

Does Obesity Affect Functional Outcomes after Rotator Cuff Repair?

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Summary:

There were no significant differences between obese and non-obese subjects in functional outcome or pain scores following rotator cuff repair surgery.

Abstract:

Background:

The objective of this study was to investigate the effect of obesity on functional outcomes following rotator cuff repair surgery.

Methods:

Using a prospective pragmatic cohort, 213 patients with full-thickness rotator cuff tears (RCTs) were followed prospectively for three years. At baseline, 6, 12, 24, and 36 months, the Western Ontario Rotator Cuff Index (WORC), American Shoulder and Elbow Surgeons (ASES) score, and Visual Analogue Scale (VAS) for pain were collected. Complications were assessed by chart review. Obesity was defined as a Body Mass Index (BMI) of 30 or greater. Chi-square analysis and Student's t-test were used to examine differences between categorical and continuous variables at baseline. Generalized estimating equations were used to examine the effects of fixed factors on outcome variables of WORC, ASES, and pain VAS scores longitudinally from baseline to 36 months.

Results:

Of the 213 subjects who underwent rotator cuff repair, 39% were obese (mean BMI=29.2, range 16-48, sd 5.8). There was no statistically significant difference between obese and non-obese subjects in other baseline characteristics including age, gender, diabetes, smoking, and chronicity of symptoms. When controlling for covariates, obese subjects reported no differences in WORC, ASES, or VAS pain scores when compared to non-obese subjects at baseline and over 3 years from surgery. Although obese patients were more likely to have inpatient surgery, there was no difference in the incidence of post-operative complications between the obese and non-obese subjects.

Conclusions:

There were no significant differences between obese and non-obese subjects in functional outcome or pain scores following rotator cuff repair surgery. Obese patients were more likely to undergo inpatient surgery, but they did not experience more post-operative complications than the non-obese patients.