

Purpose: Anterior traumatic shoulder instability, presenting with both glenoid bone loss and a Hill-Sachs lesion, has been shown to be recalcitrant to arthroscopic stabilization. This paper presents the results of an arthroscopic technique that is used to treat those difficult instability patients who present with anterior inferior glenoid loss and a Hill-Sachs lesion. The technique is a combined arthroscopic posterior capsulodesis and infraspinatus tenodesis using sutures and suture anchors that fills (Remplissage: french.: to fill) the Hill-Sachs lesion.

Methods: Twenty-two patients were treated with this technique between May 2002 and August 2004. Twenty patients were available for follow-up which ranged from 25 to 57 months. Eleven responded via a questionnaire posted on our web site. Nine were interviewed by telephone and all were rated by the previously published Subjective Shoulder Score. In addition to the Remplissage, all patients were treated concomitantly with a standard anterior suture anchor technique. Seven patients had had prior stabilization surgery. The system uses six categories to evaluate the outcomes: pain, stability, activity, strength, range of motion, overall satisfaction.

Results: Twenty patients were available for follow-up. There were 15 excellent, 3 good and 2 poor results. Two patients suffered traumatic redislocations, one due to a motorcycle accident and the other was reinjured wrestling. Both were treated with Latarjet procedures. Eighteen of twenty patients were very satisfied. All seven patients who had had prior failed open or arthroscopic stabilization surgeries, had good or excellent results without recurrence. One patient experienced post-operative stiffness that responded to non-operative measures. Two patients had secondary arthroscopic procedures: one for a painful posterior labral tear, the other for a prominent fixation device. These two procedures allowed second looks that both demonstrated the structural effect of the Remplissage, with the capsule and tendons healed into the Hill-Sachs lesion.

Conclusions: This procedure provides an effective arthroscopic alternative to open bone or bone-tendon transfers (Latarjet) in cases of anterior shoulder instability that presents with the combination of glenoid bony loss and a Hill-Sachs lesion. The results of this technique in this difficult subset of traumatic anterior shoulder instability patients are significantly better (10% recurrence rate) than those reported by prior authors (67% recurrence rate) using an arthroscopic Bankart alone to treat this type of pathology.

Arthroscopic 'Filling' of Hill Sachs Lesions (SS-03).
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Summary: The presence of Bony lesions of the humerus occurring after anterior instability (Hill Sachs Lesions) may adversely affect prognosis for dislocation recurrence. The Senior Author has employed an arthroscopic means of delivering Polygraft® (polylactide-co-glycolide) plugs to effect as least a partial 'fill' of the 'engaging' humeral head defect. Technical aspects of the procedure are delineated as is preliminary clinical data over the past 48 months.

Purpose: To report a new arthroscopic means of treating engaging humeral head defects found in anterior shoulder instability employing bone substitute.

Methods: Since 2004, the senior author has employed an arthroscopic means of attaining at least partial fill of 'engaging' Hill Sachs lesions of the humerus. The lesion is viewed from a proximal anterior portal and approached with an accessory posterior portal approximately 2cm medial and often distal to the standard posterior portal, although rarely lesion access is attained via the standard posterior portal. The lesion is debrided with a shaver and approached with an arthroscopic trephine (OATS System - Arthrex, Naples Florida). A bony bed of approximately 13mm is attained and subsequently filled with donor plugs of Polygraft® (OBI - Osteobiologics, San Antonio Texas) roughly 2mm longer than the prepared bony bed. The plugs are countoured to the bed with an oversized tamp and fit to match the contour of the articular surface.

Results: 12 patients underwent arthroscopic grafting of the engaging humeral head lesions using bone substitute. No significant intraoperative complications were experienced, nor were any deficits of the axillary nerve or infections noted. Clinical results are pending.

Conclusions: Engaging Hill Sachs lesions of the humeral head can be at least partially filled arthroscopically with bone substitute. No untoward effects or added patient morbidity appears to be the result of this technique. Clinical results are pending.

Arthroscopic Perspective of the Axillary Nerve in Relation to the Glenoid and Arm Position: An Anatomic Study (SS-04).
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Summary: We performed real arthroscopic simulation using cadaveric shoulder specimens to describe the morphologic feature and relationship of the axillary nerve, and thus determined changes depending on different arm position commonly used for arthroscopy.

Purpose: Although the anatomy of the axillary nerve is relatively well described in literatures, true arthroscopic perspective has been seldom reported. The aim of