Evaluation of Sports Injuries

- Over 215 million Americans participate in recreational sports each year with the number continuing to increase. Walking is most commonly participated in, followed by swimming and bowling.
- Over 12 million activity related injuries occur each year with about one third of these treated by a physician.

General Principles

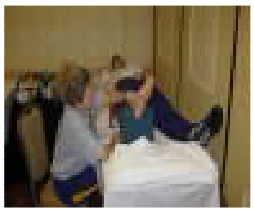
- **History** most important. Ask questions like (who, what, when, where, how, and why?)
- **Physical Exam** quickly determine if injury is life or limb threatening and respond accordingly. ABC's etc., observe, palpate for deformity or tenderness, evaluate for swelling, passive and active ROM, stability of joint, altered function. Compare to "normal" side. Evaluate for neurovascular status.
- **Imaging** plain films to rule out fracture, dislocation
  - **CT** - fine bony detail, internal organs
  - **MRI** - soft tissues pathology: muscle, tendon, ligament, etc.
  - **Nuclear Bone Scan** – stress fracture, abnormal bone metabolism
- **Labs** urinalysis, CBC, etc., as appropriate

Specific Injuries and Case Studies

- **ANKLE**

90% are lateral (ATFL). Can be graded on severity 1,2,3.

"High" syndesmotic ankle injury. Imaging?



Specific Injuries and Case Studies

- **KNEE**

Be comfortable with Lachman test, Drawer test, Valgus/Varus stress. MCL most common. Look for ACL and meniscus injuries (joint line tenderness). More chronic – Pes Anserine bursitis, PFPS

Specific Injuries and Case Studies

- **SHOULDER** (COMPLEX)

Dislocation – usually anterior

Clavicle fractures

AC joint separation

Rotator cuff injury

Stinger/Burners (Brachial Plexus)

Specific Injuries and Case Studies

- **TORSO** rib example

Severe pain?

Deformity?

Crepitus?

Underlying internal injury?

Specific Injuries and Case Studies

- **ABDOMINAL**

Internal organ injury vs. muscular

Example renal laceration

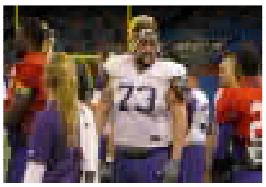
May need CT to evaluate thoroughly

Specific Injuries and Case Studies

- **LUMBAR**

Think spondylolysis in teenagers (pars interarticularis defect).

Stork leg test



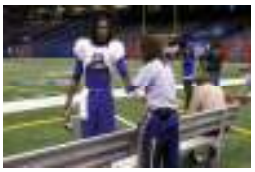
Specific Injuries and Case Studies

- **WRIST/HAND**

Rule out Scaphoid (snuffbox) injury

TFC (Triangular fibrocartilage injuries) – may need MRI

Boxer's fracture – 5th metacarpal



Specific Injuries and Case Studies

- **ENT**

Ocular and nasal injuries

Have eye kit, cottons balls and Afrin handy

Specific Injuries and Case Studies

- **Muscle Strains**

Evaluate and grade the injury

Hamstring example

Groin Strain (adductor) example

Specific Injuries and Case Studies

- **HEAD AND NECK**

Concussion (MTBI-mild traumatic brain injury)

- Evaluate for LOC, memory concentration, personality changes, balance, etc. (Use symptom card)

Specific Injuries & Case Studies

- **HEAD AND NECK**
  (CONTINUED)

Do Not Allow Further Participation Until All Symptoms Have Cleared

- Assume concomitant neck injury if unconscious and proceed accordingly
- When to image?

SPORTS MEDICINE

QUESTION AND ANSWER PERIOD

FINAL COMMENTS

Whether taking care of elite, recreational or casual athletes, we as physicians can do a great service to our patients by protecting them from further injury and helping them on the road to recovery

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