RARE PERFORATION OF JEJUNAL DIVERTICULUM: A CASE REPORT AND SURGICAL MANAGEMENT IN AN OCTOGENARIAN

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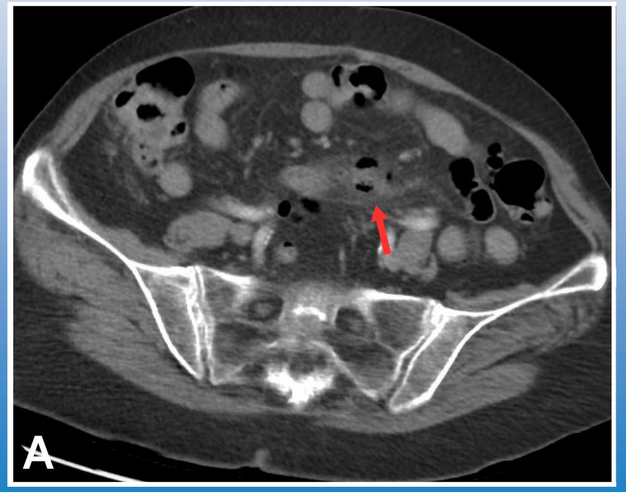
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Introduction

Jejunal diverticulum is a rare pathology, representing the least commonly encountered type of diverticula involving the small bowel. Initially, the condition is clinically silent, although it may eventually cause nonspecific symptoms such as chronic abdominal pain and malabsorption. Acutely, it may present with hemorrhage, small bowel obstruction, or peritonitis. Implementing upper gastrointestinal contrast series with small bowel follow-through aids in diagnosis; however, laparotomy is necessary to confirm the diagnosis. The condition is rarely complicated by bowel perforation, occurring only in 2.3-6.4% of cases.

Figure 1a.



Case Report

An 84-year-old female with a history of diverticulitis presented with worsening left lower quadrant abdominal pain for two days, associated with nausea and decreased appetite. Initially, she was nontoxic, in no acute distress, and afebrile. Her abdomen was soft, with mild left lower quadrant tenderness, but no peritonitis. A CT scan with contrast revealed a thickened loop of small bowel with inflammatory changes and a focus of air in the adjacent mesentery suggesting focal perforation (**Figure 1**). Overnight, her abdominal exam worsened, and she was taken for an exploratory laparotomy.

Figure 1: Abdomen and pelvis CT with intravenous contrast: **(a)** Axial view of small bowel perforation and mesenteric air, **(b)** Coronal view of a small bowel diverticular perforation with significant fat stranding

Figure 2: Gross surgical specimen: A 13 cm segment of jejunum with a perforated diverticulum (black arrow) leading to inflamed, indurated, hemorrhagic adipose tissue.

Figure 1b.

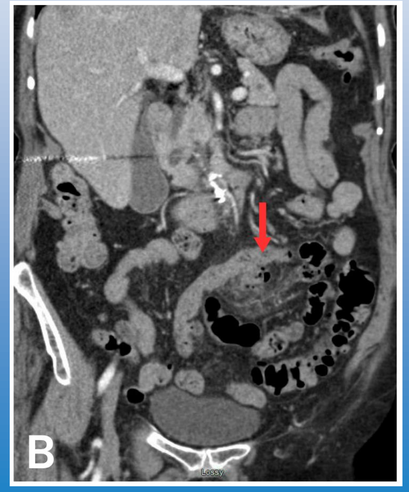


Figure 2.



Results

The small bowel was inspected, revealing a perforated jejunal diverticulum 60 cm distal from the ligament of Treitz. We performed a 13 cm resection with a side-to-side isoperistaltic jejunum anastomosis imbricated with 3-0 Vicryl and a crotch suture. Pathology reported erythematous and congested bowel serosa. The perforated diverticulum, 4 cm from the staple line, led to inflamed, hemorrhagic adipose tissue with a small mesenteric abscess (**Figure 2**). Despite persistent nausea, she recovered well, with bowel function returning on post-op day four and her diet appropriately advanced. Antibiotics were discontinued on post-op day five. The patient was discharged without complications and scheduled for a two-week follow-up.

Conclusion

Although jejunal diverticulum is a rare diagnosis it has the potential for life-threatening complications. The limited number of reported cases of jejunal diverticulum presenting with perforation highlights the need for increased awareness of this complication. Given its nonspecific presentation, diagnosis can be challenging and is often delayed, further increasing its morbidity and mortality. In patients presenting with an acute abdomen, perforated jejunum diverticulum should be included in the differential diagnosis particularly when colonic diverticulosis coexists. In cases requiring surgical intervention, resection of the involved bowel segments remains the preferred treatment.