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Modifiable and Non-Modifiable Factors Affecting the Long-Term Clinical and Radiological Results After Arthroscopic Bankart Repair

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Summary:

A large number of factors affect the results of the arthroscopic Bankart repair and it is important to differentiate between those who could be reversed, modified or controlled and those which can not be modified.

Abstract:

INTRODUCTION

A large number of studies have been conducted to assess factors affecting the results of arthroscopic Bankart repair but until now there is no single study that have evaluated a large number of patients both clinically and radiologically after a minimum of ten years to investigate the different factors affecting the recurrence of instability and prevalence of osteoarthritis and thus determining the factors that could be modified and controlled.

METHODS

Patients underwent arthroscopic Bankart repair for anterior inferior shoulder instability were collected at a minimum of ten years after the operation and evaluated with the VAS for pain and stability, a specific return to sport questionnaire, different clinical scores (ASES, ROWE, Constant, AAOS and Dawson-12-items questionnaire) and the patients files were reviewed to assess the different factors that may affect the results (type and number of anchor used, number of preoperative instability episodes, concomitant lesions, age at the time of dislocation and operation, time interval between the first dislocation and operation)

RESULTS

120 patients were available for follow-up after 10 years with a mean follow up of about 13 years. The different clinical scores showed persistent improvement after this long period of time (ASES:87.2, ROWE:79.9, AAOS:92.7, Constant:91.5 and Dawson:18.1) Re-dislocation occurs in 24 patients with a subjective history of even a single incident of dislocation in additional 9 patients, of these only 15 (12.6%) Patients had persistent postoperative instability requiring revision. The average VAS for pain was 0.99 and for instability 1.9 with an average deficit of external rotation of only 5.7°. Dissatisfaction and recurrent dislocation were significantly correlated with a younger age of patient at the time of dislocation and operation, the anchors type (lower with suture anchors) and the dominant side injury. For radiological evaluation 100 shoulders were available for evaluation with about 28% showing grade II-III based on the Samilson-Prieto radiological score. The prevalence of Osteoarthritis was significantly correlated with the Age of the Patient, number of preoperative dislocations and the number of anchor used.

DISCUSSION & CONCLUSION

The results of arthroscopic Bankart repair should be not merely evaluated with degree of postoperative stability, but also regarding the prevalence of osteoarthritis. Modifiable factors that could be controlled includes: 1. Reducing the number of preoperative dislocations, 2. using the minimal number of sutures anchors that could achieve repair, 3. Using suture anchors and avoiding the old anchor systems (e.g Tacs).