

SHORT COMMUNICATION

Bezoar, A Rare Cause of Gastrointestinal Obstruction

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Bezoars are rare but bizarre and well known entity . We recently treated three cases of bezoar in the stomach and intestine presenting with obstructive symptoms . The presentation and findings were suggestive. These were removed surgically with relief of symptoms.

Case 1:

Miss M , a 12 year old female child was brought with complaints of abdominal pain and vomiting for two weeks. She was suffering from recurrent abdominal pain for about a year. Pain was mostly in the epigastrium, aggravated after meals and frequently followed by vomiting. There were episodes of severe pain but she had no hematemesis or malaena and her bowel habit was normal. She was reluctant to eat as she did not feel hungry. She has recently lost weight for two - three months and for last two weeks was taking liquids only. On enquiry mother agreed that the child has the habit of taking her own hairs for quite long time .



Photograph of the Bezoar conforming the shape of stomach and also extension into duodenum.

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On examination , she was anaemic . Upper abdomen was slightly bulged . A hard smooth lump with rounded lower boarder was palpable in the epigastrium .It could not be moved . there was no other organomegaly. Respiratory and other systemic examination was essentially normal. Plain radiology of abdomen and Chest and routine blood or urine tests were normal . CT scan showed a large mass extending into the duodenum. A diagnosis of Tricobezoar was made . An upper midline incision was made. Stomach was found larger than usual , compactly filled with a hard mass in the stomach. A gastrotomy was done and the concretion was delivered intact . Post operative period was uneventful.

Case 2:

Mr S.A a 26 year young man presented with complaints of repeated acute abdominal pain along with vomiting and abdominal distension for about two years. Pain was central abdominal , sudden , colicky and relieved after a few hours. He was hospitalized twice for this. On examination everything was normal except an abdominal lump that was firm, slightly elongated, non-tender and freely mobile. In a repeat physical examination the lump could not be palpated. A barium

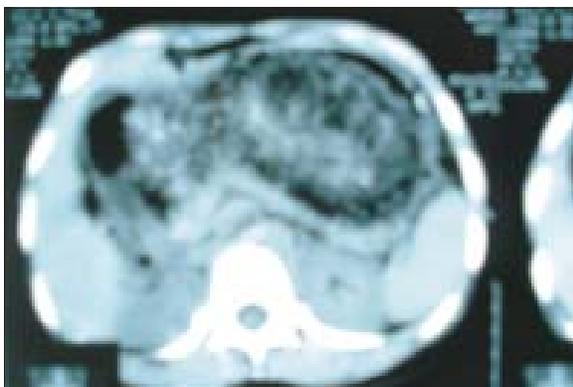


CT scan coronal plane showing extension of Bezoar into duodenum

follow through was normal. Exploration revealed a firm solid mass in the ileum at the terminal part. Attempt for fragmentation failed. The bezoar was pushed proximally and taken out through enterotomy. It consisted of vegetable seeds and fibers. There was no other mass in stomach or jejunum.

Case-3:

One of the author was called in to see a girl of 6 years with features of acute abdomen. She was complaining of abdominal pain and vomiting after each feed. She was treated in the clinic as acute abdomen with suction, saline and antibiotic. On examination a firm, nontender, elongated mass without any mobility could be felt in the epigastrium. Bowel sound was normal. There was no other significant abnormal physical finding except thin built. Extensive laboratory work-up was already completed including abdominal CT Scan. Scan showed irregular density mass in the stomach. On further enquiry, mother informed that child used chew mother hair in infancy followed by chewing and swallowing of fur from stuffed toys which she is continuing to do now. Diagnosis of trichobezoar was made. Surgical extraction of the mass was done with uneventful recovery.



CT scan showing mass involving the Stomach and Duodenum

Discussion:

Bezoars are compact masses formed of various indigestible foreign or intrinsic substances found in the gastrointestinal tract of human and animals. The term bezoar, is believed to be derived from the Arabic 'Badzehr', Persian 'Padzahr' or Turkish word 'Panzehir', all meaning counter poison or an antidote. In fact bezoars were used in India from 1200 B.C. for many reason including rejuvenating to neutralizing snake venom¹.

Bezoars are found mostly in the stomach. But there are reports of cases with bezoars in the intestine, esophagus, colon and even in Meckel's diverticulum^{2,3}. Sometimes the tail of the bezoar may extend to jejunum (Rapunzel syndrome). They occur mainly in the young women who chew and swallow their hair (trichobezoar) or phytobezoar (vegetable fibres) or pharmacobezoar (tablets/semi solid masses of drugs). Cotton threads swallowed by a tailor was reported to form a bezoar⁴. Initially these do not cause problem and continue to grow and become enmeshed, creating a mass in the shape of the stomach where they are usually found. Causes of bezoar include the presence of indigestible material in the lumen, gastric dysmotility (including previous surgery like vagotomy and partial gastrectomy etc.) and certain other substances that encourage stickiness and concretion formation.⁵

Trichobezoars usually presents with pain in the abdomen, nausea, vomiting, anorexia, dyspepsia, malaise, weakness, loss of weight, and a sense of heaviness in the epigastrium. Pain is mainly in the epigastrium, mimicking peptic ulcer pain, having recurrent acute exacerbations. The most characteristic physical finding is a large, readily palpable and freely movable abdominal mass, usually located in the epigastrium but sometimes occupying lower positions, with a well-defined, smooth outer surface and uniform firmness. Phytobezoars in the intestine usually presents with acute intestinal obstruction. A lump is sometimes palpable that may disappear and reappear. The incidence of associated peptic ulceration with the more abrasive phytobezoars (24%) is greater than with trichobezoars (10%). Bezoar may cause ulceration, hemorrhage, perforation and peritonitis. Presence of typical mass in the epigastrium with typical history is quite diagnostic and do not need much investigations.

Treatment of bezoars is relief of obstruction by removal of bezoars. Rarely resection of intestinal loop may be required for gangrenous or other pathological changes. Multiple enterotomies is recommended for bezoars extraction in Rapunzel syndrome. In cases of intestinal bezoars stomach and proximal gut must be checked for concomitant bezoars. Surgical treatment of gastric bezoars may be avoided when small. Following the introduction of minimally invasive surgery and endoscopy

with mechanical and laser fragmentation techniques, successful management of bezoars has been recorded.⁶ Procedures involve fragmentation of the mass by scissors, or by ultrasound, Dissolution of phytobezoar by Coca cola lavage was reported recently⁷

References:

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