Case and Review

Giant Fecalith Causing Near Intestinal Obstruction and Rectal Ischemia

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Keywords

Fecalith · Fecal impaction · Constipation · Complications of fecalith · Intestinal obstruction · Rectal ischemia · Rectal ulcer

Abstract

Fecal impaction if left untreated can lead to the hardening of stools and the formation of fecalith. Fecaliths rarely cause serious complications and are usually managed conservatively. We present this rare case of a giant fecalith causing near obstruction in an institutionalized paraplegic patient at high risk for chronic constipation and fecal impaction. This case was also unusual for causing ischemic pressure necrosis in the rectum, thereby highlighting the possible serious complications of fecalith.

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Background

Fecal impaction occurs when a large amount of fecal matter gets compacted and cannot be evacuated spontaneously [1]. It can occur in any part of the intestine. Fecal impaction is significantly common in chronic, severe constipation and in other at-risk patients with anatomical or functional anorectal abnormalities. Fecal impaction in its extreme form can lead to the hardening of stools and the formation of fecaliths. Fecaliths rarely causes serious complications and are generally managed conservatively. Herein, we present a rare case of a

giant fecalith causing near obstruction in an institutionalized patient at high risk for fecal impaction due to paraplegia.

Case Report

A 73-year-old paraplegic woman with an indwelling Foley catheter for recurrent urinary tract infections was admitted with complaints of pressure-like, nonradiating, bilateral lower-quadrant abdominal pain (intensity 9/10) associated with 2 episodes of diarrhea mixed with streaks of bright red blood which was preceded by chronic constipation. The patient also had a history of pulmonary embolism and was taking Coumadin. On admission, the patient was dizzy and found to be hypotensive with blood pressure of 88/59. She responded to intravenous hydration. Laboratory values were consistent for microcytic anemia with hemoglobin of 9.1 g/dL and mean corpuscular volume of 79. A CT scan of the abdomen with oral and intravenous contrast showed a circumferential mass in the rectum (Fig. 1) and findings consistent with constipation. Colonoscopy revealed a large near-obstructing fecalith in the rectum (Fig. 2). There was severe ulceration with oozing of blood on contact and heaped edges in the distal rectum. All endoscopic attempts at removal of the fecalith were unsuccessful due to its size and its extremely hard stone-like consistency. A small piece of the fecalith was broken down and sent to histopathology. Biopsy of the rectal ulcer showed ischemic necrosis (Fig. 3). The patient subsequently underwent manual disimpaction under general anesthesia in the operating room. The patient was put on round-the-clock stool softeners and subjected to periodic manual disimpaction to prevent a recurrence.

Discussion

Fecal impactions are commonly encountered in clinical practice and are a frequent cause for emergency department visits [2]. Chronic constipation, anatomic anorectal abnormalities (such as strictures, stenosis, Chagas disease, and Hirschsprung disease), and functional anorectal abnormalities (such as pelvic floor dysfunction, abnormal rectal sensation, and increased rectal compliance) increase the risk of fecal impaction [3]. However, the elderly and those with neuropsychiatric diseases are at the highest risk of developing fecal impaction. Rarely, if untreated, fecal impaction can lead to the development of fecaliths, which is hardening of stools. Fecaliths most commonly occur in the rectum and sigmoid colon. Patients with fecaliths usually present with overflow diarrhea, constipation, and abdominal pain [4]. They rarely cause severe complications. Rectal ischemia as seen in this patient is rare due to its dual blood supply. However, in this case, the patient developed rectal ischemia secondary to pressure from the giant rectal fecalith. An increase in intra-abdominal pressure caused by the fecalith decreases capillary perfusion and can lead to ischemic necrosis [5]. Prolonged ischemia such as this might cause ulceration, gastrointestinal bleeding, and even perforation. Fecaliths can also cause intussusception, intestinal obstruction, and extraluminal pressure effects leading to urinary retention and hydronephrosis [5–9]. The hardness of stools depends on the degree of calcification and the presence of solid material [10]. Fecaliths are usually amenable to conservative management with digital disimpaction, laxatives, or enemas. If conservative management is unsuccessful, they can be removed during colonoscopy. Fecaliths very rarely require surgical removal.

Statement of Ethics

This case report was exempted from our Institutional Review Board as per its policy. Informed consent for participation was obtained from the patient.

Disclosure Statement

None of the authors have any financial conflicts of interest to declare.

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Data relating to this case report is available from the corresponding author upon request

Fig. 1. CT Abdomen showing a rectal endoluminal fecalith mimicking a mass lesion (white arrow).

Fig. 2. Giant near-obstructing fecalith (yellow arrow) in the rectum with surrounding mucosal ulcerations (black arrow).

Fig. 3. Rectal biopsy specimen showing evidence of ischemic necrosis (white arrow) on H&E stain. $\times 100$.