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Accelerated Rehabilitation After Arthroscopic Bankart Repair: A Prospective Randomized Clinical Study

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Background: An increased stress within a certain limit enhances healing of a ligament and improves function of the joint. In this prospective randomized clinical trial, we compared the clinical results of early motion versus the conventional immobilization after the arthroscopic Bankart repair in the selected patient population.

Methods: We performed an arthroscopic Bankart repair using suture anchors in sixty-two patients with traumatic recurrent anterior instability of the shoulder and randomized them into two groups; Group 1 (twenty-eight patients; mean age, 28 years) was managed with three weeks of immobilization using an abduction sling and conventional rehabilitation program, and Group 2 (thirty-four patients; mean age, 29 years) was managed with an accelerated rehabilitation program, which consisted of staged range of motion and strengthening exercises, from the immediate postoperative day. Selection criteria of patients were non-athletes with recurrent anterior shoulder instability who have a classic Bankart lesion with a robust labrum. The patients were followed for a mean of thirty-one months (range, twenty-seven to forty-five months; Standard deviation, nine months). Analysis of outcome included pain scores at the first six weeks and at the final follow up, range of motion, return to activity, recurrence rate, patients' satisfaction with each rehabilitation program, and shoulder scores assessed by the American Shoulder and Elbow Surgeons Shoulder Index, the rating system of the University of California at Los Angeles and Rowe et al.

Results: The recurrent rate was not different between the two groups ($p = 0.842$). None of

the groups developed recurrent dislocation. Two patients from each group had positive anterior apprehension. Patients who underwent accelerated rehabilitation resumed functional range-of-motion faster ($p<0.001$) and returned earlier to the functional level of activity ($p<0.001$). Accelerated rehabilitation decreased postoperative pain ($p=0.013$) and more patients were satisfied with this program ($p<0.001$). The shoulder scores, patients' return to activity, pain score, and the range-of-motion were not different between the two groups at the final follow-up ($p>0.05$).

Conclusion: Early mobilization of the operated shoulder after arthroscopic Bankart repair does not increase the recurrence rate in selected group of patients. Although the final outcomes are approximately the same in both groups, the accelerated rehabilitation program promotes functional recovery and reduces postoperative pain, which enables patients an early institution of their desired activities.