Hip Dislocations in Athletics

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Hip Dislocations

- 70% from Motor vehicle accidents
- Rare in sports
  - Football
  - Basketball
  - Gymnastics vault
  - Rugby
  - Skiing/cycling

Hip Dislocations

- Mechanism
  - Posterior directed force on femur
Hip Dislocations

- Mechanism

[Images of football players in action]
Hip Dislocations

- **Mechanism**
  - Anterior: flexed hip is forced into abduction and external rotation in a splits-type injury.

- **Types**
  - Type I: most common

- **On field treatment**
  - Often lying in fetal position with dislocated hip facing upwards
  - Buttock pain and abductor spasm
  - Checking thigh lengths can help confirm

- **On field treatment**
  - Posterior: flexed, adducted, internally rotated
  - Attempt reduction
  - Anterior: extended, abducted, externally rotated
  - Likely need reduction at hospital
Hip Dislocations

- On field treatment
  - Reduction!
    - Hip flexion, IR
    - Traction in line with femur
    - Time sensitive

Why time sensitive?
- Blood supply
  - Osteonecrosis

- Time dependent
  - 4.8% if within 6 hours
  - 52.9% if after 6 hours

On-field Treatment
- Neurovascular exam
  - Before and after reduction
Hip Dislocations

**On-field Treatment**
- Transfer to nearby hospital
  - X-rays
    - Acetabular fracture
    - Femoral neck fracture
  - Surgical emergency

**Surgical emergency**
- CT scan
- Reduction
- Fracture
- Intra-articular fragments

**MRI**
- Not emergent
- Evaluate labrum/cartilage

**Surgery?**
- Fracture
- Incarcerated fragment
- Labral tears/chondral injury?: all patients!
Hip Dislocations

- Rehab
  - Stable Grade 1
    - WBAT
  - TTWB or NWB for 4-6 weeks if Grade 2/3 or surgery
  - Early ROM, Weight bearing exercises by 4-6 weeks

- Complications
  - Osteonecrosis
    - 4.8%-52.9%
    - Dependent on time of reduction
    - Consider repeat MRI at 2 weeks
      - Adjust PT?

Hip Dislocations

- Complications
  - Osteoarthritis
    - 16-23%

- Complications
  - Heterotopic Ossification
    - 2%
    - No role for radiation or indomethacin in simple dislocations
    - May need with acetabular surgery
Hip Dislocations

- Complications
  - DVT
    - Early ambulation
  - Aspirin
  - Compression
    - stockings/pneumatic sleeves
  - Medication?

- Sciatic nerve injury
  - 5-10% of posterior
  - 64% recover fully
  - Several months to years
  - AFO/rehab
  - Exploration rarely needed
    - stretch

Hip Dislocations

- Conclusions
  - Anterior vs. posterior
  - Early reduction if possible
  - Transfer for xrays/CT
  - MRI on elective basis
  - Rehab

Thank you