Arthroscopic Bankart Repair Versus Arthroscopic Latarjet for Shoulder Instability A Matched-Pair Long Term Follow-up Study

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INTRODUCTION:
The Bankart and the Latarjet procedure are two of the most common surgical procedures to treat shoulder instability. Short-term to midterm results are well known. However, the long-term outcomes following these procedures remain unclear, and there is not information regarding arthroscopic Latarjet
The purpose of the study was to analyze long-term clinical outcomes, recurrences, complications, return to play and activity level of patients with anterior glenohumeral instability managed with an arthroscopic Bankart or an arthroscopic Latarjet procedure.
The null hypothesis was that no differences in recurrence rate and clinical long-term results exist between both procedures.
METHODS:
Retrospective of prospective collected data study of patients with anterior glenohumeral instability managed with an arthroscopic bankart repair or an arthroscopic Latarjet procedure and a minimum 10-years follow-up. Patients treated with an arthroscopic Latarjet were matched-paired in a 1:1 ratio with patients who underwent an arthroscopic bankart procedure according to preoperative features except for bone loss.
Inclusion criteria for this study were (1) patients being between 18 and 50 years (2) disposal of pre-operative magnetic resonance imaging (MRI) or computed tomography (CT) and (3) a minimum 10-year follow-up. Revision surgery and concomitant procedures not addressed in this study, but potentially related to instability (i.e., SLAP repair, biceps tenodesis, remplissage or rotator cuff repair) were considered as exclusion criteria. Patients suffering from posterior, multidirectional glenohumeral instability, and voluntary instability were also excluded.
The primary outcome was recurrence at the time of follow-up, set as subluxation or dislocation. Intraoperative and postoperative complications were also recorded.
Postoperative clinical, functional status were assessed at the final follow-up. Objective clinical and functional performance were defined as instability degree and the Rowe score. Subjective clinical preoperative status was evaluated using the Western Ontario Shoulder Instability (WOSI) Index and subjective shoulder value (SSV). In addition, return-to-sport rate was determined, including the overall return to sport, the rate of return to preinjury level and the return rate specific to type and sports participation level.
RESULTS:
Eighty patients, 40 in each group, mean age 26.5 ± 15.4 years, with a mean follow-up of 13.2 years (range 10 to 17 years) were included. There were 14 (35%) cases of recurrence in the Bankart group and 4 (10%) in the Latarjet group (p=0.009). The mean estimate for the cumulative proportion of stable shoulders at 15 years follow-up was 64.4% in the Bankart group and 89.6% in the Latarjet group (p=0.008). Revision surgery was necessary in 5 (12.5%) patients in the Bankart group and 2 (5%) in the Latarjet group (p=0.407). There was no statically significant difference between groups in rates of complications (15% in the Bankart group vs 17.5% in the Latarjet group, p=0.483). Regarding postoperative outcomes, WOSI score was significantly better in patients treated with a Latarjet procedure compared with those who underwent a Bankart repair (p=0.004). No statistically differences were found in postoperative degree of instability, ROWE and SSV score between the two groups (p=0.114, p=0.155, p=0.261). Most patients were able to completely return to their previous sport (52.5%); no statistically differences between groups were found. However, patients in the Latarjet group achieved higher activities level when compared to those in the Bankart group (p=0.018).
DISCUSSION AND CONCLUSION:
The main finding of this study is that arthroscopic Latarjet was associated with a significantly lower redislocation rate at long-term follow-up compared with the arthroscopic Bankart. The Latarjet procedure also obtained better postoperative WOSI score and sports activity level. Moreover, the intraoperative and postoperative complication rates were not higher for this group.
The two most common surgical procedures for recurrent anterior instability are the Latarjet and Bankart procedures. There is still lack of agreement regarding the optimal surgical treatment for recurrent instability. Studies analyzing short-term outcomes of the arthroscopic bankart repair, reported good results regarding redislocation and complication rates. However, concern exists regarding the high rate of recurrent instability in the mid and long-term following Bankart repair with recurrence rates reported to up to 37.5%. On the other hand, good to excellent outcomes of the Latarjet procedure have been reported, with low re-dislocation rates noted at 0-8%. However, in previous reports, a higher complication rate was observed with the Latarjet technique compared with the Bankart repair.

To our knowledge, no study comparing results of arthroscopic Bankart and Latarjet procedures at a minimum 10-years follow-up exist. In addition, there is paucity of studies analyzing long-term results of the arthroscopic Latarjet procedure. Moreover, when attempting to compare outcomes between Bankart and Latarjet, most studies are not controlled for pre-operative features.

Conclusion: The arthroscopic Latarjet is associated with a significantly lower redislocation rate, better postoperative WOSI score and sports activity level at long-term follow-up compared with the arthroscopic Bankart without any greater risk of complications.