

CASE REPORT

A Rare Case of Calcified Enterolith Presenting As Subacute Intestinal Obstruction

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Introduction

Enterolith in the small bowel is a rare phenomenon encountered on abdominal X-ray and usually is not the cause of the stricture seen simultaneously [1]. Stricture secondary to tuberculosis is the most common cause of enterolith. In our case, lymph node biopsy showed reactive lymphadenitis. As well, there were no diverticula present which is also a common cause of enterolith [2, 3] as diverticulas provide the more acidic environment necessary for choleic acid precipitation and stone formation [4]. These findings made this case a rare entity.

Case Report

A 32-year-old female admitted in surgery ward with complaints of pain in abdomen for 15 days and vomiting (on and off) for 4 days. Pain was predominantly in the lower abdomen. It was colicky in nature, slowly progressive, associated with vomiting, and aggravated on taking food. She had on and off vomiting which was non projectile, nonbilious, containing food particles. There was no history of diarrhea or absolute constipation. She had undergone hysterectomy 10 years back.

Her abdomen was not distended. Lower midline hysterectomy scar was present and lower abdomen was tender. There was no guarding or rigidity. Bowel sounds were normally

present in all four quadrants. On per rectal examination, soft fecal matter was present. X-ray abdomen anteroposterior view showed an oval radio-opaque shadow (ROS) in the area of urinary bladder. Ultrasonography (USG) was suggestive of a 4-cm-size acoustic shadow seen producing curvilinear stature away from bladder in left hemi pelvis with features of subacute intestinal obstruction. So impression of? Extravesical calculi? Fecolith? Calcified Lymph node came to our mind. We further proceeded with X-ray abdomen lateral view and plain computed tomography scan (CT Scan) to reach to a final diagnosis of enterolith in small bowel (Fig. 1).

Exploratory laparotomy was done. Whole bowel was explored for presence of any stone. In a segment of ileum 25 cm proximal to ileocaecal junction, a stone was found between two passable strictures, and the stone was fixed at its position. A longitudinal incision was made on the antimesenteric border of ileum at the site of distal stricture (Fig. 2). Stone was delivered out from ileum. Enterotomy incision was repaired in

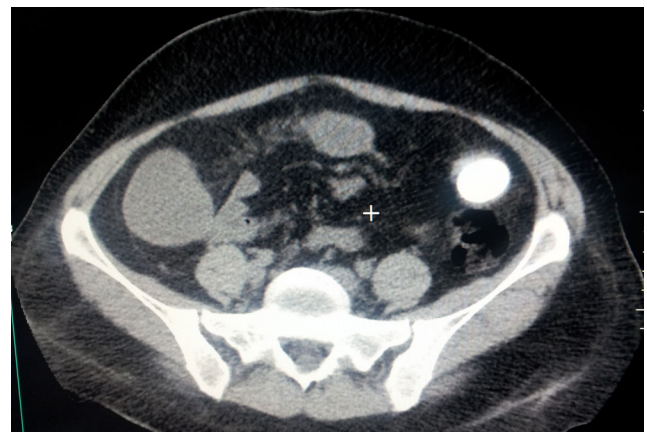


Fig. 1 CT showing radio-opaque shadow in small bowel

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Fig. 2 Intraoperative picture

two layers in a transverse fashion. No other stone or any other abnormality was found in the rest of the bowel. No communicating fistula was found between gallbladder and duodenum suggesting it to be a case of primary enterolith.

Her post-operative period was uneventful. Stone was oval in shape around 4 cm × 3 cm, rough and hard with soft core. Biochemical study showed calcium and oxalate and cholesterol in the center.

Discussion

Post-operative bands and adhesions are most common cause of small bowel obstruction. Hernia, tuberculous strictures, congenital or acquired bands, malignancy, lymphoma, and inflammatory bowel disease are other common causes of obstruction. Intraluminal causes include gallstones, bezoars, inspissated feces, and worm bolus [5]. Fecolith or enterolith is a very rare cause of small bowel obstruction.

Enteroliths usually form in diverticulum of small bowel causing bowel obstruction. It is composed of inspissated fecal matter, calcium phosphates, magnesium, epithelial debris, bacteria, and un-conjugated cholic acid but little or no cholesterol.

True enteroliths result from precipitation and deposition of substances from alimentary chime. False endogenous enterolith are commoner than true [6].

Primary enteroliths are formed in the small bowel typically within a diverticulum, and secondary enteroliths (gallstones) are formed in the gallbladder. In the differential diagnosis of a

small bowel obstruction (SBO) occurring in the elderly, one should always consider gallstone ileus, which occurs when a gallstone is passed through a biliary-enteric fistula. Enterolith formation is thought to be secondary to hypomotility or stasis, although many conditions have been implicated. Small bowel diverticulosis is a well-established pre-disposing condition, where stones form de novo or around a central nidus such as a fruit stone or undigested vegetable matter (bezoar). Since there were no small bowel diverticula in our case, we hypothesize that hypomotility or stasis is due to stricture in the bowel which led to the formation of the enterolith. Most enteroliths are asymptomatic. Complications, if any, are likely to be severe such as obstruction, ileus, and perforation. Therapeutic approach is to crush and milk the enterolith down to colon. If this fails, enterotomy with extraction or segmental resection of bowel are other options. In the clinical setting of a SBO due to a mass, enteroliths must be considered in the differential diagnosis when there is no evidence of gallstone ileus or malignancy. Definitive treatment for enterolith-induced SBO is surgical with most patients requiring enterotomy or occasionally resection.

Conclusion

One should always keep in mind possibility of enterolith while dealing with SBO and proceed accordingly. Basic investigation like ultrasonography can diagnose it.

Conflict of Interest None.

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