A Case of Native Valve Staphylococcus Epidermidis Endocarditis with Cardiac Abscess Formation

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A Case of Native Valve *Staphylococcus epidermidis* Endocarditis with Cardiac Abscess Formation

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Introduction:
*Staphylococcus epidermidis* is the most common commensal bacteria of the skin; however it can be pathogenic and is a common cause of medical device associated endocarditis and endocarditis in IV drug abuse (IVDA).

However, in individuals without obvious disruption of the skin barrier, it is a relatively rare, but emerging entity of native valve endocarditis.

Coagulase negative staphylococci account for only 1-5% of community acquired native valve infective endocarditis and most resolve with treatment.

We report a case of a 56 year old male with an aggressive strain of community acquired *Staphylococcus epidermidis* acute endocarditis of a native aortic valve.

Case Report:
A 56 year-old non-IVDA male presented with low back pain and encephalopathy. Past medical history was significant for alcoholic chronic liver disease and aortic stenosis.

On exam, he was found to be hypotensive with a 3/6 previously noted systolic murmur. He also had tenderness of the L4-L5 spinous processes, splinter hemorrhages of the nails and subconjunctival hemorrhages.

Initial laboratory data revealed leukocytosis and thrombocytopenia. Blood cultures were obtained and vancomycin was initiated. Within hours of admission, he suffered an anterior wall myocardial infarction. Initial blood cultures were positive for methicillin resistant *Staphylococcus epidermidis*.

To rule out alternative diagnoses, an MRI of the spine, head CT and CT abdomen/pelvis were obtained, all were negative. Finally, due to continued *Staphylococcus epidermidis* bacteremia, a transesophageal echocardiogram was obtained, which showed that all three cusps of the aortic valve were encased in large vegetations (the largest measured 1.3cm x 1.3cm) and echolucency in the sinus of Valsalva, indicative of abscess. Serial blood cultures while treating with vancomycin were positive for methicillin resistant *Staphylococcus epidermidis*.

Due to end-stage liver disease with subsequent thrombocytopenia, the patient was not a candidate for valve repair. The patient subsequently sustained a ventricular tachycardia arrest and expired.

Discussion:
*Staphylococcus epidermidis* is a well-known etiology of prosthetic valve endocarditis and emerging etiology of native valve endocarditis.

Previous cases reported in the literature of *Staphylococcus epidermidis* endocarditis have been successfully treated with antibiotic therapy.

Typically, coagulase negative staphylococcus is considered a contaminant of blood cultures; and true infection is not difficult to treat. However in the correct clinical setting, it should be recognized as a formidable pathogen.

References: