Rate of Recovery following Reverse Shoulder Arthroplasty

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INTRODUCTION: Reverse shoulder arthroplasty (RSA) has significantly grown over the last two decades due to its expanding indications. Given this increase, it is essential for the orthopedic surgeon to communicate the expected postoperative recovery timing to patients. The purpose of this study was to determine the rate of recovery following RSA and factors influencing this rate.

METHODS: A retrospective review of 2132 patients who underwent RSA by a single surgeon was conducted. Data was collected preoperatively and postoperatively at intervals of 3-, 6-, 12-, and 24-months. At each follow-up period the cohort was divided into either a recovered or still recovering group. Patients with an American Shoulder and Elbow Score (ASES) of 70 or greater were defined as recovered, based on previously validated studies, compared to those with a score of less than 70 being defined as still recovering. Both the demographic and range of motion data were compared between the cohorts at each follow-up period.

RESULTS: The recovered group included 36.4% at 3-months, 56.7% at 6-months, 71.8% at 12-months, and 70.5% at 24months. At 6 months, the recovered and still-recovering groups had significantly more females (70.0% and 56.3% respectively; p=0.02). At 24 months, there was a significantly higher preoperative BMI for the recovered group compared to the still recovering group (30.15 versus 28.14 respectively, p=0.04). Previous shoulder surgery, preoperative injection, and subscapularis repair were comparable between groups at each follow-up period. Postoperative abduction was significantly greater in the recovered group at 12 months. Active forward elevation and external rotation were not significantly greater in the recovered group at 6-, 12-, and 24 months.

DISCUSSION AND CONCLUSION: It appears that perhaps female patients and those patients who gain postoperative abduction are more likely to reach recovery slightly faster than other cohorts. This information can allow clinicians to inform their patients of expected recovery times more accurately where more than a third of patients reach the recovery threshold by 3 months, and a majority by 12 months postoperative. Patients who had previous injections, variations in subscapularis management or prior shoulder surgery did not see an impact in their overall recovery rates for RSA.