The Hand

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2nd Year Resident
Surgery Grand Rounds
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Sequence

- Structure
- Brief case scenarios
- A dollop of questions and trivia here and there
What bone is this?
How am I supposed to remember this?

- Some
- Lovers
- Try
- Positions
- That
- They
- Cannot
- Handle
There is a fracture. Do I need to fix it?
Scaphoid Fractures

• Most common carpal bone fracture
• What is the usual mechanism?
• What are the presenting symptoms?
• What is the anatomical snuff box?
What is the treatment?

OR
So What is the Big Deal?

- Avascular necrosis
- Long term arthritis
- Malunion or non-union
Halftime Trivia (1 of 2):
What eponym is associated with this fracture?
A 15 year-old boy got stabbed in his thenar eminence with an exacto knife in art class. He is unable to make an “OK” sign or abduct his thumb

- Which nerve is involved?
- What nerve controls thumb adduction?
- Which nerve and tendons course through the carpal tunnel?

- Median: recurrent branch/million dollar nerve
- Ulnar
- Median and Tendons of FDS, FDP, FPL
What condition is Kanavel’s sign associated with?

- Flexor Tenosynovitis
- The four cardinal signs
  - (1) finger held in slight flexion
  - (2) fusiform digit swelling
  - (3) tenderness along the flexor tendon sheath
  - (4) pain with passive extension of the digit
- Emergent condition?
Flexor Tendon Sheath
Flexor Tenosynovitis

- A disruption in the flexor tendon sheath
- Chronic: RA, DM, Overuse
- Most acute causes are infectious and caused by skin flora:
  - *S. aureus* most common, *Streptococcus*
  - Stab wounds
  - Bites: Cat (*Pasteurella*) Human: (*Eikenella*)
- Work-up: CBC, ESR, 3 view hand for foreign body
Acute Tenosynovitis

• Stage I: Increased fluid in sheath, mainly serous
  – Catheter irrigation

• Stage II: Purulent fluid, granulomatous synovium
  – Minimal invasive drainage +/- indwelling catheter irrigation

• Stage III: Necrosis of the tendon, pulleys, or tendon sheath
  – Extensive open debridement and possible amputation
Diagnosis?

• 65 year old church organist with rheumatoid arthritis presents with 1 week of worsening 4th digit pain

• When she passively extends her finger it often locks or pops
Trigger finger

- Also known as stenosing tenosynovitis
- May be caused by the formation of a nodule in the FDS tendon where it glides under the A1 pulley
Thank You