

# Management Of Soft Tissue Bankart Lesion

**Azmi Abdul Latif**

Consultant Orthopaedic And Sports Injury, Hospital Pusrawi, Kuala Lumpur, Malaysia

## ABSTRACT

The shoulder is the most versatile joint in the body, allowing a large functional range of motion in multiple planes. The shoulder is the most commonly dislocated large joint of the body. The prevalence of shoulder dislocation is 1.7%. Anterior traumatic dislocation of glenohumeral joint is the most common injury pattern and constitutes 96% of all glenohumeral joint dislocations.

### Pathoanatomy

Instability is a pathologic condition of the stabilizing capsuloligamentous complex. Laxity is a physical examination finding and can be a physiologic asymptomatic finding. There are various passive and dynamic restraints responsible for stabilizing the shoulder, and disruption of any of these or a combination of these forces can result in instability. Anteroinferior glenohumeral labral complex provides restraint to anterior humeral head translation in abducted and externally rotated position, and also deepens the glenoid and provide bumper effect to the anterior glenoid margin. Negative intraarticular pressure in the setting of an intact capsule also creates a stabilizing suction effect. Rotator cuff is a dynamic compressive force and stabilizes the shoulder joint. A traumatic shoulder dislocation typically results in damage to the bony and/or soft tissue stabilizers of the joint. In classic Bankart lesion, there will be an avulsion of the anterior labrum and capsule from the glenoid rim. Because the labrum and attached inferior glenohumeral ligament complex are the major passive anterior stabilizers of the shoulder, high rate of recurrent instability after dislocation may be attributed to the failure of the labrum to heal in an anatomic position.

### Diagnostic Imaging

Plain radiographs

True AP, Scapular Y view and axillary view.

Other special views

West point view to look for bony bankart

Stryker notch view to look for evaluation of hill sach lesion

CT SCAN

MRI

### Treatment Option.

Conservative management. After closed reduction, patient put period of immobilization followed by physical therapy for strengthening of the rotator cuff and scapular stabilizers. Shoulder should be immobilized in external rotation. MRI studies have demonstrated improved position and coaptation of the bankart lesion against the glenoid rim with external rotation. (Itoi E, hatakeyama Y, Sato T 2007 jbjms am). Immobilization in internal rotation result in recurrent rate of 30% as compared to 0% in external rotation 10° - 30°

Surgical Stabilization.

Goal, is to restore the native anatomy. Therefore requires a repair of the bankart lesion and retensioning for plastic capsular deformation. The ultimate goal of any surgical intervention is achieving a pain free stable shoulder while maximally preserving the range of motion of the glenohumeral joint.

### Indication For Arthroscopic Stabilization

First time dislocation

Risk of recurrence is high up to 67% reported in large series esp. in young patient, male and athletic population. Randomized controlled studies have documented a reduced risk of recurrence with early stabilization, improved quality of life and durable functional outcome. The risk of progressive, irreversible intra articular injury with recurrent dislocation.

### Contraindications Of Arthroscopic Stabilization

Multidirectional instability

Large Bony Bankart lesion

> 25% of the articular surface

> Smaller lesion can be excised and repair the labral ligament complex.

Humeral avulsion of glenohumeral ligament lesions

This lesion very difficult to visualize arthroscopically. Better suited to open approach

Engaging hill-sach lesions

These lesions is more than 30%-40% of the humeral head. Bone grafting of the humeral head defect reduces the the risk of recurrence. Arthroscopic remplissage (infrapinatus tenodesis into the hillsach lesion) can be a potentially useful adjunct to bankart repair.

### Postoperative Rehabilitation

Shoulder Immobilizations in a sling for 4 weeks. ROM of elbow, wrist and hand are permitted early. Pendulum exercises are permitted after 1-2 weeks. After 4 week, active assisted motion and followed by active motion. The goal is full recovery of motions by 3 months. Full return to sports at 6 months after full motion and strength are achieved.

# Management Of Bony Bankart Lesion (Including Engaging Hill-Sachs Lesion)

**Peter Campbell**

St John Of God Medical Clinic, Subiaco, Australia

## ABSTRACT

- Lesions - Bony Bankart  
 - Engaging Hills-Sachs  
 - Effect of Bony Bankart
- Assessment - X-ray  
 - CT Ratio
- Treatment - Latarjet  
 - Derotational Osteotomy

---

 SP 059

# Multidirectional Instability Of The Shoulder

**Simon P Frostick**

University of Liverpool, Liverpool, UK.

## ABSTRACT

The term multidirectional instability of the shoulder is a poor term referring to patients with a variety of physical and psychological components that may give rise to shoulder instability. These patients have been referred to as the AMBRII type patient in the past but pejorative terms such as habitual have been applied to some. All the terms applied to this group of patients reflect a fundamental lack of understanding of the underlying anatomical, physiological and psychological aspects that may need to be considered. Even the concept that patients with “MDI” suffer an atraumatic form of instability is incorrect in many patients. In treating this group of patients we must avoid applying proscriptive formulae. Surgery and rehabilitation both play a part. In general the majority of patients can be successfully treated non-operatively. However, in some surgery may be required and the form of that surgery is debatable. It is the view of the presenter that most patients in this category have symptomatic instability in one direction and any surgical procedure should address that and not involve anterior and posterior components unless required. This presentation will outline the anatomical and physiological aspects of patients referred to as MDI and discuss the treatment options.

# Rotator Cuff Tears: Assessment, Treatment And Outcome

**Simon P Frostick**

University of Liverpool, Liverpool, UK

## ABSTRACT

The rotator cuff is an amazingly complex anatomical structure with a central function of maintaining the humeral head in apposition to the glenoid during everyday shoulder function. The aetiology of rotator cuff tears continues to be debated but it is likely that degeneration of the tendons and poor healing capacity are the major underlying reasons. Trauma may play a part in the development of a tear. The classic Neer classification of cuff pathology no longer applies. In particular the relationship between sub-acromial impingement syndrome and cuff tears is very difficult to understand. There is an age related increase in the prevalence of cuff tears. Many remain asymptomatic. In elderly persons non-operative treatment can be very successful. Surgery can result in a significant resolution of symptoms. The techniques available include open repair, mini-open and arthroscopic repairs. The advantages and disadvantages of each will be discussed. The outcome of rotator cuff tears and their treatment is more dependent upon a poor understanding of the biological aspects of cuff degeneration rather than the surgical technique used. Improvements will only occur once we can reverse the age related degenerative biology.

---

 SP 063

# Subscapularis Footprint Morphology, And Its' Tear Evaluation And Management

**Jae Chul Yoo\*\*, Nickul S Jain\*, Sang-Jin Shin\*\*\*, Bong Jae Jun\*,  
Michelle H McGarry\*, Christopher N H Bui\*, Thay Q Lee\***

\*Orthopaedic Biomechanics Laboratory, VA Long Beach Healthcare System & University of California,  
United States

\*\*Dept. of Orthopedic Surgery, Sungkyunkwan University, Seoul, Korea

\*\*\*Ewha Womans University, Samsung Medical Center, Seoul, Korea

## ABSTRACT

**Introduction:** Recent arthroscopic shoulder surgery have led to the detect more subscapularis (SB) tendon tears. We revisited the SB footprint anatomy with 3D perspective using MicroScribe 3DLX. The purpose was to redefine the footprint anatomy in 3D perspective and correlate with supraspinatus plane especially the 1st facet. **Methods:** Footprint anatomy of the SB was analyzed using 41 human cadaveric shoulders. All cadavers had no gross pathology in SB tendon. All other soft tissues were removed. 10 Pilot studies revealed that approximately 4 distinctive planes were defined and these margins were outlined by small blades that were inserted outer margin of the tendon. The geometry of the humerus was divided into two parts: humeral head surface and humerus shaft. The dimension and the centroid slope relative to humeral shaft axis were evaluated. The 1st facet of supraspinatus was also digitized. All digitized data were reconstructed using 3-D graphic tool. **Results:** Observation of the natural bony ridges revealed a SB footprint divided into four distinct facets (Figure 1). The SB tendon insertion areas of the four facets decreased from facet 1 superiorly to facet 4 inferiorly from 174.3 mm<sup>2</sup> (34% of footprint), to 145.8 mm<sup>2</sup> (28%), 115.7 mm<sup>2</sup> (22%), and 77.0 mm<sup>2</sup> (15%), respectively. Facet angles relative to the humeral shaft axis were found to increase from facet 1 to facet 4 from 58.2o to 94.3o, 148.2o, and 155.0o respectively. With respect to 1st Facet of supraspinatus the area was approximately equal to 3rd facet of subscapularis. **Discussion:** This study defined a more descriptive morphology of SB tendon footprint. This might lead to more accurate arthroscopic detailing of SB tendon tear. The 1st facet seems most dominant footprint among other 3 facets. According to this footprint pathology, we have classified the tear pattern and its repair technique. We will introduce several way of repair and its technical tip.

# Massive, Irreparable Cuff Tears: Treatment Options

**Peter Campbell**

St John Of God Medical Clinic, Subiaco, Australia

## **ABSTRACT**

- Definition
- Number of Tendons
  - Level of Retraction
  - Fatty Atrophy
  - High-riding Humeral Head
- Treatment
- Age
  - Functional Requirements
  - State of Joint
- Options
- Nothing
  - Analgesics
  - Debridement/LHB Tenotomy
  - Interpositional Muscle Flaps
  - Tendon Transfers
  - Neurectomy
  - Reverse Shoulder Arthroplasty