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May 6th, 12:00 AM

Septic Arthritis with Concomitant Pseudogout

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Patel, Ravin; Schuck, James; Zucconi, Nicole; and Aderholdt, David, "Septic Arthritis with Concomitant Pseudogout" (2021). *Rowan-Virtua Research Day*. 76.

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Septic Arthritis with Concomitant Pseudogout

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Introduction

- Monoarticular joint pain is a common complaint, however it demands a broad differential diagnosis. These differentials include fracture, dislocation, septic arthritis, gout, pseudogout and several others. The diagnosis of septic arthritis requires a high index of suspicion as early diagnosis is a vital part of initial treatment.
- We present a case with multifactorial joint pathology contributing to a patient's presentation, specifically septic joint and pseudogout. The incidence of these entities being present in the same patient, let alone the same joint is not well documented in the literature.
- The presentation of these diseases have a multitude of similarities and differences, that initial diagnosis of pseudogout should not rule out septic arthritis and vice versa. Our aim is to add an additional case to the literature to present a patient who suffered from a pseudogout attack and septic arthritis simultaneously.

Physical Exam and Investigative Studies

Vitals: BP 155/78
mmHg, Temp 36.5 HR
85bpm, O2 96% RA

MSK: On inspection, left knee without gross deformity, diffuse soft tissue swelling, erythema of the left lower extremity.

Cardiovascular: Regular rate and rhythm. Pulse intact bilaterally in the upper and lower extremities.

HEENT, Pulmonary, Abdominal, and Neurological exam within normal limits

- Initial labs demonstrated leukocytosis of 30.4. CRP was elevated to 23.8. Initial arthrocentesis results demonstrated 88,000 neutrophils, slight cloudy and yellow synovial aspirate with calcium pyrophosphate crystals.

Admission Complete Blood Count

30.4 12.2 149
36.8

Admission Basic Metabolic Panel

136 102 16
3.4 24 0.8 241

Hospital Course

Admission
Evening

- Patient presents with left lower extremity pain and dysuria
- SIRS + in ED. Elevated WBC and febrile
- Admitted for sepsis secondary to UTI/Cellulitis

Day 2-4

- Treatment of sepsis with Vancomycin and Cefepime
- WBC stable
- Erythema for cellulitis unchanged

Day 5

- Left lower extremity erythema more localized around left lateral knee
- Antibiotics continued, WBC again rising
- Left knee CT revealed joint effusion, orthopedic surgery consulted and perform left knee arthrocentesis

Day 6-10

- Joint aspiration fluid reveals WBC 20,000, 88% PMN, cloudy aspirate, calcium pyrophosphate crystals
- Diagnosis of Septic joint with concomitant pseudogout made
- Joint fluid cultures isolate gram + cocci in pairs, gram - bacilli,

Days 10-16

- Broad spectrum antibiotics continued
- Patient undergoes left knee arthroscopy with complete synovectomy and washout

Day 20

- Patient is stable for discharge home with PICC line for continued antibiotic treatment



Figure 1. X-ray of Left Knee demonstrating large effusion

Discussion

- Ultimately the diagnosis of septic arthritis or pseudogout should not interfere with the prompt diagnosis of other diseases that may be affecting either a single or multiple joints. Our aim with this case is to highlight a case of a patient who initially presented for cellulitis of the lower extremity but was found to have not only septic arthritis but pseudogout as well.
- To prevent delay of care or discrepancies between diagnoses, it is vital to maintain a broad differential when approaching monoarticular joint pain
- Our aim is to urge physicians to obtain thorough history and physical in the inpatient setting which may contribute to early diagnosis of acute pathology requiring more timely intervention.

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