Prosthetic valve endocarditis: multiple complications in one patient

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A 65-year-old male with a medical history of coronary artery bypass grafting, bioprosthetic aortic valve replacement for symptomatic severe aortic stenosis 2 years prior, ischemic cardiomyopathy, and diabetes mellitus presented with 3 days’ history of fever and chills. He was started on Augmentin for cellulitis of his toe. On presentation, he had a fever of 103.1°F with leukocytosis of 15.5 × 10³/mm³. Physical examination showed 3/6 systolic murmur at right upper sternal border. Further work-up revealed Methicillin-resistant Staphylococcus aureus bacteremia. He was started on daptomycin and rifampin.

Transoesophageal echocardiogram showed vegetation measuring 2.6 × 2.4 cm on the bioprosthetic aortic valve (Panel A, and see Supplementary data online, Video S1), an aortic root abscess with evidence of rupture into the left ventricle (Panel B, and see Supplementary data online, Video S2) and right atrium (Panel C, and see Supplementary data online, Video S3), mitral-aortic intervalvular fibrosa perforation (Panel D, and see Supplementary data online, Video S4) and a small vegetation on an implantable cardioverter defibrillator (ICD) lead (Panel E, and see Supplementary data online, Video S5). He was taken to the operating theatre for removal of the bioprosthetic aortic valve, debridement of the aortic root abscess, closure of aortic-to-right atrium fistula, aortic root replacement, and ICD removal. Post surgery, he continued deteriorating on maximum support, and comfort measures were discussed with the family. The patient was pronounced dead a few minutes after withdrawal of support. Prosthetic valve endocarditis is a complicated, fatal disease with a high in-hospital mortality rate regardless of medical therapy and/or surgery.

Supplementary data are available at European Heart Journal — Cardiovascular Imaging online.

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