

A rare case after Nissen fundoplication: Esophageal bezoar

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Abstract

A 33-year-old female patient was admitted to our clinic with complaints of nausea and vomiting for two days and the inability to tolerate food. The patient had a Nissen fundoplication three years ago. Computed tomography (CT) showed a bezoar image in the distal esophagus. The patient stated that the symptoms began after he ate a persimmon two days ago. The patient underwent esophagogastroduodenoscopy. A bezoar was observed in the distal esophagus at the esophagogastric junction. No pathology was observed in the stomach and duodenum. After the bezoar was shredded with a snare and removed with a retrieval snare. Here, we further describe this case of a bezoar that caused ileus in the distal esophagus after a fundoplication operation.

Keywords: nissen fundoplication, esophageal bezoar, upper gastrointestinal ileus

Introduction

Bezoars are clusters of indigestible substances in the esophagus, stomach, and intestinal tract. They can be found anywhere from the esophagus to the rectum [1]. While most patients are asymptomatic, some patients may experience pain, early satiety, weight loss, and bloating. Esophageal bezoars usually present with nausea, vomiting, dysphagia, intolerance to food, retrosternal pain, and gastroesophageal reflux (GER) [2]. The main cause of esophageal bezoars is dysfunction of the lower esophageal sphincter, motility disorders, or structural abnormalities [3]. After fundoplication operations, the passage of hard-to-digest foods becomes difficult due to the relative narrowing of the lower esophageal sphincter. Here, we describe a patient who had a Nissen fundoplication operation three years ago and then developed a bezoar after eating a hard-to-digest persimmon.

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Informed Consent

The authors stated that the written consent was obtained from the patient presented with images in the study.

Conflict of Interest

No conflict of interest was declared by the authors.

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Case presentation

A 33-year-old female patient applied to our clinic with complaints of nausea, vomiting, and intolerance of food that began two days prior. She stated that the symptoms began after eating a persimmon two days ago. The patient had a history of Nissen fundoplication surgery three years ago. There was no other feature in her medical history.

Physical examination was conscious-open and cooperative. Vital findings were stable. The abdominal examination had no pathological findings. She vomited 5-6 times a day. She had signs of GER. There was a feeling of obstruction in the retrosternal region. Considering the previous operation, computed tomography (CT) was performed for screening. CT examination revealed a mass of approximately 26x24 mm, which was thought to be a bezoar on the distal esophagus (Figure 1 and 2).

Figure 1: CT axial section of the bezoar distal esophagus.

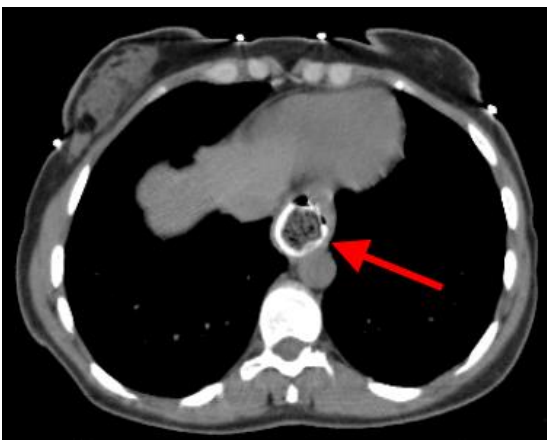
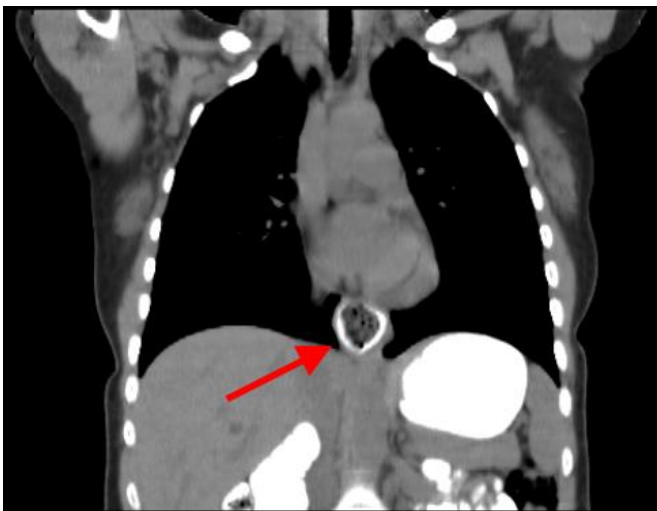


Figure 2: CT coronal section of the bezoar distal esophagus.



An esophagogastroduodenoscopy (EGD) was then planned under sedation anesthesia. This showed a bezoar seated at the esophagogastric junction (Figure 3). There were superficial ulcerated areas at the junction due to chronic irritation. The cardia endoscope was tightly wrapped. No pathology was observed in the stomach and duodenum. The bezoar was then cut into several pieces with a snare. The pieces were removed individually with a retrieval snare (Figure 4). Our patient was started on a fluid regimen on the fourth hour after the procedure and then tolerated the strict regime. The patient had oral tolerance and was discharged the same day. Written informed consent form was obtained from the patient.

Figure 3: Endoscopic view of the bezoar.

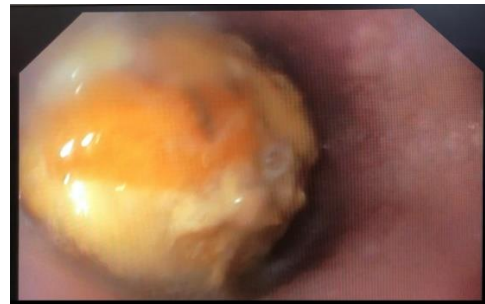
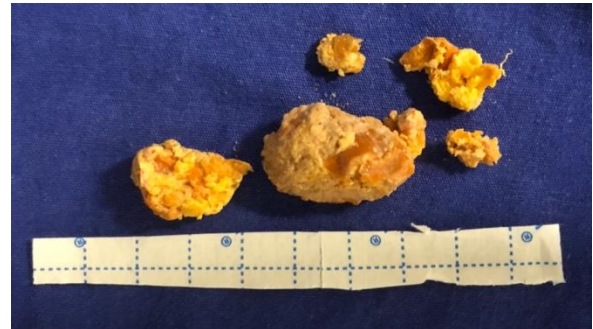


Figure 4: Bezoar removed one by one many pieces.



Discussion

Patients with food impaction often have underlying esophageal pathology. The risk is increased in people with previous gastrointestinal surgery [4]. The fact that most of the patients with esophageal bezoars have a history of Nissen fundoplication surgery showed that this surgical intervention, which is widely used in the treatment of hiatal hernia and reflux esophagitis, paves the way for esophageal bezoars [2]. Esophageal bezoars are extremely rare, and only a few case reports have described esophageal bezoars. There are very few case reports specifically seen after fundoplication [3].

Patients with bezoars in the gastrointestinal tract are usually easily diagnosed. CT is helpful in diagnosis. However, the gold standard for diagnosis is endoscopy for upper gastrointestinal bezoars [4]. CT is the most commonly used imaging method in the diagnosis of bezoars and is very useful for definitive diagnosis in patients with intestinal obstruction [5]. However, endoscopy remains the gold standard for research because it can directly visualize and treat the condition [6]. In our case, we first determined the location of the bezoar via a CT scan. We then removed the bezoar with endoscopy.

Foreign bodies and bezoars in the esophagus should be removed within 24 hours because delays in the removal may increase the risk of complications. These complications include perforation, obstruction, and narrowing [4]. We removed the bezoar by endoscopy at the sixth hour of hospitalization in our case. The procedure was completed without complications.

Bezoar removal in the esophagus is most commonly done by pushing food into the stomach or mechanically removing it. As in our patient, it may be difficult to push the bezoar into the stomach in patients who have undergone fundoplication. The use of proteolytic enzymes is also not recommended due to the risk of perforation. Mechanical dissection is recommended to safely treat esophageal bezoars [7].

The ultimate goal of bezoar treatment is removal of the mass and prevention of its recurrence. The treatment options available for this condition should be well evaluated. The minimal

benefits to patient should be considered [1]. Surgery is a difficult decision for esophageal bezoars. Rather, minimally invasive interventions with endoscopic procedures are preferred.

Conclusion

Esophageal bezoars should be considered in patients with a history of Nissen fundoplication operation when gastrointestinal obstruction is encountered with nausea, vomiting, and a feeling of obstruction in the retrosternal region. In such cases, CT may be first requested to support the diagnosis. Clearer imaging can be done with endoscopy. Endoscopy should not be delayed after a history of fundoplication and a pre-diagnosis of bezoars. More importantly, it should not be forgotten that it can be treated with endoscopy. It is safer to disintegrate the bezoar rather than push it into the stomach in patients with a history of fundoplication operation.

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