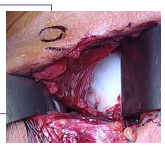
Chicago Sports Medicine Symposium 2018

Open is NOT a Four-Letter Word



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Photos B. Wolf personal file

Disclosure

I (and/or my co-authors) have something to disclose.

Detailed disclosure information is available via:

The course syllabus, or

AAOS Disclosure Program on the AAOS website at
http://www.aaos.org/disclosure

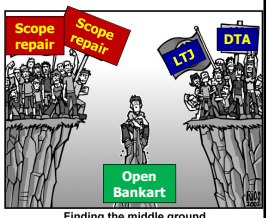
AAOS
American Academy of Orthopaedic Surgeons

Disclosures

- *Committees:*
  - AOSSM Program Committee
  - AOSSM Council of Delegates
  - AAOS BOS Fellowship Committee (Chair)
- *Educational Grant - Arthrex, ConMed, Smith and Nephew*
- *Scientific Advisory Board - United Health Care*
- *Founder - SportsMed Innovate*
- *Consultant: ConMed*

DISCLAIMER

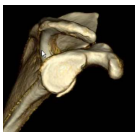
- *I do the vast majority of my instability surgery arthroscopically*
- *I also do a fair amount of glenoid bone restoration (Latarjet) procedures*
- *But…I absolutely think there is a role for Open Bankart Repair surgery*



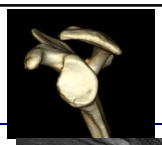
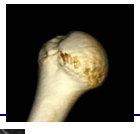
Finding the middle ground.

2018 My Indications for Open shoulder stabilization

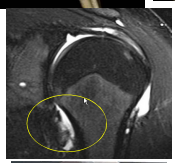
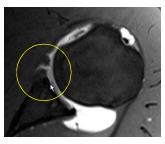
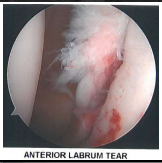
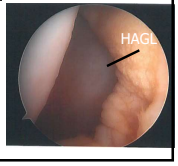
- *Failed arthroscopic repair w/o significant bone loss*
  - Consider different technique if failed scope already
  - Not every failed scope repair needs a Latarjet
- *Contact athlete with labrum injury + ligamentous laxity*
  - Beighton ≥ 4/9
  - ER0 ≥ 80 degrees
    - Allows capsular shift +/- interval closure
- *Bony Bankart injury*
  - Especially with fragment that is quite long med/lat, or extends very low
- *Anterior HAGL*

Case 1

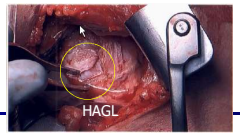



- *18 yo football player 1.5 years s/p scope labrum repair done by fellowship trained doc, failed on return to football; 7 recent dislocations*
  - DI offers for football
- *Exam:*
  - ++ Apprehension
  - 4/9 Beighton Signs
  - 80 deg ER with arm at side
- *Imaging*
  - MR: + Bankart; + HAGL
  - CT: no glen bone loss; moderate Hill Sachs

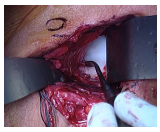





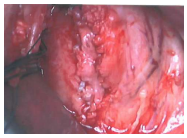
ANTERIOR LABRUM TEAR

Case 1 example

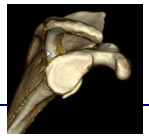


- *Open Bankart repair*
- *Open HAGL repair*
  - Minor capsular shift

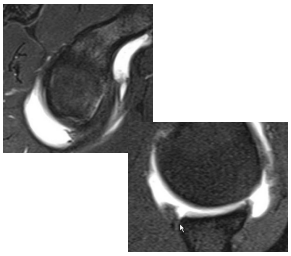




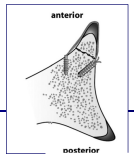
Case 2 example



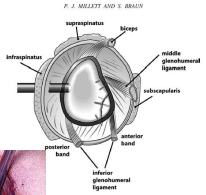

- *22 yo Junior DI football cornerback - 1 season remaining*
- *Recurrent dislocations since April - played through season*
- *History of scope labrum repair opposite shoulder 3 years ago*
- *Exam:*
  - ++ Apprehension @ 60 deg ABD
  - ER0 - 60 deg
  - 2/9 Beighton
- *Imaging: CT - Bony Bankart - extends low; moderate Hill Sachs*
- *MRI: bony Bankart*

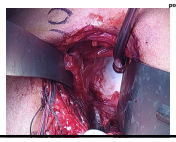


Case 2 Example



- *Open repair Bony Bankart*
  - Double row + mattress sutures around bony fragment

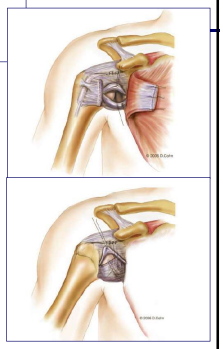




Open Capsular Repair Without Bone Block for Recurrent Anterior Shoulder Instability in Patients With and Without Bony Defects of the Glenoid and/or Humeral Head

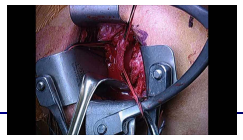
The American Journal of Sports Medicine, Vol. 36, No. 9 © 2008

Michael J. Pagnani, MD
From the Nashville Knee & Shoulder Center, Nashville, Tennessee

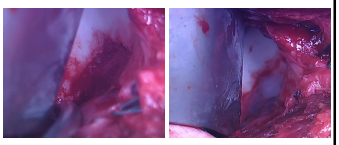


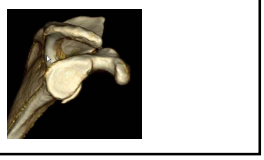
- *103 patients, ave age 20 years*
  - Bone loss determined at arthroscopy
    - 27% engaging Hill Sachs
    - 4% >20% bone loss on glenoid
  - **2% recurrence**
  - Bone loss not significant predictor

Advantages of Open Bankart



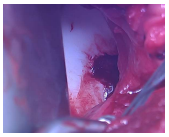
- *Can mobilize capsule from subscapularis and tension / shift appropriately*
- *Direct treatment of rotator interval as needed*
- *Capsule can be overlapped (vest over pants repair) - potentially double the thickness*
- *Can directly repair bony or cartilage lesions on glenoid*
  - Open treatment of cartilage lesions (GLAD) – microfracture, cartilage restoration

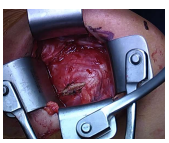




Biggest Pearl to open stabilization

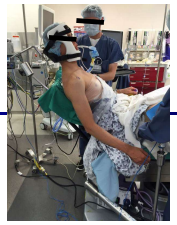
- *You absolutely need good help!!!*
  - Harder operation than scope repair
  - 1-2 assistants
  - Open retractors

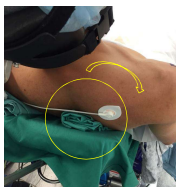




Positioning

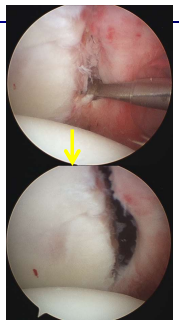
- *45 deg beach chair*
  - Bump under medial scapula can help
    - Extends scapula
    - Assists with anchor placement
- *Arm holder is helpful*





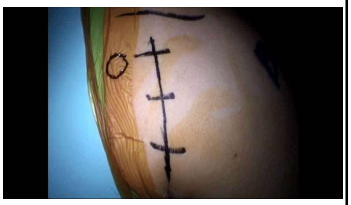
Diagnostic Scope

- *Not always*
- *Done if any concern for posterior labrum or rotator cuff involvement*
  - Determine on MRI
- *Hybrid technique*
  - Can mobilize labrum +/- repair labrum thru scope
  - Then address capsule / interval open



Approach

- *4-6 cm incision*
  - Can incorporate old anterior portals
- *Just above axilla*
- *DP interval*
  - Take cephalic v. lateral
- *Need to isolate conjoint tendon*
  - Retract deltoid lateral
  - Retract conjoint / pec medial

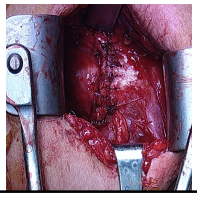


Video B. Wolf personal file

Exposure - subscapularis

- ***Tenotomy:***
  - Upper 2/3 - allows optimal visualization
  - Mandates meticulous closure of subscapularis
    - 5-6 Interrupted modified Mason Allen sutures using #2 suture
    - Running size 0 Vicryl
- ***Subscapularis split***
  - Horizontal split ½ distance superior to inferior
  - Less morbid
  - More difficulty for exposure

[redacted]



Subscapularis debate…

- *Can do through subscap **split** if wanted*
- *Outcome directly linked to strength and function of subscapularis- (Sachs et al AJSM '05)*
- *Shoulder strength slower to return after open repair **BUT NO DIFFERENCE at one year -** (Rhee et al AJSM '07)*
- *Randomized trial scope versus open - no difference in subscapularis strength and function at 2-3 years (Hiemstra et al AJSM '08)*

Technique

[redacted]

- *Lateral capsulotomy*
  - Can repair later with anchors or tissue to tissue
  - vs. Medial capsulotomy
  - vs. T-Capsulotomy

Technique

- *Prepare glenoid*
- *Mobilize capsulolabral tissue for anatomic repair*
  - Liberator, rasp, curette

Technique

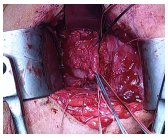
- *Anchor Repair*
- *Mattress suture configuration around or through labrum*
- *Sutures tied outside capsule - eliminates medial recess of anterior capsule*

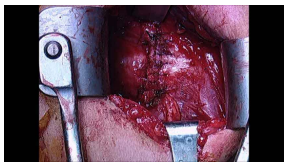
Capsule repair

- *Capsule repair +/- shift*
- *Anchor repair*
  - Anatomic neck
    - Bleeding bony bed
- *Vs. tissue to tissue*
  - Leave small cuff of capsule on neck for repair
- *Arm position: 30/30/30*

Repair Subscapularis

- *If tenotomy- crucial to have outstanding subscapularis repair*
  - #2 sutures in Mason Allen
  - + running 0-Vicryl





Rehabilitation

- *Sling immobilization for 4-6 weeks*
  - Pendulums early to avoid stiffness
  - Protect subscapularis for 6 weeks - no ER past 0-30 degrees
  - Usually progress as fast or faster than arthroscopic repairs

Summary….

- *There is another option between arthroscopic repair*

  And

  …….Latarjet
- ***OPEN BANKART AND STABILIZATION!***

Thank you
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