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Image Article

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Acute Mesenteric Ischemia

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A 74-year-old man presented to the emergency department with a 2-day history of abdominal pain and hematochezia. His medical history was notable for coronary atherosclerotic heart disease and hypertension. His abdomen was soft, with active bowel sounds. Physical examination revealed normal vital signs and mild left lower quadrant abdominal tenderness without peritoneal signs. The rest of the physical exam was unremarkable. Laboratory test revealed a hemoglobin level of 11.3 g per deciliter (normal range, 13.5 to 17.5). Computed tomography (CT) of the abdomen revealed left colonic wall thickening. Colonoscopic visualization of the mucosa showed segmental hyperemia, edema, friability, hemorrhage, erosion and ulcer formation in the left colon (Figure 1A). Biopsy by colonoscopy suggested acute necrosis of the colonic mucosa. Then, severe stenosis of bifurcation of superior mesenteric artery from the aorta, instead of inferior mesenteric artery, was confirmed by computed tomography angiography (Figure 1B). A diagnosis of acute mesenteric ischemia (AMI) was made. AMI is considered to be caused by a substantial reduction in intestinal blood flow that generally leads to bowel necrosis, which is associated with a high mortality [1-3]. Clinicians should maintain a high index of suspicion because a rapid diagnosis and early constructive interventions before the onset of bowel infarction may reduce mortality [4-6]. Positive medical management is composed of fast rehydration and early application of vasodilators, anticoagulation and antibiotics [7-9]. If AMI is suspected, timely angiography is urgently needed, as it permits accurate diagnosis and optional therapeutic interventions [10-12]. Therapeutic options during angiography consist of administering intra-arterial vasodilators, thrombolytic agents, angioplasty and stent placement, which depend on the principle reason of ischemia [13-15]. In this patient, treatment with vasodilators and anticoagulation were initiated, and 2 weeks later, superior mesenteric artery stent placement was started. After the procedure, he clinically improved and was discharged home with outpatient follow-up.



Figure 1: Acute mesenteric ischemia. (A) Changes of left colonic mucosa in colonoscopy image; (B) Severe stenosis of bifurcation of superior mesenteric artery from the aorta (arrow).

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