



Recurrent Gastric Bezoar after Roux-en-Y Gastric Bypass for Morbid Obesity

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Abstract

In this paper, we described the first case of recurrent gastric bezoar after bariatric surgery. A 66-year-old patient, who had diabetes mellitus (DM) and hypertension (HT) and had LRYGB operation 3 years ago, underwent the first endoscopic bezoar evacuation 26 months after the operation due to the diagnosis of gastric bezoar following the examination due to the nausea-vomiting and inability to eat. The patient applied again 36 months after LRYGB with similar complaints. A 3-cm gastric bezoar, which was detected with the endoscopic examination at the anastomosis site, was evacuated after disintegration. The possibility of a bezoar formation should be kept in mind in patients with Roux-en-Y gastric bypass, who complain of nausea and vomiting. The removal of the bezoar leads to a dramatic improvement in the complications. These patients should follow strictly their diets, chew their food thoroughly, take vitamin supplements, and solve their psychological problems in the postoperative period. Otherwise, gastric bezoar may recur.

Keywords Bariatric surgery · Interventional endoscopy · Postoperative complications

Introduction

The laparoscopic Roux-en-Y gastric bypass (LRYGB) is one of the most common surgical methods in the morbid obesity. The gastric bezoar is rare complication in LRYGB. The gastric bezoar is usually treated with endoscopic intervention and it rarely recurrence. We had previously published a case report about a patient, who diagnosed with gastric bezoar after LRYGB and treated with endoscopic intervention [1]. In this patient, we encountered a recurrence of the gastric bezoar 10 months after the first intervention. The objective of this paper is report a recurrence of the gastric bezoar after the LRYGB. To our knowledge, there is no report about recurring gastric bezoars in the literature.

Presentation of the Case

A 66-year-old female, who had HT, type 2 diabetes mellitus (DM) and morbid obesity (BMI: 49.5 kg/m²), had undergone LRYGB 3 years ago. In the 26th month after the operation (it was mistakenly reported as 14th month in the previous study), after the examinations due to the complaints like nausea, vomiting, and bloating, a gastric bezoar was diagnosed and removed with endoscopic intervention. We recommended diet and drink coke once a month to the patient [1]. However, the patient applied to with similar complaints 10 months after the intervention. We found out that the patient consumed hawthorn (fruit similar to the dried dates) in addition to the recommended diet. There was no psychiatric problem in the medical history. As the patient was previously diagnosed with bezoar, we did not consider further examination necessary and performed immediately endoscopy. We observed a phytobezoar (diameter, 3 cm) containing chewed hawthorn in the gastric pouch (Fig. 1). We noticed that the phytobezoar obstructed the gastroenterostomy site. We evacuated the phytobezoar with an endoscopic snare. We considered the anastomosis diameter as sufficient for our patient with no need for a dilatation. The

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Fig. 1 Endoscopic view of phytobezoar

patient discharged with a diet recommendation. The clinical findings were normal in the 23th month after the intervention.

Discussion

The bezoar is a concretion of undigested food found in the gastrointestinal system. Bezoars are divided into two groups according to the material they contain. The trichobezoar consists of materials like indigestible hair, cardboard, etc. On the other hand, the phytobezoar consist of food such as undigested vegetables and fruits (orange, date, coconut). In our case, hawthorn—a date-like fruit—was responsible for the bezoar formation.

Bezoars are most often found in the stomach. Seventy to ninety-four percent of the patients with gastric bezoar have a history of gastric surgery [2]. The development of the bezoars depends on the delay of the gastric emptying due to the stenosis in the gastroenterostomy site [3]. However, the stenosis did not observe at the anastomosis site in our patient. Eating habits, DM, dental problems, psychiatric disorders (trichobezoar), and chewing problems may also lead to gastric bezoars. The risk of bezoar is increase in patients with DM because of degenerative neuropathy and operative procedures. The best ways to prevent the formation of bezoars are regulation of eating habits and nutritional support [1]. In our case, the consumption of a dates-like fruit, poor compliance with the recommended coke diet, the presence of DM, and the history of gastric surgery (LRYGB) were responsible for the recurrence of the bezoar formation.

Gastric bezoars' usual symptoms are abdominal pain, nausea, vomiting, early satiety, and weight loss. The diagnosis is usually made incidentally. The gold standard of the diagnosis is the gastroscopy. Ultrasound, barium imaging, and computed tomography are helpful methods. In the differential diagnosis of gastric bezoar, strictures, ulcers, and internal herniation

should be considered. As our patient had applied with similar complaints 10 months after the treatment, we preferred gastroscopy at diagnosis and treatment.

Ionescu AM and Pinto D reported bezoar following LRYGB. Their patient had developed stenosis at the anastomosis site and had undergone endoscopic balloon dilatation [3, 4]. In patients with corner suture, which is done in order to strengthen the gastrojejunal anastomosis, agar-agar, cardboard, and phytobezoar may be encountered [5–7]. However, there is no report on a bezoar recurrence in the gastric pouch in the literature.

The treatment of the gastric bezoar is based on medical, endoscopic, and surgical methods. Papain, acetylcysteine, coke, and metoclopramide are used in the medical treatment [3]. If the symptoms are mild and the size of the bezoar is small, medical, or gastroscopic intervention should be preferred. The surgical method should be preferred with large bezoars and severe symptoms [8].

In short, gastric bezoar following LRYGB is rare and its recurrence is much rarer. Gastroscopy is the most important method for the diagnosis and treatment of bezoars. In order to prevent the recurrence of the bezoar, the dental problems, eating/drinking, and chewing disturbances should be treated; vitamin/mineral insufficiencies should be supplemented, and the patient should be recommended to drink coke.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

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