



PrePodiatryStudy Case Studies



PrePodiatryStudy

Septic Ankle

Case

CC: “Pain in left ankle”

HPI: Patient is a 28-year-old female who presents to the ED complaining of right ankle pain and swelling. She states in the last few days, she has not been able to put weight on her her ankle at all and the pain is so bad that it keeps her awake all night. Pain is a sharp, throbbing pain localized to her right ankle. 10/10. Weightbearing makes the pain worse, but nothing alleviates it.

Patient denies fever, chills, nausea, vomiting, SOB, CP, and calf pain.

What do you want to know next?

Past Medical History

PMH:

- Illnesses: Hepatitis C, endocarditis
- Medication: None
- Allergies: None
- Hospitalizations: Several for various illnesses. Typically left AMA
- Operations: Ankle wash outs
- ROS: Negative
- SH: Current IVDA and smoker. Drinking when available
- FH: Non-contributory

What do you want to know next?

Physical Exam

General: NAD AAOx3, unpleasant

Lower Extremity Focused Exam

- Vascular: Palpable DP & PT pulses 2/4 bilaterally
 - CFT WNL bilaterally
 - Digital hair present bilaterally
 - Edema noted to left ankle
- Dermatological:
 - Punctate marks noted to left lateral ankle with erythema
 - No open wounds or lesions
 - Increased warmth to left ankle

- Neurological:
 - Protective sensation is intact via SWMF (5.07) 10/10 bilaterally
- Musculoskeletal:
 - Pain with ROM to ankle
 - During gait weight is kept off left ankle and patient refuses to walk on left foot
 - Guarding with movement and upon initial exam



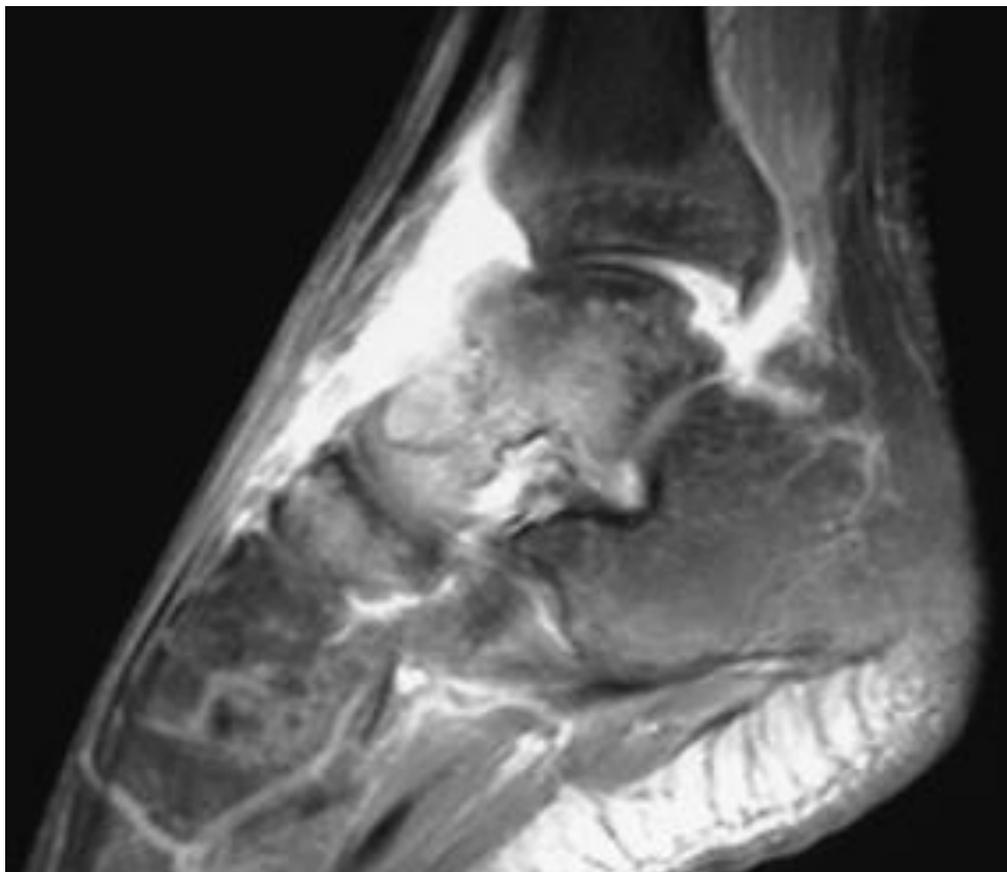
Read This X-Ray



Imaging

Read the image.

Do you want any other imaging?



Imaging

Read the image.



What's your diagnosis,
Doctor?

Diagnosis

- What is/are your primary diagnoses?
- What are your differentials?



What's your
plan, Doctor?

Surgical Post-Operative Plan

- Pain Meds?
- Post-Op protocol?
- Return to clinic in how many days?
- When do you start weightbearing? **Why?**
- When to return to regular shoe?



Rapid Fire Questions

Rapid Fire Questions

- What is the most common joint to get septic arthritis?
- What is the most common pathogen?
- What are the three etiologies of bacteria seeding in joints?
- Septic arthritis can cause chondrocyte damage in how many hours?
- What is the mechanism for chondrocyte damage?
- What ESR and CRP values can show increased suspicion for septic arthritis?
- What WBC is considered diagnostic for septic arthritis?

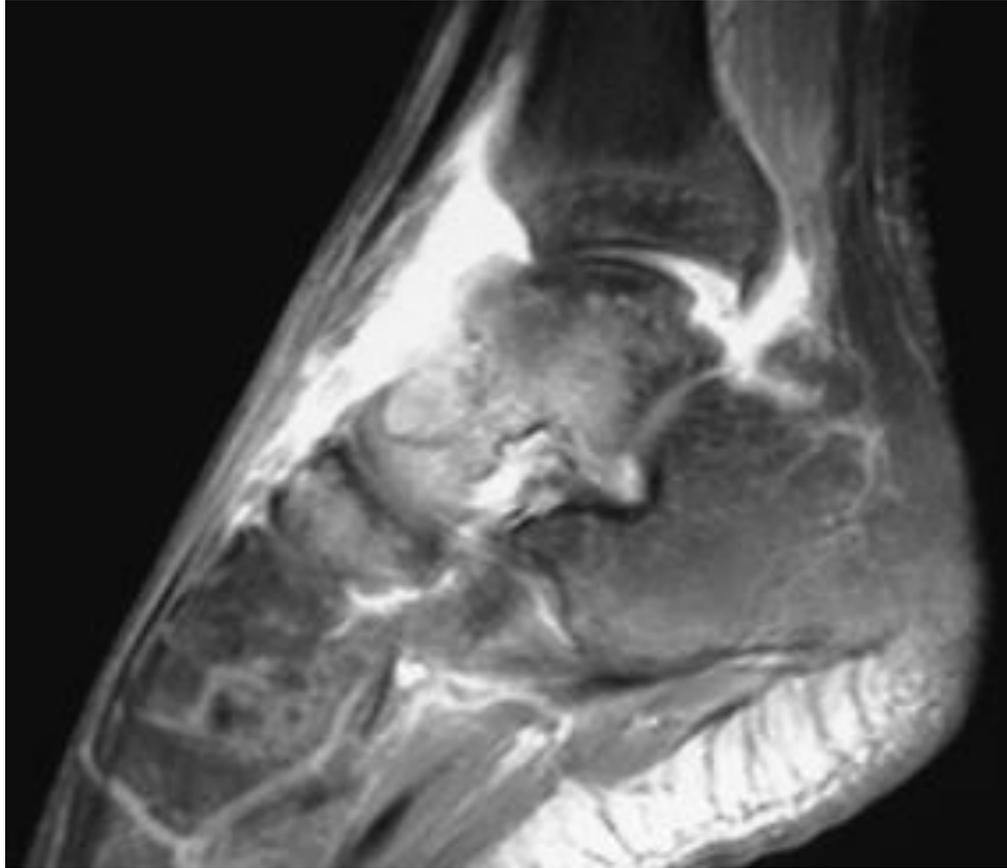


Answers



Imaging

“This is a skeletally mature patient with joint space narrowing and sclerotic changes to the left ankle. Soft tissue edema is noted. No OCD is noted. No fracture or bony defect noted.”



Imaging

“This is a skeletally mature patient with joint space narrowing of left ankle seen on a T2 MRI. Increased signal intensity noted to the left ankle joint and within the joint, indicating inflammation and fluid collection in this area. No bony defects or other abnormalities noted.”

Diagnosis

1) Septic Arthritis of Left Ankle

- Differentials: OA of left ankle (very unlikely because of age), OCD (not confirmed by imaging), malignancy (drug seeking)

Surgical Plan

- Wash out immediately
- Pack open
- Close if no drainage 2-3 days later
- 5mg oxycodone for pain control while in house
- IV ABX while in house (do NOT give PICC line because of IVDA history).
Oral ABX for D/C
- WB as tolerated in sneaker after sutures are removed and skin is healed (10-14 days)
- Discuss possible need for ankle fusion later

Rapid Fire Questions

- What is the most common joint to get septic arthritis?
 - Knee
- What is the most common pathogen?
 - *S. aureus*
- What are the three etiologies of bacteria seeding in joints?
 - Bacteremia, Direct Inoculation, Contagious Spread
- Septic arthritis can cause chondrocyte damage in how many hours?
 - 8 hours

Rapid Fire Questions

- What is the mechanism for chondrocyte damage?
 - The PMN cells release proteolytic enzymes to battle the bacteria. However, these aren't specific to cells and chondrocytes are also lysed
- What ESR and CRP values can show increased suspicion for septic arthritis?
 - ESR above 30
 - CRP above 5 (most helpful)
- What WBC is considered diagnostic for septic arthritis?
 - WBC above 50,000



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Thank You