

Prospective randomized clinical trial of arthroscopic repair versus debridement for partial subscapularis tendon tears more than half of the entire first facet

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INTRODUCTION: Most outcome studies on subscapularis (SSC) tendon tears have focused on large SSC tears rather than partial SSC tendon tears. Therefore, the optimal treatment for partial SSC tendon tears more than half of the first facet of the entire SSC footprint has not yet been clearly defined. To prospectively investigate the clinical and radiological results between the arthroscopic repair group and the debridement group in SSC partial tear (Yoo and Rhee classification, type 2B: SSC tendon tears of more than half of the entire first facet).

METHODS: A total of 65 patients with SSC tendon type 2B tears were randomized to arthroscopic debridement (n = 33) or arthroscopic repair (n = 32). Clinical evaluation of the patients was performed on the day before surgery and 6 months, 1 year, 2 years, and 5 years postoperatively using active range of motion measurements and other validated scores (pain visual analog scale scores, function visual analog scale scores, Constant score, American Shoulder and Elbow Surgeons score). In addition, SSC muscle strength was measured using instruments in the belly-press position. Magnetic resonance imaging (upper and lower SSC muscle diameters, Goutallier grades) was performed on the day before operation as well as 6 months and 2 years postoperatively.

RESULTS: There were no clinically or statistically significant differences between the arthroscopic debridement and arthroscopic repair groups with respect to active range of motion, pain visual analog scale scores, function visual analog scale scores, Constant scores, or American Shoulder and Elbow Surgeons scores. There was a statistically significant increase in SSC muscle strength in the repair group compared with the debridement group at 5 years postoperatively (P = .013). Magnetic resonance imaging assessment was also not significantly different between the 2 groups.

DISCUSSION AND CONCLUSION: There were no differences in the patient-reported outcomes of patients with partial SSC tears treated with either arthroscopic debridement or repair, although there was an increase in SSC muscle strength associated with repair, the clinical importance of which may warrant further research.

