Disclosure

1. Basic Science Support
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2. Consultant
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3. Royalties –
   1. Arthrex
   2. Book Author, Lead Player

Posterior Shoulder Instability

Introduction

Different than anterior instability
- Posterior instability less common
- Incidence 2 - 12% of all instability
- Dislocation requiring reduction uncommon
- May present insidiously
Posterior Shoulder Instability
Evaluation

History
- Axial load
- Arm in add and FF
- Football linemen
- Pitchers

Batter’s Shoulder

Batting Motion
- Kinetic Chain
- Weight transfer
- Coiling – body rotation
- Lead shoulder int rotation and adduction (cocking phase for hitting)

Batter’s Shoulder

- During accel – 500 lb of post glenohumeral force
Batter’s Shoulder

Pitch location affects shoulder position
- Outside pitch – more adduction
- Inside pitch - less adduction

Batter’s Shoulder

Swing and Miss
- no kinetic energy transfer to ball

Batter’s Shoulder

History
- Posterior shoulder pain with hitting
- Pain/apprehension with outside pitches and misses

Examination
- Posterior translation
- Jerk
- Active Compression test
Posterior Shoulder Instability Evaluation

**Physical Exam**
- Generalized laxity
- Load and shift
- Posterior stress test
- Jerk test
- Kim test

**Jerk test**
- Add, IR, post load
- Reduction with abd

**Kim test**
- Sensitivity - 80%
- Specificity - 94%
- Posterior and inferior

Kim et al AJSM, 2005
Posterior Shoulder Instability Evaluation

- Kim test
  - Sensitivity: 80%
  - Specificity: 94%
  - Pos pred value: 0.73
  - Neg pred value: 0.96

Posterior Instability Imaging

- X-rays: Normal
- MRI
  - Posterior labral tear
  - Glenoid version
- MRI (+/- gad)

Batter’s Shoulder

Treatment
- Non-operative: rest, RC periscapular muscle strengthening, swing progression with proper mechanics

Surgical indication
- Failure non-op treatment
- Seasonal and career timing
Posterior Shoulder Instability Surgery

Arthroscopic Surgical Technique
• Capsulolabral repair with plication

Arthroscopic Instability Position – Lateral Decubitus

Traction
Bump

Arthroscopic Instability Posterior Portals
Case

Case

Batter’s Shoulder

Rehabilitation
- Sling immob 6 weeks with slight ER
- Gentle motion restoration with avoidance of posterior stress
- Strengthening
- 4 month hitting program
- RTP 5 to 6 months
Arthroscopic Instability
Results
Bradley et al AJSM 2006
- 100 patients prospective
- Scope posterior capsulolabral reconstruction
- Follow-up 27 months
- ASES score improved 50.36 to 85.66
- Contact athletes not different than entire cohort for any outcome measure
- 89% able to return to their sport
- 67% able to return to preoperative level

Batter's Shoulder
Follow through - horizontal abduction and external rotation

Thank you