Intestinal obstruction secondary to a colonic lithobezoar

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Abstract A bezoar is an accumulation of indigestible exogenous matter in the stomach and intestine. A myriad of ingested substances have been found impacted in the digestive tract. Bezoars are uncommon causes of intestinal obstruction during childhood. Lithobezoar, an accumulation of ingested stones within the alimentary tract, is an extremely rare clinical entity. We report one such case in a 9-year-old boy with a history of pica and long-term constipation resulting in intestinal obstruction secondary to a colonic lithobezoar. Only two such cases have been reported previously.

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Trichobezoars (ingested hair) and phytobezoars (alimentary fiber) are the commonly reported types of bezoars in children [1-3]. Lithobezoar refers to stones within the digestive tract. These are most often seen in neglected and emotionally disturbed children. A history of pica invariably precedes the formation of a lithobezoar. Intestinal obstruction may be precipitated if the problem is not recognized early. A case of intestinal obstruction secondary to a lithobezoar is described that was successfully managed by evacuation under anesthesia.

1. Case report

A 9-year-old boy was referred to our institution with features of subacute intestinal obstruction. He gave a history of long-term constipation, occasional lower abdominal pain, and painful defecation. The boy was a neglected child who belonged to the low socioeconomic group and lived in a large joint family. He was one of a twin pair and had 4 other siblings. Although his milestones were normal, he was a slow learner at school, lethargic, and was also emotionally disturbed. On probing further, his caregivers revealed that he had a habit of sitting alone and consuming stones and other mud particles. They had not sought medical advice for these problems. When his constipation and abdominal pain became troublesome, he was shown to a primary care physician who prescribed laxatives and suppositories for the same without being aware of his pica behavior. These medications worsened his condition, and he was subsequently referred. His vital parameters were normal and general physical examination result unremarkable. Abdomen was distended and tender, with no peritoneal signs. There were palpable fecoliths along the outer quadrants of the abdomen. A digital rectal examination revealed a loaded rectum with a prickly mass (stones of various sizes ranging from 0.5 to 2.0 cm each) along with little stools, and the gloved finger was stained with blood. A plain abdominal radiograph clinched the diagnosis showing innumerable discrete radiopaque stones in the entire colon (Fig. 1). The diagnosis of intestinal obstruction...
Bezoars result from pica, the appetite for unpalatable or nonnutritive objects. The etiology of pica is not known; it may be a consequence of parental neglect and deprivation early in life. It is more commonly observed in impoverished, emotionally disturbed children of low socioeconomic status who frequently live in distressed home environments. Lithophagia is a rare disorder that is liable to be under-reported. When the bezoar is formed of ingested stones and mud particles, it is termed lithobezoar. Lithobezoars are extremely rare in the pediatric age group. Less than 5 cases are reported in English literature [9-11]. This is only the third reported case of lithobezoar presenting as an intestinal obstruction [10,11]. Intestinal perforations and peritonitis are the other complications. There are anecdotal reports of appendicitis and stomach ulcer as a result of lithobezoars.

Seeking a clear history and thoroughly evaluating the suspicious cases are the keys to the management of such cases. They may also present with subtle symptoms such as failure to thrive, constipation, nonspecific abdominal pain, and may go unrecognized. Conservative management is usually successful [9] but may require a manual evacuation as in our case. Bleeding and intestinal perforation are possible hazards while using this approach; the advantage is laparotomy and its complications may be avoided. As in all cases of bezoars, a psychiatric evaluation is essential to prevent a recurrence. Earlier diagnosis of behavioral problems and associated pica, prevention of a bezoar formation, and prompt recognition of its complications should be of primary importance.

References
