



A Rare Case of Small Bowel Obstruction Due To Isolated Trichobezoar Ileum

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Abstract

Introduction The trichobezoars are conglomerates of hairs which was ingested by a person due to psychiatric illness. Most commonly located in the stomach, although they can extend also to the small bowel (Rapunzel's syndrome). They are common in children and adolescents, and 90% of the patients are women. Small bowel obstruction secondary to bezoar impaction is considerably less common, with the report frequency around 0.4–4%. Here we are reporting an extremely rare case of isolated trichobezoar of the ileum.

Case Capsule A 10-year-old girl presented to the ED with complaints of abdominal pain for five days, with multiple episodes of vomiting, with mild abdominal distention. On per abdomen examination, abdomen was soft with mild tenderness around umbilicus. There was no palpable mass but hyperperistaltic bowel sounds were present. On digital rectal examination soft stools with collapsed rectum was there. CECT of the abdomen showed dilatation of small bowel loops 4 - 5 cm in diameter with a transition point seen at the level of junction of jejunum & ileum. Intra-operatively an impacted trichobezoar of length around 6-8 cm was found in the ileum (around 50cm proximal to ileo-caecal junction) with proximal bowel loops dilatation & distal collapsed bowel loops.

Conclusion Bezoar-induced small bowel obstruction is a very rare entity that may be difficult to establish diagnosis preoperatively. There should be high index of suspicion in patients with small bowel obstruction who have history of gastric surgery or patients with underlying psychiatric illness or medications which affect gastric motility.

Keywords: Trichobezoar, Small bowel obstruction, enterotomy

Introduction

Small bowel obstruction is a common acute presentation in a general surgery emergency. However, its preoperative diagnosis and management may often be difficult because of its multiple causes. Unlike post-operative adhesions, which accounts for 60–80% of all causes, Small bowel obstruction secondary to bezoar impaction is considerably less common, with the report frequency around 0.4–4% [1].

There are four types of bezoars: phytobezoars, trichobezoars, pharmacobezoars, lactobezoars.

The trichobezoars are conglomerates of hairs which was ingested by a person due to psychiatric illness. Most commonly located in the stomach, although

they can extend also to the small bowel (Rapunzel's syndrome). They are common in children and adolescents, and 90% of the patients are women.

Trichobezoars, unlike other bezoars are not associated with alterations in gastrointestinal motility [2]. They often coexist with underlying learning disabilities or psychiatric illness (Trichotillomania) [2].

The most common presenting features of trichobezoars are abdominal pain, nausea, vomiting progressing to obstruction and peritonitis [2]. Clinical presentation of a bezoar-induced Small Bowel Obstruction with an acute surgical abdomen is very rare, occurring in 1.1% of the case [2].

The most common sites of trichobezoars are the gastric outlet or duodenum whereas obstruction of distal parts of the small bowel without stomach involvement is extremely rare [4].

The gold standard in the diagnosis of trichobezoar remains upper GI endoscopy which also allows therapeutic intervention, a CT scan of the abdomen will usually reveal the trichobezoar. The diagnostic accuracy of CT is reported to be 73 to 95% [5].

The treatment of choice for Small bowel Obstruction due to trichobezoar is surgery. In most cases, the impaction of bezoar takes place in the narrowest segment of the small bowel, which is located 50–75 cm from the ileocecal valve [8]. Surgical options reported are manual fragmentation of bezoar and pushing it toward cecum [11, 12]. If it is not possible enterotomy should be done to remove the bezoar. Segmental bowel resection and anastomosis may be required in presence of complications such as gangrene of bowel [11, 12].

Few recurrences are reported after the initial removal of bezoars [3]. To decrease recurrences, long term psychiatric follow up is advised.

Here we are reporting an extremely rare case of isolated trichobezoar of the ileum without any trichobezoar in the stomach.

CASE REPORT:

A 10-year-old girl presented to the emergency department with complaints of abdominal pain for five days, with multiple episodes of vomiting, with mild abdominal distention & obstipation.

On examination, PR 90 Bpm & BP: 96/66 mm of Hg and on per abdomen examination, abdomen was soft with mild tenderness around umbilicus and mild distention. There was no palpable mass but hyperperistaltic bowel sounds were present. On

INTRA-OP PICTURES:

digital rectal examination soft stools with collapsed rectum was there.

All routine blood investigations were normal. An erect plain X-ray of the abdomen showed few gas filled small bowel loops with a few air fluid levels. Ultrasound examination of the abdomen revealed multiple minimally dilated fluid filled bowel loops.

IV fluids and Naso-gastric tube inserted (bilious aspirate around 100 ml on insertion).

CECT of the abdomen showed dilatation of small bowel loops 4 - 5 cm in diameter with a transition point seen at the level of junction of jejunum & ileum. The distal ileum and large bowel appeared collapsed which was s/o ? Stricture.

Conservative management done for sub-acute small bowel obstruction with intravenous fluids and nasogastric decompression & antibiotics but failed to improve the symptoms over 48-72 hours.

Midline exploratory laparotomy was then performed. Intra-operatively an impacted mass of length around 6-8 cm was found in the ileum (around 50cm proximal to Ileo-caecal junction) with proximal bowel loops dilatation & distal collapsed bowel loops. [Fig-1] There was no evidence of bowel ischemia or ulceration. Then enterotomy performed and impacted trichobezoar mass removed [Fig-2] and primary closure of the enterotomy done in two layers. Exploration of the rest of the bowel and stomach done for any retained trichobezoar. Abdominal closure done after peritoneal lavage and a closed type abdominal drain was putted in pelvic space.

Removed specimen was a mixture of conglomerated hairs of size 8 x 6 x 4 cm [Fig-3].

Post-operative period was uneventful and patient was discharge on 10th post-operative day./

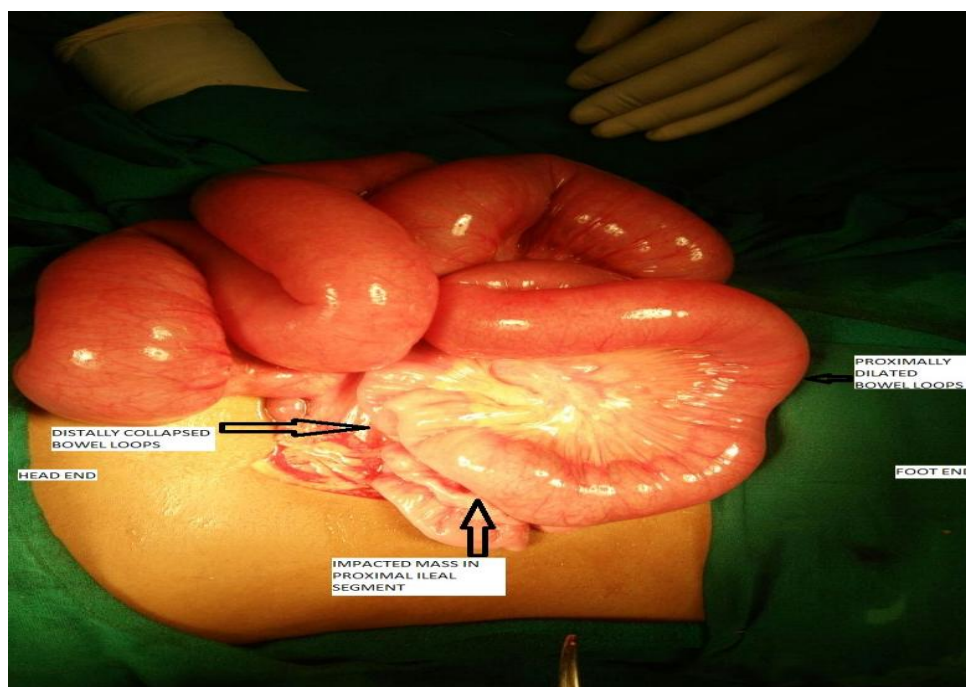


FIG 1: Intraoperative picture showing site of obstruction

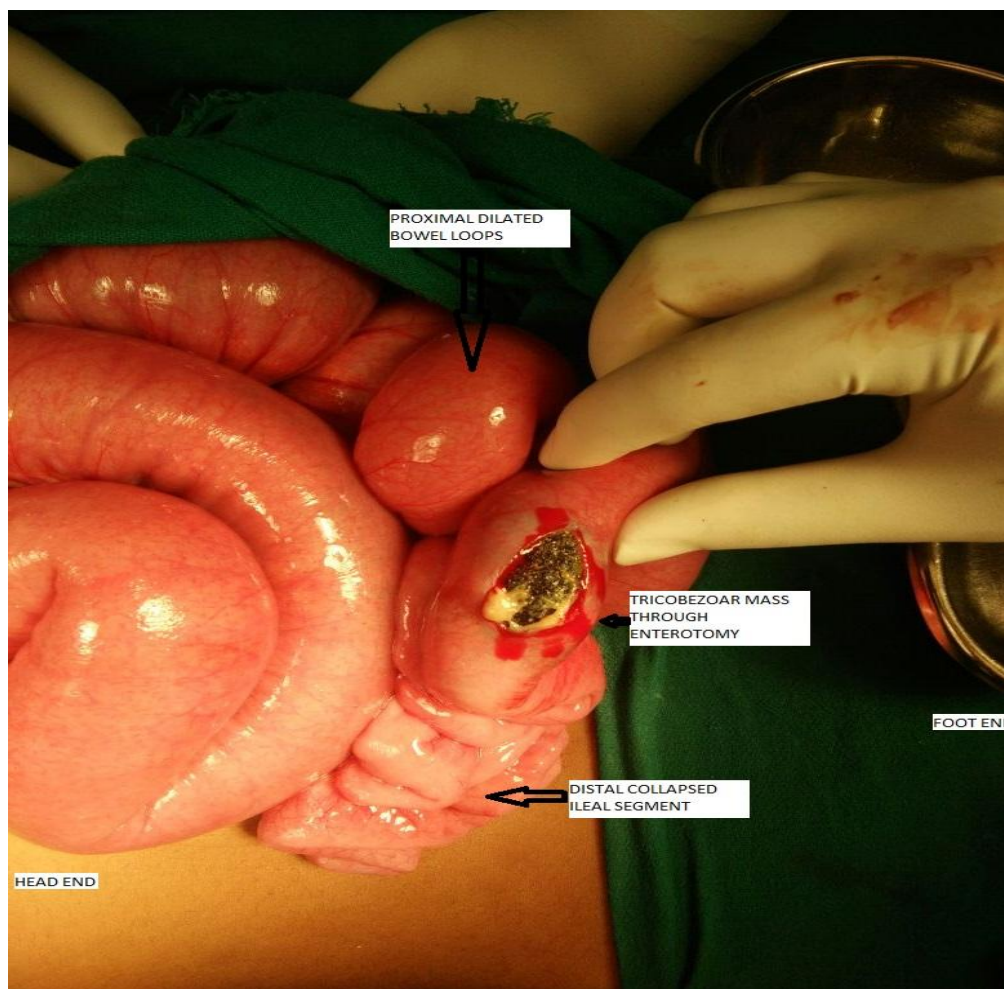


FIG 2: Picture showing trichobezoar through enterotomy site



FIG 3: Picture showing trichobezoar specimen after removal from ileum

DISCUSSION:

Bezoars result from ingestion of foreign material that accumulates in the gastrointestinal tract because of large particle size, indigestibility, gastric outlet obstruction, or intestinal stasis. The term bezoars derives from the Arabic word Badzehr, which means antidote. Bezoars were used as antidotes and as magical medicinal agents against plague, snake-bite, sexual weakness, leprosy and epilepsy by physician from 12th to 18th century.

CONCLUSION:

Bezoar-induced small bowel obstruction is a very rare entity that may be difficult to establish diagnosis

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preoperatively. There should be high index of suspicion in patients with small bowel obstruction who have history of gastric surgery or patients with underlying psychiatric illness or medications which affect gastric motility. Various imaging modalities have been recommended for diagnosis. As far as treatment is concerned, however, we consider conventional laparotomy to be the treatment of choice. It is mandatory to perform a thorough exploration of the small intestine and the stomach searching for retained bezoars. Diet modification and management of underlying disorders are the best way of prevention of recurrence.

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