A bezoar, also known as an enterolith, is a concretion of foreign or indigestible matter in the alimentary canal. Food bolus obstruction is common with meat and fish bones and very rare with vegetable fibers. It is usually seen in children or old people with poor natural teeth or ill-fitting dentures or inadequate mastication and is also common in alcoholics, prison inmates, and psychiatric patients. Intraluminal bezoar is a serious condition with a mortality rate as high as 30% in a retrospective analysis of 34 cases. The incidence of bezoars has increased as a result of previous operative manipulation of the gastrointestinal tract. Small bowel bezoars are very rare and normally come from stomach, resulting in intestinal obstruction. They are usually impacted in the narrowest portion of the small bowel, the commonest site being the terminal ileum followed by jejunum. The incidence of small bowel obstruction accounts for 20% of hospital admissions while phytobezoars are responsible for 0.4 - 4% of all intestinal obstructions.

We present an unusual case of small intestinal obstruction caused by mushroom bezoar and discuss the relevant literature.

CASE REPORT

A 62-year Chinese male was referred from a district hospital with three-day history of worsening abdominal pain and distention accompanied by vomiting. Initially, pain was colicky and central; later, it became generalised and persistent. Patient had no bowel movements for the past few days, while there was no history of medical illnesses and altered bowel habits. All vital parameters were normal and abdominal examination showed distension with mild tenderness and scanty bowel sounds. His abdomen was resonant on percussion and his hernia orifices were intact. Plain abdominal radiograph showed dilated loops of small bowel. All hematological findings were normal.

An exploratory laparotomy was performed. The serosal surface of small intestine looked normal and no adhesions were found between bowel loops. Additionally, mesentery was normal with no evidence of lymphadenopathy. Interestingly, a diverticulum was found arising from dilated proximal and collapsed distal segment in terminal ileum about 20 cm from the ileocaecal junction. Enterotomy was performed and a whole piece of undigested mushroom measuring 5 x 3 cm was successfully removed.

In response to our inquiry about his dietary habits, he said that he had swallowed a whole piece of mushroom during dinner a few days prior to his symptoms. He was counselled about importance of food mastication. Patient had an uneventful recovery and was discharged at 4th day of surgery.

DISCUSSION

The word bezoar is derived from Arabic term “badzehr” or Persian word “padzahr”, both of which denote...
Phytobezoars are usually present as single entity but multiple phytobezoars have been reported in stomach and intestine in 17% and 4% of cases, respectively. Generally, laparotomy is performed for diagnosis and management of phytobezoars; but with increasing expertise, laparoscopy can be equally effective with all other advantages of minimal access approach. It is mandatory to explore the whole gastrointestinal tract in order to avoid synchronous bezoars and recurrence of intestinal obstruction due to retained bezoars. Treatment options include chemical dissolution methods and endoscopic procedures. Agents used for chemical dissolution include cellulase, acetylcysteine, papain, pancreatic enzymes, saline solution, sodium bicarbonate, and carbohydrate beverages such as Coca-Cola, delivered either orally, endoscopically or by gastric lavage. Coca-Cola lavage is an inexpensive, safe, effective, and easy to perform option and can be undertaken by any endoscopy unit. Diet Coke or Coke Zero, which both contain the artificial sweetener aspartame, can be used for diabetic patients and for persons who want to restrict their caloric intake. Diet Coke and Coke Zero have been reported to be equally as effective as the original kind because all other active ingredients remain the same. These agents may be used alone or in combination with endoscopic fragmentation. The actual mechanism by which Coca-Cola acts has not been elucidated but it is thought that it resembles gastric acid in terms of its pH of 2.6 (due to carbonic and phosphoric acid); this acidity is important for digestion of fibers. In addition, NaHCO3 has a mucolytic effect and CO2 bubbles enhance the dissolving mechanism. Endoscopic fragmentation, although effective as a first-line treatment, is cumbersome and expensive. It may be associated with small bowel obstruction due to distal migration of the phytobezoar fragments for up to 6 weeks following the procedure. Coca-Cola or other types of chemical agents should be used as initial therapy for patients with mild symptoms; endoscopic fragmentation is usually used when the initial therapy with chemical agents fails, or in case of complications. We presented an unusual case of small intestinal obstruction due to mushroom bezoar caused by undigested mushroom of 5 x 3 cm of size. It was successfully removed by laparotomy. Intestinal obstruction due to mushroom bezoar is very rare but a possible cause of small-bowel obstruction.

REFERENCES


---