CASE REPORT

Osteoid bezoar: a rare case causing small bowel obstruction

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SUMMARY

Acute intestinal obstruction due to foreign bodies or bezoar is a rare occurrence in an adult. We report an unusual case of a 27-year-old male patient with no previous history of abdominal surgery or other medical disease, who presented with an acute episode of intestinal obstruction due to ingestion of a bone piece which was managed surgically by enterotomy, and the patient had an uneventful postoperative course. He was advised regular follow-up once in 2 weeks initially and once a month subsequently. He had no problems at the end of 6 months.

BACKGROUND

Small bowel obstruction caused by bezoars is rare and accounts for only 4%. There are many documented cases of intestinal perforation caused by foreign body ingestion and very few cases of intestinal obstruction due to ingested foreign body and only three cases have been reported previously due to an osteoid bezoar.

CASE PRESENTATION

A 27-year-old male patient, known alcoholic, came with the presenting complaint of pain in

the abdomen for 5 days. The pain was generalised, non-radiating with distension of the abdomen. The pain was associated with multiple episodes of bilious vomiting for 3 days. He also had loose stools for 3 days followed by obstipation. There was no other significant associated history.

On examination, abdomen was tender and guarded with hyperperistaltic bowel sounds on auscultation. Rectal examination revealed empty and roomy rectum.

INVESTIGATIONS

Complete haemogram, liver function tests, renal function tests and serum electrolytes were within normal limits.

Upright abdominal X-ray was suggestive of multiple air–fluid levels with dilated small bowel loops (figure 1).

Ultrasonography (USG) revealed dilated bowel loops with maximal anteroposterior diameter of 3.4 cm, small bowel loops to and fro peristalsis. Minimal interbowel free fluid was present. There were no features suggestive of bezoar.

TREATMENT

Patient was taken up for exploratory laparotomy in view of these findings. A 5×4×3 cm hard solid intraluminal object with irregular sharp edges was found, 30 cm proximal to the ileocaecal junction with dilatation of proximal bowel and collapsed distal bowel (figure 2). There was no evidence of any stricture, inflammation or adhesions at the site of obstruction. Minimal clear ascitic fluid was present. Enterotomy was performed, and the object was removed which felt like a piece of bone (figure 3). Retrospectively, it was found that the patient had accidentally ingested a mutton bone piece under the influence of alcohol 3 weeks back.

OUTCOME AND FOLLOW-UP

Patient had an uneventful recovery and was discharged 6 days postsurgery.

He was advised regular follow-up, once in 2 weeks initially and once a month subsequently. He had no problems at the end of 6 months.

Histopathology of the specimen was a 4×3×3 cm specimen with bony spicules and adherent vegetative cells, amorphous debris and calcific material (figure 4A,B).

Figure 1 Upright abdominal X-ray showing multiple air–fluid levels.

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Figure 2 Intraoperative picture showing intraluminal osteoid bezoar (arrow head) with dilated proximal bowel (A) and collapsed distal bowel (B).

DISCUSSION

Acute intestinal obstruction due to foreign body ingestion is a very rare occurrence. It is generally seen in patients with psychiatric disorders, alcoholics or drug addicts. It is also known in elderly patients using dentures.¹

Acute intestinal obstruction because of bone fragment in small bowel without any abdominal pathology like adhesion or inflammation is a very rare occurrence, although there are a few reported cases of such obstruction seen due to adhesions because of previous abdominal surgeries.^{2,3} Most of the ingested foreign bodies pass through the intestine without any complication. There are many documented cases of intestinal perforation and very few cases of intestinal obstruction and only three cases have been reported previously due to an osteoid bezoar.^{1,2,4}

Most patients do not recollect the history of ingestion of foreign body which makes it difficult to diagnose the cause of obstruction clinically in the preoperative period. The characteristic findings for a bezoar on USG, such as a hyperechoic, arc-like surfaced mass with a posterior acoustic shadow having a twinkling artefact at the front of the mass. The diagnostic rate of

Figure 3 Postoperative specimen of osteoid bezoar.

Figure 4 Microscopic picture of osteoid bezoar showing bone (A) and surrounding vegetative material (B).

Learning points

- ▶ A case of acute intestinal obstruction has to be dealt with an open mind to diagnose and treat the cause, knowing fully well that the 'Pandora's box' can give many surprises.
- ▶ Dietary history is important in alcoholic patients presenting with obstruction without any previous history of abdominal surgery.
- ▶ Foreign body ingestion should be kept as differential diagnosis in such patients.

abdominal USG is reported to be 88%–93%, but it has a drawback of being operator-dependent and a bezoar can be concealed due to the accumulated gas in the bowels affecting the ultrasonic sound. CT of the abdomen is considered the most useful investigation for diagnosing foreign body causing intestinal obstruction. In CT, it appears as well-defined, oval, faeces-like material (intraluminal mottled gas-patterned mass) with a dilated proximal small-bowel loop.^{5–7} In our case, the patient had presented with features of acute intestinal obstruction, so we proceeded with exploratory laparotomy.

Management of acute small bowel obstruction due to a foreign body is almost always operative. Enterotomy and retrieval of foreign body is performed in cases where bowel integrity is maintained. Bowel resection and anastomosis or ileostomy or colostomy is required in few complicated cases.⁸ Unfortunately, there were no articles mentioning anything about osteoid bezoar, and this can be a term which we can propose to be used for such bony bezoars.

Contributors UT is responsible for admitting the patient and surgical care, and is involved in writing the manuscript and its review. MK is responsible for the surgical care, and is involved in writing the manuscript and its review. VK is responsible for admitting the patient, surgical care and postoperative management of the patient. DA is responsible for the postoperative care of the patient and is involved in critical review of the manuscript.

Competing interests None declared.

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