Why Do Patients Decide to Have Surgery for Their Symptomatic Rotator Cuff Tear? A Prospective Study

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Objectives: While rotator cuff pathology may be amenable to conservative therapy, patients with full thickness tears not improving with non-operative treatment are indicated for repair. The decision to undergo surgery is often multifactorial with pain, loss of function, and concern for progression all factoring in the decision-making process. The purpose of this investigation was to evaluate patients main determining factors in deciding to have surgery for their rotator cuff tear, correlate these factors with strength of surgeon recommendation and clinical outcomes.

Methods: One hundred and fifty patients undergoing arthroscopic rotator cuff repair (ARCR) were enrolled prospectively. Patients received a questionnaire preoperatively to determine why they decided to proceed with surgical repair. This 13-question survey was developed based on evidence-based review of rotator cuff repair literature and the Delphi technique. Patients were asked to rate each factor with regard to importance in their decision to proceed with repair. Surgeons were given a similar Likert Scale and were queried on how strongly they would recommend surgery for their patients based upon various factors such as MRI findings, age, etc. Pre- and post-operative shoulder function was assessed with the American Shoulder and Elbow Society (ASES) Score. Descriptive statistics were used to evaluate the reasons to proceed with surgery and correlated with outcomes based on ASES scores.

Results: The most influential patient reported factors for proceeding with surgical repair were: limited functionality of the shoulder (81%), surgeon recommendation (80%), and daily chronic pain (77%). Patients improved from 42.6 to 77.0 on the ASES from baseline to 6-months ($p < 0.001$). Patients who listed that they were unable to play a favorite sport or hobby as their top reason for surgery demonstrated a significant increase in their ASES score relative to other factors at the 3 month time point ($p = 0.0014$); otherwise, there was no significant difference in outcomes for any other time point based on category importance. Subgroup analysis of males and females and older v. younger patients demonstrated significant findings. Females were more likely to proceed with repair due to inability to sleep and daily, chronic pain ($p < .005$) relative to males. Younger patients were more likely to proceed with repair for the inability to play a sport/hobby and increased demands of work relative to older patients ($p < .005$). There was no correlation between any decision factor and final outcome of ASES scores. Younger patients and male patients both demonstrated higher baseline ASES scores ($p < .05$); however, there was no difference in outcome measures at final follow-up.

Conclusion: Prior studies have shown that rotator cuff repair is best at alleviating pain for full thickness rotator cuff tears and may not be as impactful for improving function. Despite this evidence, the majority of patients undergoing rotator cuff repair in our study did so to improve function of their shoulder. While pain, inability to sleep, and inability to participate in ones favorite hobby/sport were important to our patient population, a strong surgeon recommendation had no correlation with our patients decision to proceed with repair. Surgeons should be mindful of these differences between gender and age when counseling patients pre-operatively. Outcomes of ARCR do not appear to be determined by pre-operative decision making on the part of the patient.

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