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CLINICAL CONUNDRUM

Esophageal Motility Disorders after Bariatric Surgery

Jennifer Shiroky · Brenda G. Jimenez Cantisano · Alison Schneider

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Case Details

Case 1

A 45-year-old female who underwent a Roux-en-Y gastric bypass 10 years prior was referred to our GI clinic by a pulmonologist after an extensive negative workup for chronic cough. She also had complaints of severe regurgitation that did not respond to high-dose acid suppression therapy. An esophagogastroduodenoscopy (EGD) was performed which showed evidence of a tortuous and dilated esophagus. The lower esophageal sphincter (LES) was easily traversed with no narrowing noted. A fairly large gastric pouch was seen prolapsing into the esophagus (Fig. 1a). A barium study showed dilation of the thoracic esophagus, diminished contractility, and gastric pouch distention with compression at the LES (Fig. 1b). A high-resolution esophageal manometry (HRM) revealed aperistalsis in the body of the esophagus with normal LES pressures (Fig. 1c).

Case 2

A 63-year-old male who had undergone laparoscopic adjustable gastric banding (LAGB) four years prior presented with a 6-month history of daily regurgitation of solids and liquids, dysphagia, and heartburn refractory to treatment with proton pump inhibitors. An EGD showed a dilated mid to lower esophagus and a lap band compression seen on retrograde view near the crural diaphragm (Fig. 2a). An upper GI series showed a dilated esophagus with retained contrast in

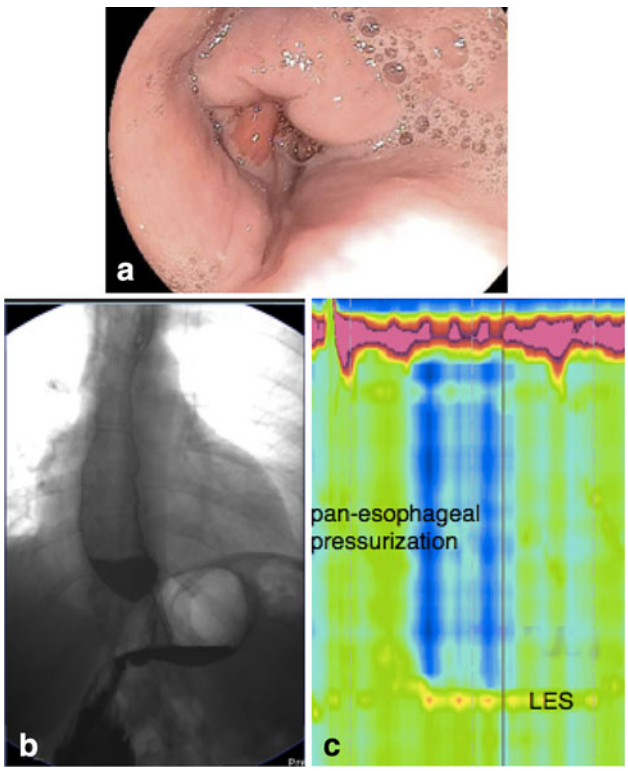

Fig. 1 **a** Prolapse of gastric mucosa into esophageal lumen. **b** Distal esophagus and gastric pouch distention with compression at the esophagogastric junction. **c** Pan-esophageal pressurization showing impaired esophagogastric junction relaxation

J. Shiroky (✉) · B. G. Jimenez Cantisano · A. Schneider
Department of Gastroenterology and Hepatology, Cleveland Clinic Florida, 2950 Cleveland Clinic Blvd., Weston, FL 33331, USA
e-mail: jshiroky@gmail.com

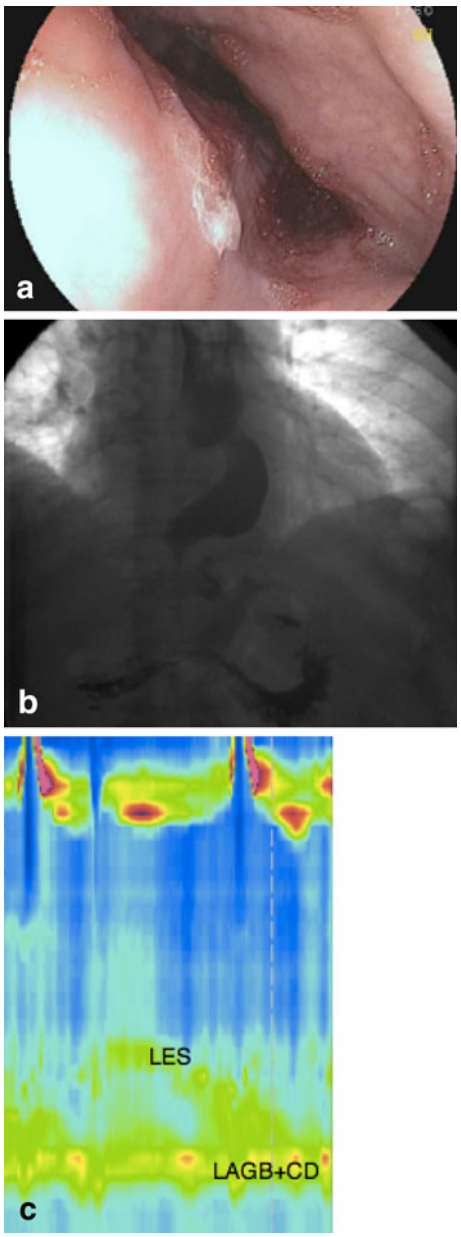

Fig. 2 **a** Dilated esophageal lumen. **b** Dilated distal esophagus with bird's beak appearance. **c** Aperistalsis with the lap band causing esophagogastric junction obstruction. The site of outflow obstruction is distal to the LES at the lap band/crural diaphragm location

the gastric pouch (Fig. 2b). A HRM showed severe peristaltic dysfunction in the body of the esophagus, normal LES pressure, and an abnormal high-pressure zone seen at the location of the lap band and crural diaphragm (Fig. 2c).

What was the Diagnosis?

Both patients were diagnosed, using a combination of symptomatology, EGD, HRM, and radiological studies, with pseudoachalasia presenting de novo years after their bariatric operations. Neither patient had symptoms of dysphagia or a diagnosed motility or deglutition disorder prior to surgery. The first patient underwent surgical revision of her Roux-en-Y bypass. The second patient had deflation of the lap band. At the 3-month follow-up, the patients reported resolution of all symptoms.

Discussion

The prevalence of obesity has increased significantly worldwide over the past few decades and, consequently, so has the number of bariatric surgeries for the management of patients who have failed to lose weight through diet and exercise or have obesity-related comorbidities. Achalasia and esophageal motility disorders are thought to be uncommon in the morbidly obese population, with an incidence of 0.5–1 % [1, 2]. There are few published reports of esophageal motility complications, specifically pseudoachalasia, after bariatric surgery [1, 3]. While most published reports are in case series, a recent prospective study of 167 patients who had LAGB procedures found that 40 patients (23.9 %) had esophageal dilation, with 6 of these patients having achalasia-type dilation requiring band removal [4].

The surgical management of such deglutition and motility disorders can be challenging. It may require bypass revision or surgical dissection to remove implants and encapsulating fibrosis. The rate of postoperative complications is higher with secondary gastric bypass procedures. Revisions may lead to weight gain, greatly hindering the patient's clinical condition. Long-term effects of treatments and reversibility of esophageal motility disorders have not been formally studied in this population. Early recognition of these potential complications may help better manage these disorders.

Conflict of interest The authors have no conflicts of interest to disclose.

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Jennifer Shiroky BA

Brenda G. Jimenez Cantisano MD

Alison Schneider MD