

Effect of Postoperative Rehabilitation after Arthroscopic Bankart Repair for Traumatic Anterior Shoulder Dislocation and Subluxation: A Randomized Controlled Trial

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INTRODUCTION:

Arthroscopic Bankart repair (ABR) is the current gold standard surgical procedure for repair of traumatic anterior shoulder dislocation and subluxation. The ABR is a minimally invasive operation with quick return to daily life and sports participation postoperatively. This randomized controlled study aimed to evaluate both the significance and outcome of rehabilitation after ABR for traumatic anterior shoulder dislocation and subluxation.

METHODS: For the present study, the continuous 64 patients (64 shoulders) underwent ABR from 2017 to 2019 were randomly divided two groups in the traumatic recurrent anterior dislocation and subluxation of the shoulder. The postoperative results of 29 patients who underwent rehabilitation (RP group) assisted by a physical therapist once a week were compared with the results of 31 patients who did not undergo rehabilitation (RN group) but received only monthly guidance from a doctor. There were four dropouts in both groups. The average age at surgery was 25.3 years (range 18 - 45 years). We evaluated patients two years post surgery. Postoperative outcomes evaluated were redislocation, anterior instability, range of motion (elevation, external rotation, and external rotation at 90° abduction), Rowe score, and The Western Ontario Shoulder Instability Index (WOSI) score. The independent t-test was performed to assess the difference between the two groups.

RESULTS:

No difference in preoperative factors (age, sex, sports, dominant and numbers of dislocations, and/or subluxations) was found between the two groups. Postoperative redislocation was found in 3 cases (9.7%) in the RN group and one case (3.5%) in RP group, but there was no statistically significant difference between the groups. There was no significant difference in anterior instability between the RP group (3 cases, 9.7%) and the RN group (3 case, 10.3%). Postoperative elevation and external rotation in the anatomical position were not significantly different between groups. No difference in postoperative Rowe scores was found in all periods. The mean WOSI score was however found to be significantly higher in the RN group than in the RP group (625 ± 253 vs. 431 ± 198 ; $p = 0.032$) only 6 months after surgery.

DISCUSSION AND CONCLUSION:

Our results show that rehabilitation did not affect objective postoperative clinical outcomes at one- and two- year post ABR in patients with traumatic anterior shoulder dislocation and subluxation. However, subjective evaluation by WOSI suggested a superior result with rehabilitation possibly due to the weekly individual attention provided by the physical therapist only at 6 months after surgery.