Meat Bolus Bezoar Leading To Small Bowel Obstruction: A Case Report

Drishti Giri, Saurav Jha, Samir Shiwakoti, Nishant Thapa, Bidur Psd. Acharya

Department of General Surgery, Kathmandu Medical College and Teaching Hospital, Sinamangal, Kathmandu, Nepal.

INTRODUCTION

Impaction of food material and foreign bodies is the second most common condition requiring emergency endoscopic interventions. Bezoar can be defined as the indigestible, ingested material found in the gastrointestinal lumen. Based on their composition, bezoars can be classified as - trichobezoar (hair), phytobezoar (vegetable and fruit residues), lactobezoar (dairy products), pharmacobezoar (medications) and polybezoar (ingested foreign bodies). Although stomach is the commonest location for bezoar formation, they may gain entry to the small intestine through the pylorus. Bezoars are most commonly found about 50-70 cm proximal to the ileocecal valve. In total, up to 4% of the cases of intestinal obstructions are found to be secondary to bezoar formation. In the case of small-intestine obstruction, bezoars contribute to 1% of the cases. Patients with small
intestinal obstruction secondary to bezoars most commonly complain of abdominal pain, vomiting, abdominal distension and constipation. 

**CASE REPORT**

A 71-year-old male without comorbidities was referred to Kathmandu Medical College and Teaching Hospital with a 7-day history of abdominal distension associated with vomiting, constipation, and abdominal pain. Abdominal pain was continuous, colicky in nature, and non-radiating. Vomitus was non-projectile containing bile and undigested food particles. The patient had gastrojejunostomy for gastric outlet obstruction secondary to peptic ulcer disease. During admission, he had stable vital signs and physical examination revealed a mildly tender abdomen around umbilical area with abdominal distension and sluggish bowel sounds. Abdominal X-rays showed multiple air-fluid levels in the small intestine (Figure:1) and a Computed tomography scan showed dilated small bowel loops without ascites, along with a transition point at the ileum with collapsed distal ileal and large bowel loops distal to the transition point. (Figure:2)
Based on history, examination, and investigations, the patient was diagnosed with non-resolving acute small bowel obstruction, and emergency surgical exploration via exploratory laparotomy was done which suggested a foreign body lodged in the ileum, approximately 100 cm proximal to the ileocecal junction. Enterotomy was done to successfully remove the foreign body which was found to be a meat bezoar. The postoperative period was uneventful and the patient was discharged with stable vitals on 3rd postoperative day. The histopathology reported the foreign body as a vegetative material.

**Fig 3:** Intraoperative enterotomy site and repair along with the meat bezoar pieces. (arrowed)

**DISCUSSION**

Small bowel obstructions are one of the most common challenges surgeons face daily. Bezoars are well-recognized but uncommon causes of small bowel obstruction. Phytobezoars, which are masses of indigested vegetable and plant residues are the most commonly reported among all different types of bezoars. This case is unique as the bezoar reported was a chunk of meat in the small intestine. History of gastrojejunostomy, inadequate mastication and intake of high-fibre-containing food are some of the factors that contribute to bezoar formation. Considering the age of the patient, poor mastication can be regarded as one of the factors predisposing to bezoar formation. Poor mastication is an established issue in elderly patients secondary to poor dentition that might result in the swallowing of large food particles.

Previous gastrojejunostomy can predispose to bezoar formation either due to reduced gastric motility or due to a widened gastric outlet facilitating the migration of gastric bezoar into the small intestine. A study conducted by Kement et al reported that previous gastric surgery was a predisposing factor in 48% of the cases of bezoar formation. A study conducted by Erzurumlu et al has reported the CT findings of dilated bowel loops in 100% of the cases, air-fluid levels in 89% of the cases, and thickened bowel loops in 76% of the cases. This observation is coherent with the findings of our patient where dilated duodenal and jejunal loops were reported in Plain CT and multiple air-fluid levels were reported in abdominal Xray however the offending bezoar was not detected in radiography. Endoscopic investigations are not preferred for diagnosing small bowel bezoars, because they are effective in diagnosing only 12% of the total small bowel bezoars.
Irrespective of its etiology, the first step in the management of intestinal obstruction includes intestinal decompression and fluid-electrolyte replacement. Initially, our patient also underwent conservative management. The symptoms of the patient failed to improve despite conservative management indicating the need for surgical exploration. Open or laparoscopic abdominal exploration is the surgical treatment of choice in such cases. Although literature have reported fewer complications with the laparoscopic method, laparotomy is performed more frequently in such cases. The decision to perform an enterotomy for the removal of bezoar is the one that is dependent on the surgeon’s experience. The milking technique is commonly used in surgeries to advance the bezoars proximally or distally which however carries the risk of laceration of intestinal serosa and mesentery. Enterotomy has been reported to be more successful for bezoars located in the proximal small intestine. For patients with complications like ischemia and perforation secondary to bezoar, anastomosis, or stoma procedures along with small bowel resection are performed. The bezoar was identified as chunks of indigested and partially digested meat located approximately 100 cm proximal to the ileocecal junction.

**CONCLUSION**

Even though not that common bezoars are an important cause of intestinal obstructions. This consideration is particularly crucial in areas where there’s a high intake of fiber-rich foods leading to bezoar formation, as well as in patients with a history of abdominal surgery for peptic ulcers. Timely diagnosis and management are crucial for restoring a patient’s health.

**REFERENCES**


Meat Bolus Bezoar Leading To Small Bowel Obstruction: A Case Report


28. Holmes W. Lecture CT of Small-Bowel. 1994; [PubMed] [DOI] [Full Text]

Meat Bolus Bezoar Leading To Small Bowel Obstruction: A Case Report

DOI: 10.1016/j.ijsr.2012.03.020
PMID: 22659120 PMCID: PMC3376636

DOI: 10.12998/wjcc.v3i8.721
PMID: 26301232 PMCID: PMC4539411


DOI: 10.3393/jksc.2012.28.2.89
PMID: 22606648 PMCID: PMC3349816

DOI: 10.1067/msy.2003.41
PMID: 12563250


DOI: 10.1016/j.gcb.2008.01.045
PMID: 18487032