

## BACKGROUND

Fecal impaction (FI) is a common digestive disorder and acute complication of chronic, untreated constipation. Contributing factors for fecal impaction and constipation include low fiber diet, inactivity, family history, age, socio-economic deprivation, opioid use, and antipsychotic medications. Early identification and treatment minimize complications and patient discomfort. Among the adverse consequences of FI, stercoral ulcer (SU) formation is the most fatal sequelae. SU resulting in peritonitis secondary to colon perforation is considered a surgical emergency and often requires emergent laparotomy with colon resection, Hartmann's pouch, and ostomy. Surgical resection is localized to the sigmoid colon or rectum 77% of the time. SU occurs as stool impacts in the rectum forming a fecaloma which can cause increased pressure leading to ischemia, necrosis, and eventual perforation, if left untreated. Ultimately, stercoral ulcerations boast a 32%-60% mortality rate with highest predicting factors being perforation and length of colon involvement. We present a catastrophic FI with SU perforation, peritonitis and cardiopulmonary arrest in a young adult requiring emergent surgical intervention and prolonged hospitalization.



## CASE

A 25-year-old unhoused female presented via EMS to the ED with complaints of worsening abdominal pain, distention, and acute diarrhea. Medical history was pertinent for polysubstance use disorder. On initial presentation, emergency department staff held pregnancy as primary differential despite presentation of abdominal pain, severe distention, overflow diarrhea, history of chronic constipation, and patient's denial of pregnancy. Shortly after arrival, she was found unconscious and pulseless with ventricular tachycardia (VT). ACLS protocol was initiated, patient was intubated. Emergent CT chest, abdomen and pelvis with IV contrast revealed massive fecal impaction, bowel perforation, large volume pneumoperitoneum, moderate ascites, and diffuse thickening of the rectosigmoid colon.

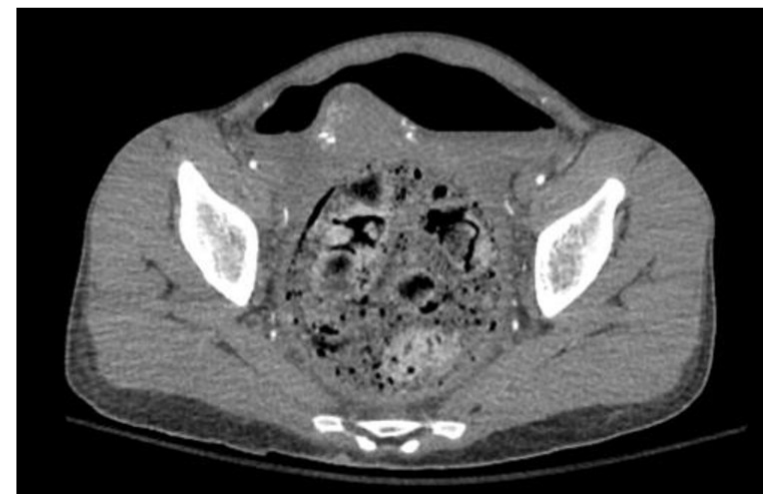
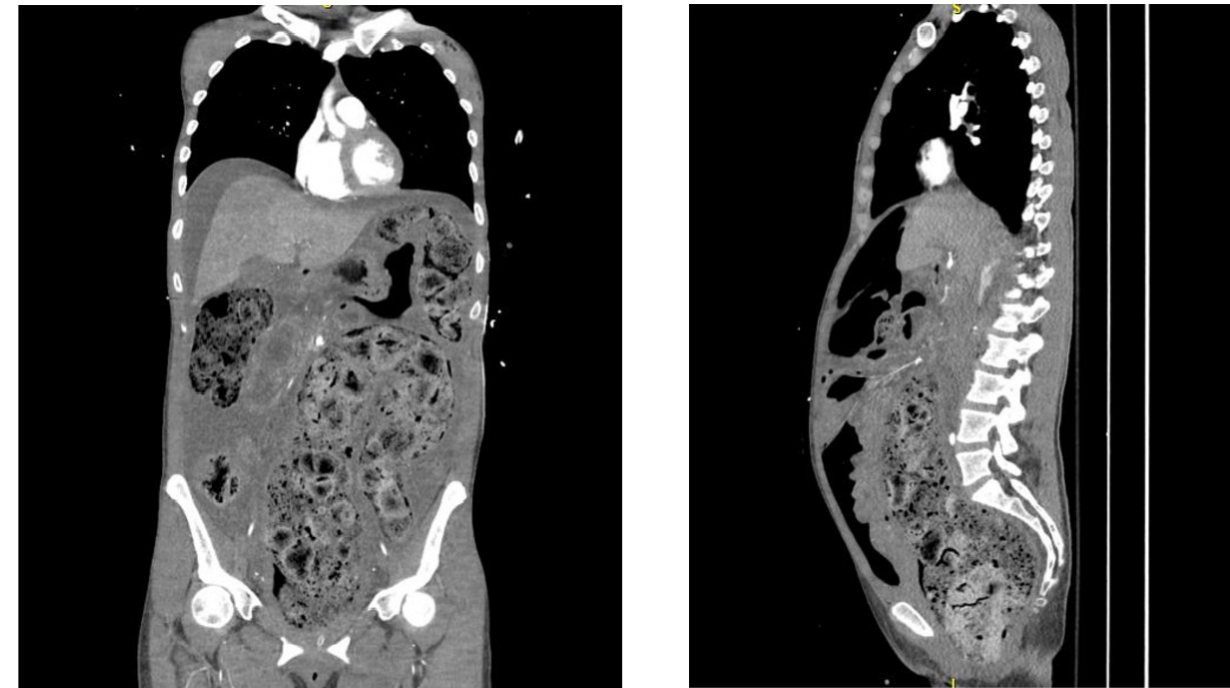
## OPERATIVE INTERVENTION

Patient was emergently transferred to the operating room for life-saving subtotal colectomy with end ileostomy and Hartmann's pouch. Patient's bowel perforation, peritonitis with sepsis, and cardiac arrest were attributed to a catastrophic fecal impaction with perforated SU of the rectosigmoid.

## POSTOPERATIVE COURSE

Postoperatively the patient remained intubated in the ICU in a persistent vegetative state due to anoxic brain injury secondary to sustained cardiac arrest. Percutaneous tracheostomy tube placed due to prolonged ventilator needs. Course was additionally complicated by numerous intraabdominal fluid collections requiring three percutaneous drains, midline fascial dehiscence due to sepsis and malnutrition (seen in photos on left), and multiple episodes of ventilator-associated pneumonia requiring broad spectrum antibiotic care.

## RADIOLOGIC AND IMAGE REVIEW



Above and middle images: Coronal, sagittal, and axial CT showing extreme fecal impaction, perforation, and large volume pneumoperitoneum

Lower Images: Postoperative course complicated by fascial dehiscence. Wound managed with local wound care and bedside debridement without need for return to OR. Granulation occurred throughout wound base.

Right Image: Intra-operative acute colonic necrosis and distention of redundant sigmoid colon (perforation not shown).



## LONG-TERM OUTCOME

Her witnessed cardiac arrest requiring CPR with prolonged down time of 13 minutes, resulted in severe global anoxic brain injury. At the time of writing, mental status had improved to awake, following some commands, weaned from mechanical ventilation and able to self-ventilate on room air, yet patient remains quadriplegic. Nearly 10 months following initial presentation with a perforated stercoral ulcer, the patient was eventually discharged home with home health care after intensive medical intervention.

## CONCLUSION

Fecal impaction is an acute manifestation of chronic constipation that can result in the rare, often fatal, development of stercoral peritonitis.

Ultimately, chronic constipation combined with polysubstance abuse and decreased access to medical care resulted in massive colonic fecal distention causing stercoral perforation. Patients with FI will present in a variety of clinical settings but rarely with perforated SU requiring emergent surgical intervention. Timely identification and management are paramount to the successful treatment of this potential catastrophic occurrence.

## MATERIALS

