ASES score was 82.4/100 (Pain 46.4; Function 36.1). The average PENN score was 90.1/100 (Pain 27.3/30; Satisfaction 8.7/10; Function 54.1/60). The average total WOSI score was 514 (75%); physical symptom score was 206.5; work/sports score was 109; lifestyle score was 84; emotional score was 114.5.

Conclusion: Arthroscopic Remplissage with Bankart Repair was successful at restoring stability in the majority of patients with recurrent glenohumeral instability with large Hill Sachs lesions. This all arthroscopic technique yielded excellent patient satisfaction and compared favorably to historic results for patients with bone lesions.

Iliac Crest Allograft for Glenoid Deficiency in Recurrent Shoulder Instability in Athletes (SS-15) *Randy Mascarenhas, M.D., Eden Raleigh, M.B.B.S., F.R.A.C.S., Sheila McRae, M.Sc., Jeff Leiter, M.Sc., Ph.D., Peter B. MacDonald, M.D., F.R.C.S.C.*

Introduction: Performing a labral repair alone in patients with recurrent anterior instability and a large glenoid defect has led to poor outcomes. We present a technique involving the use of iliac crest allograft inserted into the glenoid defect in athletes with recurrent anterior shoulder instability and large bony defects of the glenoid (>25% of glenoid diameter). We hypothesized that restoring a near-normal glenoid structure would prevent further dislocations and that osseous union would be achieved

Methods: All athletes with recurrent anterior shoulder instability and a large glenoid defect who underwent open anterior shoulder stabilization and glenoid reconstruction with iliac crest allograft were prospectively followed over a three year period. Pre-operatively, a detailed history and physical exam was obtained along with radiographs, a CT scan, and magnetic resonance imaging of the affected shoulder. All patients also complete the Simple Shoulder Test (SST) and American Shoulder and Elbow Surgeons (ASES) evaluation forms pre- and post-operatively. A CT scan was again obtained 6 months post-operatively to assess osseous union of the graft, and the patient again when through a physical exam in addition to completing the SST, ASES, and Western Ontario Shoulder Instability Index (WOSI) forms.

Results: Nine patients (all male) were followed for an average of 16 months (4 – 36 months) and had a mean age of 24.4 years. All patients exhibited a negative apprehension/relocation test and full shoulder strength at final follow-up. Eight of nine patients had achieved osseous union at six months (88.9%). ASES scores improved from 64.3 to 96.7, and SST scores improved from 66.7 to 100. Average post-operative WOSI scores were 94%.

Conclusion: The use of iliac crest allograft provides a safe and clinically useful alternative compared to previously described procedures for recurrent shoulder instability in the face of glenoid deficiency.

Arthroscopic Revision Stabilization for Anterior Instability (SS-16) *Mark Morishige, M.D., Larry D. Field, M.D., Felix H. Savoie III, M.D., J. Randall Ramsey, M.D., E. Rhett Hobgood, M.D.*

Introduction: Anterior instability of the shoulder has historically been treated with open surgical stabilization. Arthroscopic treatment for instability has become increasingly popular. With advances and understanding of the pathology and improved arthroscopic techniques and instrumentation, primary arthroscopic repair of anterior shoulder instability has proven successful. Nevertheless, failures following arthroscopic stabilization do occur. The purpose of this study is to evaluate the effectiveness of arthroscopic techniques for patients requiring revision anterior stabilization.

Methods: A retrospective review of 38 consecutive patients with failure of anterior shoulder stabilization was performed. Failure was defined by recurrent dislocations or subluxation following either an open or arthroscopic index surgical procedure. The only exclusion factor was the presence of extensive bone loss on the glenoid. All patients underwent arthroscopic revision stabilization procedures, which included extensive release of the labral ligamentous tissue and superior shift with an average of 4.2 suture anchors (3 to 6) with or without supplemental arthroscopic capsulorrhaphy. Rotator interval closure was also routinely performed. The patient then followed a standardized rehabilitation protocol.

Results: Follow-up averaged 36 months (24 to 46 months). Return to previous activity level and rate of failure were evaluated as defined by motion, function, and any recurrent instability episodes. Of the 38 revision stabilizations evaluated, all had significant improvement in their post injury activity level using UCLA and Rowe scores ($p<.05$), but 3 of 38 patients developed recurrent instability after revision surgery for an overall success rate of 92%.

Conclusion: This study demonstrates that revision arthroscopic anterior stabilization using modern techniques can yield reliably successful outcomes.

Arthroscopic Revision Bankart Repair: A Preliminary Report (SS-17) *Richard K. N. Ryu, M.D., Jessica H. Ryu, A.B.*

Introduction: Arthroscopic stabilization of primary, recurrent anterior instability has become the procedure of choice with some infrequent exceptions. Failures of stabilization, both open and arthroscopic, can and do occur. Our experience with revision arthroscopic Bankart repair is detailed in this study.

Methods: This is a Level IV retrospective analysis of surgical intervention. 15 patients (12 men; 3 women) with a minimum 18 month follow up form the basis for this study. 21 patients underwent revision Bankart surgery, and 15 were available for follow up (71%). The average follow up was 22 months ranging from 18 to 70 months. The average age was 27, ranging from 17 to 44 years. 4 of the 15 were our arthroscopic failures while 10 were referred for treatment. 5 patients were felt to have significant bone loss and 4 were contact/collision athletes. Of the 15 failures, 11 were arthroscopic and 4 were following an open procedure.

Results: At the time of surgery, 10 recurrent Bankart lesions were noted and 8 were felt to have a poorly tensioned capsule. Hardware was present in 6 cases, but the ability to place anchors was not significantly hampered. An average of 2.5 anchors were implanted. Of the 15 revisions, four failures were recorded (27% failure rate). Two patients sustained a recurrent dislocation following trauma while 2 experienced atraumatic subluxations. Two patients underwent further surgery to stabilize the shoulder. One of the five with significant bone loss experienced recurrent instability while one of the four contact athletes also sustained recurrent subluxation following revision surgery. Range of motion analysis revealed a 15-20 degree combined motion loss in the abducted, externally rotated position in those with significant bone loss.

Conclusion: Revision arthroscopic Bankart repair is a viable alternative to open revision surgery in cases of failed stabilization. The 27% failure rate in this revision group is consistent with results reported for open revision surgery. Although significant bone loss is considered a contraindication to a soft tissue repair, stability can be achieved with concomitant motion loss. The small number of patients in this study make exclusion criteria, such as contact sports, age, gender or bone loss, difficult to ascertain.

Results of Arthroscopic Repair of Type II SLAP Repairs in Throwers: Assessment of Return to Pre-Injury Throwing Level and Satisfaction (SS-18) *Steven B. Cohen, M.D., Brian Reiter, M.D., Brian Neuman, M.D., Michael G. Ciccotti, M.D.*

Introduction: It has been a decade since the last dedicated report on the results of SLAP tears on overhead athletes. Since then, techniques and approaches to repairs have evolved. Returning high level throwers back to pre-injury level can be variable after repair. The purpose of this study was to evaluate the mid-term results of arthroscopic repair of SLAP lesions in throwing athletes.

Methods: A retrospective review of 31 patients with symptomatic type II SLAP tears who underwent arthroscopic repair of the superior labrum between 2003 and 2007 was performed. Patients were operated on by two surgeons at the same institution following the same rehabilitation protocol. Patients with other pathologic shoulder findings were excluded. The outcome of treatment was evaluated using the American Shoulder and Elbow Society (ASES) scoring system and the Kerlan-Jobe Orthopaedic Clinic (KJOC) Shoulder and elbow score. Also, the length of time to return and how successfully the athletes returned to play was evaluated. There were 23 male patients and 8 female patients with a mean age of 28.6. Twenty-one patients participated in baseball or softball at a high school level or above and the remainder of patients was involved in football, javelin, or tennis. The average follow-up was 4.3 years (minimum 12 months). All arthroscopic repairs were performed with suture anchors numbering ranging from one to three anchors (average = 2.2).

Results: Repairs resulted in validated ASES scores comparable to prior studies (ASES = 88). The KJOC score in the throwing population averaged at 77. On average, throwers perception was they returned to about 85% of their pre-injury level of function with a mean time to return to play of 10 months. Patients reported an overall satisfaction rate of 94% with the procedure with the majority being very satisfied.

Conclusion: Arthroscopic SLAP repairs show excellent results with worse outcome in throwers. Our study found throwers have a successful outcome with a high rate of satisfaction and return to pre-injury level.

SLAP Lesions of the Shoulder: Incidence Rates, Complications, and Outcomes as Reported by ABOS Part II Candidates (SS-19) *Stephen C. Weber, M.D., Soheil Payvandi, D.O., David F. Martin, M.D., John J. Harrast, M.S.*

Introduction: SLAP lesions of the shoulder are rare injuries. Snyder reported that SLAP lesions made up 3% of shoulder cases in a large subspecialty surgical referral practice. It is the authors' impression that the percentage of young orthopedists cases that are SLAP lesion repairs is far higher and that complications with this increased rate of repair are not insignificant.

Methods: As a part of the certification process, Part II candidates submit a six-month case list to the American Board of Orthopaedic Surgery. In the present study, we