

Arteriovenous malformation of the inferior mesenteric artery in a patient with ischaemic colitis

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DESCRIPTION

A 48-year-old man with ulcerative colitis was admitted to our hospital due to abdominal pain. He had no history of abdominal trauma or surgery. His abdominal x-ray showed dilated colonic segment suggestive of toxic megacolon. He was haemodynamically stable. Stool studies were negative for infection. Ultrasonography was normal other than minimal peri-intestinal free fluid. Colonoscopy demonstrated erythema and friable mucosa in the colonic segments. Consecutive colonic biopsies revealed mucosal oedema and prominent capillaries, consistent with a congestive process compatible with bowel ischaemia. Thereafter, the patient was

referred to our department for further imaging of the mesenteric vessels. Multidetector CT angiography showed severe stenosis in the origin of inferior mesenteric artery (IMA) and an additional arteriovenous malformation (AVM) involving the proximal IMA (figure 1). Increased calibration of the IMA, early filling of inferior mesenteric and portal veins can be readily seen despite the arterial timing of the study. Additionally, there is diffuse thickening of the colonic segments that are mainly perfused by IMA (figure 1).

Accordingly, the patient was diagnosed to have an AVM arising from the IMA and ischaemic bowel disease; he underwent total colectomy with

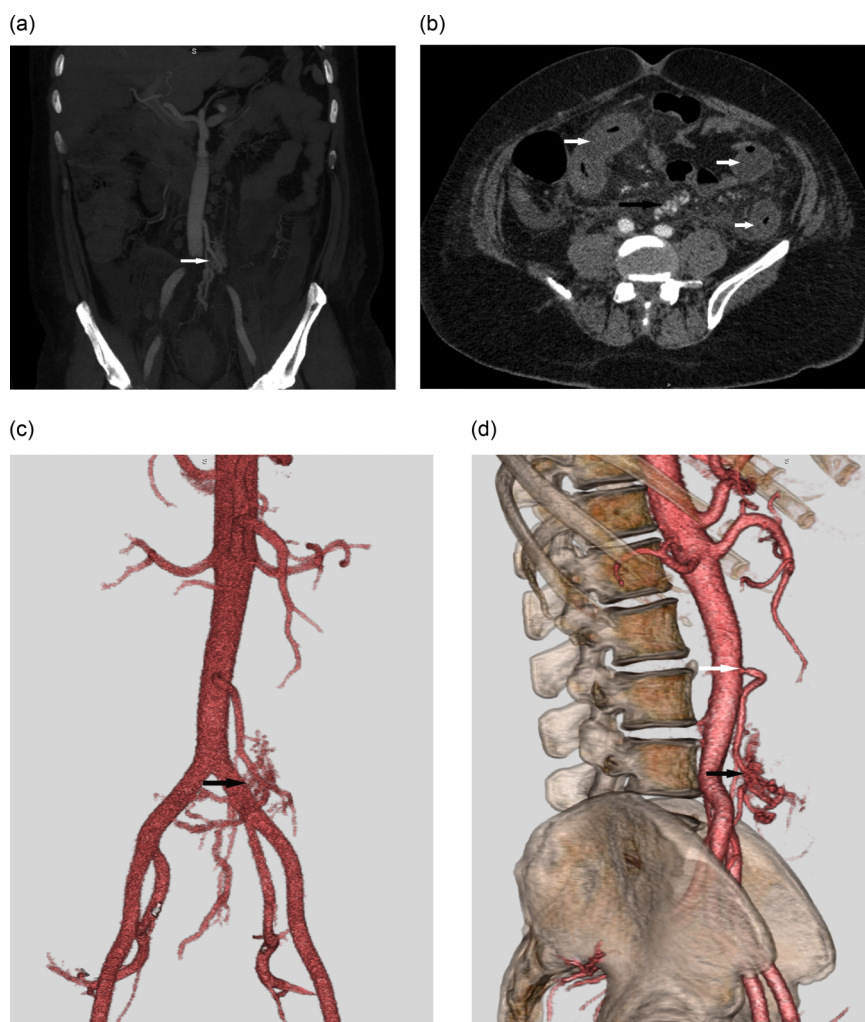


Figure 1 (A) Coronal maximum intensity projection CT angiography image shows arteriovenous malformation originating from inferior mesenteric artery (arrow). (B) Axial CT image shows multiple abnormal vascular structures around to inferior mesenteric artery (black arrow) and marked thickening of colonic wall segments (white arrows). Frontal (C) and lateral (D) views of coloured three-dimensional volume rendered CT angiography images show arteriovenous malformation nidus (black arrow) of inferior mesenteric artery (IMA) (C and D) and severe stenosis of orifice of the IMA (white arrow).

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terminal ileostomy. Histopathological examination confirmed the diagnosis and his recovery was uneventful.

AVMs can be seen in any part of the body, and mesenteric AVMs are quite rare.¹ Their clinical findings are generally those of abdominal pain, palpable mass and portal hypertension or occasionally intestinal ischaemia.² In cases with intestinal ischaemia, the possible diagnosis of an AVM should also be kept in mind aside from other common causes such as emboli or thrombosis.³

Learning points

- ▶ Arteriovenous malformation (AVM) is a rare cause of ischaemic abdominal pain.
- ▶ In cases with intestinal ischaemia, the possible diagnosis of an AVM should also be kept in mind.
- ▶ AVM can be readily diagnosed by multidetector CT-angiography.

Competing interests None.

Patient consent Obtained.

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