

SLAP

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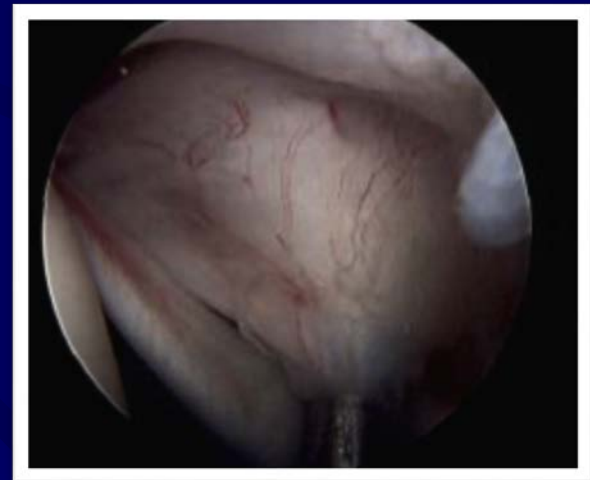
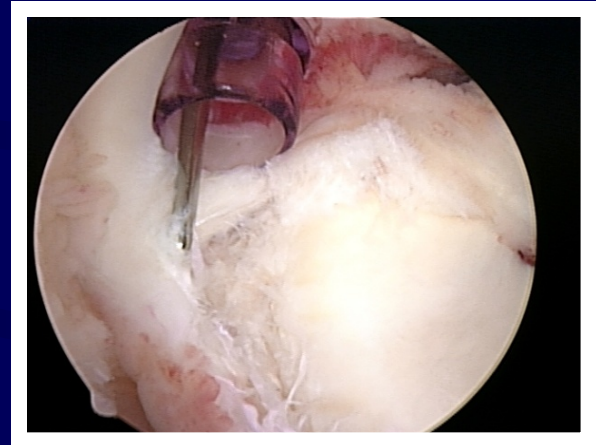
Superior Labrum

- Biceps labrum complex attaches to the superior glenoid
- Variable attachment
- Difficult to diagnose and treat
- Must continue to evolve



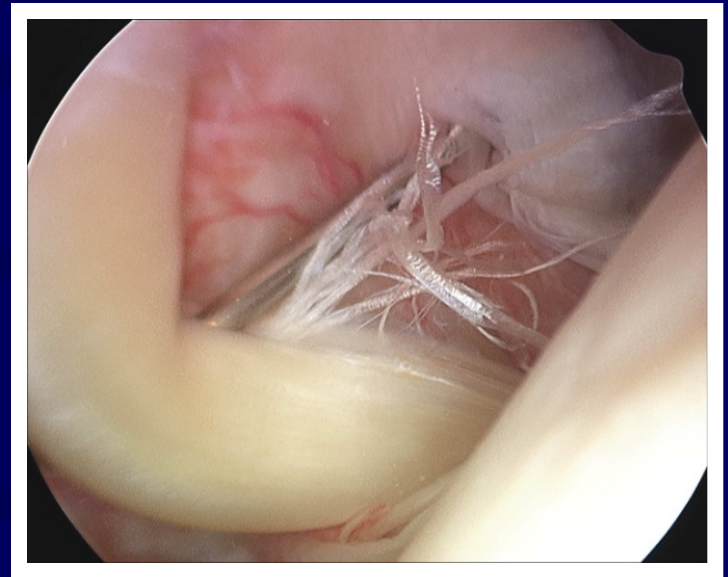
Variety of Labral/Biceps Pathology

- SLAP Tear
- Tendinitis



Biceps Pathology

- Tendinopathy/Delamination
- Tear/Rupture



Biceps Pathology

- Subluxation
- Dislocation
- Entrapment



Is the SLAP/Biceps pathologic?

- Are the History, PE and diagnostic studies consistent with SLAP/Biceps Labral pathology



Consistency

- History
 - Overhead athlete
 - Laborer
 - Pulling injury to the arm
 - Pain
 - Mechanical Symptoms
 - +/- instability
- If the history doesn't make sense, ? diagnosis

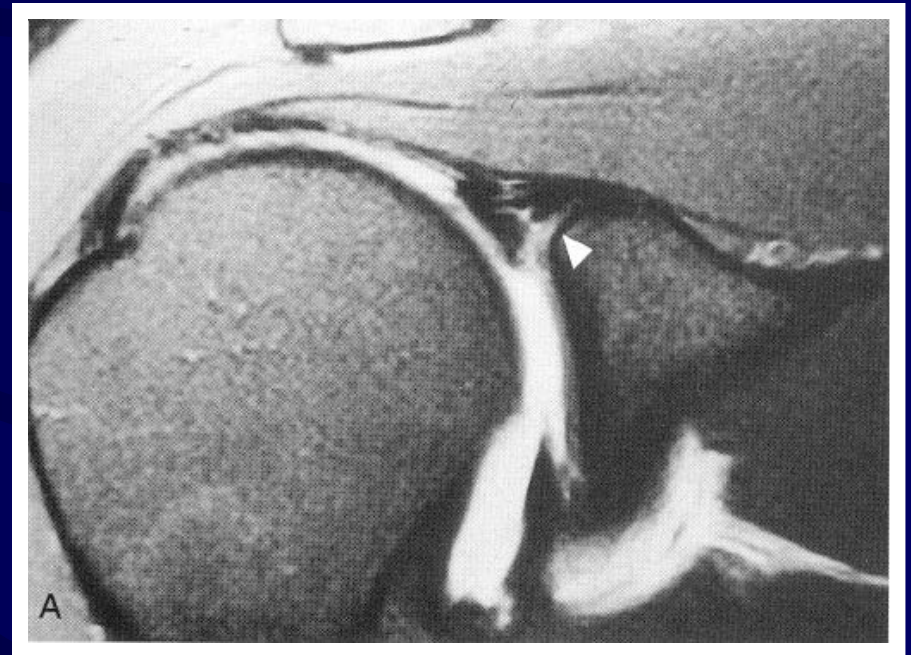


Consistency

- Exam
 - Pain
 - Anterior
 - Deep → key
 - Often vague
 - Biceps signs can be +
 - O'Brien's
 - Down > up
 - Conversion
 - 90/90

Consistency

- Radiology
 - XR often neg
 - MRI w or w/o
 - Can see paralabral cyst
 - Can be negative



SLAP Tear

- IF the Hx, PE and the MRI are consistent with a SLAP tear it is likely real
- If there is ambiguity a GH cortisone shot can be **extremely** helpful
 - Engage the patient

So the SLAP tear is real?

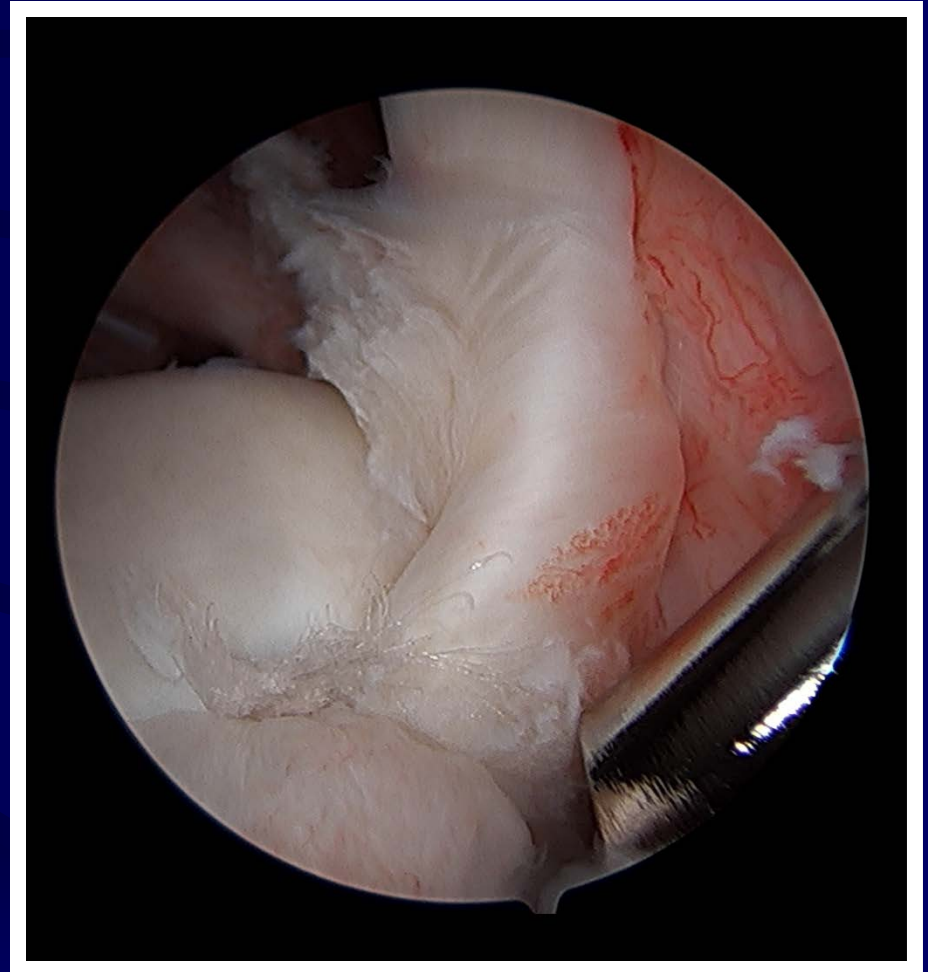
- Non operative
 - Medications
 - NSAIDS
 - Steroid taper
 - Cortisone injection
 - Activity Modification
 - Physical Therapy
- Operative
 - Debridement
 - Repair
 - Biceps Tenotomy
 - Biceps Tenodesis

Operative Treatment

- Repair the SLAP
 - Isolation
 - With Biceps Tenotomy
 - With Biceps Tenodesis
- Biceps release
 - Tenotomy
 - Tenodesis

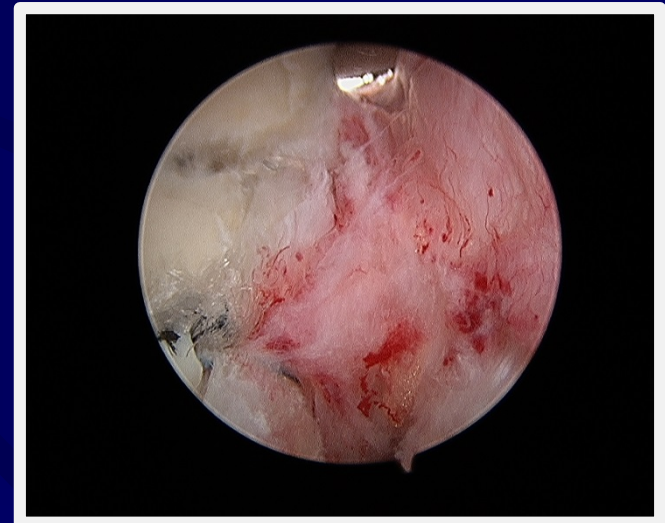
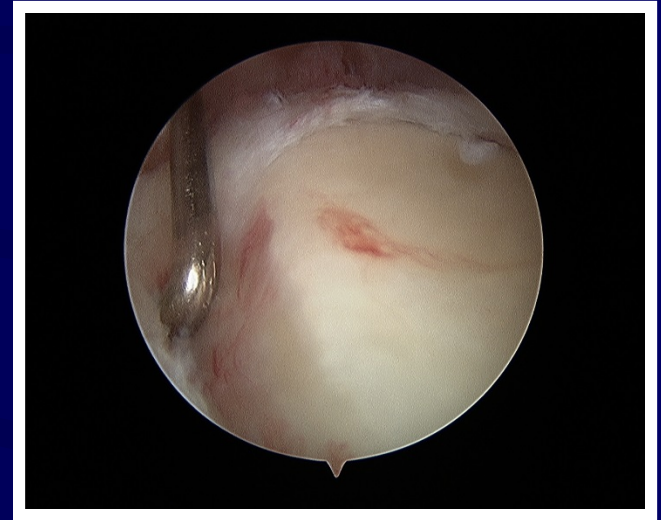
Operative Treatment

- Repair SLAP alone
 - Unstable tears in young patients
 - Overhead athletes
 - Avoid biceps overconstraint
 - Trending toward knotless anchors
 - Portal of Wilmington
 - Small cannulas
 - Stay medial



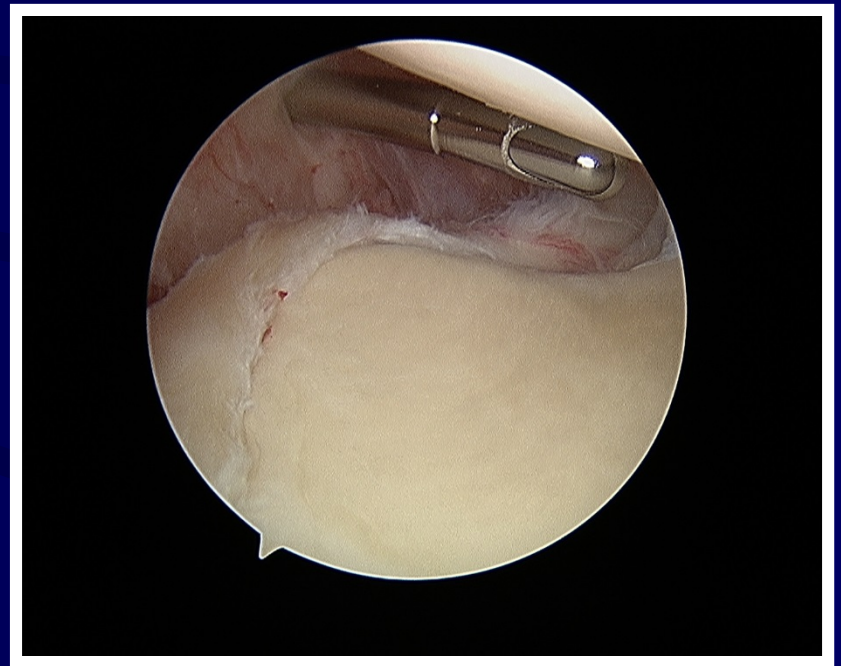
Operative Treatment

- Repair SLAP and release biceps
 - All “older” patients
 - Unstable, mobile SLAP tears and those extending posteriorly
 - Ultra low threshold in non overhead athletes
 - Caution
 - Overhead athletes
 - Instability



Operative Treatment

- Release Biceps and debride SLAP
 - “More” stable isolated type II tears
 - Degenerative tears in older patients
 - Patients with pain and wanting a shorter recovery
 - Predictable



Biceps Fate

- Tenotomy
 - Simple
 - Efficient
 - Predictable
 - Expeditious Rehab
 - Popeye deformity
- Tenodesis
 - Proximal
 - Groove
 - Subpec
 - Simple
 - Efficient
 - Predictable
 - Restores contour
 - Dramatic change in rehab timeline if no associated SLAP repair



Biceps Fate

- I Discuss both options with the patient preoperatively when it could go either way
 - Are they OK with a Popeye deformity?
 - Do they do repetitive activity
 - Are they OK with a longer rehab?
 - Given lack of marked difference may consider both options and base on other concomitant treatment

Tenotomy vs. Tenodesis

- Isokinetic strength, endurance and subjective outcomes after biceps tenotomy versus tenodesis
- Wittstein, et al, AJSM, 2011
- Postoperative Study
- Tenotomy (19pts) vs Tenodesis(16 pts) with contralateral limb as control

Wittstein, et al

- Subjective outcome scores were similar
- Supination peak torque was diminished in tenotomy side
- 4 tenotomy popeye deformity(2 with painful cramping)
- 2 tenodesis with pain at site
- Conc-Similar subjective outcome scores.
Tenotomy decreases peak torque relative to native and tenodesed state

Tenotomy vs. Tenodesis

- Frost et al, AJSM, 2009
- Lesions of LHB
- Review of all peer reviewed journal articles
- Coleman Methodology Score-analyzes quality of studies reviewed, accurate and reproducible
- Scores low for quality of study(outcome measures and #'s poor)
- Lack of evidence to suggest one technique
- Thus, rec tenotomy as it is quick, easy and requires less rehab

Rehab

- SLAP repair
 - 1st Month
 - 90/90 PROM, no ER
 - 2nd Month
 - Begin full active motion with goal full AROM at end of month
 - 3rd Month
 - Strengthening
 - 4 months
 - No restrictions, WEAN to normal activities
 - Start Throwing Program
- SLAP repair, Biceps Tenodesis
 - No ROM restrictions
 - No resisted elbow flexion x 10-12w
- Biceps Tenotomy
 - No restrictions
 - Progress as tolerated
 - Goal-full recovery 4-8w

Summary

- Difficult Diagnosis
- Multiple different treatment options
- Opportunity

Thank You

 UC Health.

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