Case Report

Phytobezoar Causing Terminal Ileal Obstruction—Can Enterotomy be Avoided?

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Abstract

Phytobezoar presenting as acute intestinal obstruction is extremely rare in clinical practice and causing terminal ileum obstruction is still rarer. We report a case of middle aged female who presented with intestinal obstruction due to impacted phytobezoar in terminal ileum. Emergency exploratory laparotomy was performed and large phytobezoar found impacted in terminal ileum, which was compressed manually, tried to break and narrowed, subsequently milked to caecum. Though most of the time enterotomy is required for the removal of impacted bezoars, compression and milking of the content to caecum should be tried first. This will release the intestinal obstruction without peritoneal contamination. Enterotomy should be reserved for failed cases only.

INTRODUCTION

Bezoars are intra gastrointestinal mass formed by aggregation of undigested materials like hair, vegetables, seeds and fibres. This usually develops and grows in stomach, but can pass down to small intestine causing luminal obstruction. Small bowel bezoars are usually form in association with meckle’s diverticulum, stricture due to tuberculosis, crohn’s disease or tumour. Incidence of intestinal obstruction due to bezoar is very rare, reportedly 0.44% of all small intestinal obstructions. We encountered a case of phytobezoar causing terminal ileum obstruction in a patient who had taken lot of undercooked rice, vegetables with nuts.

CASE PRESENTATION

A 50 year old lady presented to emergency with complaints of abdominal distension with pain, vomiting and inability to pass stool for 3 days. There was no past history of tuberculosis, abdominal surgery or Crohn’s disease.

On examination she was febrile, dehydrated with pulse rate of 112/ min, blood pressure of 80/60mm Hg with history of decreased urinary output in last 24 hours. Her abdomen was hugely distended with exaggerated bowel sounds. Abdominal X ray revealed dilated small bowel loops with multiple air fluid levels. She was resuscitated with intravenous fluid, nasogastric suction was done & input output chart maintained. With resuscitation, her vitals improved. In the meantime her personal and dietary history was taken from her relatives. She was a rapid eater and one day before the onset of symptoms, she consumed a lot of undercooked food mainly composed of half-cooked rice, nuts, and vegetables. She swallowed the food in a hurry without proper mastication.

Emergency laparotomy was performed and on exploration small intestines were found dilated except terminal ileum. A large globular intraluminal mass was found impacted at the terminal ileum causing obstruction. No associated stricture, band adhesion, diverticulum or mesenteric lymphadenopathy was noticed. The mass was manually compressed and broken into small pieces in the lumen of ileum. The fragmented mass was milked to caecum through ileocecal valve and obstruction

Keywords

- Phytobezoar
- Intestinal obstruction
- Enterotomy

Figure 1 Erect and supine abdominal X-ray showing multiple air fluid levels and dilated small bowel loops.
was relieved, hence enterotomy and peritoneal contamination was avoided. Post operatively patient recovered smoothly and passed stool after two days containing fragmented masses of food particles, undercooked rice and nuts. It was explained to the Patient and his relatives about the cause of obstruction and advised for change in her dietary habit.

DISCUSSION

Bezoars are intra gastrointestinal mass formed by aggregation of undigested materials. It may be classified into four types based on their components: phytobezoar caused by vegetables and fruit fibers; trichobezoar caused by ingested hair; lactobezoar caused by milk curd and others caused by medications, tissue paper, tar, sand, fungus etc [4]. The various predisposing factors for formation of bezoar are – post gastrectomy, diminished gastric secretion and motility, abnormal chewing, high fiber food, Neuropathy in diabetic patients, hypothyroidism, and myotonic dystrophy [5]. Phytobezoar is the most common type of bezoar mainly found in the stomach though it can be found anywhere in gastrointestinal tract [6]. Migration of gastric bezoar to small intestine can cause obstruction, but primarily formed small intestinal bezoars do produce obstruction [6,7]. Bezoars have a characteristic appearance on Computerised tomographic scan (CT Scan) which is helpful both for diagnosis and defining severity of obstruction [8]. Though CT scan is advised for diagnosis of Intestinal obstruction, it is not found to be very effective as far as diagnosis of phytobezoar concerned [9]. We did not go for CT scan abdomen because of unwillingness of patient. Phytobezoars are usually removed by doing enterotomy during laparotomy or through laparoscopic approach [10]. In our case we milked the impacted bezoar through the ileocecal valve into the caecum after compressing and fragmenting it intraluminally. No enterotomy was done as the obstruction gets cleared. Later on during inspection of the past stool we found the evidence of fragmented and undigested food particles. Miguel Glatstein et al. [8] reported impacted phytobezoar in terminal ileum in a four year child, which was milked to large bowel and out of the anus.

Aslan A et al. [11] reported 5 year old patient with impacted phytobezoar including tangerine residue, mimicking acute appendicitis preoperatively, was milked to cecum and evacuated via appendicular stump. For impacted bezoars in terminal ileum, we found intraluminal compression, fragmentation of phytobezoar and expulsion through ileocecal valve to caecum is a better technique. This maintains the integrity of small bowel and prevents the possible peritoneal spillage and contamination. Post operatively it decreases the morbidity and leads to faster recovery of the patient.

Though rare, phytobezoar as a cause of intestinal obstruction must be kept as a differential diagnosis while dealing with patients of acute intestinal obstruction. Prompt exploration either by open or laparoscopic method is required to relieve obstruction. If possible enterotomy should be avoided in patients presenting with phytobezoar as a cause of terminal ileum obstruction.

REFERENCES