Title: A Superior Mesenteric Artery Mycotic Aneurysm Caused by *Streptococcus equi* Treated Surgically

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Abstract

Mycotic aneurysms of the superior mesenteric artery are rare. *Streptococcus* infections are the most common etiology of these aneurysms. We report a case of a mycotic aneurysm of the superior mesenteric artery caused by *Streptococcus equi*, in a 55-year-old-patient, managed by aneurysmorrhaphy.

Case Presentation

A 55-year-old man, with no past-medical history, was admitted to the emergency department for unexplained severe abdominal pain with fever. Physical examination revealed fever, with no anomalies on cardiac auscultation and abdominal
palpation. A blood culture grew *Streptococcus equi*. A CT-scan confirmed a 2-cm saccular aneurysm arising from the main trunk of the superior mesenteric artery (Figures 1 and 2). A trans-thoracic echocardiography excluded the diagnosis of endocarditis. The patient received antibiotic treatment by Ampicillin. And the patient underwent surgery through a thoracotomy in the eighth intercostal space, a lombotomy, and a circular incision of the diaphragm. Also, a femoro-femoral cardio-pulmonary bypass was performed after access and cannulation of the femoral vein and artery. After dissection of the supra-renal aorta, the celiac trunk, the superior mesenteric artery was dissected and controlled. A saccular aneurysm of 2 cm × 3 cm was observed (Figure 3). The aorta was clamped in its supra-mesenteric segment. The mesenteric aneurysm was opened, a bacteriological specimen was took from the purulent collection, and an aneurysmorraphy was performed. Histological examination of a fragment of the aneurysm revealed severe infiltration of inflammatory cells, such as neutrophils, and a proliferation of granulation tissue in the arterial wall. Bacteriological culture of the specimen grew a *Streptococcus equi*. The patient's recovery was unremarkable, and antibiotic therapy was maintained for 6 weeks.