Intra-articular Repair of Isolated Partial Articular Surface Tear of Subscapularis Tendon

Seung-Ho Kim, M.D., Jun-Sic Park, M.D., Irvin Oh, M.D.,
Seong-Kee Shin, M.D., Woong-Kyo Jeong, M.D.

Deaprtment of Orthoapaedis Surgery, Sungkyunkwan University School of Medicine Samsung Medical Center

Introduction

To present arthroscopic surgical technique of intra-articular repair of partial articular surface tear of the subscapularis tendon and to evaluate surgical outcomes.

Material and Methods

Twenty-nine patients (21 male and 8 female patients; mean age, 54 years, range, 41~65 years) with isolated partial articular surface tear of the subscapularis tendon without other rotator cuff lesion were treated with arthroscopic intra-articular repair using suture anchors. Biceps tenodesis were performed in 16 patients. The outcomes were prospectively evaluated at a mean of 27 months (range, 19 to 41 months) using 3 objective (UCLA, ASES, SST) and 2 subjective (pain and function visual analogue scales) measurements.

Result

The width of tear were small (less than 1 cm) in 16 and large (greater than 1 cm) in 13 shoulders. Twenty-six shoulders had articular cartilage erosion on the adjacent humeral head. Lesions of biceps tendon were noted in 25 patients (partial tear in 15 and subluxation 13 shoulders). Shoulder scores improved after surgery ($p < 0.05$). According to ASES score, there were 18 excellent, 10 good, and 1 fair result. Internal rotation strength deficit was improved from 32% to 4%. Pain score improved from 5 to 0.3. Twenty-six patients returned to more than 90% of previous activity. There was no surgical complication. The size of tear and biceps tenodesis did not affected outcome ($p > 0.05$).

Conclusion

Arthroscopic intra-articular repair of partial articular surface tear of the subscapularis tendon is an effective procedure which spares intact tendon attachment in the bursal surface. The outcomes are reliable in both objective and subjective measurements.

Key word: Arthroscopy, Subscapularis, Partial Tear, Repair