Clostridium difficile Phlegmonous Enteritis With Microperforation

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Introduction

Clostridium difficile infection (CDI) is typically associated with the colonic involvement preceded by leading risk factors such as antibiotics, old age, immunodeficiency and recent hospitalization. Diarrhea is the most frequent manifestation along with hypovolemia, sepsis and toxic megacolon however, to our knowledge, CDI causing phlegmonous ileum or enteritis leading to microperforation has never been reported in the literature.

Case Presentation

51 y/o Hispanic male with no PMH presented with a 6-day history of left lower quadrant (LLQ) abdominal pain associated with 4 to 5 episodes of watery diarrhea per day. He denied any recent antibiotic use or hospitalizations. He lived with his sister who was a healthcare provider. Family history was unremarkable. Admission vitals were unremarkable. Physical exam was notable for RLQ tenderness and the digital rectal exam was normal. Labs showed leukocytosis of 11,400 cells/mm3 (4,400 - 11,000 cells/mm3), sed rate of 56 mm/hr (0-30mm/hr), CRP 6mg/dL (0-0.8 mg/dL) and stool for C. difficile PCR was positive. Stool ova & parasite, culture, ANCA panel and saccharomyces cerevisiae antibodies were negative. CT abdomen/pelvis showed phlegmonous changes in the RLQ with mesenteric extraluminal air and phlegmonous loop of terminal ileum. Patient was started on oral vancomycin and IV metronidazole and later on, metronidazole was discontinued and oral vancomycin was continued with complete resolution of his symptoms.

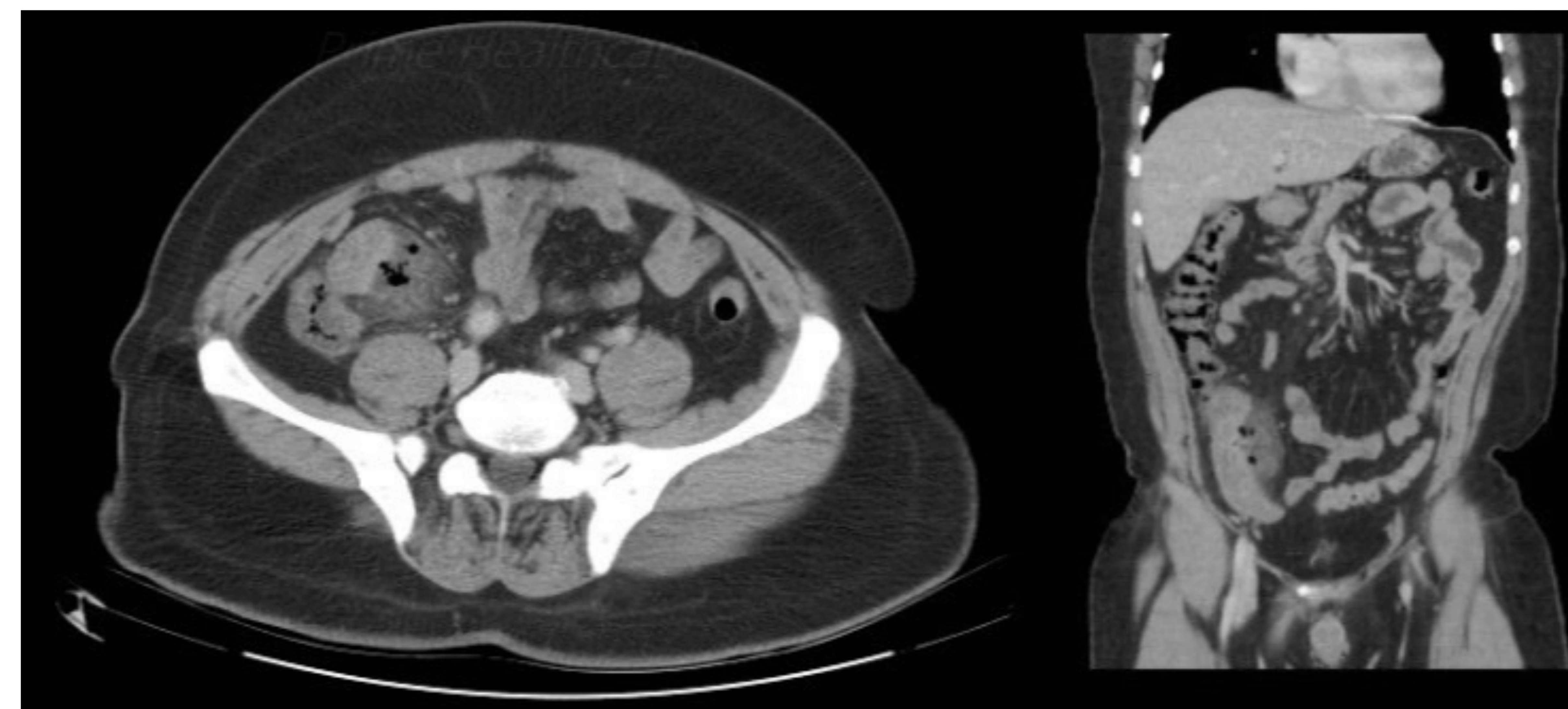

Image 1: CT Abdomen Pelvis showing phlegmonous changes in the right lower quadrant with a small amount of extraluminal air with phlegmonous loop of terminal ileum.

Discussion

In a patient with Clostridium difficile colonization during autopsy, the bacterium was isolated in segments of the jejunum raising the possibility that the small bowel may be a reservoir for the pathogen. CDI presenting as phlegmonous enteritis (PE) has never been reported. PE is characterized by suppurative bacterial infection of the intestine affecting the submucosa. Also, CDI involving the small bowel is typically seen in patients with inflammatory bowel disease (in ~50% of cases), immunosuppression, prolonged bowel discontinuity and/or colectomy with ileoanal anastomosis. Our patient is unique in having none of the risk factors for CDI except for having household contact with a healthcare worker. It is imperative physicians consider this presentation of CDI as PE with microperforations.

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