Return to Recreational Sports Participation following Rotator Cuff Repair in Adults over 40 Years of Age: Outcomes and Return to Play Analysis

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INTRODUCTION:
Despite high prevalence of rotator cuff (RTC) tears in older adults, there is limited literature evaluating the return to recreational sport after repair. The purpose of this study was 1) to assess the patient-reported outcomes following rotator cuff repair with minimum 2-year follow up, and 2) to analyze return to play (RTP) rates and compare pre- and postoperative level of play following repair.
METHODS:
Patients undergoing arthroscopic rotator cuff repair between January 2016 and January 2019 were screened for inclusion. Inclusion criteria included: 1) age over 40 years at the time of surgery, 2) arthroscopic repair of a full thickness rotator cuff tear, and 3) preoperative American Shoulder and Elbow Surgeons score (ASES) available. Eligible patients were contacted and invited to fill out a custom RTP and patient-reported outcome survey. Regression analysis was performed to control for age, sex, BMI, smoking status, and involvement in sport when comparing the overall improvements in ASES scores. All data was analyzed using Mann-Whitney tests for non-parametric data and Chi-Squared or Fishers Exact tests for categorical data.
RESULTS:
Overall, 375 of the 1,141 eligible patients completed the survey instrument. There were 210 self-reported athletes (mean age 59.2±9.55 years) and 165 non-athletes (mean age 62.0±8.27 years)(p=0.003). Of the athletes, 193 (91.9%) returned to sport. The average age of athletes was 59.4±9.33 years for those who returned to sport and 57.9±12.0 years for those who did not (p=0.631). Athletes reported higher ASES scores than non-athletes both preoperatively (49.8±20.3 vs. 44.8±18.9, p=0.015) and postoperatively (87.6±16.7 vs. 84.9±17.5, p=0.036), but there was no difference in mean ASES improvement between groups (p=0.670). After controlling for age, sex, BMI, and smoking status using a multivariate analysis, there was no difference in mean ASES improvement when comparing athletes to non-athletes. When comparing overhead and non-overhead athletes, there was no difference in return to sport (89.7% vs. 94.7%, p=0.283) and postoperative ASES scores (88.4±18.2 vs. 86.6±14.8, p=0.446).
DISCUSSION AND CONCLUSION:
There is a high rate of return to sport (>90%) in older adult recreational athletes following arthroscopic repair of full thickness rotator cuff tears. Athletes reported higher baseline, pre-, and postoperative ASES scores than non-athletes, but the mean ASES improvement following repair did not significantly differ between groups. Rates of return to sport did not significantly differ for overhead and non-overhead athletes.