



Symptomatic Phytobezoar Presenting 5 Years after laparoscopic Roux-en-Y Gastric Bypass

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Abstract

There are over 100,000 bariatric surgeries in the United States each year, with the majority of these Roux-en-Y procedures. Most complications of this surgery present early with nonspecific symptoms such as abdominal pain, nausea, vomiting, and dysphagia. Some complications, however, can occur years after surgery. We report the case of a patient presenting 5 years after laparoscopic Roux-en-Y gastric bypass (LRYGBP) with intermittent abdominal pain, vomiting, and local bowel ischemia secondary to phytobezoar lodged at her jejuno-jejunostomy site.

Keywords

Bezoar, Bariatric surgery, Gastric bypass

Introduction

A 53-year-old female presented with intermittent, non-radiating epigastric abdominal pain associated with nausea and vomiting. The pain was crampy and was not associated with obstipation or diarrhea. The patient denied fevers. The remainder of her review of systems was negative. The patient's past surgical history was remarkable for LRYGB for morbid obesity performed 5 years prior, which had resulted in patient achieving 109% of excess weight loss with a BMI of 24kg/m².

On physical exam, the patient had normal vital signs. Her abdomen was soft with localized epigastric tenderness. There was no guarding or rebound. The patient was not distended, and no masses were palpated. The remainder of her physical exam and laboratory evaluation were normal. The patient underwent upper endoscopy which revealed free sutures at the gastro-jejunostomy anastomosis with local ulceration. These were removed and the patient was discharged home on a proton pump inhibitor and sucralfate.

In spite of this, the patient had progression of her symptoms, and represented to the ED. She underwent computed tomography (CT) scanning of her abdomen and pelvis which was non-diagnostic. Due to the severity of the pain, the patient underwent exploratory

laparoscopy which revealed a phytobezoar at the jejuno-jejunostomy that involved the posterior wall with local ischemia (Figure 1). The patient underwent anastomosis revision, and the compromised segment was removed.

Discussion

Over 1/3 of Americans are obese [1]. Since the first LRYGBP was performed in 1993, it has become one of the most common weight loss surgeries performed in the US, with over 100,000 done annually [2-4]. Complications occur in up to 17% of patients, with the most common being wound infection, hernias, anastomotic leak, and thromboembolic disease [5,6].

Bezoars are generally very rare, but are more common in patients who have had gastric surgery, with 55-94% of current cases occurring in individuals with prior surgery [7-9]. Gastroparesis and diabetic

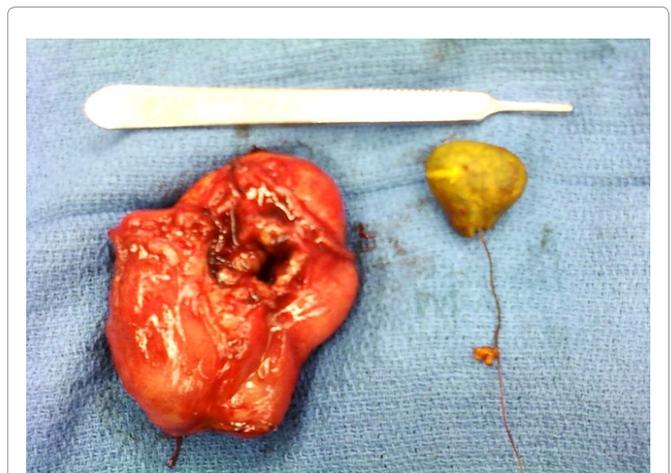


Figure 1: A 3.5 x 3.9cm phytobezoar mass shown on the right side of the image. The resected jejuno-jejunostomy anastomosis is after revision shown on the left side of the image.

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neuropathy are also risk factors [10]. Bezoars are retained concretions composed of indigestible material that accumulate in the form of a mass within the gastrointestinal (GI) tract [11]. These may be composed of cellulose fiber from fruits and vegetables (phytobezoar), hair (trichobezoar), or medications (pharmacobezoar) [11,12]. Although they are typically found in the stomach, bezoars may occur anywhere throughout the GI tract [13]. Their pathogenesis is thought to be due to delayed or dysfunctional gastric emptying, with foreign material such as retained nonabsorbable sutures potentially acting as a nidus for formation [10,13].

Patients with bezoar can present with a variety of symptoms based on size, location, and composition of the bezoar mass. DeBakey and Ochsner [14] reported that upper abdominal pain was the most common symptom (70.2%) and that nausea, vomiting, obstruction, palpable mass, and weight loss could also be seen [13,14]. Symptoms may be chronic, as bezoars can take years to form.

Although the presentation is non-specific, the emergency provider should consider bezoar in the differential of patients with these complaints who have risk factors, such as prior gastric surgery, and a diet high in fibrous plant material. Imaging studies can be a valuable asset in the diagnosis of a gastric bezoar. Ultrasound may be helpful, and in one small study identified 85% of bezoars [15]. In the same study, CT was able to identify 97% of gastric bezoars [15]. CT may also reveal additional bezoars elsewhere within the GI tract [15]. The gold standard for diagnosis, though, is endoscopy [13]. Bezoars in the small bowel are diagnostically more challenging, and may only be diagnosed intraoperatively, as in our patient.

Gastric bezoars may be removed endoscopically or chemically fragmented [11]. If the bezoar is not obstructing, cellulase tablets can be given with meals to enzymatically break down the bezoar containing cellulose and hemicellulose in plant fibers [16]. Papain, acetylcysteine, and metoclopramide can also be used to in the treatment of some bezoars [11,17-19]. Obstructing bezoars and those associated with bowel ulceration, bleeding, or necrosis require surgical intervention.

Conclusion

Bezoar is an uncommon entity. Bariatric surgery is a significant risk factor for their occurrence. The emergency provider should be familiar with their presentation, evaluation, and treatment.

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