

6 of 8 specimens (Group 1). Average torque to failure for Group 1 was 31.35 N-m. Average torque to failure for Group 2 was 25.10 N-m. The difference is statistically significant ( $p = 0.0001$ ).

**Conclusion:** Subpectoral drill holes were shown to be a stress riser for humeral fracture. Suprapectoral drill holes were shown to be significantly less of a stress riser. The torque required to fracture the humerus through the subpectoral drill holes was less than was required to fracture the shaft of the humerus with a suprapectoral drill hole. Clinically, the risk for fracture potential should be considered when selecting tenodesis location and technique.

### Is Coraco-Clavicular Stabilisation Alone Sufficient for the Endoscopic Treatment of Severe Acromio-Clavicular Separation (Rockwood Types III, IV, and V)?

SS-25

April 15, 9:50 AM

PHILIPPE CLAVERT, M.D., Ph.D., PRESENTING AUTHOR

JOHANNES BARTH, M.D.

FABRICE DUPARC, M.D., Ph.D.

KEVIN ANDRIEU, M.D., Ph.D.

OLIVIER GASTAUD, M.D.

**Introduction:** The primary objective was to evaluate correlations linking anatomical to functional outcomes after endoscopically assisted repair of acute acromio-clavicular joint disruption (ACJD). Our hypothesis was that at 1 year combined acromio-clavicular and coraco-clavicular stabilisation improves radiological outcomes compared to coraco-clavicular stabilisation alone.

**Methods:** A prospective multicentre study evaluated clinical outcome (pain, QuickDASH, and Constant's score), and anatomical outcomes (standard XRays and dynamic radiographs).

**Results:** 116 patients (48% type III, 30% type IV, 22% type V), minimal FU was 1 year. Coraco-clavicular stabilisation was achieved using a double endobutton in 93% of patients, and concomitant acromio-clavicular stabilisation in 50%. The Constant's score  $\geq 85/100$  and a subjective QuickDASH functional disability score  $\leq 10$  in 75% of patients. The radiographic analysis showed significant improvements and in the horizontal plane. The anatomical outcome correlated significantly with the functional outcome (absolute R value = 0.19 and  $p=0.045$ ). Implantation of a biological graft significantly improved both the anatomical outcome in the vertical plane ( $p=0.04$ ) and acromio-clavicular stabilisation in the horizontal plane ( $p=0.02$ ). The coraco-clavicular ratio on the antero-posterior radiograph was adversely affected by a longer time from injury to surgery ( $p=0.02$ ).

**Conclusion:** This study demonstrates that acute ACJD requires stabilisation in both planes, i.e., at the coraco-clavicular junction and at the acromio-clavicular joint. Implantation of a biological graft should be considered when the time from injury to surgery is longer than 10 days.

### Arthroscopic Sternoclavicular Joint Discectomy for Acute and Chronic Tears

SS-26

April 15, 9:55 AM

CHRISTOPHER LAWRENCE, F.R.C.S (Tr & ORTH), PRESENTING AUTHOR

GRAHAM TYTHERLEIGH-STRONG, F.R.C.S (ORTH)

BENJAMIN EAST, F.R.C.S.A.

ABBAS RASHID, F.R.C.S (ORTH)

**Introduction:** The sternoclavicular joint (SCJ) has a complete intra-articular disc which can be damaged either following trauma or as part of on-going degenerative joint disease. Although often asymptomatic, SCJ disc tears may lead to mechanical symptoms and pain. This study's aim is to assess the outcome of arthroscopic SCJ discectomy in patients with a symptomatic disc tear.

**Methods:** Between April 2010 and January 2015 fifteen patients underwent an arthroscopic excision of a torn SCJ disc. Their average age at surgery was 32 years (19–48). Pre-operative diagnosis was made by a combination of history, examination and MRI or CT scan. All of the patients complained of clicking with varying levels of pain. Ten of the patients had been symptom free prior to a specific incident following which they developed SCJ symptoms. The other 5 patients developed a gradual onset of symptoms. The average duration of symptoms was 35.7 months (6 – 60). All of the patients underwent an arthroscopic SCJ discectomy. Three patients had significant degenerative changes and underwent additional excision of the medial end of the clavicle. Post-operatively no immobilisation was required. Patients were assessed pre-operatively, at 3 and 6 months and at final follow-up post surgery using the Rockwood and the Quick DASH scores.

**Results:** At a mean follow-up of 27.6 months (9 – 63) there was a significant improvement in the Rockwood score from 6.7 (5 – 9) to 13 (9 – 15). The mean Quick DASH score was 83.4. One patient continued to have significant pain and underwent subsequent arthroscopic SCJ excision. There were no reported complications and specifically no instability. All of the patients reported that they would be happy to have this procedure again.

**Conclusion:** The results of this series suggest that arthroscopic SCJ discectomy is a safe and reproducible procedure for the treatment of symptomatic SCJ disc tears.

### Biceps Pathology and Its Relation to Humeral Torsion in Professional Baseball Pitchers

SS-27

April 15, 10:00 AM

JOHN TOKISH, M.D., PRESENTING AUTHOR

ELLEN SHANLEY, Ph.D., P.T.

MICHAEL KISSENBERG, M.D.

THOMAS NOONAN, M.D.

DAVID EGGERT, M.D.

CHARLES THIGPEN, Ph.D., P.T., A.T.C.

**Introduction:** Biceps pathology is common in the dominant arm of professional pitchers. Repetitive throwing