



Images in Clinical Medicine

An unusual cause of acute abdomen

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ARTICLE INFO

Article history:

Received 10 May 2012

Received in revised form

26 May 2012

Accepted 9 June 2012

A 56-year-old man with hypertension and a history of gastric ulcer with a Billroth II gastrectomy presented to the emergency department with intermittent periumbilical pain, nausea and vomiting for more than 2 days. Physical examination and laboratory results showed no abnormalities. Computed tomography (CT)

of the abdomen revealed a 9 cm, crescent-shaped, intramural hematoma from the orifice of the superior mesenteric artery (SMA). The SMA was enlarged and there was increased attenuation of fat around it (Figs. 1 and 2), which favored a diagnosis of SMA dissection without bowel ischemia. Percutaneous transluminal



Fig. 1. Axial enhanced computed tomography of the abdomen shows a crescent-shaped intramural hematoma from the orifice of the superior mesenteric artery (arrow).



Fig. 2. Coronal image on the enhanced CT scan shows a 9 cm, crescent-shaped intramural hematoma from the orifice of superior mesenteric artery, The SMA is enlarged and there is increased attenuation of fat around it (arrow).

Conflict of interest: none.

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angiography via the right common femoral artery was done along with placement of an endovascular stent at the proximal SMA. The patient was discharged symptom free and had regular outpatient follow-up.

Spontaneous dissection of the SMA is a rare cause of acute abdominal pain, and the diagnosis is frequently delayed because of a nonspecific clinical presentation and laboratory results and lack of cardiovascular risk factors [1]. SMA dissections occur mostly in men at an average age of 56 years have a mean length of 2.7 cm [2]. Diagnostic tools such as Doppler sonography, CT, and arteriography can be used to make the diagnosis. CT of the abdomen can detect other causes of abdominal pain as well as the dissection itself. Sonography is advantageous because it offers easy access, is repeatable and noninvasive, and there is no radiation exposure [3]. Arteriography is currently considered the gold standard in the diagnosis of SMA dissection. It provides valuable information in

patients with unstable vital signs, peritonitis or bowel ischemia. An endovascular stent is a safe alternative to surgery [4]. Medical treatment with anticoagulation alone cannot prevent progression of the dissection and recurrence of symptoms.

References

- [1] Takayama H, Takeda S, Saitoh SK, Hayashi H, Takano T, Tanaka K. Spontaneous isolated dissection of the superior mesenteric artery. *Intern Med* 2002;41:713–6.
- [2] Watring NJ, Smith CM, Stokes GK, Counselman FL. Spontaneous superior mesenteric artery (SMA) dissection: an unusual cause of abdominal pain. *J Emerg Med* 2010;39:576–8.
- [3] Chang SH, Lien WC, Liu YP, Wang HP, Liu KL. Isolated superior mesenteric artery dissection in a patient without risk factors or aortic dissection. *Am J Emerg Med* 2006;24:385–7.
- [4] Yoon YW, Choi D, Cho SY, Lee DY. Successful treatment of isolated spontaneous superior mesenteric artery dissection with stent placement. *Cardiovasc Intervent Radiol* 2003;26:475–8.