Evaluation and Management of Knee and Shoulder Pain

Andrew Ferris, DO

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Please check where applicable and sign below. Provide additional pages as necessary.

Name of CME Activity: ACOFP 53rd Annual Convention and Scientific Seminars

Dates and Location of CME Activity: April 6-9, 2016, The San Juan Puerto Rico Convention Center

Your presentation: Thursday, April 7, 2016 from 1:00pm-3:00pm: Assessment, Imaging and Treatment of Office Orthopedics

Name of Faculty/Moderator: ______________________

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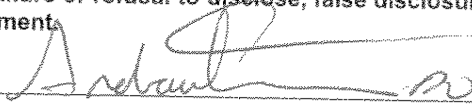


Date: 2/17/16

Andrew Ferris, DO

Please email this form to joank@acofp.org as soon as possible

Deadline: Friday, January 15, 2016

Evaluation and management of Knee and Shoulder pain

Andrew Ferris DO

Knee pain

- History
  - Chronic vs. Acute
  - Mechanism of injury
- Evaluation
  - Intra vs. Extra-articular problem
- Imaging
  - X-ray
  - MRI
- Treatment

History

- Chronic vs. Acute
- Mechanism of injury
- Quality and location of pain
- Aggravating activities
- Mechanical symptoms

Acute vs. Chronic

- Acute Knee Pain
  - Injury?
    - Yes
      - Ligament, patellar subluxation/dislocation, meniscus, fracture, micro-fracture
    - No
      - Inflammatory arthropathies, meniscus, septic arthritis, or OA and PFS, but if these are acute they are usually associated to recent activity

Acute vs. Chronic

- Chronic knee pain
  - Children and young adults
    - Patella-Femoral Syndrome
    - Tendonitis/Bursitis/Apophysitis
    - Plica syndrome
    - Inflammatory arthritis
    - Osteochondritis dissecans
  - Older adults
    - Osteoarthritis
    - Patella-Femoral Syndrome
    - Inflammatory arthritis
    - SPONK
    - Tendonitis/Bursitis

Mechanism of injury

- Direct blow
- Twisting
- Acceleration deceleration
- Did you hear a “pop”
- Did the knee swell quickly
- could you put wait on your knee

Quality and location of pain

- Quality of pain important in differentiating OA or medical origin
- Location
  - Anterior
  - Jointline
  - Radiating

Aggravating activities

- Pain with weight bearing vs. rest
- Pain going up or down stairs or a slope
- Morning pain
- Start up pain
- do you sleep with a pillow between your knees

Mechanical symptoms

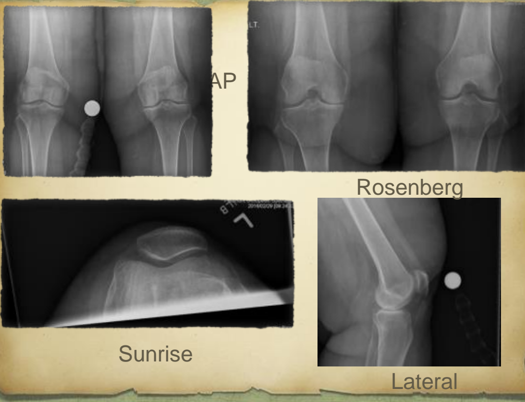
- Catching
- Locking
- Instability

Evaluation

- Inspection
  - Swelling or scars
- Point tenderness
  - Peripatellar, Joint line, MCL, LCL, Pes Anserine, IT band
- Range of motion
- Stability
  - Varus and Valgus, Anterior and Posterior drawer
- Apple and McMurray

Imaging

- X-ray
  - Four views of the knee
    - Weight bearing bilateral AP, Weight bearing bilateral Rosenberg, Lateral, and Sunrise



MRI

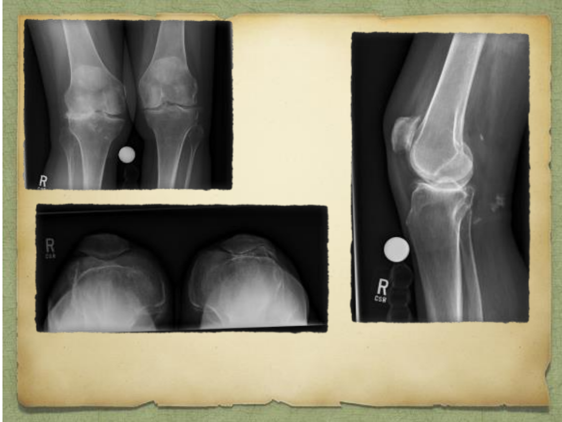
- Who needs an MRI
  - Patients with significant mechanical symptoms with exam convincing of meniscal tear without significant degenerative joint disease on x-ray.
  - Patient with mechanism of injury and exam consistent with ACL, PCL, LCL injury
  - Patient with x-ray showing osteochondral lesion

MRI

- Who should not get an MRI
  - Patients with advanced degenerative joint disease
  - Acutely injured patient who we can not exam thoroughly due to pain and guarding
  - Acute grade 1 and 2 MCL injuries

Roberts et. al. J Bone Joint Surg Am, 2015 May 06

Compared MRIs ordered by PCP and Orthopedic surgeons. Finding showed while each group had similar rates at which MRIs were ordered, those ordered by the orthopedist resulted in more appropriate interventions for patients with symptoms and findings amenable to surgical intervention.



Treatment

- Vast majority of patients presenting with knee pain will be nonsurgical in nature
- Most common knee complaint seen in my office are anterior knee pain and osteoarthritis

Patella-Femoral Syndrome

- Most common knee complaint in the outpatient setting
- Mainstay of treatment is physical therapy
- 75%-85% improve with conservative treatment
- little role for NSAIDs
- Referral to orthopedics with 6-12 months of treatment without improvement

Osteoarthritis

- Multi faceted approach
  - Exercise, Weight loss and OTC meds
  - Rx NSAIDs
  - Physical therapy
  - Corticosteroid injections
  - Hyaluronic acid injections
  - Off load bracing
  - Surgery

Tendonitis/bursitis

- Activity Modification
- NSAIDs
- Physical therapy
- Corticosteroid injections

Gout vs. Septic arthritis

- Acute onset of pain with significant effusion and pain on ROM
- Joint aspiration with cell count with diff. and crystals, and cultures
- cell count >50,000 without crystals is septic arthritis

Shoulder pain

- History
  - Chronic vs. Acute
  - Mechanism of injury
- Evaluation
  - OA, Labrum, Biceps, Rotator Cuff, AC joint or Neck
- Imaging
  - X-ray
  - MRI
- Treatment

History

- Chronic vs. Acute
- Mechanism of injury
- Quality and location of pain
- Aggravating activities
- Mechanical symptoms

Acute vs. Chronic

- Acute Shoulder Pain
  - Injury?
    - Yes
      - Labrum, SLAP, Rotator cuff
    - No
      - Subacromial bursitis, Adhesive capsulitis, Inflammatory arthropathies, Septic arthritis,

Acute vs. Chronic

- Chronic
  - Subacromial impingement
  - Glenohumeral Osteoarthritis
  - Rotator cuff tear
  - AC joint arthritis
  - Multidirection instability

Mechanism of injury

- Fall on out stretched hand
- Forced abduction
- Dislocation
- Seizure

Quality and location of Pain

- Sharp with activity
- Dull at rest
- Night pain
- Location, Anterior, Mid arm, Scapular

Aggravating activities

- Above shoulder level reaching
- Overhand throwing
- Sleeping on side of affected shoulder
- Reaching behind back

Mechanical Symptoms

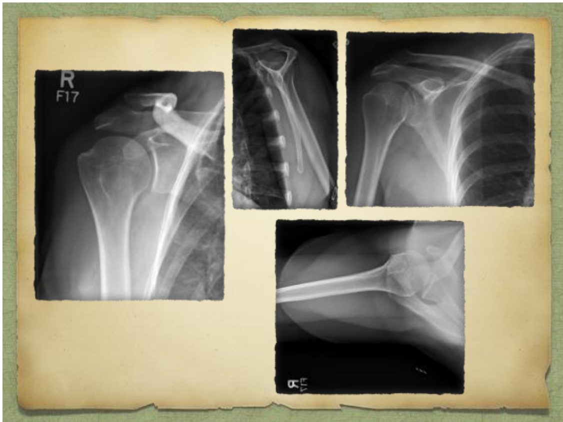
- Locking or catching
- Subluxation
- Crepitus

Evaluation

- Range of motion, both active and passive
- Strength testing
- Impingement signs
- Point tenderness at AC joint, Codman's point, or Bicipital groove
- Provocative test; Speed, Yergason, O'Brien, Apprehension relocation, Load shift

Imaging

- X-ray
  - AP, Grashey, Axillary, and Acromial outlet view



MRI

- MRI used to evaluate rotator cuff
- MRI arthrogram used to evaluate labrum

Treatment

- Injections
  - subacromial, biceps, AC joint, GH joint
- Strengthening
  - Physical therapy or home excises
- NSAIDS
- MRI

When to get an MRI

- Acute injury in young patient with either profound weakness not caused by pain or instability
- Chronic pain and weakness not responding to treatment
- MRI should be used to determine decision for surgery

Thank You

Go Green!