Dislocations

Core Content

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Â• Principles

- Dislocation reduction and x-ray interpretation are psychomotor, not cognitive skills, and won't be covered here.
- Simon and Koenigsknecht is clearly the definitive ED reference
- Will briefly review principles of dislocation reduction but focus on cognitive stuff

Â• Principles

- In dislocation, muscles **spasm**.
  - The longer the dislocation, the worse the spasm
  - Spasm is your (and the patient’s) enemy
  - Patient relaxation helps (story about jail patient at Prov with voluntary shoulder dislocation to get high)
  - Tracking, guided imagery, and hypnosis are great, and work even in an ED (or a cave, or on a cliff): story about Earle Copp rescue in Crossroads Cave with hypnosis for shoulder dislocation, likely saves patient
  - Use brains (and your fat butt) and leverage rather than your own
muscles. (Even if macho, do it right to teach others who have less upper body strength): use straps/sheets/benzoin

- **TAKE YOUR TIME**

- X-rays first unless in backcountry (Where are most finger dislocation reduced? In a football huddle. Story about reducing fingers in triage. Question about digital blocks: no, generally hurt more than reducing.)

- When to reduce NOW: losing a nerve or an artery, skin tenting, severe pain (story about patella dislocation in Peds)

- Complications:
  - axillary nerve: acceptable (just document)
  - Hill-Sacks deformity: don’t leave out too long (e.g., reduce BEFORE x-rays when in backcountry)
  - Knee (not patella): Angiogram!

- **Essay Questions**

  - What is a volar plate, where is it found, and why should I care? (volar part of MCP “box” with collateral ligaments; injury to it may be very severe)

  - Assume a patient who comes in at 3 AM has a PIP finger dislocation. How do you decide whether to splint it in 30°
flexion for 3 weeks and send out with a 3-week follow-up, and when should you wake up the orthopod to either admit or arrange for outpatient OR scheduling?

- Which MCP joint dislocation is usually impossible to reduce closed, and why? (index MCP; MC head gets trapped in the flexor tendons/lumbricals)

- What is a “gamekeeper’s thumb,” what is a more modern name for it, and why is it more special than other finger sprains? (Skier’s thumb; if complete, tends not to heal as in 2/3 of cases, as the aponeurosis of the adductor pollicis longus gets stuck between the ends of the collateral ligament.) For extra credit, what is the official number of degrees of angulation to count as a complete disruption? (some say 40°, some say 20° more than the other side)

- What fracture-dislocation is most common at the thumb CMC joint? (Bennett’s) What’s the treatment? (Very good closed reduction or k-wire.)

- What is a nursemaid’s elbow, when does it tend to occur and why, how do you diagnose it, how do you fix it, and do you need x-rays? (Radial head subluxation, 2-5 year olds with a pull on
the arm, won’t use arm and held partially flexed and pronated, resists full extension or flexion, supination with either flexion or extension, and no, unless reduction doesn’t work.) Which method works better, supination and extension or supination and flexion (flexion 80.4% and extension 68%) How long do you wait to see if it’s reduced? (15-30’) What if child won’t use the arm even though x-ray negative? (sling, home, recheck in 24 hours.)

- What is the most common form of elbow dislocation, what are the major complications, and how is it reduced?
- Name six methods of shoulder reduction by eponym, describe and demonstrate the precise method, and discuss the advantages and disadvantages of each. Then, tell us why we should bother to know this.
  - Hippocratic “dirty sock” (2000 BCE)
  - Kocher (1870): external rotation with adduction (later with downward traction, and with levering against the chest)
  - Milch (similar to Hennepin)
  - Lateral countertraction (with or without a life vest)
  - Stimson
- Scapular Manipulation
- Hennipen (“throwing position”)
- Eskimo
- Spaso (supine, pull straight “forward” (up))
- What is “luxatio erecta” and what should I do about it?
- What are Hill-Sachs and Bankart deformities? (divts in the humeral head and glenoid fossa, respectively)
- Why is a posterior sternoclavicular dislocation life-threatening, and what should be done about it?
- Extra credit: What is the Terry Thomas sign, and why should I care? (Widening of the “teeth” of the scapholunate joint, named after a British actor from the 1960’s; some say we should call it the “Letterman sign” or “Lauren Hutton” sign.)
- Extra credit: What is a perilunate subluxation and why should I care