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IMAGES IN EMERGENCY MEDICINE

Gastroenterology

Severe abdominal pain in a healthy man

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1 | INTRODUCTION

A 41-year-old healthy Hispanic male presented to the emergency department with 1-week history of progressively worsening abdominal pain radiating to his back associated with nausea. Vitals were unremarkable. Abdominal pain was characterized as sharp, severe, and diffuse with minimal tenderness to palpation and without guarding. Lab analysis demonstrated leukocytosis (white blood cell count 20.5×10^9/L), hyperbilirubinemia (total bilirubin 2.4 mg/dL), alkaline phosphatase elevation (244 U/L), serum creatinine elevation (1.7 mg/dL), and lactic acidosis (1.91 mmol/L). Computed tomography and ultrasound of the abdomen were performed with representative images in Figures 1–3.

2 | DIAGNOSIS: ACUTE MESENTERIC VENOUS THROMBOSIS WITH JEJUNAL ISCHEMIA

Acute mesenteric venous thrombosis is a rare but potentially fatal process associated with small bowel ischemia. The incidence and mortality are lower for portomesenteric venous ischemia compared with arterial mesenteric ischemia. Venous thrombosis is responsible for only 6% to 9% of cases of acute mesenteric ischemia with mortality estimated at 20%.[1] Virchow's triad of vascular endothelial injury, hypercoagulability, and stasis are critical in the pathophysiology of mesenteric thrombosis. The most common etiologies for the condition include prothrombotic states (eg, coagulation disorders or malignancy), intra-abdominal inflammatory conditions (eg, pancreatitis, inflammatory bowel disease, sepsis), postoperative state, and cirrhosis.[1] None of these predisposing factors were identified in this patient, and, therefore, he was diagnosed with idiopathic thrombosis. The management of portomesenteric thrombosis is complex with anticoagulation as the cornerstone of management.[1–3] However, patients presenting with advanced disease, including signs of peritonitis and bowel infarction, may require emergent surgical bowel resection and extensive thrombus burden may require alternative management options, including portal venous thrombolysis or thrombectomy or transjugular portosystemic shunt creation.[1,3] This patient underwent surgical resection of infarcted jejunum, transhepatic portal vein thrombectomy, and was started on anticoagulation.

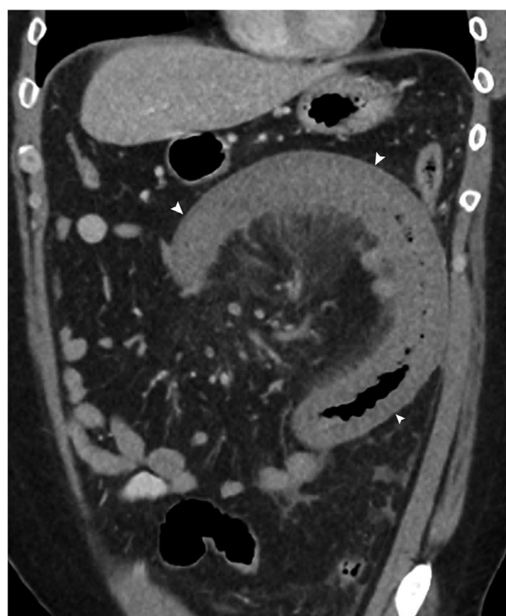

FIGURE 1 Coronal contrast enhanced computed tomography scan of the abdomen demonstrating dilated loop of jejunum with markedly thickened edematous wall (white arrowheads). Note associated mesenteric edema

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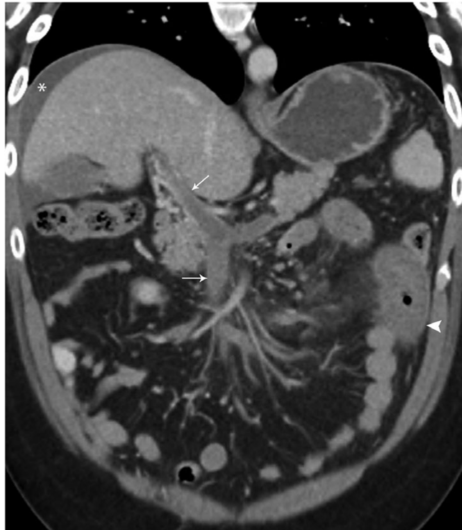

FIGURE 2 Coronal contrast enhanced computed tomography scan of the abdomen demonstrating thrombosis of the portal and superior mesenteric veins(white arrows). Note perihepatic ascites (asterisk) and partially visualized edematous jejunum (white arrowhead)

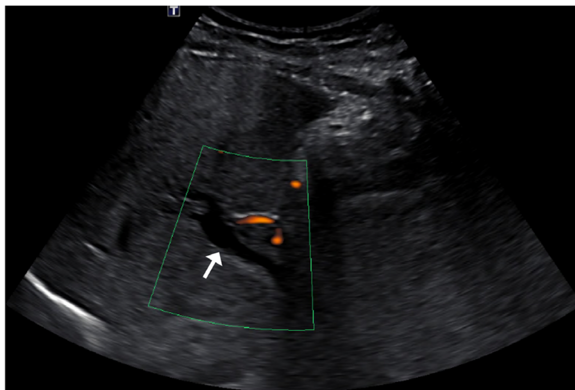

FIGURE 3 Power Doppler ultrasound image through the main portal vein (white arrow) demonstrating absence of flow consistent with thrombosis

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