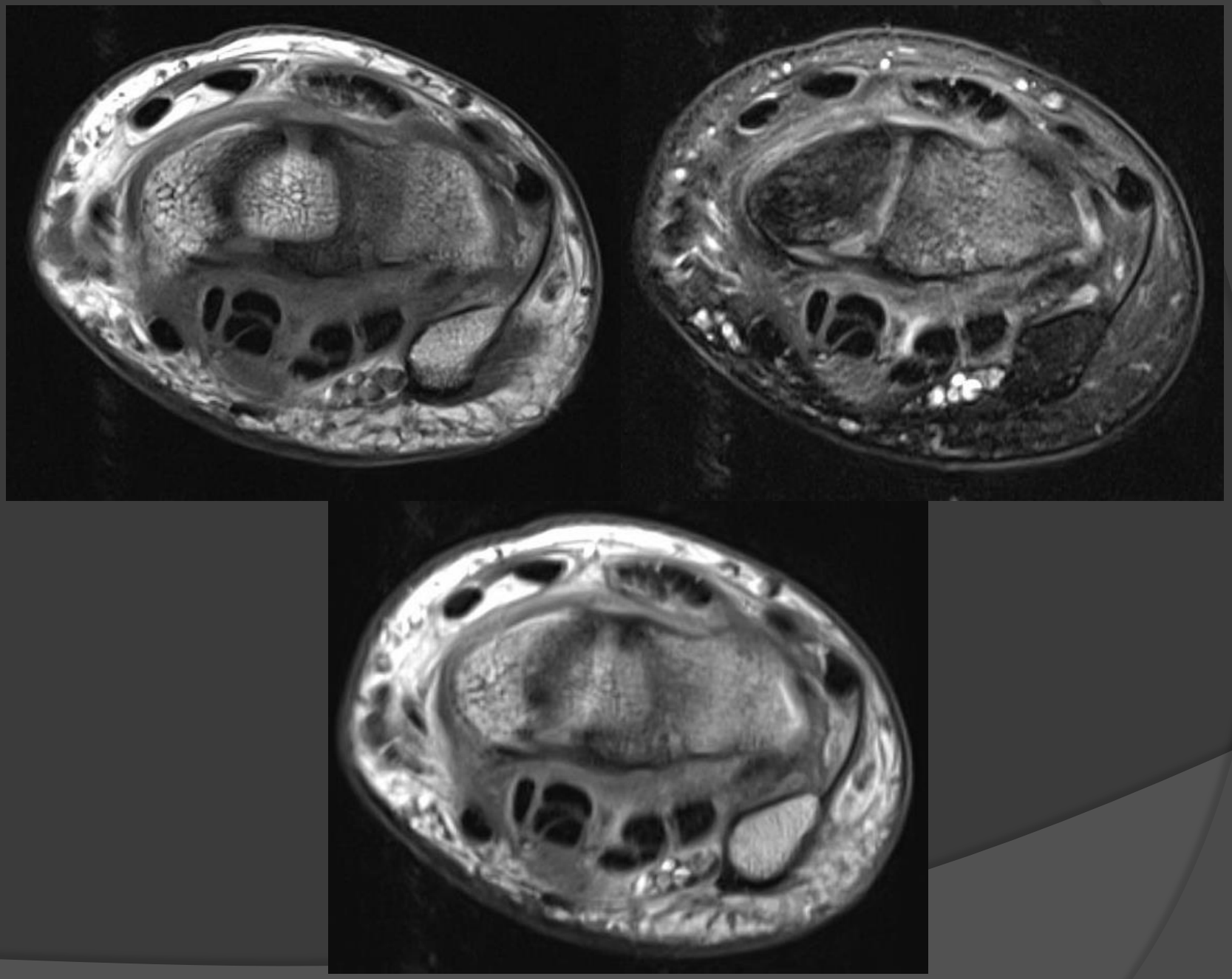
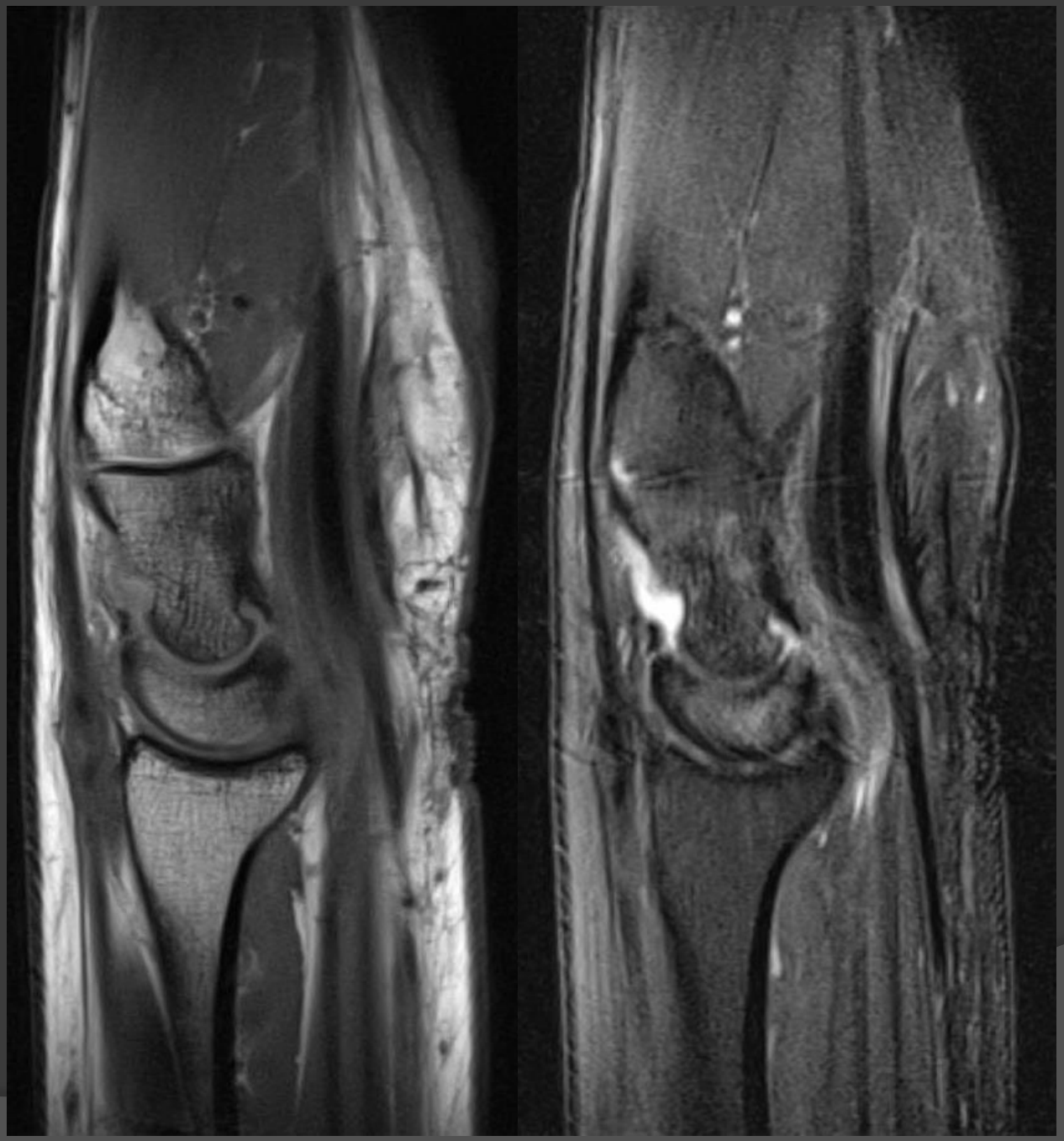
History

- 23 year old female with atraumatic pain and swelling of the wrist
- No other past medical history

X-ray

MRI – 1 month later



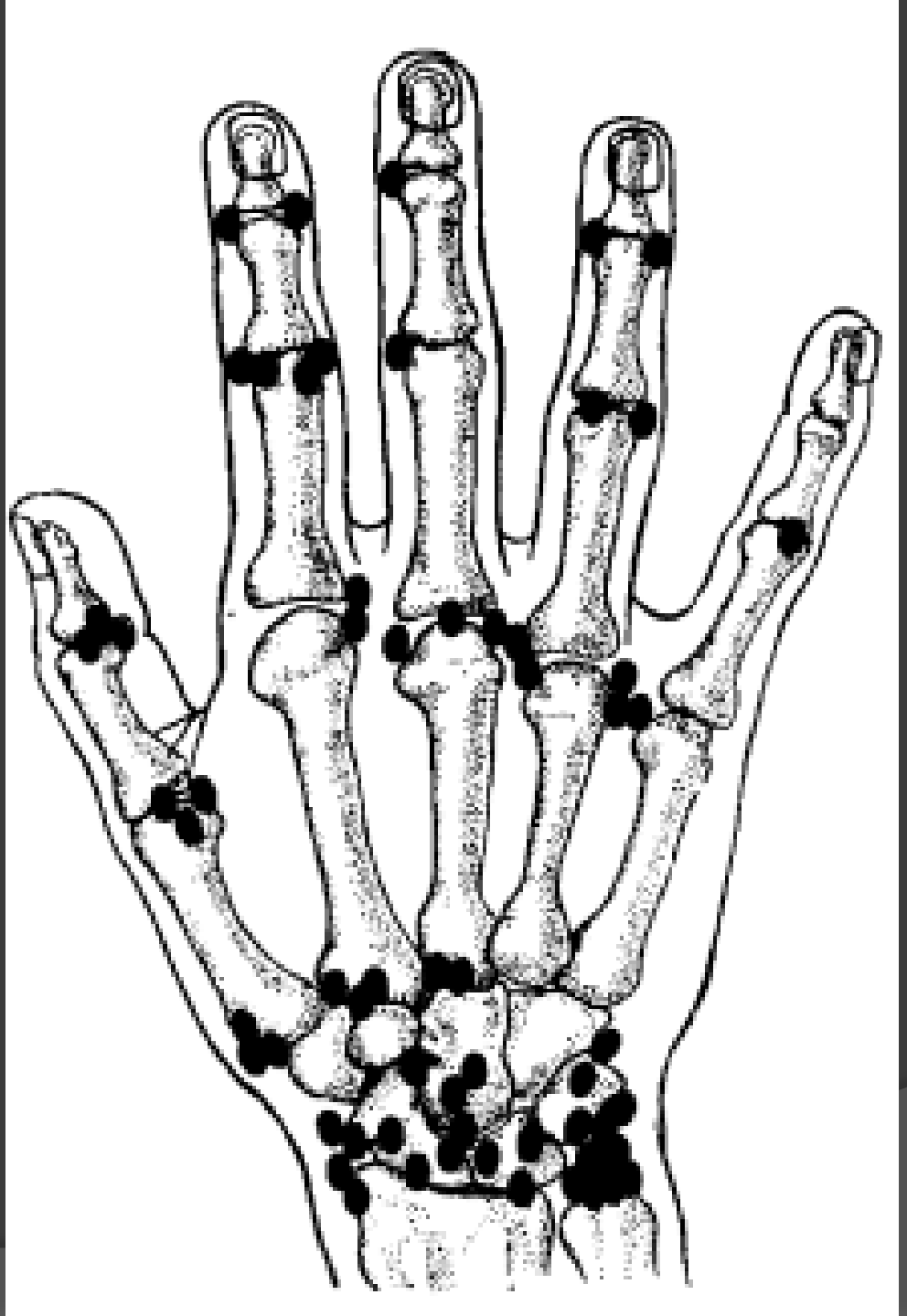


Acute calcium deposition

- Can be divided into peritendinitis vs periarthritis based on location of Ca++
- Presentation
  - Rare entity in the wrist and hand
  - Acute painful attack with tenderness and swelling and decreased ROM
  - Resolution within weeks
  - Often misdiagnosed with mimics including fracture, infection, CPPD, or inflammatory arthropathy
  - Peritendinitis occurs in older patients (mean 45) vs periarthritis (mean 35)

Acute calcium deposition

- Imaging
  - Radiographs and CT
    - Calcification usually diagnostic
    - Most common in flexor carpi ulnaris tendon attachment at pisiform. Second most common is flexor carpi radialis attachment at second metacarpal
  - MRI
    - T1 and T2 hypointense calcification with surrounding edema (GRE helpful)
    - Increased T1 and T2 signal in adjacent tendons with possible tenosynovitis



Acute calcium deposition

- Treatment
  - Conservative management +/- steroids
  - Surgical removal

References

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- Kim JK, Park ES. *Acute calcium deposits in the hand and wrist; comparison of acute calcium peritendinitis and acute calcium periarthritis.* J Hand Surg Eur Vol, 2014 May;29(4):436-9
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