

Inferior mesenteric arteriovenous malformation: an unusual cause of ischemic colitis

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A 59-year-old male presented with a 1-month history of intermittent diarrhea, abdominal pain, and hematochezia. He had a right hemicolectomy for cecal cancer 5 years ago. His radiologic and endoscopic surveillance have been negative. He had no other medical comorbidities. On presentation, he was hemodynamically stable. Laboratory studies were only significant for anemia (hemoglobin 10.2 g/dL) without evidence of thrombocytopenia or bleeding disorders. Stool studies were negative for infectious agents. A contrast-enhanced computed tomography of his abdomen showed bowel wall thickening from the rectum to the descending colon (Fig. 1). Colonoscopy demonstrated erythema and friable mucosa in the same segments. Colon biopsies revealed mucosal edema and prominent capillaries, consistent with a congestive process. A mesenteric angiogram demonstrated an arteriovenous malformation (AVM) arising from the superior rectal artery, a branch of the inferior mesenteric artery (Fig. 2). Following unsuccessful attempts at AVM embolization, the patient underwent a total proctocolectomy with end ileostomy. His recovery was uneventful with no recurrence of hematochezia.

Inferior mesenteric AVMs are extremely rare with only 15 published cases in the English literature [1,2]. In a patient with prior abdominal surgery, AVM should be considered as a cause of ischemic colitis in the absence of other etiologies. AVMs can be classified as congenital or iatrogenic, secondary to abdominal trauma or colonic resection, as illustrated in our case [3]. Increased blood flow through an AVM can result in venous hypertension and decreased arterial flow, resulting in ischemia. In this case, the diagnosis of AVM was confirmed by mesenteric angiography. More recently, multidetector computed tomographic angiography has emerged as a safe, non-invasive, alternative vascular imaging for patients with mesenteric ischemia and AVM [2]. If treatment with embolization fails, colectomy may be necessary [1].



Figure 1 Contrast-enhanced CT scan showing marked thickening of the colonic wall (white arrows)



Figure 2 Inferior mesenteric arteriogram showing vascular malformation arising from the superior rectal artery (black arrow)

References

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Conflicts of Interest: None

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Received 27 December 2011; accepted 9 January 2012