

A Giant Aortic Root Abscess

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A 63-year-old male with a history of coronary artery disease and severe aortic stenosis status post mechanical aortic valve replacement and coronary artery bypass presented with atypical chest pain and group B streptococcal bacteremia. His transesophageal echo (TEE) was read as negative for vegetations, and chest computed tomography (CT) was reportedly unremarkable. He was started on antibiotics, and coronary angiography showed severe triple-vessel disease, patent left internal mammary artery graft, and complete occlusion in all vein grafts. Percutaneous intervention with stenting of the left anterior descending and circumflex artery was performed. During the diagnostic angiography, nonselective contrast injection showed an anterior aortic root “pouch” (A, Online video 1), but since the CT was unremarkable, no further investigation was done. A month later, the patient presented with fatigue and persistent bacteremia. TEE showed a large circumferential hypoechoic space with radial strands around the sewing ring of the mechanical valve (B) along with new moderate perivalvular leak (C). A CT scan showed extensive perivalvular and para-aortic contrast collections extending from below the aortic annulus to mid-ascending aorta, consistent

with abscesses/pseudoaneurysms (D, E). Both right and left coronary arteries were coursing through these abscesses/pseudoaneurysms (E, arrows). The mechanical valve was sitting on the abscesses and appeared to be dehiscent (D). Retrospective review of the initial TEE (F) and CT (G) showed evidence of aortic root infection (arrows). The patient underwent aortic root repair and aortic valve replacement. An aortic root pathology specimen showed fibrous growth with calcification and focal acute and chronic inflammation. After a complicated hospital course, the patient was discharged to a rehabilitation facility. Meticulous evaluation with imaging and high index of suspicion is necessary when there is a question about infection in patients with prosthetic valves.

Conflict of Interest Disclosure:

The authors have completed and submitted the *Methodist DeBakey Cardiovascular Journal* Conflict of Interest Statement and none were reported.

Keywords:

aortic root abscess, aortic stenosis, transesophageal echocardiography, TEE, computed tomography, CT, prosthetic valve

