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Mini Case Study

Mycotic Celiac Artery Aneurysm: A Rare Etiology of a Rare Localization

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Clinical History

A 54-year-old patient, presented with a prolonged fever, the clinical examination found a cardiac murmur on auscultation. Biologically evidenced inflammatory syndrome and the blood culture was positive for Streptococcus. Transthoracic echocardiography revealed vegetation on the mitral valve so the diagnosis of infective endocarditis was established and antibiotic therapy was initiated. A few days later the patient presented acute right-sided lumbar pain.

Imaging findings

Given the context, a CT scan was performed, and incidental discovery of a mycotic aneurysm of the celiac artery was revealed (Figure 1) with a hazy mesenteric fat around the celiac artery (Figure 2) associated with a renal infarction in the right kidney (Figure 3).

Figure 1: *Sagittal CT scan image showing an aneurysmal dilatation of the celiac artery, located 5 mm from its origin, extending over 17 mm, and measuring 11 mm.*

Figure 2: *Hazy mesenteric fat around the celiac artery.*

Figure 3: *Coronal CT scan image showing a right renal infarction.*

Discussion

Celiac artery aneurysms represent 4% of all visceral artery aneurysms, and atherosclerosis is the first cause of coeliac aneurysms [1]. Mycotic coeliac artery aneurysms (MCAA) are rare and only a few cases have ever been described in the literature, with endocarditis and septic emboli as the leading causes [2,3]. MCAA tends to be multiple and the most common site is the femoral artery [3].

Clinically, symptoms are insidious and nonspecific, but abdominal pain, hemothorax, dysphagia, intestinal angina, and gastrointestinal hemorrhage due to celiac artery duodenal fistula remain the most common presenting symptoms. MCAA can be asymptomatic and discovered incidentally on imaging as in our case.

CT angiography is the imaging modality of choice and the suggestive features of mycotic aneurysm are saccular aneurysm with lobulated contours, soft tissue inflammation surrounding the vessel, intramural air around the blood vessel, and perianeurysmal fluid collection [4]. In our case CT scan was able to provide the definitive diagnosis who has objectified a hazy mesenteric fat around the celiac artery.

Treatment options for visceral artery aneurysms include open surgery and endovascular techniques. The endovascular treatment of celiac artery aneurysms is now acknowledged as a relatively safe and effective approach, even for mycotic aneurysms [5].

Final diagnosis

Mycotic celiac artery aneurysm.

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