Mycotic Aneurysm Mimicking Atheroma in Aortic Arch

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A 51-year-old hemodialysis patient was admitted for methicillin-sensitive Staphylococcus aureus (MSSA) bacteremia from an unknown primary focus. A transthoracic echocardiogram showed no cardiac vegetation. ¹⁸F-fluorodeoxyglucose positron emission tomography (¹⁸F-FDG PET) revealed an increased uptake in the aortic arch (Picture 1, white arrow) with a maximum standard uptake value of 5.30. Both atherosclerosis and inflammation were considered. The patient completed 4 weeks of effective antibiotic treatment, but recurrent MSSA bacteremia developed again 2 months later. Transesophageal echocardiography to rule out infective endocarditis revealed no vegetation, but a pseudoaneurysm was identified in the aortic arch (Picture 2, white arrow). Computed tomography angiography (CTA) was done 2 months after the PET study and disclosed the presence of a 3.4 cm aortic aneurysm with periaortic fluid, which was compatible with a mycotic aneurysm (Picture 2, white arrow). A mycotic aneurysm in the aortic arch is a rare, but life-threatening development (1). ¹⁸F-FDG PET is sensitive and reproducible for delineating vascular inflammation (e.g., vasculitis and atherosclerosis) (2), and it can also detect infected aortic aneurysms. It may be useful to identify the presence of a mycotic aneurysm in the aortic arch, especially in hemodialysis patients.

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References


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