

Clinical Results of Partial Repairs in Massive Rotator Cuff Tears

From the Department of Orthopaedic Surgery, Samsung Medical Center,
Sungkyunkwan University School of Medicine, Seoul, Korea

Jae Chul Yoo, M.D. · Kyung Hwan Koh, M.D. · Kyung Jea Woo, M.D.

Background

Large to massive rotator cuff tears are challenging conditions in shoulder surgery. There are severe surgical options including arthroscopic repair. Recently due to alarming reports of re-tears in massive rotator cuff tear repair, and better understanding of cuff function, partial repair or “force couple repair” has gained some popularity. In the light such background, anterior (subscapularis) and posterior (infraspinatus) repair was attempted in those patients who were not possible to repair all the tendons.

Purpose

The purpose of this study was to report the clinical outcome of patients who received arthroscopic force-couple repair or partial repair in massive rotator cuff patients.

Method

From April 2005 to Feb 2008, 101 large to massive rotator cuff patients were arthroscopically operated. Among them patients who were able to repair the cuff tendon completely, or nearly complete (type III repair ?our classification), combined other surgical conditions (such as septic shoulder, fracture, dislocation, and others), and arthroscopically assisted mini-open repairs due to severe osteoporosis in greater tuberosity were excluded from the study. Remaining 18 patients were available for evaluation. All patients received all arthroscopic partial repairs meaning posterior cuff repair with either one or two suture anchors, and with or without subscapularis repair of the upper tendon. Clinical assessments were done at final follow-up with ASES, KSS (Korean Shoulder Score), and Functional and Pain visual analogue score (VAS).

Results

There were 6 men and 12 women. Mean follow-up was 26.1 month (13–36). The mean age was 66 (51–76). Pain VAS improved from 4.7 to 1.9 and functional VAS improved from 47.3 to 73.9. The ASES improved from 35.7 (10–70) to 82.2 (30–98) and KSS score was 83 (45–97) at final follow-up. Two patient rated poor, 5 patients rated fair, and 11 patient rated good. No patient had additional surgery up to date.

Conclusion

Partial repair in massive rotator cuff patients showed improvement in clinical score at mean 2 year follow-up.

Key Words: Shoulder, Massive rotator cuff tear, Arthroscopy, Partial Repair, Force Couple Repair