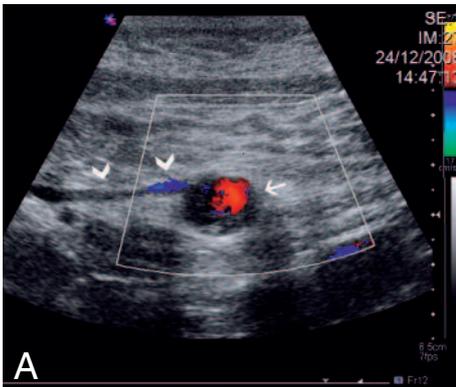


IMAGES IN CLINICAL RADIOLOGY



Mycotic aneurysm of the superior mesenteric artery

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A 50-year-old male presented with nonspecific complaints of orthostatism and presyncope of 3 months duration and reported a weight loss of 6 kg in 3 weeks.

Blood tests showed inflammatory biochemical results (CRP of 86 mg/dl, normal leucocytosis). Hemocultures were positive for *Streptococcus Mutans*. Echocardiography was performed showing large vegetations on the aortic valve. The diagnosis of infectious endocarditis was made.

Ultrasound of the abdomen to evaluate the abdominal aorta and its side-branches, demonstrated an aneurysmal dilatation (11 mm wide × 16 mm long) of the superior mesenteric artery (A).

MDCT-angiography (B, C) showed an aneurysm in the distal part of the superior mesenteric artery, with mural thrombus and slight infiltration of the surrounding mesenteric fat.

These imaging findings were diagnostic for a mycotic aneurysm, as a complication in infectious endocarditis.

The patient was treated with intravenous antibiotics for 6 weeks. Because of severe insufficiency of the aortic valve and the large vegetations, aortic valve plasty was performed.

The aneurysm of the superior mesenteric artery was not resected because of its distal position which would require complex vascular surgery. Follow-up MDCT-angiography after 1 week showed a complete thrombosis of the aneurysm.

Comment

Aneurysmal pathology of the superior mesenteric artery (SMA) is rare. Among visceral aneurysms, those of the SMA account for 5.5-8%. Most SMA aneurysms are of mycotic etiology (60%), whereas those because of atherosclerosis are less common, although their frequency has risen in the past years. In our case, the mycotic SMA aneurysm resulted from a septic aortic valve.

Most aneurysms are symptomatic, causing upper abdominal pain because of their compressive mass effect on contiguous structures. In some cases, typical signs of abdominal angina are present.

MDCT-angiography is most accurate for diagnosis and is also very useful for finding other lesions, such as abscesses.

Although rare, SMA aneurysms can definitely rupture, particularly in persons at high risk. Male patients and patients with non-calcified aneurysms appear to have the greatest risk of rupture. Reports in the literature describe lesional dimensions ranging from 4 to 8 cm. Intervention is reasonable in all patients with SMA aneurysms, if they are good surgical candidates. Treatment normally consists of bowel resection and ligation of the mycotic aneurysm. Because of the fact that small aneurysms of the SMA are unlikely to rupture, they can be managed with a trial of intravenous antibiotics for 4-6 weeks along with surveillance imaging, as in our case. Enlarging or residual aneurysms at surveillance imaging should be triaged to surgical management.

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