Abstract: **P1208**

**An unusual case of infective endocarditis with Staphylococcus warneri, presenting as heart failure**

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**Topic(s):**
Chronic Heart Failure - Pathophysiology

**Citation:**

Introduction: S. warneri a member of the coagulase-negative Staphylococcus (CoNS) group, has rarely been reported to cause disease in healthy people, because of a lack of aggressive virulence properties.

Case report: A 79-year-old Caucasian male presented to the emergency department with shortness of breath, bilateral leg edema and fatigue. He was known with hypertension and aortic valve stenosis that were treated medically. On physical examination he was afebrile, with lower limb pitting edema, HR 70/min, BP 180/80 mmHg; systolic murmur at the aortic and mitral area. His respiratory examination revealed decreased breath sounds bilaterally at lung bases with crackles, otherwise unremarkable. 12-lead electrocardiogram showed atrial fibrillation. Chest x-ray showed cardiomegaly with congestion and large bilateral pleural effusions. Blood results showed a BNP of 2000 pg/ml, mild anemia, increased impaired renal function (Creatinine 2 mg/dl), CRP 9 g/dl (normal <5 g/dl), ESR 30 mm/hour. Further blood tests were in the normal range. TTE showed mild left ventricle hypertrophy. Systolic function was normal. The aortic valve was trileaflet with severe stenosis (AVA 0.4 cm²) and moderate regurgitation. The mitral valve showed a mobile hyperechogenic formation of 12 mm seen on the atrial side of anterior mitral leaflet. Vegetation was confirm on TOE. Doppler examination showed severe mitral regurgitation due to perforation of the mitral anterior leaflet (figure 1). Three blood culture bottles grew gram-positive cocci in clusters, identified as methicillin-sensitive coagulase negative Staphylococcus (subsequently identified as S. warneri). We initiated therapy with Intravenous Oxacillin and Ciprofloxacin. The patient also received medication for heart failure and was anticoagulated with Acenocoumarol for his atrial fibrillation. The patient’s clinical condition improved slowly, with gradual remission of congestion, and normalization of nonspecific inflammation markers, and improvement in kidney function. He was discharged after one month with a good clinical condition but with similar aspect of the TTE. The patient was referred for surgery - double valve replacement.

Discussion: This represents the tenth case described in the English medical literature, being the second appearing in an immunocompetent individual without any history of infections or previous invasive procedure. Having a low virulence, the infection with Staphylococcus warneri can lack fever and other signs and symptoms of infection. The patients had no clinical signs of infection, only signs of heart failure. Heart failure represents the most frequent complication of infective endocarditis, being the most common indication for surgery. In our case patient’s condition has deteriorated due to severe mitral regurgitation secondary to valve perforation.

Conclusion: Staphylococcus warneri is rare or underreported cause of native infective endocarditis in an immunocompetent individual.
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