Multiple pseudo-abscesses following aortic valve replacement


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Prosthetic aortic valve endocarditis is associated with valve ring abscess, conduction abnormalities and a grave prognosis. Aortic root abscess is a serious complication of infective endocarditis with high mortality. We report a case of a patient who had echocardiographic features resembling aortic root abscess along with severe aortic regurgitation, 6 weeks following aortic valve replacement. Valvular dehiscence led to perivalvular abscess like appearance. Infective endocarditis was excluded. He underwent a successful redo aortic valve surgery with slow recovery.

KEYWORDS

Valvular dehiscence; Aortic root abscess; Pseudo-abscess; Aortic valve replacement

Case report

A 59-year-old Caucasian male presented with recent onset post-prandial angina. He had a strong family history of premature coronary artery disease. Severe aortic regurgitation with good left ventricular systolic function was found on echocardiogram. Coronary angiography showed 90% stenosis in the left anterior descending artery and also significant lesions in the first diagonal, left circumflex and right coronary arteries. Root aortogram confirmed severe aortic regurgitation. He underwent quadruple bypass and aortic valve replacement with a 25-mm Sorin Fitline mechanical valve. He made a good postoperative recovery and was free from angina. At 6-week follow-up, cardiac examination revealed metallic second heart sound and, unexpectedly, an early diastolic murmur. Severe aortic regurgitation was noted on repeat echocardiogram. Trans-oesophageal echocardiography was then undertaken. Mid-oesophageal short-axis view shows prosthetic aortic valve ring in the centre (Figures 1 and 2). Multiple cavities suggestive of perivalvular abscesses are seen. However, he was afebrile and there were no peripheral stigmata of infective endocarditis. FBC, ESR and CRP were normal. Blood cultures were negative. Although he was asymptomatic, redo aortic valve replacement was considered in view of the severe aortic regurgitation. He underwent redo aortic valve surgery with aortic valve replacement and made a slow recovery. Culture of the excised aortic valve was negative, ruling out endocarditis. Valvular dehiscence and cavities separated by suture lines led to the dramatic resemblance to perivalvular abscesses.

Figure 1  Mid-oesophageal short-axis view. Broken arrows indicate pseudo-abscess, solid arrow, the area of valvular dehiscence and arrowhead, the aortic valve ring.
Figure 2  Mid-oesophageal short-axis view magnified with zoom.