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Atypical presentation of gastro-gastric fistula years after gastric bypass

Sher N Baig*; Sadia Rehman; Malik Fahad; Yakubov Mikhail; Gonzalez Manuel

***Sher N Baig**

PGY-3 Resident in Internal Medicine, Department of Internal Medicine, Richmond University Medical Center, 355 Bard Ave, Staten Island, NY 10310

Email: sn.baig@outlook.com

Abstract

We report a case of gastro-gastric fistula in a 53-year-old obese Hispanic male who presented with acute hematemesis after 17 years of gastric bypass surgery for morbid obesity. Upper endoscopy was remarkable for difficult to navigate anatomy and revealed a gastro-gastric fistula with a marginal ulcer at the fistulous opening along with evidence of bleeding. We treated the patient conservatively with blood transfusion, and Proton Pump Inhibitor (PPI) infusion. Patient declined surgery to close the fistula.

Keywords

fistula; hematemesis; endoscopy; bariatric; obesity; gastric bypass; marginal ulcer

Introduction

Bariatric surgeries are fairly commonly performed on morbidly obese patients. They are intended to cause weight loss by both gastric reduction and malabsorption, thereby preventing and/or reversing type II diabetes mellitus. Bariatric procedures are mostly performed laparoscopically. The Roux-en-Y operation, often called gastric bypass, is the most common. However, complications can occur both in the short and long term. Gastro-intestinal (GI) anatomy is altered as a result of these procedures which makes endoscopy very challenging at times. Gastro-gastric fistula is a rare but important complication that ultimately leads to weight regain.

Case Presentation

A 55-year-old man obese Hispanic Male presented to the emergency room with profuse, bright red bloody vomiting subsequent to 3 days of epigastric pain, and nausea. Patient experienced about 10 episodes of hematemesis without melena. He had no prior history of GI bleeding, NSAID abuse (taking Oxycodon), liver cirrhosis, peptic ulcer disease, or unexplained weight loss. His past medical history was significant

for morbid obesity, gastric bypass (2001), chronic alcoholism, and hip osteoarthritis. Physical examination revealed tachycardia, obesity, and repeated bouts of hematemesis. There were no signs of alcohol intoxication or stigmata of portal hypertension. Hemoglobin at presentation was 12.2 g/dl (baseline 14.7). Serum electrolytes, LFTs, INR, and renal function tests were normal. Differential diagnosis at the time of presentation included peptic ulcer, Mallory Weiss tear, and potential variceal hemorrhage.

Owing to on-going hematemesis, one unit of packed red blood cells was transfused in the emergency room. Patient was kept nothing-per-oral on intravenous fluid, PPI drip, and admitted to medical floor. Emergent Esophagogastroduodenoscopy revealed large blood clots at the anastomotic site and a peptic ulcer (Forrest class IIB). On repeat upper endoscopy 3 days later, a gastro-gastric fistula was visualized leading from the gastric pouch into the bypassed stomach (Figure 1). A 1cm clean based ulcer at the mouth of the fistula (Figure 1 and 2) appeared to be the source of initial bleeding. The clots noted on the initial endoscopy had dislodged and the area was healing. Patient's condition remained stable without further bleeding and was discharged on oral PPI. He followed up with his surgeon, but declined surgical closure of the fistula. Biopsy result came negative for H. pylori, and neoplasia.

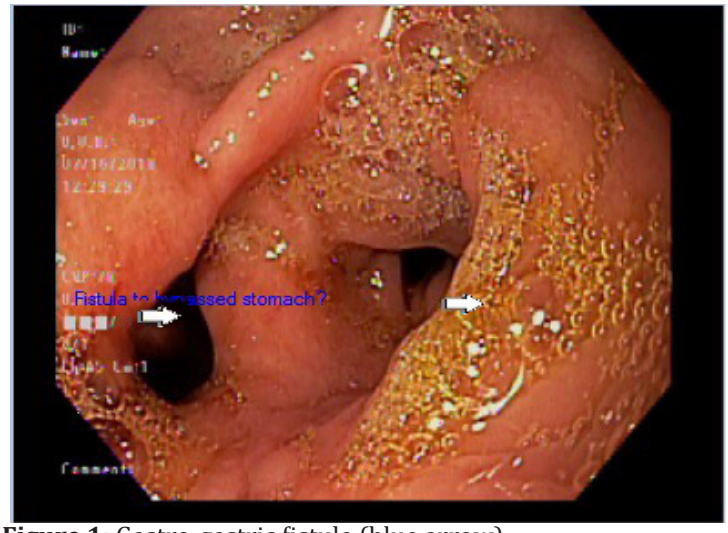

Figure 1: Gastro-gastric fistula (blue arrow)

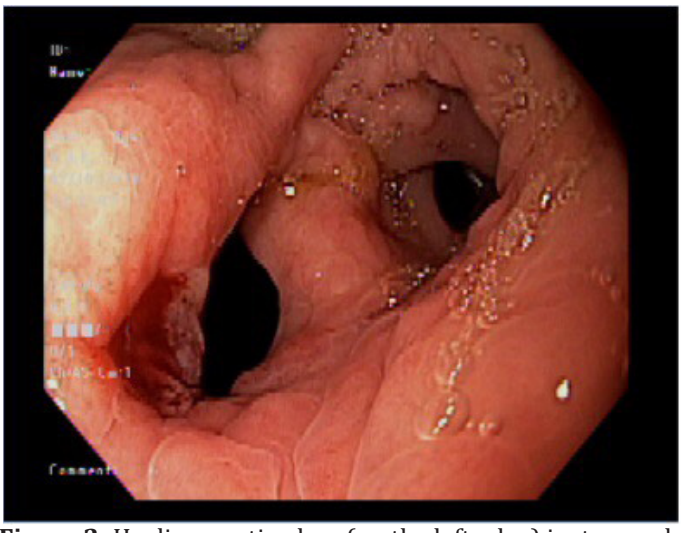

Figure 2: Healing peptic ulcer (on the left edge) juxtaposed at the mouth of gastro-gastric fistula.

Discussion

Gastro-gastric fistula (GGF) is an important complication of Roux-en-Y gastric bypass. With the formation of fistula, the gastric pouch opens into the bypassed portion of stomach, thus the ingested food once again channels the natural route. An extensive literature review found several articles reporting gastro-gastric fistula. However, delayed presentation with hematemesis was very rarely reported.

A study of 1,079 patients found gastro-gastric fistula in 2.6% of patients (n=2) [1], while another series of 1,292 patients reported it in 1.2% (n=15) patients after a mean postoperative follow-up period of 17.6 months [2]. Symptoms are variable. Only 11% of reported cases presented with gastrointestinal bleeding [3]. Majority of cases had epigastric pain (77%-80%) with or without associated marginal ulcer (53%), and weight regain (44%) [2,3]. Vomiting was the chief complaint in 11% of cases [3].

Gastro-gastric fistulae are classified based on their location. Type 1 GGF are located in the proximal part of the gastric pouch and type 2 are located near the anastomosis [3]. Upper GI endoscopy along with contrast imaging can be used to assess and confirm these fistulae. Endoscopic interventions can effectively be employed to successfully manage most cases of early post-op fistulae [4]. Chronic fistulae are difficult to manage [3]. Surgery should be considered in case of weight regain, recurrent, or non-healing marginal ulcer with persistent abdominal pain and/or hemorrhage, and/or recurrent stricture at anastomotic site [5]. However, optimal surgical management remains controversial. Laparoscopic remnant gastrectomy with fistulectomy or exclusion is an effective modality for symptomatic patients who fail to respond to conservative measures [5].

This case reports underscores the importance of bearing in mind the possibility of gastro-gastric fistula especially in patients with weight re-gain. A focused clinical approach is needed when evaluating patients following bariatric surgery since upper gastrointestinal symptoms can be difficult to interpret following gastric bypass. Moreover, upper endoscopy may be rendered difficult by the altered anatomy after bariatric surgery.

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Authors Infomation: Sher N Baig*[1]; Sadia Rehman[1]; Malik Fahad[1]; Yakubov Mikhail[2]; Gonzalez Manuel[3]
[1]Department of Internal Medicine, Richmond University Medical Center, Staten Island, NY
[2]Department of Gastroenterology, New York Presbyterian-Brooklyn Methodist Hospital/Richmond University Medical Center, NY
[3]Department of Internal Medicine, Division of Gastroenterology, Richmond University Medical Center, Staten Island, NY

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