Case Panel Discussion
SLAPS, Biceps, and the Throwing Shoulder

John M. Tokish, MD
Professor, Orthopaedics
Mayo Clinic Arizona

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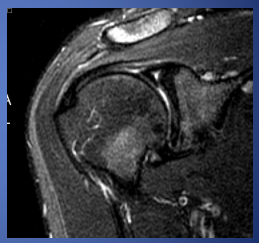
Disclosures

- Available on Line and in the Course book

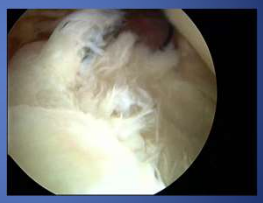
20yo struggling pitcher
Imaging Data

- MRI with Type 2 SLAP, "Thickened" posterior capsule
- Cuff with "minor tendinosis"



20yo collegiate thrower

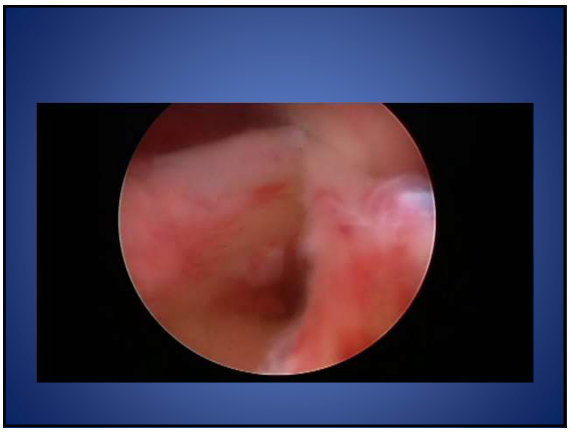
- Failed 4 mos of conservative MGT
- Intraarticular injection relieved pain
- Dxtic scope



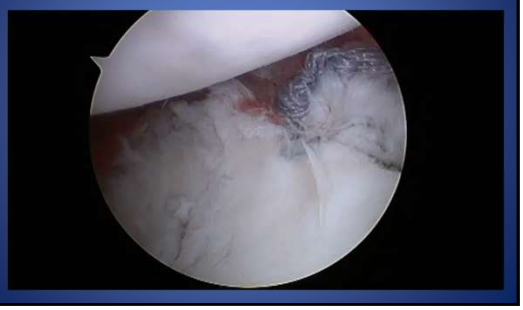
Assuming SLAP 2: Repair Vs. Tenodesis?

- What is your age cutoff?
- Is thrower different than non-thrower?
- If you do tenodesis, when would you repair the type 2 slap in addition?

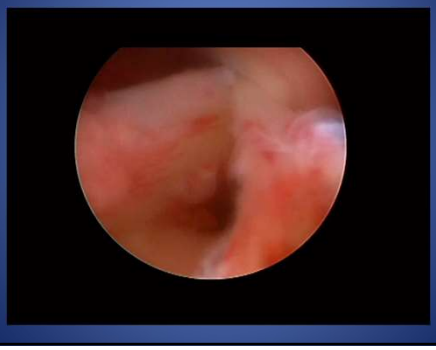
19 yo QB with violent Sack



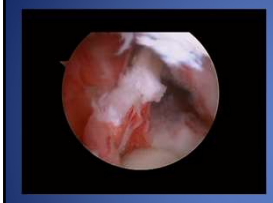
Pan Labral Repair (circa 2006)

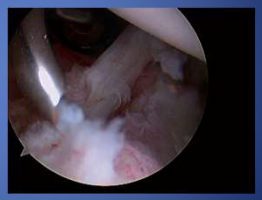


What to do with the biceps?



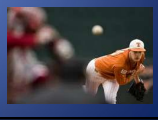
But what to do with the Biceps?…





CASE: The Throwing Shoulder

- 20 yo Pitcher Major Big 12 University
- 95 MPH as a sophmore
- Pain in front; couldn't work through it;
- Scope debridement of SLAP/ ptrct 2014
- Failed rehab
- 2 yrs

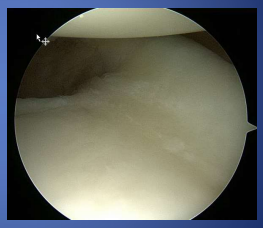


PE

- 6'5"
- NO GIRD
- Pain in front
- "everything" hurts
- Impingement signs, apprehension sign for pain;
- Pain in front
- Thoughts?

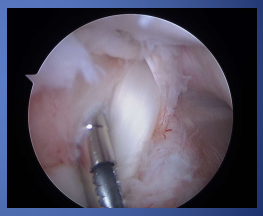
Ultrasound Guided injection into Biceps sheath

- "Normal" for first time in forever
- Threw a baseball pain free for a week;
- Pain returned
- Taken back to surgery (really good surgeon): pic of biceps: "pristine"
- Debrided, SAD;
- No better after 8 mos and referred



The arthroscopic diagnosis of biceps tendinitis

- With groove pain, and suspected biceps tendinitis, conv wisdom says "pull biceps into joint - evaluate for path"
- But what if it looks like this?
- Did you get it wrong? Did you see enough of the biceps to be sure?

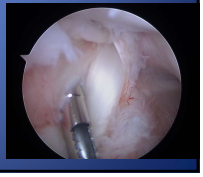


Applied Anatomy: How much of the Biceps is visible arthroscopically?

Effects of Arm Position on Maximizing Intra-Articular Visualization of the Biceps Tendon: A Cadaveric Study

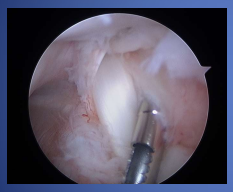
Nathan D. Hart, M.D., S. Raymond Golish, M.D., Ph.D., and Jason L. Dragoo, M.D.

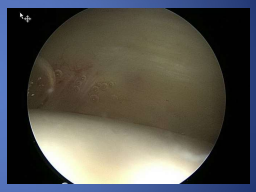
- 56% of biceps tendon from the groove can be visualized
- Best position is 30^0 flexion, 40^0 abduction, 90^0 elbow flexion
- But that isn't enough



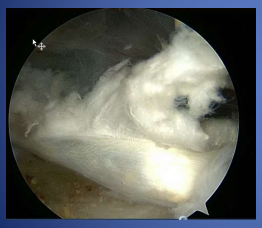
Back to our case: What we may be missing

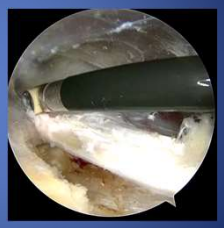
- Intra articular
- cuff





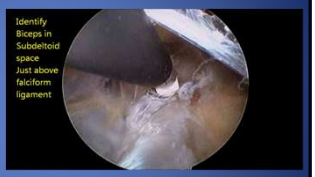
Scope findings Subdeltoid space after opening sheath





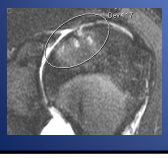
Options? Significant partial tear biceps in elite thrower

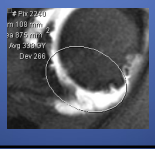
- Debridement alone?
- Tenotomy alone?
- Tenodesis?
- If Tenodesis, where, how, and why?



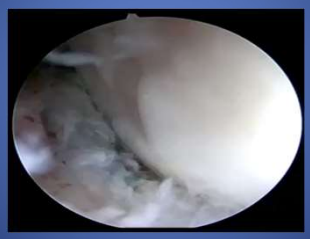
Case : Meet Wesley F.
19 yo College Wrestler cc pain

- h/o SLAP, instability, fixed with anchors
- No recurrent dislocation
- 2 time state champ HS
- Fixed at end of senior yr
- Top recruit





Scope video-Post suture removal



Valiant Efforts

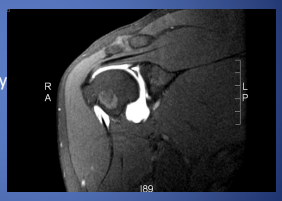
- Debridement:
  - Weinstein 75% short term only and older pts
- Meniscal Allograft
  - Werner, Yamaguchi: Abandoned
- Achilles Allograft
  - Burkhead, Krishnan
  - 91% satisfaction 2-15 yr f/u; not reproduced
- Hemiarthroplasty in young
  - Sperling JBJS 1998
  - 50% unsat
- Glenoid resurfacing Human Dermal Allograft (Savoie, Burkhead, Tokish)

Will anything get him back?

- What would you do, and would you let him play?

Can we sacrifice the biceps in the young athlete?

- 28 yo Olympic javelin thrower with painful SLAP: 6 months before qualifier
  - Cannot afford time away from training to have SLAP repaired…
  - "Can't you just cut the biceps, doc, so I can get back to training?"
  - How many would?

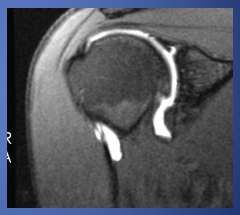


Case : 21yo In season senior Water Polo Player

- Team's leading scorer as sophmore, underwent SLAP repair midway thru junior season
- Rehabbed, but 2 games into senior year, pain has returned
- PE: consistent with SLAP
- Injected IA x1, only short term but near complete relief
- Wants badly to play

21 yo In season senior water polo player

- MRI: "abnormality of superior labrum" either tear or previous surgery
- Player can't go
- Options?

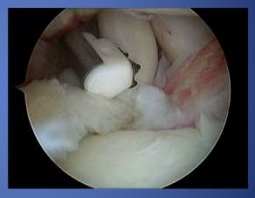


Panel?
21 yo senior Water Polo In season SLAP

- What is your recommendation to him?
  - a)Try re-injection, but that's the best we can do if he wants to play this season
  - b)Isolated biceps tenotomy, return to play when wounds heal
  - c)Isolated biceps tenodesis- return by end of season
  - d)Don't be such a jock strap. Do the right operation- SLAP repair for the shoulder, and though done for the season you've treated the pathology correctly

Treatment

- Isolated Biceps tenotomy
- As minimally invasive as possible
- ONLY pathology that was treated



Result N=1 tenotomy in the thrower

Observations on tenotomy in thrower

- Good initial pain relief, but symptoms returned at 6-8 weeks
- Patient did not develop "popeye" deformity
  - Should I have released from groove?
- Should I have done tenodesis?
- Dr. Romeo:
  - Management of failed biceps tenodesis or tenotomy: causation and treatment (Sports Med Arthroscopy 2010)

Case #2
25 yo Pitcher with Pain on Follow thru

- Couldn't make it thru Spring Training
- Has failed 8 weeks of conservative tx and sleeper/ X-body stretches are ineffective. GIRD still 30 degrees

25yo disabled throwing shoulder: SLAP and GIRD

- What is your plan at operation?
  a)SLAP repair only
  b)Biceps tenodesis only
  c)SLAP repair and Posterior inferior capsular release
  d) Capsular release with biceps tenodesis
  e) Capsular release with biceps tenotomy

What do we do when stretching fails?

- It would make sense to fix the primary pathology, right?
- Morgan: Abstract, 2004
  - 11 pitchers with GIRD, treated with release
  - All went back to throwing within 6 months
  - Never published

Technical Note

Arthroscopic Capsular Release for Painful Throwing Shoulder With Posterior Capsular Tightness

Minoru Yoneda, M.D., Ph.D., Shigeto Nakagawa, M.D., Ph.D., Naoko Mizuno, M.D., Sunao Fukushima, M.D., Kenji Hayashida, M.D., Ph.D., Tatsuo Mae, M.D., Ph.D., and Kazutaka Izawa, M.D.

•16 throwers treated with capsular release (with frequent other pathology)
•69% return to previous level of throwing not that different than other approaches.

Thank you and Good Luck!

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