

# International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine

9<sup>th</sup> Biennial ISAKOS Congress • May 12-16, 2013 • Toronto, Canada

Paper #37

# Second-Look Arthroscopic Evaluation After Arthroscopic Rotator Cuff Repair of Partial Rotator Cuff Tears: Comparison of Two Repair Techniques

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#### Summary:

For surgical treatment of symptomatic partial rotator cuff tears, 2 repair techniques, i.e., arthroscopic trans-tendon repair and arthroscopic repair after conversion to full thickness tear, were widely used and satisfactory clinical outcomes have been reported. However, in the present study, the healing condition of rotator cuff after trans-tendon repair was shown to be not so good by second-look

### Abstract:

#### Background:

For surgical treatment of symptomatic partial rotator cuff tears, 2 repair techniques, i.e., arthroscopic trans-tendon repair and arthroscopic repair after conversion to full thickness tear, were widely used and satisfactory clinical outcomes have been reported. However, no study has seen for the direct evaluation of repair integrity after arthroscopic rotator cuff repair using second-look arthroscopy. The purposes of this study were to investigate the healing condition of rotator cuff after arthroscopic rotator cuff repair techniques.

### Methods:

Among 56 shoulders with partial rotator cuff tear repaired arthroscopically, 25 shoulders underwent second-look arthroscopy. According to their repair techniques, they were divided into 2 groups; 11 shoulders repaired by transtendon repair as P group, and 14 shoulders repaired after conversion to full thickness tear as C group. In P group, all of them were articular-side partial rotator cuff tears, the average age was 25 years old (15-50), 10 of them were athletes, and there were 4 with throwing injury, 4 with anterior instability, 2 with traumatic tear, and 1 with non-traumatic tear. In C group, 7 of them were articular-side, 6 were bursal-side, and 1 was intra-tendinous partial rotator cuff tears, the average age was 50 years old (35-71), 4 were athletes, and there were 3 with throwing injury, 5 with traumatic tear, and 6 with non-traumatic tear. Second-look arthroscopy was done at a minimum of 3 months after initial surgery, and mean period to second-look arthroscopy was 5.7 months (3-13) in P group and 5.8months (3-16) in C group. While the reasons for second-look arthroscopy were pain with contracture in most of them, residual pain was recognized in 2 (P:1, C:1), and weakness of power was seen in one of P group.

### Results:

While there was complete healing in 4, incomplete healing in 4 and insufficient healing in 3 in P group, there was complete healing in 12, incomplete healing in 1 and insufficient healing in 1 in C group. Incomplete healing in P group was seen in 2 throwing shoulders, one dislocated shoulder of throwing shoulder, and one shoulder with traumatic tear, and insufficient healing was seen in one throwing shoulder, one with traumatic tear, and one with non-traumatic tear. Incomplete healing and insufficient healing in C group were seen in a shoulder with non-traumatic tear, respectively. While almost all of them showed remarkable adhesion at the subacromial bursa and contracture



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at rotator interval and posterior capsules, no contracture was recognized in 3 shoulders with insufficient healing (P:2, C:1).

Conclusions:

By second-look arthroscopy, the healing condition of rotator cuff after trans-tendon repair was not so good. As postoperative contracture was often seen in both groups, postoperative rehabilitation should be reconsidered.