

EVIDENCE-BASED ORTHOPAEDICS

ARTHROSCOPIC REPAIR IS AS EFFECTIVE AS OPEN
REPAIR FOR ISOLATED BANKART LESIONS OF THE SHOULDER
AND MAY IMPROVE RANGE OF MOTION

FABBRICIANI C, MILANO G, DEMONTIS A, FADDA S, ZIRANU F, MULAS PD.
ARTHROSCOPIC VERSUS OPEN TREATMENT OF BANKART LESION OF THE SHOULDER:
A PROSPECTIVE RANDOMIZED STUDY. *ARTHROSCOPY*. 2004 MAY-JUN;20:456-62.

Question: In patients with traumatic anterior instability of the shoulder, what is the effectiveness of arthroscopic and open treatment for repairing isolated Bankart lesions?

Design: Randomized (allocation concealed*), unblinded, controlled trial with 2 years of follow-up.

Setting: Department of Orthopaedics at the University of Sassari in Italy*.

Patients: 60 patients (mean age, 26 y, 87% men) with traumatic anterior instability of the shoulder, no shoulder symptoms or surgery before the first traumatic dislocation, ≤ 4 episodes of anterior dislocation of the shoulder, no clinical evidence of multidirectional instability, and radiological evidence of $\leq 30\%$ loss of substance of the humeral head. All patients underwent arthroscopy to confirm a Bankart lesion of the anterior aspect of the glenoid labrum, the absence of other capsular and tendon injuries, and the absence of glenoid fractures. Follow-up study was 100%.

Intervention: 30 patients received arthro-

scopic treatment. After arthroscopic examination, the damaged anterior aspect of the labrum was débrided and mobilized. Through an anterior portal made in the middle aspect of the glenoid, a 4-mm round bur was used to abrade the anterior border of the glenoid neck. The glenoid labrum was repaired by way of the Southern California Orthopedic Institute (SCOI) technique, with use of 3 threaded metallic suture anchors loaded with No. 1 braided nonabsorbable suture. 30 patients received open treatment. Through a deltopectoral approach, the subscapularis tendon was longitudinally sectioned approximately 1 cm from its humeral insertion. After capsulotomy was performed from the lateral side, the glenoid neck was abraded with a bur or a curet. The labrum was repaired with use of 3 threaded metallic suture anchors loaded with No. 1 braided nonabsorbable suture. The capsule and subscapularis tendon were sutured with a side-to-side repair (no horizontal or vertical shift). Patients in both groups had the same postoperative regimen.

Main outcome measures: Intraoperative or postoperative complications, recurrent

dislocation, pain, function, strength, and range of motion.

Main results: There were no intraoperative or postoperative complications in either group. At the two-year follow-up evaluation, neither group had a recurrence of dislocation. The total Constant and Rowe Scores were not different. Only range of motion, evaluated with the Constant score, was better in the arthroscopy group than in the open-treatment group (a mean score of 40 ± 1 vs 38 ± 2 ; $p = 0.017$).

Conclusions: In patients with traumatic anterior instability of the shoulder, arthroscopic repair with suture anchors was as effective as open shoulder repair for isolated Bankart lesions and may improve range of motion.

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Commentary

The study by Fabbriani and colleagues adds appreciably to our clinical knowledge regarding the best treatment for the patient with traumatic unidirectional anterior instability of the shoulder and an isolated Bankart lesion after arthroscopic evaluation. Interestingly, only 60 of 104 patients with recurrent unidirectional anterior instability had an isolated soft-tissue Bankart lesion at the initial arthroscopic inspection. The study controlled for preoperative (demographics), intraoperative (arthroscopic pathology), and postoperative (rehabilitation) factors. In contrast to previous reports that included different operative fixation between groups and more variable pathologic conditions to repair, operative fixation with use of 3 metal suture anchors and nonabsorbable suture was identical in both groups. Thus, by selecting patients with the same pathologic lesion at diagnostic arthroscopy, the approach (that is, the operative

technique) was isolated as the primary determinant of outcome.

In this study, there were no complications or recurrent episodes of dislocations postoperatively in either group. In addition, the techniques, when selectively applied, resulted in similar scores on the Constant and Murley rating system and the modified Rowe activity scale. In conclusion, similar surgical results can be expected for either technique for patients with traumatic anterior instability and an isolated Bankart lesion when the technique is employed by an appropriately skilled surgeon. Which technique to choose will depend on the surgeon's training and skill, but similar outcomes of well-performed surgery can be expected.

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