

Title

A Case of Acute Mesenteric Ischemia: A Life-threatening Catastrophe

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Introduction

Acute Mesenteric Ischemia (AMI) is a rare, life-threatening vascular emergency due to sudden reduction or cessation of intestinal blood flow with an overall mortality of 30% to 80%. There are only a few documented cases of AMI, as it accounts for only 0.1% of hospital admissions. This case demonstrates a typical presentation of this uncommon disease in an elderly female without any known risk factors.

Case Presentation

A 74-year-old female with a history of colon cancer status post left hemicolectomy presented with severe abdominal pain for six hours associated with non-bloody loose stools. She was tachycardic but hemodynamically stable. The abdomen was soft and non-tender with hypoactive bowel sounds. However, her abdominal pain was out of proportion on exam. Given nonspecific abdominal signs and elevated lactate of 2.8 mmol/L, a computerized tomography angiography (CTA) was ordered, demonstrating a nonocclusive superior mesenteric artery thrombus, 4.5 cm distal to its origin, extending to the proximal branches. She underwent emergent exploratory laparotomy revealing hemorrhagic ascites with necrotic and nonviable terminal ileum, right colon, and transverse colon. The previous colorectal anastomosis site was also noted to be nonviable. She was taken to the surgical intensive care unit but remained hypotensive despite vasopressors. The patient was transitioned to comfort care, and she passed away less than 24 hours after her presentation.

Discussion

The mortality of AMI remains very high despite scientific advances. Since many of the signs and symptoms are common to other abdominal pathologies, diagnosis and treatment of AMI is often delayed. In the absence of specific diagnostic markers and clinical signs, early imaging is the key to prompt diagnosis. Although most patients with suspected AMI undergo diagnostic imaging with CTA, a small subset of patients with clinical signs of advanced bowel ischemia (peritonitis) or radiologic signs (free air or severe pneumatosis) can be directly considered for exploration,

providing both a diagnostic and therapeutic modality. This case demonstrates the importance of considering AMI in patients with a high level of clinical suspicion, even in the absence of known risk factors such as atrial fibrillation or atherosclerotic disease, as a rapid diagnosis is essential to prevent mortality.

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