

Posterior Latissimus Dorsi Transfer For Massive Irreparable Posterior-superior Rotator Cuff Tears: Does it Work In The Elderly Population? A Comparative Study Between Two Age Groups (≤ 55 Versus ≥ 75 Years old)

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INTRODUCTION: Management of irreparable postero-superior rotator cuff tears (RCT) presents a significant challenge to the shoulder surgeons. Previous studies on latissimus dorsi transfer (LDT) have demonstrated good to excellent outcomes in younger patients but this indication is debatable in the elderly. The main objective of this study was to compare the results of LDT in a group of patient under 55 versus a group over 75 years of age. We hypothesized that LDT could give equally good results in the elderly as in the younger population.

METHODS: Between 2014 to 2017, 153 patients who underwent LDT either for irreparable posterior-superior RCT or for failed prior repair were enrolled. All LDTs were performed by a single surgeon, were arthroscopically assisted and fixed onto the humeral head with two anchors. A retrospective comparative clinical study was conducted. Patients with a minimum of twenty-four months of follow-up were divided into two groups: group A (≤ 55 years old at surgery) and group B (≥ 75 years old at surgery). The age-adjusted Constant-Murley score (aCMS), Subjective Score Value (SSV), Simple Shoulder Test (SST), ADLER score, Visual Analogue pain Scale (VAS), American Shoulder and Elbow Society score (ASES), patient's satisfaction and rate of LDT rupture at last follow-up were compared.

RESULTS:

A total of sixty-six patients met inclusion criteria. Four in sixty-six patients (6%) were lost to follow-up. There were thirty-one patients in group A and thirty-one patients in group B. The mean age was 52 and 77 years for the respective groups. Preoperatively, the two groups were comparable with respect to other characteristics like the mean number of ruptured tendons, mean pre-operative Hamada stage, mean SST and mean aCMS. The mean follow-up was 33 and 31 months respectively. At last follow-up, there was no significant difference in the scores evaluated between groups A and B with SSV (61 vs 66.7 points), ADLER (23 vs 26.4 points); VAS (2.8 vs 2.2 points); ASES (64.4 vs 72.4 points) respectively except for the aCMS (75 vs 96.3; $p < 0.001$) and the SST (6.2 vs 8.3; $p < 0.001$). Patient's satisfaction was not significantly different in both groups (81% of either satisfied or very satisfied patients in both groups). The rate of LDT rupture was higher in group A: 10 (33%) vs 8 (26%).

DISCUSSION AND CONCLUSION: Posterior transfer of latissimus dorsi tendon could be an effective surgical option for the treatment of massive irreparable postero-superior cuff tears over 75 years of age.