A Prospective Therapeutic Comparison of Simple Suture Repairs to Massive Cuff Stitch Repairs for Treatment of Small and Medium-Sized Rotator Cuff Tears

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Purpose

To compare the Massive Cuff Stitch (MCS) with the simple stitch in terms of integrity at 2 years post surgery when used to repair small-to-medium-sized full-thickness rotator cuff tears.

Materials and Methods

Seventy-one subjects underwent arthroscopic repair of full-thickness rotator cuff tears between December 2004 and June 2006. The tear sizes ranged from 0.5-1.5 cm. The mean subjects age was 54 (range 40-69) years, and the mean follow-up time was 33 (range 24-41) months. Group I (n= 35) underwent MCS repair, and group II (n= 36) underwent simple stitch repair. Results were analyzed using the Wilcoxon Signed Rank test and the Mann-Whitney test. Follow-up ultrasound was performed 24?41 months after repair.

Results

All subjects showed improvements in VAS pain, ADL, and UCLA scores ($p<0.05$), but there were no significant differences in scores between groups ($p>0.05$). The satisfaction rate was similar for group I (4.7) and II (4.3) ($p>0.05$). The failure (re-tear) rate was significantly less in group I (14.3 %) than group II (27.8 %) ($p<0.05$).

Conclusion

The clinical outcome between the MCS and simple stitch were not significantly different, but the MCS was superior to the simple stitch in maintaining repair integrity on ultrasound evaluation after arthroscopic repair of small-to-medium-sized full-thickness rotator cuff tears.

Level of Evidence

Level III prospective therapeutic comparative study.

Clinical Relevance

This study highlights the effectiveness of the MCS in arthroscopic repair of small-to-medium-sized full-thickness rotator cuff tears.

Key Words: Shoulder-Small-to-Medium-sized Full-thickness rotator cuff tear-Arthroscopy-Massive Cuff Stitch-Simple Stitch