scopic repair of high-grade, bursal-sided rotator cuff tears offer a high degree of patient satisfaction and functional improvement with low surgical morbidity. These outcomes appear to be favorable to previous reports of arthroscopic decompression and/or debridement.

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Arthroscopic Repair of Full-Thickness Tears of the Rotator Cuff in Patients Under the Age of 40 (SS-05)

Recent reports document excellent outcomes with arthroscopic repair of rotator cuff tears (RCT). However, full-thickness RCT are uncommon in patients under age 40, and few reports document results after repair in this population. We report results of arthroscopic repair of full-thickness RCT in patients under 40. Materials and Methods: Twenty-three consecutive patients under age 40 with full-thickness RCT underwent arthroscopic repair with suture anchors. Mean age was 37 years (range 21-39). Mean size of RCT was 2.4 cm in largest dimension (range 1-4 cm). Mean number of anchors used was 2.5 (range 1-4). Concomitant procedures included subacromial decompression (22), distal clavicle resection (13), SLAP repair (2), biceps tenodesis (2), anterior capsulorrhaphy (1), and capsular releases (1). Twenty-two patients (95%) recalled a single incipient trauma; two patients sustained a dislocation. Ten patients (43%) claimed workers' compensation (W/C). Mean follow-up was 15 months (range 12-18 months). Results: Mean preoperative ASES score was 42 (range 22-60); mean postoperative score was 92 (range 65-100; $P < .01$). Twenty-one patients (90%) returned to previous level of activity and employment, including 9 (90%) with W/C claims. All patients (100%) reported diminished pain and 22 (95%) reported improvement with activities of daily living. Complications included superficial wound infection (1) and axillary nerve palsy after initial dislocation (1). Twenty-two patients (95%) would have same procedure again. Discussion: Full-thickness RCT in patients under 40 appear to be traumatic in etiology. Successful repair returns patients to pre-injury level of function. These results support arthroscopic rotator cuff repair in young, active patients.

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Postoperative Cuff Integrity After Arthroscopic Full-Thickness Rotator Cuff Repair: Single-Row Versus Dual-Row Fixation (SS-06)

Purpose: A dual-row fixation for rotator cuff repairs has been developed to strengthen the anchoring of the tendon to bone interface. However, there are no published clinical articles supporting the superiority of the dual-row fixation over the conventional single-row fixation methods. The purpose of this study was to compare the clinical outcome, including cuff integrity evaluated through MRI, of a single-row and a dual-row fixation after arthroscopic full-thickness rotator cuff repair using suture anchors. Methods: A consecutive series of 83 shoulders in 81 patients with full-thickness rotator cuff tears were evaluated using the University of California Los Angels (UCLA) scoring system at an average of 36 months (range, 24-60) after arthroscopic full-thickness rotator cuff repair using either a single-row or dual-row fixation method with use of metal suture anchors loaded with No. 2 permanent sutures. All were also evaluated for cuff integrity through MRI at one to two years postoperatively. A consecutive series of 41 shoulders were repaired using the single-row fixation method, followed by a consecutive series of 42 shoulders using the dual-row fixation method. The average follow-up was 43 and 29 months, respectively. Postoperative cuff integrity was determined through MRI, which was performed respectively at 15 and 12 months postoperatively on average, and was classified into 5 categories using oblique coronal, oblique sagittal, and transverse views of T2 weighted images: type I: sufficient thickness with homogeneously low intensity; type II: sufficient thickness with partial high intensity; type III: insufficient thickness without discontinuity; type IV: presence of minor discontinuity suggesting a small tear; type V: presence of a major discontinuity suggesting a medium or large tear. Mann-Whitney U test was used for statistical analysis. Results: Postoperative UCLA scores improved significantly both in the single-row ($P < .01$) and in the dual-row ($P < .01$) groups. The average postoperative UCLA score was 33.5/35 in the single-row group and 33.7/35 in the dual-row group. However, there was no statistical difference between these two groups ($P > .05$). Postoperative MRI examination of cuff integrity revealed 12 type I, 7 type II, 12 type III, 4 type IV, and 6 type V in the single-row group, and 21 type I, 8 type II, 8 type III, and 5 type IV in the dual-row group. A statistical difference was observed between these two groups ($P < .05$). Conclusions: Arthroscopic full-thickness rotator cuff repair using both single-row and dual-row fixation yielded successful outcomes evaluated by the UCLA scoring system without significant difference between the fixation methods. However, the dual-row fixation excelled in postoperative cuff integrity over the single-row fixation. This evidence provides validity of the dual-row fixation for arthroscopic full-thickness rotator cuff repair.

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