Tara Ranjbar, MD[1]; *Kellie Hon, MD[1]*; Heather Galindo, MD[1]; Sierra Grasso, DO[1]; Youssef El Douaihy, MD[2]; Olivia Haney; MD[1], Indraneil Mukherjee, MD[1]

[1] Staten Island University Hospital Department of Surgery

[2] Staten Island University Hospital Department of Advanced Gastroenterology

Introduction

- While rare (with an incidence of 0.84 - 1.0%), gastric remnant perforation poses a notable challenge.
- Most reported cases describe surgical intervention, but endoscopic management has not previously been documented.

Case Presentation

- A 74-year-old female presented to the emergency room with two days of epigastric abdominal pain and nausea.
  CT demonstrated a walled-off perforation of the excluded stomach.
- She was admitted to the surgical intensive care unit for close hemoglobin and hemodynamic monitoring,
  with subsequent imaging demonstrating a progressively organizing and growing collection adjacent to the gastric pylorus.
- Interventional radiology placed a pigtail catheter, and she was discharged with drain management, a proton pump inhibitor, and oral antibiotics. S
- he returned for an elective Endoscopic Ultrasound-Directed Trans-gastric ERCP (EGDE) with advanced gastroenterology with deployment of a lumen-apposing metal
  stent to establish a decompression gastro-gastric fistula.
- PMHx: HTN, HLD, Ozempic use, peptic ulcer disease
- PSHx: Laparoscopic cholecystectomy and Roux-en-Y gastric bypass (> 20 years prior)

Procedure Overview

- Under EUS guidance, a 19-gauge FNA needle punctured the remnant stomach,
- 20 x 10 mm cautery-enhanced lumen-apposing metal stent.
- (LAMS) was successfully deployed to create a secure fistula between the gastricpouch and the remnant stomach in a technique similar to drainage of a pancreatic pseudocyst, with the distal flange positioned within the remnant stomach and the proximal flange in the gastric pouch.
- Correct positioning of the stent was confirmed fluoroscopically and endoscopically.
- The stent was dilated to 18 mm using a CRE balloon and the remnant stomach was seen through the stent.

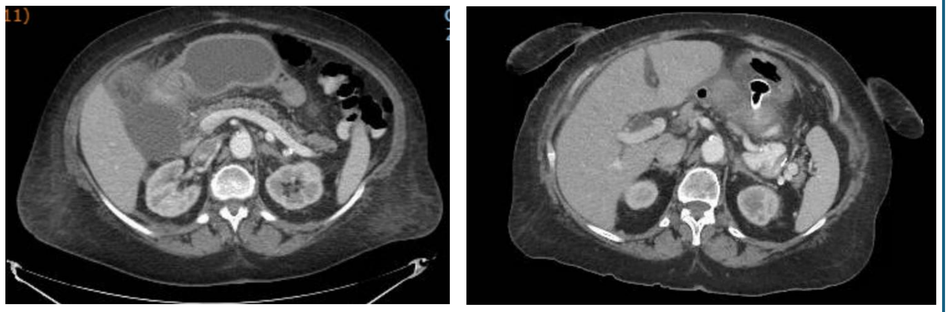

Figure 1: Distended fluid-filled excluded stomach with antral and pyloric wall thickening. Phlegmonous region/organizing collection measuring approximately 7.9 x 4.1 cm.
Figure 2: Post-procedure day 1 following EDGE. Interval placement of stent between gastric remnant and gastric pouch, with oral contrast traversing through the stent.

Discussion

- Due to nonspecific clinical findings and complicated postoperative anatomy, it can be difficult to arrive at a diagnosis of perforated gastric remnant in a post-gastric bypass patient.
- Imaging often demonstrates fluid collections, while conventional signs of perforation such as free air may be absent. Risk factors are largely deemed similar to those for marginal gastro-jejunal ulcers (such as smoking, NSAID use, alcohol abuse, and infection with H. pylori).
- Standard management includes medical therapy (proton pump inhibitor therapy, antibiotics) and surgical repair of the defect (robotic, laparoscopic, or open).
- The EDGE procedure, traditionally used for pancreaticobiliary access, allows for the creation of a gastro-gastric or gastrojejunal fistula for remnant decompression and represents a minimally invasive alternative for decompressions and perforation prevention.

Sources

- Munhoz, A., et al. Perforated duodenal ulcer after Roux-en-Y gastric bypass: an unusual complication. Endocrinol. diabetes metab. case rep. 2-24 Jul 13; 3:2024. doi: 10.1530/EDM-24-0049
- Ovaere, S., et al. Perforation of the gastric remnant in a patient post-Roux-en-Y gastric bypass. BMJ Case Rep. 2016 Feb 29;2016:bcr2015213862. doi: 10.1136/bcr-2015-213862
- Pereira, H., et al. Gastric Remnant Perforation 10 Years After Roux-en-Y Gastric Bypass: A Report of a Rare Case. Cureus. 2025 May 30;17(5):e85077. doi: 10.7759/cureus.85077.
- Marquez, B., et al. Perforated pre-pyloric ulcer in the gastric remnant over a decade after Roux-en-Y gastric bypass: A case report. Int. J. Surg. Case Rep. 2023 October; 111. doi:10.1016/j.ijscr.2023.108888.
- Dai, L., et al. Perforated gastric remnant ulcer after laparoscopic gastric bypass. BMJ Case Rep. 2018 Apr 5;2018:bcr2017222190. doi: 10.1136/bcr-2017-222190.
- Kedia, P., et al. Endoscopic ultrasound-directed transgastric ERCP (EDGE): A multicenter US study on long-term follow-up and fistula closure. Endosc Int Open 2023 May 26;11(5):E529–E537. doi: 10.1055/a-2057-5984.