

Beaumont Health

Beaumont Health Scholarly Works and Archives

Conference Presentation Abstracts

Pulmonary and Critical Care Medicine

7-2021

Infective endocarditis due to *Streptococcus salivarius* presenting as septic arthritis

Mishita Goel

Zachary Johnson

Manishkumar Patel

Raashi Chawla

Tanaz Salimnia

Follow this and additional works at: https://scholarlyworks.beaumont.org/pulmonary_critical_care_confabstract



Part of the [Critical Care Commons](#), and the [Pulmonology Commons](#)

Because of the risk of malignancy, surgical resection is recommended for patients with indeterminate nodules found to have RAS mutations.

INFECTIVE ENDOCARDITIS DUE TO STREPTOCOCCUS SALIVARIUS PRESENTING AS SEPTIC ARTHRITIS

Mishita Goel¹; Zachary Johnson¹; Manishkumar Patel¹; Raashi Chawla¹; Tanaz Salimnia^{1,2}

¹Internal Medicine, Wayne State University School of Medicine, Rochester, MI

²Pulmonary Critical, Beaumont Health, Royal Oak, MI. (Control ID #3539855)

LEARNING OBJECTIVE #1: Recognize atypical presentations of Infective Endocarditis (IE)

LEARNING OBJECTIVE #2: Identifying potential other sources of infection in patients presenting with septic arthritis.

CASE: A 72yr old male with history of AICD placement 8yrs ago after cardiopulmonary arrest and left knee arthroplasty 18yrs ago presented due to increased pain and swelling of left knee. He denied recent trauma or surgeries to the knee and there was no history of IV drug use. X Ray left knee showed total knee arthroplasty with osseous densities superior to patella and suprapatellar soft tissue swelling. He was started on vancomycin and ceftriaxone after joint aspiration. Irrigation and Debridement of joint with removal of the hardware was performed.

However, he continued to spike fevers, so antibiotics were switched to clindamycin and cefepime. He then underwent revision arthroplasty due to retained implant, with extensive debridement and antibiotic spacer placement. His leukocytosis trended down, however he continued to spike fevers. Trans-thoracic Echocardiogram showed no vegetations. Blood and wound cultures from surgical site grew *S. salivarius*. Synovial fluid cultures grew *S. equinus* which could possibly be *S. salivarius* since viridans group bacteria are often misidentified as Group D Streptococci (GDS).

Transesophageal Echocardiogram was done due to this unusual bacterial growth with history of AICD.

It showed a 1.2 x 1.5 cm mass attached to the right ventricular lead just before the tricuspid valve. Electrophysiology was consulted who recommended laser lead extraction for which he was transferred to a tertiary facility.

IMPACT/DISCUSSION: Septic arthritis is usually known to be caused by Staphylococcus and Streptococcus. Viridans streptococci are commensal bacteria of oral cavity and upper respiratory tract that rarely cause septic arthritis. *S. salivarius* is a viridans group streptococci known to be associated with dental caries and IE. Presence of this unusual bacteria in cultures and persistent fever prompted us to look for another source. Our patient did have poor dental hygiene but no recent oral surgeries. We still aren't completely sure as to what happened first but due to the known association of this bacteria with endocarditis, one can postulate that bacteremia due to endocarditis led to hematogenous seeding to the prosthetic joint. However, timely recognition changed the management and led to removal of potential sources of infection. Since some GDS are associated with colon carcinoma, colonoscopy was also recommended.

CONCLUSION: Viridans group streptococci are rarely the causative agents of septic arthritis. They are in fact a part of commensal flora found in oral cavity and are known to be associated with dental caries and infective endocarditis. The presence of this bacteria in blood in patients presenting with septic arthritis should prompt physicians to look for other sources of bacteremia.

INSPECTION OF CORONARY ARTERY ANOMALIES THROUGH MULTIMODAL IMAGING ANALYSIS

Justin Austin¹; Hamza A. Rayes²

¹Medical Sciences, University of Cincinnati College of Medicine, Cincinnati, OH

²Internal Medicine Cardiology Division, University of Cincinnati College of Medicine, Cincinnati, OH. (Control ID #3539161)

LEARNING OBJECTIVE #1: Recognize the indicators of coronary artery anomalies through coronary angiography and the need for multimodal imaging analysis for full characterization.

LEARNING OBJECTIVE #2: Assess the causative relationship between coronary artery anomaly and heart failure.

CASE: A 60-year-old Caucasian male presented with long-standing shortness of breath. Medical history revealed anxiety, hypertension, hypothyroidism, type 1 diabetes, alcoholic cirrhosis, and liver transplant. A social history of alcohol abuse and a pack of cigarettes a day habit for the past 10 years was also noted. Physical exam was suggestive of pulmonary edema, ascites, and bilateral lower limb edema, indicating fluid overload due to either alcoholic cirrhosis or heart failure.

Liver ultrasound and lab results confirmed normal anatomy and functioning, eliminating the diagnosis of liver cirrhosis. Chest X-ray and CT revealed the presence of right-sided pulmonary edema/effusion. An echocardiogram assessed heart function, revealing an ejection fraction of 45% indicative of left ventricular dysfunction, but further testing was needed to determine etiology. Workup for potential etiologies for the heart failure included a coronary angiogram which revealed non-obstructive atherosclerosis of the left anterior descending artery (LAD), but more importantly the presence of a very rare coronary artery anomaly (CAA). Characterization of the CAA found that two ostia originated from the right coronary cusp of the aorta, but no ostium was present in the left coronary cusp. The first ostium gave rise to the LAD and right coronary artery, while the second ostium gave rise to the circumflex artery.

Treatment included starting the patient on aggressive diuretic management and heart failure medications. Further treatment planning requires 3-dimensional imaging analysis to fully characterize the pathway of the anomalous coronary arteries—namely if the LAD is inter-arterial and therefore being intermittently compressed between the aorta and pulmonary artery.

IMPACT/DISCUSSION: CAAs are congenital disorders that hold the potential to cause life-threatening complications for the patient. While they hold such potential, many patients' CAAs go undiagnosed. Given the discussed case, the patient's CAA may have been causing slow chronic ischemia and repeated injury to the myocardium which has culminated in significant loss of ventricular function. Furthermore, if future imaging finds the patient's LAD is inter-arterial and therefore being intermittently occluded, it could provide further evidence for heart failure as a result of chronic ischemia.

Also, given the current lack of literature dealing directly with CAAs, it is our hope that this case will help further practitioners' understandings of CAAs and the steps that can possibly be taken in diagnosis.

CONCLUSION: Proper usage of multimodal imaging analysis provides full characterization of CAAs.

Determination of the etiology of heart failure is crucial for targeted treatment planning.

INTRAMUSCULAR HEMATOMA AS A MANIFESTATION OF ACQUIRED HEMOPHILIA A: A CASE REPORT

Catherine K. Ard, Joshua Raines

Internal Medicine, University of Colorado Denver School of Medicine, Denver, CO. (Control ID #3535947)

LEARNING OBJECTIVE #1: Recognize the clinical presentation of Acquired Hemophilia A (AHA) and how it differs from classic hemophilia.

LEARNING OBJECTIVE #2: Intervene early in cases suspicious for AHA given high levels of morbidity and mortality.

CASE: A 74-year-old woman with a past medical history significant for hypothyroidism, esophagitis and recent rectus sheath hematoma, presented from acute rehab for worsening atraumatic hematomas, fatigue and lightheadedness.

Three months prior to admission, the patient experienced recurrent admissions for acute blood loss anemia secondary to gastrointestinal bleeding and rectus sheath hematoma. She had no personal or family history of easy bruising or bleeding. Vitals on admission showed sinus tachycardia. Exam was notable for pallor, diaphoresis, numerous ecchymoses and hematomas with a palpable mass over her abdomen, consistent with a known rectus sheath hematoma. There was no melena on exam and despite significant bruising, patient denied any recent trauma or abuse.

Laboratory work up revealed a hemoglobin of 5.7g/dl. Coagulation studies showed a normal INR and PT but an elevated activated partial thromboplastin