Beware of Stercoral Perforation in Opioid-dependent Patients:

A Report of Two cases and Review of Literature

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Introduction

Stercoral colitis is an uncommon disease process that is a result of chronic constipation where fecal impaction condenses into a fecaloma, distending the colonic wall and increasing the potential for perforation. Chronic constipation is seen in 15-20% of adults, but the prevalence of stercoral colitis and risk for perforation are not well documented. It is more commonly seen in elderly patients with dementia, nursing home, bed bound patients and young female patients with psychiatric conditions. But with the rise of opioid and narcotic abuse, we question if stercoral colitis and cases of perforation is a disease process that is underreported.



Figure 1: Coronal CT Abdomen and Pelvis with IV contrast of first patient demonstrating rectosigmoid perforation with air and fluid in posterior pelvis

Case Description#1

57 year old female with history of major depressive disorder and chronic right knee and left hip pain for which she took 1-2 percocet daily. She presented with worsening lower abdominal pain after attempted use of a rectal suppository for relief the day prior to presentation. Patient was tachycardic, normotensive. Abdomen soft, mildly distended, tender lower abdominal quadrants. Digital rectal exam with no hematochezia and some soft stool in rectal vault. CT Abdomen Pelvis demonstrated thickened rectosigmoid colon with perforation in posterior pelvis with significant amount of retroperitoneal air tracking to level of renal veins with prominent amount of stool to dilated cecum. Intraoperatively, she was found to have sigmoid area with necrosis measuring approximately 3 cm s/p sigmoid resection. Throughout the colon she was noted to have fixed large hard stool impaction as well. At the posterior rectosigmoid junction containing large stool balls within extraperitoneal reflection of the bowel in mesentery. Patient was left in discontinuity and taken back for second look for end colostomy creation. Postoperatively, patient required Golytely to relieve proximal fecal impaction and was subsequently discharged.

Case Description #2

35 year old female, history of substance use and constipation, presented with left lower quadrant abdominal pain for 5 days. Patient went to urgent care on second day with abdominal pain and was advised to use an enema; she subsequently developed worsening abdominal pain, subjective fevers, and chills. General surgery consulted for perforated sigmoid colon with large stool burden. HR 70-90, SBP 159/79. Last passed flatus and hard stool balls earlier to presentation. Denies frequent water intake and denies high fiber diet. Never had colonoscopies before. Abdomen was soft, non distended, and tender suprapubic and LLQ abdomen. DRE with soft stools, no hematochezia or ulceration or masses. WBC 10.7, BUN 14/0.72. CT Abdomen/Pelvis with IV contrast demonstrated perforation along left distal sigmoid colonic wall and gas tracking along sigmoid colon and retroperitoneal space, distended distal sigmoid colon with formed stool. Patient refused exploratory laparotomy and end colostomy creation. Kept NPO, IV antibiotics.

On hospital day 2, patient had persistent suprapubic abdominal pain. HR 80-90, SBP 130-90, WBC 8.6 During admission, patient admitted to continue taking two bags of heroin prior to admission to hospital. Psychiatry consulted opioid use disorder and was started on methadone. On hospital day 3, patient developed worsening abdominal pain with tachycardia to HR 120s. Abdominal exam with worsening lower abdominal tenderness. Leukocytosis 12.8. Repeat CT Abdomen Pelvis with PO contrast showed 2.5cm right lateral wall sigmoid colon defect and 6.6x2.8 cm collection of stool and air, no contrast in collection but likely due to contrast tracking inferiorly in rectosigmoid. Presacral space with extraluminal air. LLQ 9.0x4.3 cm collection, new ascites, and intraperitoneal free air. Patient consented for operation at this time.

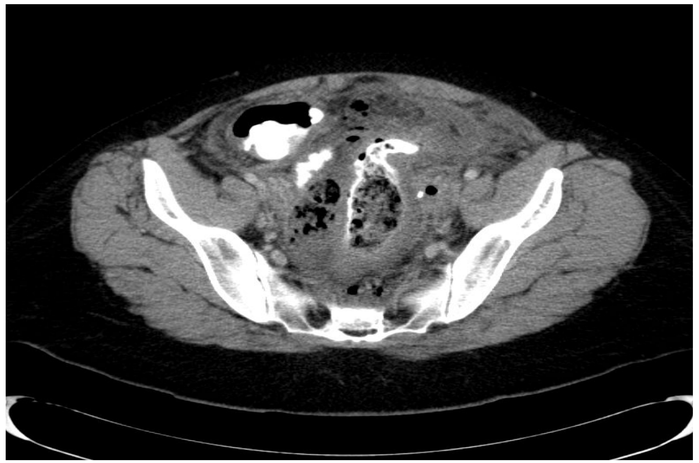


Figure 2: Axial CT Abdomen and Pelvis with Perforation with fluid and air along right lateral rectosigmoid wall

Intraoperatively, patient found to have large pelvic abscess, stool in pelvis, and large perforation in upper necrotic rectum. Proximal sigmoid was divided with GIA stapler. Distal sigmoid was divided distal to the perforation. Distal end was sutured manually with 1 PDS. Peritoneal cavity was copiously irrigated and end sigmoid colostomy was then performed. Abdomen closed with loop PDS, JP drain left at right side of rectum. Colostomy matured with 2-0 vicryl sutures. Postoperatively, patient recovered and discharged with no complications.

Discussion

Perforation of stercoral colitis is a rare entity with few literature mainly discussing case reports with this phenomenon causing pressure necrosis of colonic wall leading to luminal distention, ulceration, and eventual perforation. Most reports comment on chronic constipation see in elderly and psychiatric patients (1). However with current opioid epidemic, there has been few reports on stercoral perforation in patients who have history of chronic opioid abuse. Some studies have found the median age of patients has decreased from prior cohort studies with improved mortality rate (2).

Most commonly documented locations for perforated stercoral colitis locations are at the anterior rectum proximal to peritoneal reflection, the antimesenteric border of rectosigmoid junction, and the apex of sigmoid colon (3). CT imaging can demonstrate thin colonic wall, pericolonic fat stranding and edema, and extraluminal gas (4, 5).

Conclusion

These cases underscores the importance of recognizing severe constipation as a potential cause of acute abdominal symptoms, especially in patients with multimorbidity and chronic pain conditions. Prompt diagnosis and intervention are paramount in preventing complications such as bowel perforation and necrosis. Collaborative management involving gastroenterologists, surgeons, and psychiatrists may optimize outcomes in similar clinical scenarios. It may be beneficial to research prevalence of constipation and stercoral colitis in outpatient polysubstance abuse clinical settings.

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