Subaortic aneurysm caused by *Paecilomyces lilacinus* endocarditis

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A 41-year-old male white patient with a history of intravenous drug abuse and hepatitis C presented with bilateral peripheral thromboembolism resulting in acute occlusion of the left popliteal and the right common iliac arteries and requiring emergency surgical embolectomie. History taking and clinical examination revealed weight loss of 20 kg over 18 months, asthenia and a diastolic murmur suspicious of aortic regurgitation. The patient was afebrile and CRP was only slightly elevated (18 mg/l). Blood cultures and examination of the thrombi revealed fungi identified as *Paecilomyces lilacinus*. Transesophageal echocardiography (TEE) showed a moderately severe aortic regurgitation, a bicuspid valve with vegetations, a pseudo aneurysm of one leaflet (Fig. 1, arrow in panel A) and a subannular aneurysm communicating with the left ventricular outflow tract (Fig. 1, arrow in panel B) (see movies 1 and 2). Imaging with the real-time transesophageal three-dimensional echocardiography (3DE) yielded additional information to the 2D images and showed more clearly the bicuspid aortic valve with two equally sized leaflets and its relationship to the subannular aneurysm (Fig. 1, arrow in panel C and 3DTEE movies 3 and 4). The patient received antifungal treatment with amphotericin B and voriconazole replaced by posaconazole alone after a few days. The patient underwent uneventful surgery on the fifth day of treatment with replacement of the aortic valve and the ascending aorta by a homograft. Surgery confirmed the echocardiographic findings showing a bicuspid valve with equally sized leaflets, multiple vegetations, pseudo aneurysm of one leaflet and a subannular aneurysm communicating with the left ventricular outflow tract. Histological examination of the valve specimen showed inflammatory changes of the leaflets with vegetations colonized by fungi identified as *P. lilacinus* by PCR.

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Subaortic left ventricular aneurysms are very rare findings, especially in white adult patients. They have been linked to endocarditis and congenital abnormalities of the aortic valve like bicuspid valve. We report a case of fungal endocarditis due to *P. lilacinus* which was associated with a subaortic aneurysm detected by TEE. The fungus *P. lilacinus* is an emerging pathogen that causes severe human infections. To date no case of endocarditis with this pathogen has been reported to our knowledge. TEE is very useful in the work up of patients with suspected or confirmed infective endocarditis, especially for diagnosing abscess, vegetations and chordal rupture. Recently real-time 3DE using volumetric scanning has been implemented in a TEE probe (X7 Transducer, Phillips medical systems). In this case the technique was particularly helpful to delineate the unusual endocarditic lesions.

**Conflicts of interest**

None of the authors have any conflicts of interest

**Appendix A. Supplementary data**

Supplementary data associated with this article can be found, in the online version, at [doi:10.1016/j.acvd.2008.05.013](https://doi.org/10.1016/j.acvd.2008.05.013).