

Jejunal Diverticulitis: A Diagnostic and Therapeutic Overview

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Abstract: Jejunal diverticulitis is a rare and often underdiagnosed condition characterized by inflammation of jejunal diverticula, more commonly seen in elderly patients with comorbidities. While most cases remain asymptomatic and are incidentally discovered during imaging studies, some patients may present with nonspecific symptoms such as abdominal pain and discomfort. The diagnosis is challenging due to its low prevalence and non-specific clinical presentation, often mimicking other causes of acute abdomen like appendicitis or colonic diverticulitis. Computed tomography with intravenous contrast is considered the gold standard for identifying diverticula, associated inflammatory changes, and potential complications. Ultrasound can also aid in diagnosis in certain cases. Management depends on the clinical severity. Uncomplicated cases generally respond well to conservative treatment with antibiotics and supportive care, while complicated cases may require surgical intervention. Early recognition and appropriate management are essential to prevent severe complications, such as perforation, bleeding, or obstruction, and to improve patient outcomes.

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Introduction

Jejunal diverticulitis, characterized by inflammation of the diverticula, is a rare condition affecting between 0.02 and 4.6% of the population, and is more common in men. Although often asymptomatic, about 40% of cases may present with symptoms such as chronic pain or malabsorption (Cantão et al., 2016).

The diverticula in this case are false diverticula and are formed along the mesenteric border of the bowel. This diverticular formation is characterized by an area of fragility leading to herniation of the mucosa and submucosa. Additionally, factors such as alterations in peristalsis, intestinal dyskinesia, and high intraluminal segmental pressures are considered relevant to the development of jejunal diverticulitis (Alves et al., 2022).

Jejunal diverticulitis is rarely identified clinically but is often found incidentally during contrast studies of the gastrointestinal tract, such as gastrointestinal series, computed tomography (CT) enterography, magnetic resonance imaging, or endoscopy (Matli et al., 2022). In certain scenarios, complications such as digestive bleeding, perforation, intestinal obstruction, and associated inflammation may be observed (Alves et al., 2022).

Herein, we report the case of a 77-year-old female patient with persistent abdominal pain. Informed consent was obtained from the patient.

Case report

A 77-year-old woman presented with persistent abdominal pain that had not improved after one day of treatment with metoclopramide and dimethicone. She had a medical history of colonic diverticulitis,

diabetes mellitus managed with insulin, hypertension controlled with hydrochlorothiazide and losartan, and Hashimoto's thyroiditis treated with levothyroxine. The patient reported eating grapes with seeds the previous day, which she believed might have triggered the symptoms.

On physical examination, her abdomen was soft, with localized tenderness in the left flank, but there were no signs of peritonitis. She appeared hemodynamically stable, with no signs of systemic infection. A CT scan of the abdomen revealed findings consistent with jejunal diverticulitis located in the left flank (Figure 1). Given the severity of her symptoms, intravenous antibiotic therapy with piperacillin and tazobactam was initiated. Within seven days, her symptoms had fully resolved, and she was discharged in stable condition. Upon discharge, she received dietary recommendations from a nutritionist, focusing on avoiding foods that could irritate her gastrointestinal system, and was referred for outpatient follow-up care.

Discussion

Jejunal diverticulosis is a rare condition characterized by the formation of multiple saccular mucosal herniations along the mesenteric border of the small intestine (Coulier et al., 2007; Alves et al., 2022). Although more common in the colon, small bowel diverticula, particularly in the jejunum, remain an uncommon but clinically relevant entity (Coulier et al., 2007).

The majority of cases are asymptomatic and incidentally identified during imaging studies performed for other reasons (Coulier et al., 2007). When symptomatic, patients may present with nonspecific

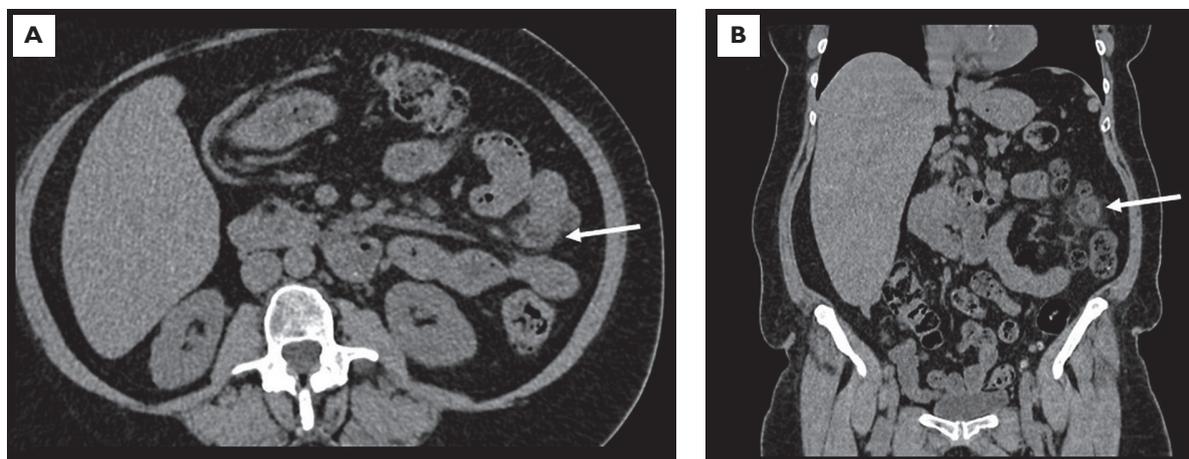


Figure 1: Non-contrast abdominal computed tomography in the axial section (A) and coronal section (B) showing a jejunal diverticulum with adjacent fat stranding, suggesting an inflammatory process.

abdominal complaints such as discomfort, bloating, or dyspepsia (Coulter et al., 2007). In some instances, acute complications like diverticulitis, hemorrhage, perforation, or intestinal obstruction may occur (Coulter et al., 2007).

The differential diagnosis of jejunal diverticulitis is broad, often including conditions like appendicitis, cholecystitis, colonic diverticulitis, neoplasms, and Crohn's disease (Cantão et al., 2016; Alves et al., 2022). Given the nonspecific clinical presentation, imaging plays a crucial role in diagnosis. Contrast-enhanced abdominal CT is considered the imaging modality of choice, allowing visualization of bowel wall thickening, surrounding fat stranding, and the presence of diverticula (Coulter et al., 2007; Alam et al., 2014). Ultrasound may serve as a useful adjunct, particularly when CT is contraindicated, though its diagnostic sensitivity is limited (Kelekis and Poletti, 2002).

Management depends on the severity and presence of complications. Hemodynamically stable patients with uncomplicated diverticulitis often respond well to conservative treatment with bowel rest and intravenous antibiotics (Harbi et al., 2017). Surgical intervention is reserved for patients with perforation, abscess formation, or clinical deterioration despite medical therapy (Harbi et al., 2017).

This case highlights the importance of considering jejunal diverticulitis in elderly patients with left-sided abdominal pain, particularly when imaging reveals focal small bowel inflammation.

Conclusion

Jejunal diverticulitis, although rare, should be included in the differential diagnosis of acute abdominal pain, especially in elderly patients with risk factors such as diverticular disease and comorbidities. Early imaging, particularly contrast-enhanced CT, plays a pivotal role in prompt diagnosis. In selected cases, conservative management with antibiotics can lead to full clinical recovery and prevent complications.

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