

Pain recovery pattern after an arthroscopic rotator cuff repair according to the integrity, tear size and location.

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OBJECTIVE

This study evaluated the level of pain as well as the clinical and the functional outcomes of an arthroscopic rotator cuff repair according to the integrity, tear size and location.

METHODOLOGY

This study examined 153 patients, who were treated with arthroscopic rotator cuff repair. There were 77 men and 76 women, with a mean age of 56.4 (range, 39~70)years. One hundred and one of the 127 rotator cuff tears were full thickness tears, 28 were articular side partial tears, and 24 were bursal side partial tears. Sixty-five of the 153 rotator cuff tears were large tears (3~5 cm), 27 were massive tears (>5 Acm), 61 were medium size tears (1~3 cm). The visual analogue scale (VAS) for pain were checked serially on the following times: pre-operatively; post-operatively at 1, 2, 3, 5 and 7days; 2, 3, 4, 5, 6, 8, 10 and 12 weeks; 6, 9 and 12 months; and at the last follow-up. At the last follow-up (mean follow up, 20 months; range 18~30 months), the repaired rotator cuff was evaluated by ultrasonography and the clinical and functional results were compared using the University of California Los Angeles and the American Shoulder and Elbow Surgeons shoulder rating scales.

RESULTS

The shoulder scores improved in all ratings in all groups ($P < 0.05$). The postoperative and last follow-up pain score (VAS) were similar with respect to the tear size, location and integrity. The VAS slowly decreased during postoperative 6 weeks, when the shoulder exercise passively, but increased during the first 3 to 4 weeks postoperatively with a further decrease thereafter. The VAS score increased again by 7 to 8 weeks after surgery when the shoulder exercise actively but decreased thereafter. The average VAS was > 2 points by postoperative 3.5 months. The factors affecting the pain score (VSA) within one week after surgery were the pre-operative longer operation time. Pain that affected the daily activity over postoperative 3 months was related to the limitation in internal rotation and external rotation. The ultrasound study revealed 8 partial retears of the rotator cuff (< 2 cm) and 5 complete retears. However,

did not affect the clinical and functional results.

CONCLUSIONS

The factors affecting the level of postoperative pain were the longer operation time, and post-operative limitation of motion particularly the internal and external rotation. Mastering of arthroscopic technique and an appropriate rehabilitation protocol that can improve the post-operative motion of the shoulder joint would help in improving the level of post-operative pain and functional recovery.