When Tuberculosis Strikes the Superior Mesenteric Artery: Rare Case of SMA Aneurysm

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ABSTRACT

Introduction

Superior mesenteric artery aneurysms (SMAAs) are rare, accounting for 5–6% of visceral artery aneurysms, but are associated with significant rupture risk and high mortality. Mycotic SMA aneurysms are usually bacterial in origin, with Mycobacterium tuberculosis as an exceedingly rare cause. This report presents a case of a giant tuberculous SMA aneurysm manifesting with gastrointestinal bleeding.

Methods

A 52-year-old male presented with hematemesis. Computed tomography angiography demonstrated a 12-cm saccular aneurysm of the superior mesenteric artery. Due to the high risk of rupture, urgent open repair was performed. A left thoracolaparotomy approach was utilized to provide vascular control and to assess bowel viability. The aneurysmal sac was opened to evacuate necrotic and infected material, and revascularization was achieved via endoaneurysmorrhaphy with an interposed reversed saphenous vein graft.

Results

The patient had an uneventful postoperative recovery and was discharged in stable condition. Intraoperative cultures revealed Mycobacterium tuberculosis, confirming the diagnosis of a tuberculous mycotic aneurysm. Outpatient anti-tuberculous therapy was initiated, with no recurrence or ischemic complications observed during follow-up.

Conclusion

This case highlights the importance of considering tuberculosis as a rare etiology of visceral artery aneurysms in patients presenting with unexplained gastrointestinal bleeding. Thoracolaparotomy provides excellent exposure and bowel assessment, while autologous vein grafting ensures durable revascularization. Optimal management of tuberculous aneurysms requires a combined surgical and medical approach to achieve infection eradication and favorable long-term outcomes.