Common Pediatric Sports Medicine Problems: A Case Based Approach

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Objectives

• Recognize and Manage common pediatric musculoskeletal complaints
• Diagnostic imaging choices:
  – when and what studies to obtain
Elbow Pain

- 14 year old pitcher / outfielder
- Left handed
- 3 wk hx of medial elbow pain with throwing

Continued throwing despite symptoms
Little League Elbow

Twisting Knee Injury

- 13 year old
- Non contact twisting knee injury
- C/O pain, swelling, stiffness

“Quit whining, Sid, and walk it off. I’m not falling for that pulled muscle thing again!”
History and Physical

• Important Questions
  – Mechanism of injury
  – When?
  – What did the patient feel?
  – What’s happened since? (instability, swelling, mechanical sx’s)

Knee Injury

• Look for physeal injury
• Subtle irregularities
• Comparison films often helpful
High School basketball player

• Felt knee give way while landing
• Couldn’t continue to play
• Knee swollen next morning

Knee Injury
16 YO Knee pain, effusion

[Images of radiographs and MRI scans of a knee]
16 year old, twisting injury

- Twisted knee playing basketball
- Swollen, unable to fully extend
15 year old w/ wrist injury

Scaphoid View (1 Week later)
F/U films

Ankle

- MOI usually inversion
- Lateral sided injury
Sprains

• Ankle: Differential DX
  – Syndesmotic ankle sprain
  – Fracture/Growth plate injury
  – Osteochondral fracture
  – Tendon injury
    • peroneal, posterior tibial, achilles

12 yo male recurrent ankle pain
15 yo cheerleader

Apophyseal Injuries

- Apophysitis: can occur at tendon attachements, ligament attachments, and at impact sites
  - Very common
  - Non-articular
  - Generally short lived
  - Treatment is aimed at symptomatic control
Apophyseal Injuries

- Apophysitis
  - Osgood Schlatter disease
  - Sindig-Larsen-Johansson
  - Sever’s Disease
  - Iliac crest apophysitis
  - Iselin’s disease: traction apophysitis at base of 5th metatarsal
  - Medial epicondyle apophysitis of elbow

Apophyseal Injuries

- Avulsions- acute injuries
  - Most commonly encountered at pelvis and hip
  - ASIS (sartorius)
  - AIIS (superior reflection of rectus femoris)
  - Ischial tuberosity (hamstrings)
  - Lesser trochanter (iliopsoas)
  - Inferior margin of acetabulum (inf. reflection of rectus femoris)
Apophyseal Injuries

- Avulsion
  - Majority can be managed with progression from partial wt. Bearing to active stretching to walking, and finally to running.
  - Tibial tuberosity
  - Medial epicondyle of elbow