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Visual Case Discussion

Stercoral colitis and a large bowel obstruction in a young man

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A 23 year old man is transferred for abdominal pain, abdominal distention, and large bowel obstruction. He had been having severe abdominal pain for the past 24 h that prompted him to seek help at a local emergency department. He described the pain as a pressure sensation, generalized, and not worsened or relieved with anything. He had been having associated nausea and vomiting described as yellow. He had not had a bowel movement in the past week and had been constipated for the past 2 weeks. Laxatives were used for the past two weeks without any relief of his symptoms. Before being transferred he had a laboratory work that showed an elevated white blood cell count of 17 × 10^3/UL, a CT abdomen/pelvis without contrast showed severe constipation with colonic dilation (Fig. 1), and a nasogastric tube was placed before transfer. He had one prior episode of severe constipation when he was 12 years old, resolved with laxatives, followed up with gastroenterology and told that he had “a pouch” in his colon that contributed to the constipation. He denied any opioid/heroin use and a review of the state prescription monitoring program did not show any past opioid prescriptions. He has no past medical history, no past surgical history, non-contributory social history, and does not have any family history of ulcerative colitis/crohn's disease.

Temperature 36.7 °C, blood pressure 149/102 mmHg, heart rate 98 beats per minute, respiratory rate 18, SpO2 99% on room air. His physical examination was pertinent for a nasogastric tube at the right nare, severely distended abdomen, tympanic to percussion, non-tender abdomen, no rebound, and no guarding. Rectal examination showed no haemorrhoids, no fistulas, hard stool on digital rectal examination that was brown upon disimpaction.

Gastrointestinal (GI) was consulted along with general surgery. The CT scan was read as having 15 cm of stool from the rectum, 5 mm of bowel wall thickness, and dilation large bowel concerning for stercoral colitis, Figs. 2 and 3. He had further manual rectal disimpaction by general surgery and enemas to help relieve the stool burden. He was taken to the operating room later that day as the most important complication is colonic perforation that has a mortality rate of 35%.[1] He underwent colonic decompression and had 3 kg of stool removed after only reaching the sigmoid colon. He was having frequently bowel movements with the help of enemas and upon repeat CT abdomen/pelvis there was improvement in the dilation, but still concern about stercoral colitis. He continued to have bowel movements with enemas and a one-time dose of neostigmine. His abdominal dilation decreased,

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Fig. 1. CT abdomen/pelvis without contrast done at another institution before transferring. Severe constipation with dilation of the large intestine.

he was able to tolerate a regular diet, and he was discharged to follow up with GI for additional workup on the cause of his constipation.

Questions

1 What is the mortality rate of patients with stercoral colitis that develop colonic perforation?
   a 25%
   b 35%
   c 10%
   d 60%
   e 45%
2 A CT scan is the best imaging modality for diagnosing stercoral colitis. What is the colonic wall thickening at the site of impact that would suggest this diagnosis?
   a >8 mm
   b >10 mm
   c >6 mm
   d >3 mm
   e >1 mm

Answers

1. 35%. *Explanation:* An initial study by Serpell and Nicholls found that colonic perforations from Stercoral colitis carries a 35% mortality rate.
Reference: Serpell, J W, and R J Nicholls. "Stercoral Perforation of the Colon." Advances in Pediatrics., U.S. National Library of Medicine, Dec. 1990, www.ncbi.nlm.nih.gov/pubmed/2276009/.
2. >3 mm. *Explanation:* Ünal E et al. reviewed 41 cases of stercoral colitis and found several criteria for diagnosing stercoral colitis on CT scan. Colonic wall thickness at the site of impaction needs to be over 3 mm, colonic dilation over 6 mm due to fecal impaction, and hard stool in the colonic lumen.
Reference: Ünal E, Onur MR, Balcı S, Görmez A, Akpınar E, Böge M. Stercoral colitis: diagnostic value of CT findings. Diagnostic and Interventional Radiology. 2017;23(1):5–9. doi:10.5152/dir.2016.16002.

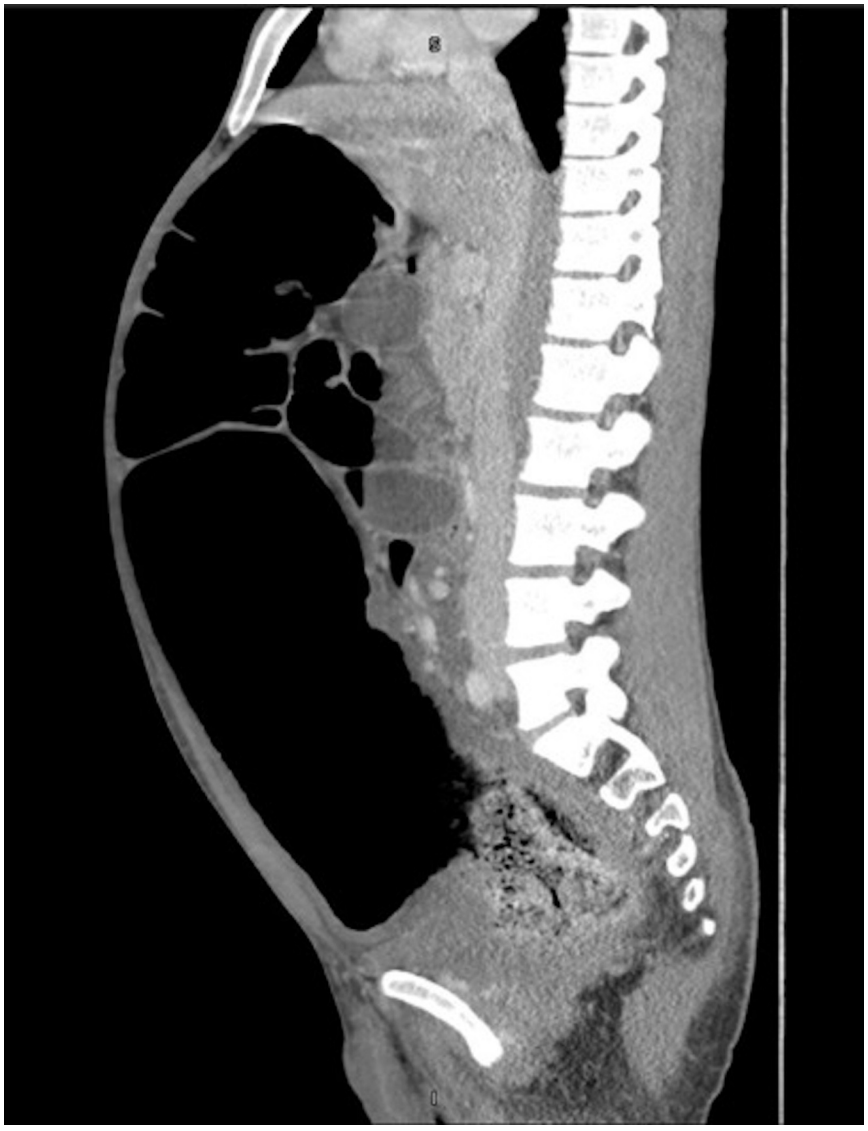

Fig. 2. CT abdomen/pelvis with IV contrast sagittal view with colonic dilation and hard stool seen in the lumen of the large intestine.

Fig. 3. CT abdomen/pelvis with IV contrast coronal view with colonic dilation and hard stool seen in the lumen of the large intestine.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.visj.2019.100647.

References

1. Ünal E, Onur MR, Balcı S, Görmez A, Akpınar E, Böge M. Stercoral colitis: diagnostic value of CT findings. *Diagn Interv. Radiol.* 2017;23(1):5–9. https://doi.org/10.5152/dir.2016.16002.