EVALUATION OF ACUTE SHOULDER INJURIES

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None of the planners or presenters of this session have disclosed any conflict or commercial interest.
OBJECTIVES

1. Discuss the anatomy of the knee and shoulder.
2. Discuss common injuries to the knee and shoulder including typical presentation and mechanism of injury.
3. Demonstrate and allow for audience participation in the examination of the shoulder and knee and discuss appropriate use of imaging.
4. Discuss operative and non-operative approaches for the management of these injuries.
Case Scenario

- 57 year old male
- “I was attempting to pry a wheel off of a car at work, and the wheel sprung back...I felt a sudden pain in my right shoulder”
History

- Where is the pain
- What is the quality of the pain
- Precipitating and alleviating factors
- Associated medical conditions and social history
  - Most importantly smoking!
Physical Examination

- Should be systematic!
  - Inspection
  - Palpation
  - ROM and Strength
  - Special Tests
    - Rotator Cuff
    - Labrum and Biceps
    - Instability
    - AC Joint
Physical Examination

ROM and Strength

- Active and Passive ROM in BOTH shoulders
- Strength
Special Tests
Rotator Cuff

- Neer and Hawkins Test
  - Subacromial impingement a.k.a. bursitis

- Jobe’s Test
  - Rotator cuff tendonitis

- Belly Press and Lift Off Test
  - Subscapularis
Special Tests
Labrum and Biceps

- O’Brien Test
  - Superior labrum

- Speed Test
  - Biceps or labrum
Special Tests
Instability

- Apprehension and Relocation
  - Anterior instability

- Posterior Stress or Clunk Test
  - Posterior instability

- Load and Shift
  - Anterior or posterior instability
Special Tests

Acromioclavicular Joint

- Cross Body Adduction
Pain is constant
Radiates from superior shoulder through upper arm to elbow
Feels better in sling
Worse with sleeping or any overhead activity
Case Scenario

- Inspection normal
- No point tenderness
- ROM 170 / 50 / L3 vs. 180 / 60 / T8
- No weakness with cuff testing
- + Neer + Hawkins + Jobe
- All other provocative testing negative
Management

- Immediate MRI Indications
  - Significant rotator cuff weakness

- Everyone else…
  - Rest, PT, medications, close F/U
  - Consider injection if chronic in onset
Case Scenario

- No significant weakness
- Started PT for shoulder with diagnosis rotator cuff strain
- Follow up in two weeks
Case Scenario

- ROM 100 (130) / 40 / L3
- + Neer + Hawkins + Jobe
- 4 out of 5 strength with rotator cuff strength testing

- MRI
Case Scenario

- MRI shows acute rotator cuff tear
- Proceed directly to surgical repair
Case Scenario # 2

- 47 YO male

- “I was lifting a heavy bucket of mud at work as a dry waller and felt a sudden tearing sensation in my left shoulder…”
Case Scenario # 2

- Inspection normal
- Tenderness at greater tuberosity
- Active ROM 60 / 50 / L1
- Passive ROM 180 / 50 / T12
- + Neer + Hawkins + Jobe
- Rotator cuff strength 4+
Case Scenario # 2

- MRI
- Large acute rotator cuff tear
- Surgical management
Case Scenario # 3

- 58 YO female

- “My right shoulder has been sore from repetitive use at the deli counter”

- Pain with repetitive use, significant night pain when sleeping on the right
Case Scenario # 3

- Inspection normal
- No tenderness to palpation
- Active ROM = Passive ROM 170 / 40 / L2
- + Neer + Hawkins – Jobe
- 5 of 5 rotator cuff strength
- All other provocative tests negative
Case Scenario # 3

- No weakness
- Chronic onset of pain
- Therapy and injection
- If no improvement after 4 to 6 weeks consider MRI to rule out underlying tear
Case Scenario # 4

- 26 YO male

- “I was trying to take a keg down a flight of stairs on a dolly, it slipped and my shoulder felt like it pulled out of the socket…”
Case Scenario # 4

- Inspection normal
- Tender to palpation along anterior joint line
- Neer Hawkins Jobe negative
- O’Brien and Speeds positive
- Apprehension + relocation positive
- Posterior stress test negative
- Normal rotator cuff strength
Case Scenario # 4

- Inspection normal
- Tender to palpation along anterior joint line
- Neer Hawkins Jobe negative
- O’Brien and Speeds positive
- Apprehension + relocation positive
- Posterior stress test negative
- Normal rotator cuff strength
Case Scenario # 4

- Suspected labral tear
- No real reason for acute MRI
  - Management would not be changed with MRI
- Start PT and anti-inflammatory
- If no improvement after 6 weeks
- MRI shows labral tear
Summary

- With careful history and physical examination the diagnosis can be made in most cases...not everyone needs an MRI!

- MRI if suspected large rotator cuff tear, or in patients who fail to progress with other treatment
Summary

Never too much of a downside to giving someone 1-2 weeks of therapy or rest and re-examining the shoulder

- At least from a surgeon standpoint…
- Immediate MRI in everyone with work injury may lead to incidental findings
- i.e. “What am I supposed to do with this information”