Acute Constipation and a Stercoral Perforation: A Case Report

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Introduction

- Stercoral perforation is an uncommon cause of bowel perforation developing from fecal impaction that may eventually result in a perforation. Only an estimated 200 patients have been diagnosed with a stercoral perforation, based on systematic reviews. However, it is believed that this number is underestimated. When a stercoral perforation occurs in the setting of constipation or fecal impaction the diagnosis is frequently missed; this delay contributes to the elevated mortality rate associated with this condition. Generalized stercoral peritonitis has often been a reported finding when this occurs. It is unclear which gender and age division is more susceptible to the development of stercoral perforations. Some studies estimate the mean age to be 75.7±9.0 years with a female predominance while others postulate that the mean age has decreased over recent years with an emphasis in higher occurrences in opioid users. In the wrong patient, this can ultimately lead to their demise with reported cases of mortalities following late diagnosis of stercoral perforation.

Case Report

- A 52-year-old female presented to the Emergency Department with a complaint of three days of constipation and distention associated with absence of flatus, loss of appetite and abdominal pain. A two-day trial of MiraLAX was initiated by the patient but proved to be ineffective. The patient had no known prior history of prior constipation, but a family history of colon cancer in both her mother and two sisters. She has had several screening colonoscopies, the most recent performed at age 40 with no significant findings. Her past medical history includes endometriosis and polycystic ovarian syndrome. Her past surgical history included an oophorectomy, and a prior cholecystectomy.
- Physical examination revealed mild abdominal distention and tenderness to palpation in the left lower quadrant. Laboratory investigations were all within range except for a creatinine of 1.2mg/dL, likely secondary to mild dehydration. The patient was taken for a computed tomography (CT) scan of the abdomen/pelvis with contrast which demonstrated a moderate amount of stool in the proximal colon, leading up to a 3.2 cm hypodense structure. She had no recent administration of contrast to explain the hypodense appearance. A thickening of the sigmoid colon, accompanied by a blurred appearance of the sigmoid fat was also observed and attributed to mass effect. The patient was admitted to the surgical unit and both surgery and GI were consulted. Gastrografin enema was performed on admission but showed no abnormality or obstruction



Figure 1. Computed tomography scan obtained at admission. Scan shows moderate stool retention and a notable thickened sigmoid. Blurred fat around the sigmoid is also visible.

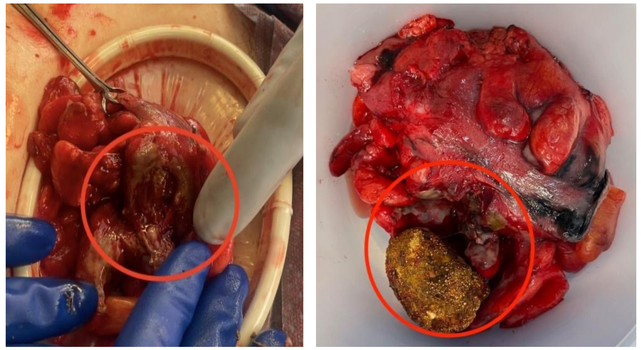


Figure 2. Full thickness ulceration causing sigmoid perforation is noted intraoperatively. The fecalith alongside the resected bowel. This measured approximately 4 cm x 3.5cm x 2.5cm.

Case Report (continued)

- Colonoscopy revealed a foreign object in the proximal sigmoid colon, resembling either a gallstone or fibrous material. Attempts to break the material apart with the use of forceps were unsuccessful due the rigid nature of the foreign body. Efforts to use Roth net or to snare around the object were also futile.
- A diagnostic laparoscopy was performed bowel inspected noting both the tattoo and a very hard portion of sigmoid colon consistent with colonoscopy findings. There was minimal proximal dilation. The descending and sigmoid colon were mobilized along the white line of Toldt and further separated from retroperitoneal structures to bring out the sigmoid colon through a Pfannestiel incision which was subsequently made.
- Upon separation of adjacent epiploic appendages there was a full thickness perforation noted with the foreign body blocking the 2cm perforation of the sigmoid wall. The tissue surrounding the perforation also appeared necrotic and unhealthy. The state of the damaged tissue and the size of the mass led to the decision to perform a sigmoidectomy.
- The patient had an uneventful post-operative course with a gradual diet advancement. A return of bowel function was noted on postoperative day 2, and she was discharged later that day. Pathology showed a fecalith.

Discussion/Conclusion

- In our case, the patient did not present with the typical clinical picture; there was no evidence of pneumoperitoneum, peritonitis, or perforation. Additionally, despite a thorough workup, the primary differentials involved a foreign body or bezoar.
- This highlights the versatility of minimally invasive procedures. This surgery can now be performed laparoscopically and without any diversion, leading to a shorter length of stay and avoiding the morbidity of a large exploration and diversion procedure.
- We postulate that the calcified elements of the fecalith could have hindered its detection on gastrografin enema
- We demonstrated the safety and efficacy of a laparoscopic approach in hemodynamically stable patients, challenging the notion of exploratory laparotomy as the default operation in such cases.
- This case highlights the potential for stercoral perforation to be masked by a large bowel obstruction presenting with only distention and abdominal discomfort.