



# 03/29/24 Morning Report with @CPSolvers



"One life, so many dreams" Case Presenter: Brandan Robinson Case Discussants: Rabih Geha(@rabihmgeha) and Reza Manesh(@DxRxEdu)

**CC:** A 78 years old male % weakness  
**HPI:** A 78 years old male came to the ED brought by wife where the wife says that she does not know what was going on with her husband, but he is becoming worse over the days. She complains that the **pt is unable to get up from toilet** and is becoming weaker day by day. The pt says that he has been experiencing **Weakness in both arms and legs b/l**. **Since past week**, there has been a **new onset of right wrist pain and swelling**, which is also progressively worsening and has now become **red, sore, tender**. He also complains of **fever at home 100-101 & rhinorrhea**.  
**ROS+:** fever, chills, progressive fatigue  
**ROS-:** any other joint pain, rash, fall/injury/trauma, recent infection or illness over past weeks, night sweats, weight loss, back pain, headache, vision loss, any GI, GU symptoms, baseline BPH sx unchanged

**PMH:**  
 CAD  
 Aortic valve replacement (bovine) x 5 yrs ago  
 Gout  
 HTN  
 BPH  
 H63delta  
 hemochromatosis  
 heterozygous mutation  
**Surgical history :** CABG, Valve replacement, TKR right knee

**Fam Hx:**  
  
**Soc Hx:** no alcohol consumption  
  
**Health-Related Behaviors:**  
  
**Allergies:**  
  
**Meds:**

**Vitals:** BP:138/70 HR:84 RR:14 T:38.2C SpO2:96% at RA  
**Exam:**  
**Gen:** ill appearing man  
**CV:** faint blowing diastolic murmur  
**Pulm:** clear lungs  
**Abd:** no abd tenderness  
**Neuro:** no sensory deficits, walks without assistance, normal tone  
**Extremities/skin:** right wrist: swelling, joint effusion, erythema, limited active ROM, significant pain with passive ROM

**Notable Labs & Imaging:**  
**Hematology:**  
 Hgb:10|MCV:80|WBC: 14 with predomina neutr|Plt: 205  
**Chemistry:**  
 CMP: nl, U.Rout: nl  
 ESR:56 CRP:26 CK:390 PCT:0.31, blood cultures: taken  
**Imaging:**  
 CXR: nl,

**Right wrist:** scapholunate ligament with joint effusion  
**Arthrocentesis:** 48000 nucleated cells with 90% PMNs, cloudy yellow fluid, many wbc's, 7000 rbc's, no organisms seen. Multiple intra and extra articular crystals-CPPD  
**MRI brain:** severe small vessel ds  
**TTE:** bioprosthetic valve, no valvular leak, mildly elevated vel, no vegetation  
**TEE:** well seeded bioprosthetic seeded valve, no evidence of mass or vegetation, no abscess or fistula  
**Wrist culture and 4/4 blood cultures:** **Staph epidermidis**  
**Repeat TEE:** after 10 days: 2.3x1cm large mass on bioprosthetic aortic valve – vegetation with multiple embolic evidence

**Dx: Infective Endocarditis**

**Problem Representation:** A 78 years old male with PMH of aortic valve replacement (bioprosthetic) presented with complaints of progressive weakness and fatigue with low-grade fever and raised inflammatory markers along with wrist pain and swelling with cultures positive for S. epidermidis

**Teaching Points (Ayesha):**

- Weak from asthenia or neurologic perspective?
- Neurologic: weakness related to motor actions, unable to get up from toilet seat - proximal muscle weakness involvement
- Asthenia → fatigue
- Joint problem: Trauma vs Atraumatic, Effusion vs no effusion? Intra Articular ( PE shows range of motion issues, tenderness on palpation - septic joints? crystallines?) vs periarticular process?
- the more systemic the dx,, the more polyarticular the dx. Always confirm the involvement of the joints
- Gout: Toe mostly, at site of the lowest temperature. But can involve other joints, 10% of gout is crystallines.
- hemochromatosis: infections that love iron overload can cause joint sx.
- Without source: is the infx in the blood? Most severe dx becomes immediately important to address.
- Synovial fluid analysis - 1. appearance (cloudy - WBC involvement likely >2000 inflammatory, <2000 non-inflamm), the higher the white count, the likely it's an infectious process. 2. % of PMN (gram stain).
- Crystalline and a septic issue can occur together, doesn't always need to be one or the other.
- staph epidermidis: most common contaminant, especially when found in multiple blood cultures and an alternative sterile site.
- crystalline (usually mono without systemic features)
- TTE normal, TEE normal → go for PET Scan + re-examine joints
- There's always a source of inflammation, merely have to find it.
- Every test has limitations, they're only as good as the pretest probability.
- TTE and TEE - not as good for prosthetic valves, with less sensitivity and specificity.