ACG CASE REPORTS JOURNAL

IMAGE | ESOPHAGUS

Diagnosis and Management of an Esophagogastric Fistula as a Rare Complication of Nissen Fundoplication

Mariam Naveed, MD,[1] Jennifer L. Rossen, BS,[1] Kerry Dunbar, MD, PhD,[1,2] Zeeshan Ramzan, MD,[1,2] and Sachin Kukreja, MD[3,4]

[1]*Department of Internal Medicine, University of Texas Southwestern Medical Center, Dallas, TX*
[2]*Department of Internal Medicine, VA North Texas Health Care System, Dallas VA Medical Center, Dallas, TX*
[3]*Department of Surgery, University of Texas Southwestern Medical Center, Dallas, TX*
[4]*Department of Surgery, VA North Texas Health Care System, Dallas VA Medical Center, Dallas, TX*

Case Report

Esophagogastric fistula is a rare complication following Nissen fundoplication, with symptoms usually developing within weeks to 3 years postoperatively.[1-3] Proposed mechanisms include recalcitrant reflux, erosion of sutures with Teflon pledgets, and damage associated with repeat procedures.[1-3] Past reports describe management of the esophagogastric fistulae with anti-reflux medications, dilation of both lumens, and repeat fundoplication.[1-3]

A 55-year-old obese male with peptic ulcer disease, diabetes mellitus, hypertension, and GERD treated with Nissen fundoplication 16 years ago presented with a 3-year history of dysphagia, odynophagia, 12-kg weight loss, and postprandial epigastric abdominal pain. Esophagogastroduodenoscopy (EGD) revealed intact Nissen fundoplication and fistulous tracts connecting the esophagus and the stomach (Figure 1), which was confirmed on retroflexed view of the gastric cardia (Figure 2). A barium esophagogram revealed 2 esophagogastric fistulas, moderate reflux into the esophagus, and mild presbyesophagus (Figure 3). The original operative report was not available, but we suspected that Teflon pledgets were used to reinforce the fundoplication during surgery, as was common practice at that time. We believe our patient's fistula developed as a consequence of constant irritation from pledgets, causing it to erode from the gastric serosa into the esophageal lumen on both sides of the wrap.[2]

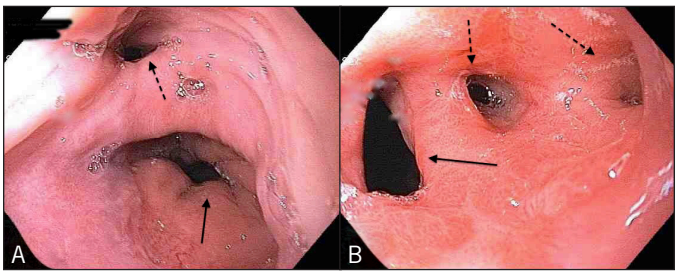

Figure 1. Forward view of the (A) distal esophageal lumen (solid arrow) and esophagogastric fistula (dashed arrow) and (B) distal esophagus showing native esophageal lumen (solid arrow) as well as 2 additional esophagogastric fistulas (dashed arrows).

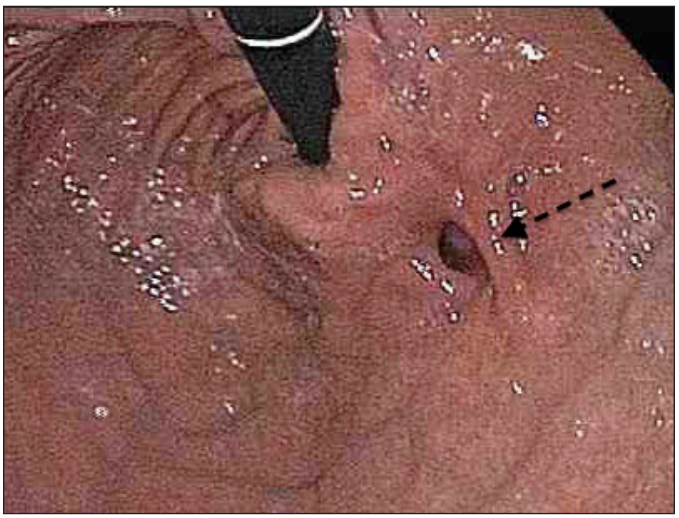

Figure 2. Retroflexed view of the cardia showing an intact Nissen fundoplication and esophagogastric fistula (dashed arrow).

ACG Case Rep J 2015;2(2):68-69. doi:10.14309/crj.2015.4. Published online: January 16, 2015.

Correspondence: Sachin Kukreja, MD, FACS, VA North Texas Health Care System: Dallas VA Medical Center, 4500 South Lancaster Road, Dallas, TX 75216 (sachin.kukreja@utsouthwestern.edu).

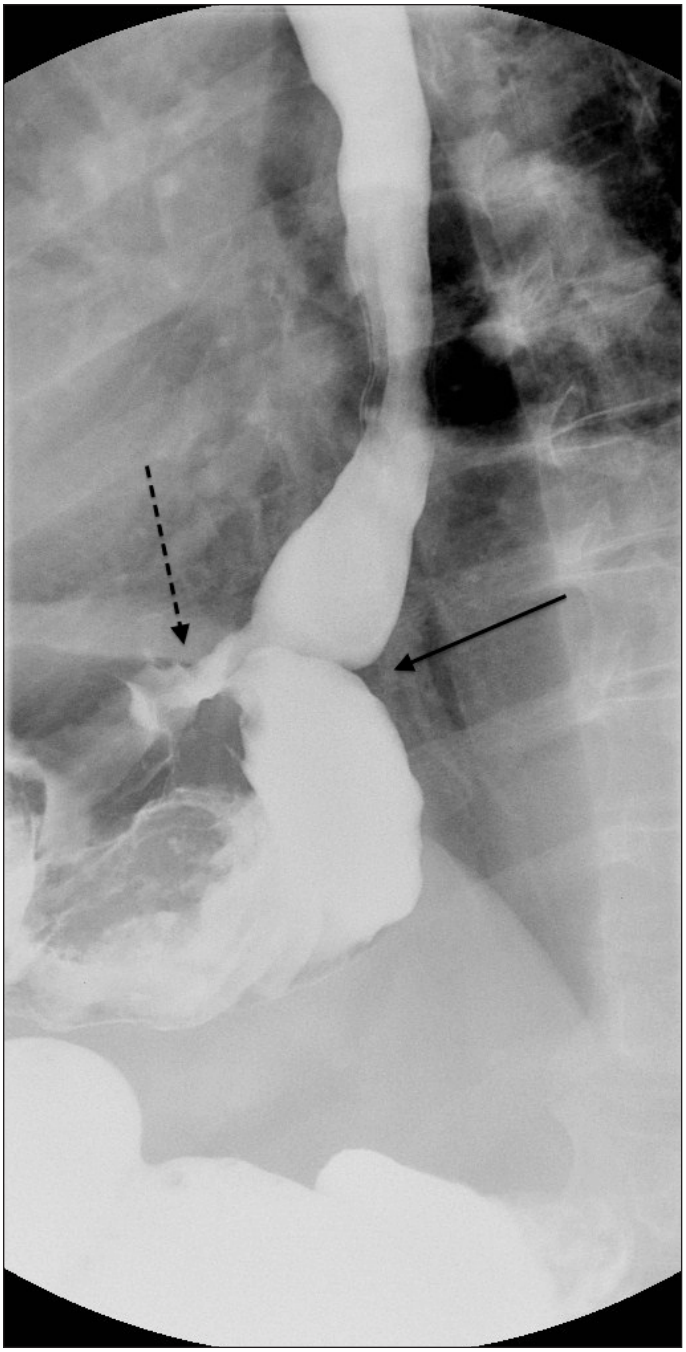

Figure 3. Barium esophagogram showing abnormal distal esophageal anatomy with 2 tracts: esophagogastric fistula (dashed arrow) and another tract showing normal flow from the esophagus into stomach (solid arrow).

Conservative management with optimized medical therapy for GERD failed, and the patient opted for surgery. The surgical approach included laparoscopic esophageal transection above the wrapped esophagus, Roux-en-Y reconstruction with esophagojejunostomy, and excision of the wrap with attached esophagus. Gastric bypass was selected for this patient due to his obesity and underlying comorbid conditions. The patient had resolution of his symptoms, decrease in body mass index (BMI) from 36.11 kg/m^2 to 30.58 kg/m^2, and improvement of diabetes and hypertension.

Disclosures

Author contributions: All authors equally contributed to the writing and editing of the manuscript. S. Kukreja is the article guarantor.

Financial disclosure: None to report.

Informed consent was obtained for this case report.

Received: July 6, 2014; Accepted: November 30, 2014

References

1. Fleming JL, DiMagno EP. Double lumen esophagus: Presentation of esophagogastric fistula, a rare complication of fundoplication. *Dig Dis Sci.* 1986;31(1):106–8.
2. Chun CL, Dunnington G, Triadafilopoulos G. Where is the acid coming from? Esophagogastric fistula following laparoscopic Nissen fundoplication. *Dig Dis Sci.* 2013;58(6):1486–90.
3. Choudhry U, Shenoy V, Choudhry R, Gopalswamy N. Double-lumen esophagus: Formation of a new lumen or septation of the existing one? *South Med J.* 1996;89(5):538–41.