

A Case Report on Stercoral Colitis Complicated with Ischemic Colitis

Ms. Seena Mary Koshy¹, Dr. Sujith Philip², Dr. Rahitha Raj Ajimol Rajeev³

¹Pharm D Intern, Nazareth College of Pharmacy, Othera, Thiruvalla, India

²HOD, Senior Consultant and Gastrointestinal Surgeon, Department of Surgical Gastroenterology, Believers Church Medical College Hospital, Thiruvalla, India

³Junior Resident, Department of Surgical Gastroenterology, Believers Church Medical College Hospital, Thiruvalla, India

ABSTRACT

Stercoral colitis (SC) is an inflammatory condition of the large intestine caused by elevated intraluminal pressure secondary to fecal impaction. While several case reports exist on abdominal perforation resulting from SC, SC complicated by Ischemic colitis is rare.

KEYWORDS: Stercoral colitis, Favier classification, Ischemic colitis, Sigmoidectomy, Hartmann procedure

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I. INTRODUCTION

Stercoral colitis is a rare inflammatory colitis caused by fecal impaction. Fecal impaction usually occurs when the patient has prolonged constipation leading to the buildup of hard stools in the rectum. Ischemic colitis is a rare but severe complication of stercoral colitis that has high morbidity and mortality rates. SC mainly occurs in elderly or bedbound patients with chronic constipation, but it can also occur in younger patients with comorbidities that increase the risk for fecal impaction.

Clinical presentation is often nonspecific and varied, but patients may present acutely with abdominal pain and distension. As there are no established diagnostic criteria for SC, CT is crucial for diagnosing SC. Complications of stercoral colitis include perforation, sepsis, septic shock, ischemic colitis, and urinary retention due to bowel compression. Multi-organ failure and renal failure can also occur as secondary effects.

II. CASE PRESENTATION

Here we present the case of a 41-year-old male patient who is a known case of T1-T6 paraplegia following RTA. He was confined to bed for the past 16 years and had chronic constipation requiring laxatives. He presented with constipation for 5 days and increasing abdominal distension. On examination, his abdomen was soft but distended. He did not have any tenderness due to paraplegia. He also had oliguria and

elevated renal parameters suggestive of acute kidney injury and was initially admitted under the Nephrology Department. He then developed tachypnoea, tachycardia, hypotension and other features of sepsis. His lactate levels also increased to 11.

Emergency CT abdomen was taken which showed over-distended sigmoid colon and rectum with fecal loading/impaction associated with diffuse wall thickening and adjacent fat stranding -suggestive of SC as shown in Fig 1 and Fig 2.



Fig 1. Cross sectional image showing dilated sigmoid colon with SC

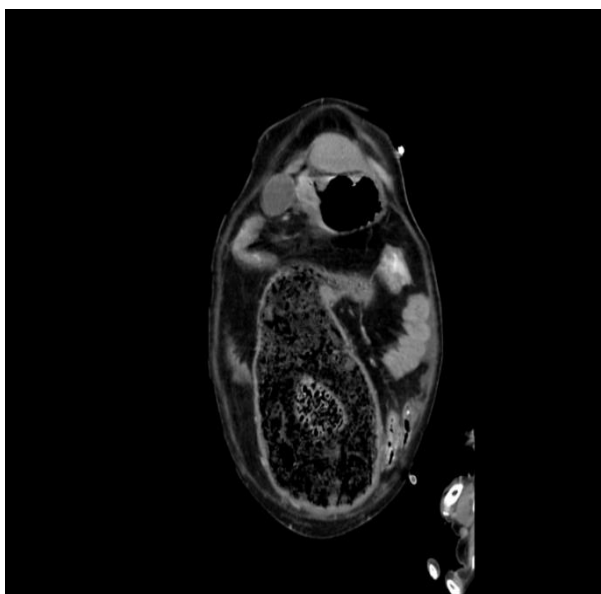


Fig 2. Coronal section showing SC

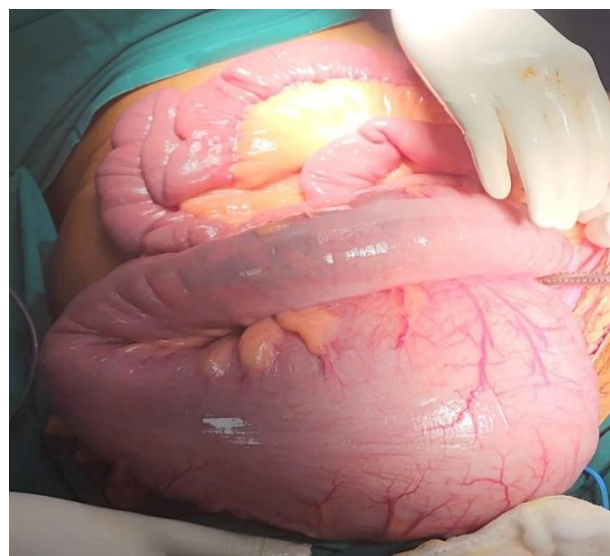


Fig 3. Hugely dilated sigmoid colon with submucosal pre-gangrenous changes

He also had frequent fever spikes. Since he was developing progressive worsening features of sepsis with rising lactate levels he was posted for emergency Exploratory Laparotomy under the Surgical Gastroenterology department. During the procedure, the patient was found to be having grossly dilated redundant sigmoid colon with ischemic changes as shown in Fig 3 suggestive of Favier Stage 2 Ischemic colitis as per the Favier classification for Ischemic colitis given in Table 1. Hence sigmoidectomy and end colostomy (Hartmann procedure) were done.

Table 1. Favier Classification for Ischemic Colitis

| STAGE | FEATURES |
|---------|---|
| STAGE 1 | Ischemia, which is confined to the mucosa with <u>petechiae</u> and small ulcerations on healthy mucosa |
| STAGE 2 | Ischemia extending to the muscular is mucosa with large ulcerations |
| STAGE 3 | <u>Transmural</u> ischemia with necrosis of the <u>muscularis</u> and possible perforation |

III. DISCUSSION

SC occurs from fecal impaction due to prolonged constipation leading to fecal buildup in the rectum. It can occur in younger patients with comorbidities that increase the risk for fecal impaction, like a history of chronic constipation. The incidence of SC is similar in both men and women.

Our patient was a middle-aged male who had a history of chronic constipation following an RTA. Sepsis and renal failure can occur as severe complications of SC. Here, the patient was diagnosed with acute kidney injury after admission to the hospital, and he also had frequent fever spikes associated with sepsis. Cases of ischemic colitis as a complication of SC are rare, even though many cases of colonic ulceration and intestinal perforation have been reported. There are no established diagnostic criteria for SC, as the clinical presentation is often nonspecific and varied. Hence, CT is crucial for diagnosing SC, as it helps identify fecalomas, colonic dilation, and fat stranding, all of which are significant signs of the condition.

CT report of our patient showed dilatation of sigmoid colon and rectum, fecal loading, wall thickening, fat stranding, suggestive of SC [Fig 1, 2]. Morbidity and mortality vary between 32% and 57%, and higher rates are observed in cases

Involving colonic perforation, ischemia, sepsis, and septic shock. Hence, timely diagnosis and management can decrease morbidity and mortality. Upon diagnosis of SC, the patient underwent Exploratory Laparotomy + Sigmoidectomy + End Colostomy.

IV. CONCLUSION

In summary, SC has very high rates of morbidity and mortality if complicated by ischemic colitis and other conditions including sepsis, septic shock, perforation, multiple organ failure and renal failure. SC mainly occurs in elderly or bedbound patients with chronic constipation, but it can also occur in younger or middle-aged patients with comorbidities that increase the risk for fecal impaction.

Our patient was a middle-aged man with a history of chronic constipation. Therefore, this condition should be suspected in patients with risk factors irrespective of their age. Due to its nonspecific clinical presentation and the lack of established diagnostic criteria, SC is challenging to diagnose and manage.

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This case also highlights the importance of CT in identifying the hallmarks of the disease, enabling timely diagnosis and management. Early recognition, along with appropriate management, can significantly reduce morbidity and mortality associated with this condition. This case also emphasizes the need for increased clinical awareness and further research to establish standardized diagnostic and management guidelines for SC.

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ABBREVIATIONS

SC: Stercoral Colitis, RTA: Road Traffic Accident, CT scan: Computed Tomography Scan.

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