Case report

Ileal fecalomas causing small bowel obstruction: A case report

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ABSTRACT

Introduction: Fecaloma is an accumulation of feces that has formed a mass and has failed to be expelled spontaneously. Because fecal matter is harder and firmer in the left side of colon, and the diameter of the bowel is smaller compared to the right, fecalomas mostly form in recto-sigmoid area. Small bowel fecaloma formation is an extremely rare condition.

Case presentation: We report a 49 years old man who presented with small bowel obstruction due to ileal fecalomas for whom enterotomy and removal of fecaloma was done with good outcome.

Discussion: Fecal matter can accumulate in the intestinal lumen to form a mass separate from other intestinal contents which eventually becomes fecaloma. Formation is usually related to chronic constipation, conditions causing intestinal motility disorder, or in psychiatric patients who could have ingested extraordinary substances. Fecaloma can present as abdominal mass, stercoral colitis, urinary retention or intestinal obstruction. Treatment options include conservative management with bowel rest, laxatives, endoscopic removal, laparotomy and removal via enterotomy.

Conclusion: Fecaloma can be considered in patients who present with small bowel obstruction without any risk factors. Initial noninvasive management should be considered. Failed conservative treatment can be followed by laparotomy and fecaloma removal.

1. Introduction

Fecaloma is an accumulation of feces that has formed a mass and has failed to be expelled spontaneously. The most common sites of fecaloma are rectum and sigmoid colon accounting for about 90% of cases [1]. They usually form in association with other diseases like Hirschsprung’s disease, Chagas disease, in psychiatric or debilitated patients, and inflammatory or neoplastic conditions that incited chronic constipation [1,2]. Formation of fecaloma in small bowel without presence of inciting factors is an extremely rare condition. The first case report in English literature was reported in 2015 [3]. We report a case of a 49 years old man who presented with small bowel obstruction due to two ileal fecalomas according to the SCARE 2020 guideline [4]. To the best of our knowledge, this is the second case to be reported.

2. Case presentation

A 49 years old man who was relatively healthy two weeks prior to his presentation came to our Emergency Room with crampy abdominal pain. He also gives history of nausea, vomiting and progressive abdominal distension. He failed to pass feces and flatus for the last four days. He was operated 20 years back for perforated peptic ulcer disease for which Graham’s omental patch was done. He denies any fever, significant weight loss or prior similar symptoms. He is relatively healthy man with no known neuropsychiatric diseases. He was not on any medications and he has no allergy. He has no relevant family illness. On presentation his vitals were in normal range with pulse rate of 82. Abdominal exam was remarkable for gaseous distension and scanty formed stool in rectum but there was no tenderness. Blood work showed normal white count and erect plain abdominal film showed multiple central air fluid levels while the rest of abdomen showed opacity [Fig. 1]. Because of his prior surgical history, he was admitted to surgical ward for conservative management of adhesive small bowel obstruction. He was resuscitated with fluids and nasogastric tube was inserted. In our set up, we don’t administer water soluble contrast to patients with adhesive small bowel obstruction because it is not available in the country. After 24 h of follow up in the ward, he was not improving. He was having more abdominal cramp, and 1.6 L of bilious output was recorded from

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nasogastric tube. He was taken to operation theatre for failed conservative management. Prophylactic antibiotics were given. He was explored through midline laparotomy. The findings were small adhesions between liver, anterior abdominal wall, omentum and transverse colon which were sharply lysed to examine the whole abdomen. The whole of small bowel was free of adhesions. The proximal small bowel was hugely dilated up to 8 cm. There were two intraluminal hard masses measuring $3 \times 4 \times 2$ cm each [Fig. 2] about 45 cm and 60 cm from ileo-cecal valve. The proximal one was slightly mobile, but the distal one couldn’t go distally any further. The ileum and large bowel distal to the obstruction was collapsed [Fig. 3]. Enterotomy was done at the proximal mass site. Both fecalomas were removed through same enterotomy site. We did not try to milk the fecaloma proximally before enterotomy because they were hard on palpation. The whole bowel was examined but there was no stricture or mass. Ileo-cecal valve was patent. Post-operatively the patient passed feces and flatus on 2nd day. Postoperative course was stable except for surgical site infection for which we opened about 4 cm length skin stiches above umbilicus. Patient was stable at six months of follow up.

3. Discussion

Fecal matter can accumulate in the intestinal lumen to form a mass separate from other intestinal contents [3,5]. This forms a fecaloma. Formation is usually related to chronic constipation, conditions causing intestinal motility disorder, and in psychiatric patients who could have ingested extraordinary substances [1]. Because fecal matter is harder and firmer in the left side of colon, and the diameter of the bowel is smaller compared to the right, fecaloma mostly form in recto-sigmoid area [1,3]. In our case, the patient had no risk factors. The adhesions found intraoperatively were not causing any luminal obstruction. To best of our knowledge, this is the second case report in English literature when small bowel fecaloma presents with bowel obstruction in a patient with no risk factors. The peculiar thing is the fact that the first case report of jejunal fecaloma happened in a patient who had laparotomy for perforated duodenal ulcer 10 years prior to presentation with fecaloma, while our patient had similar surgery for similar indication 20 years prior to presentation.

Fecaloma has varied presentations. Some of the presentations are abdominal mass, stercoral colitis, urinary retention and intestinal obstruction [1,5–7]. A systematic review of complications of fecal impaction showed that intestinal obstruction accounts for 13%, while 67% were complications on intestinal wall like perforation, stercoral ulcer [8]. All of the very few cases of small bowel fecaloma reported present with intestinal obstruction [3,5]. Our case had two fecalomas in the distal small bowel that presented with acute obstruction.

The treatment options for fecaloma depend on the site and presentation. There is no formed protocol, but conservative management with bowel rest, laxatives and endoscopic removal have been reported. Patients who present with acute abdomen might require surgical intervention. All retrieved published cases of small bowel obstruction due to fecaloma required surgical removal [1,3,5]. A trial of conservative management also did not work for our patient so enterotomy and removal was done.

4. Conclusion

Fecaloma can be considered in patients who present with intestinal obstruction without any risk factors. Initial noninvasive management with bowel rest, laxatives and endoscopic removal should be tried. Patients with failed conservative management can be treated with enterotomy and removal of fecaloma with excellent outcome.

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Consent

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Not applicable.

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Seyoum Kassa Merine, MD.

CRediT authorship contribution statement

1. Abraham Genetu, MD: conceived, wrote, and submitted the case report. He operated on the patient and followed the patient afterwards.
2. Mesale Solomon, MD: operated on the patient, conceived, wrote, and reviewed the case report.
3. Seyoum Kassa, MD: did a critical review of the case report, approved final version for submission, and was involved in the management of the case.

Declaration of competing interest

All authors declare that they have no conflict of interest.

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