

P1440

Paper Poster Session

Non-tuberculous mycobacteria

Identification of *Mycobacterium chelonae* as cause of culture-negative prosthetic valve endocarditis

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Background: Prosthetic heart valve infection is a serious complication of heart valve replacement.

A 57-year-old patient presented with dyspnea, intermittent atrioventricular block grade II and reduced general condition 19 months after aortic valve replacement with a conventional porcine stented bioprosthesis. Echocardiography revealed paravalvular regurgitation due to dehiscence of the prosthesis. The patient underwent bioprosthetic aortic valve re-replacement after reconstruction of the annulus and pacemaker implantation. The postoperative course was uneventful.

Material/methods: Although the current clinical course, blood tests and intraoperative inspection did not point to active infective endocarditis (IE), the explanted bioprosthesis was submitted for microbiological analysis.

Conventional culture remained negative, whereas pan-bacterial PCR of the 16S rRNA gene yielded *Mycobacterium abscessus/chelonae*-group bacteria. This result was confirmed by a second microbiological laboratory assay test confirming the identification of *M. chelonae* using rpoB-gene sequencing. Consecutive sections of the porcine valve tissue were submitted to Kinyoun stain and revealed acid fast bacilli within the tissue sections.

Results: Mycobacteria are a rare cause of endocarditis. *M. chelonae* has recently been associated with bioprosthetic valve failure, in particular in valves of porcine origin.

Cases may routinely be missed for several reasons:

- Clinical symptoms are rather mild and not typical for IE
- Because typical findings of IE as vegetations or pus are frequently missing, heart valves are not sent in for microbiological analysis
- Routine culture fails to grow mycobacteria
- Non-tuberculous mycobacteria (NTM) detected by PCR might be regarded as contamination rather than infection.

Conclusions: In prosthetic valve endocarditis as well as in (all) cases of valve dysfunction occurring 5-24 months after implantation of a biological prosthesis, NTM should be considered and systematic analysis of mycobacteria infection using molecular analysis and stain for acid-fast bacilli should be performed.