rotator cuff repair surgeries. Patients scheduled for arthroscopic rotator cuff repair who consented to participation were enrolled and then randomized into one of the two groups: Isotonic Control or Hyperosmolar. Patient demographics were recorded pre-operatively, operative data were captured, and net weight gain, change in shoulder girth, and immediate post-operative pain scores were determined and compared between groups.

Results: Fifty patients (n = 25/group) were enrolled and completed the study. No statistically significant differences were noted between cohorts in regards to patient demographics or surgical variables. The hyperosmolar group experienced a mean net weight gain of 3.52±1.8 lbs, which was significantly ($p = 0.005$) less than that of the control group (4.97±1.7 lbs). The hyperosmolar group had significantly ($p < 0.05$) less change in shoulder girth compared to controls. In regards to VAS pain score, patients in the hyperosmolar irrigation group reported significantly lower immediate post-operative pain ($p = 0.036$) compared to controls.

Conclusion: Based on our results, a hyperosmolar irrigation solution provides a safe and effective way to decrease periarticular fluid retention and minimize immediate postoperative pain associated with arthroscopic rotator cuff repairs. Therefore, use of a hyperosmolar irrigation solution for shoulder arthroscopy has potential clinical benefits to surgeons and patients.

Arthroscopic Partial Scapulectomy for the Treatment of Snapping Scapula

SS-39

April 15, 2:30 PM

Emmet Griffiths, F.R.C.S (Tr & Orth), Presenting Author
Graham Tytherleigh-Strong, F.R.C.S (Orth)

Introduction: To assess the outcome of arthroscopic partial scapulectomy in patients with a snapping scapula.

Methods: Twenty consecutive patients who underwent arthroscopic partial scapulectomy (one bilateral) for the treatment of a snapping scapula were assessed. All had failed non-operative treatment including physiotherapy and had reported transient symptomatic relief from an ultrasound guided local anaesthetic injection. Pre- and post-operative function and pain was assessed using the Constant and Quick DASH scores. Operative Technique: Surgery was undertaken with the patient prone and the hand of the operative side placed in the small of the patient's back creating a "Chicken Wing" position to allow greater access to the undersurface of the scapula. A viewing portal was established Inferio-Medially and a direct lateral portal was used to resect the scapula using a combination of radiofrequency and a burr.

Results: At a mean follow up of 43 months (11-79) a significant improvement in the Constant score was noted from 58 (48-69) to 86 (59-97). The mean post-operative Quick DASH score was 79. All of the patients had gained a significant improvement with regards to crepitus and pain, which was completely absent in 12. One patient developed a gradual recurrence of symptoms and underwent a repeat arthroscopy with further scapula resection, resulting in improvement in their symptoms. No complications were reported. All of the patients reported that they would be happy to have this procedure again.

Conclusion: Arthroscopic scapulectomy is a safe and reproducible procedure for the treatment of snapping scapula with significantly less scarring than an open procedure.

Arthroscopic Subscapularis Augmentation of Bankart Repair in Chronic Anterior Shoulder Instability With Bone Loss: Clinical Multicenter Study

SS-40

April 15, 2:35 PM

Marco Maiotti, M.D., Presenting Author
Carlo Massoni, M.D.
Raffaele Russo, M.D.
Steffen Schröter, M.D.
Antonio Zanini, M.D.
Diana Bianchedi, M.D.

Introduction: The aim of this study was to evaluate the clinical outcomes of a new arthroscopic procedure consisting of a tenodesis of the upper third of the subscapularis and a Bankart repair in chronic anterior shoulder instability with bone loss.

Methods: This is a retrospective, multicenter case series study. One hundred ten patients practicing sports, who underwent arthroscopic subscapularis augmentation (ASA) of Bankart repair in chronic anterior shoulder instability with a mean follow-up of 40.5 months (range: 24 to 65 months) were enrolled for this study. The patients were operated by four different surgeons and functional outcomes were evaluated by independent observers. Preoperatively all patients underwent CT scan Pico area method to assess the percentage of glenoid bone loss (GBL). Exclusion criteria included a GBL >25%. In all patients a Hill-Sachs lesion was observed. In 24 patients a prior stabilization procedure had failed. VAS scale, Rowe score, American Shoulder and Elbow Surgeons (ASES) scores were used to assess results.

Results: No specific complications related to this procedure occurred. Three patients (2.7%), but none of 24 with failure of prior stabilization procedure, had a post-traumatic re-dislocation. At final follow-up, the mean scores were as follows: VAS scale significantly decreased from a mean of 3.5 to 0.5 (P= .015), Rowe score significantly raised from 57.4 to 95.3 (P= .035), ASES score significantly raised from 66.5 to 96.5 (P= .021). The mean deficit of external rotation was 8° with the arm in R1 position, and 4° with the arm in R2 position.

Conclusion: This procedure has been demonstrated safe and effective to restore joint stability in patients practicing sports, affected by chronic anterior shoulder instability associated with anterior glenoid bone loss (<25%) and engaging Hill-Sachs lesions. Level of evidence: IV, case series, treatment study.