

Rates of Revision Surgery and Total Costs for Patients Undergoing SLAP Repair vs. Biceps Tenodesis

SS-26

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Introduction: To retrospectively evaluate rates of revision surgery for Superior Labrum Anterior to Posterior (SLAP) repair and biceps tenodesis at 3 year follow-up.

Methods: Using the MarketScan Research Databases (Truven Health Analytics), patients who underwent arthroscopic SLAP repair (CPT code 29807) and open or arthroscopic biceps tenodesis (CPT 23430 or 29828) within the encompassed time period (2003-2014), and who remained tracked within the system for at least three contiguous years post-operatively were included. Patients with concomitant rotator cuff repair, or CPT code 29827, were excluded from the study. Rates of repeat shoulder surgery within three years post procedure were evaluated (defined as the occurrence of any of the following CPT codes: 29807, 23430, 29828, 29822, 29823, 29825), as were comparative demographics, total cost of surgery at 6 months, and narcotic usage.

Results: 25,142 patients (average age 38.3) underwent SLAP repair, of whom 2,891 (11.5%) underwent a repeat shoulder surgery within three years. Female patients and those aged >35 years had a statistically higher rate of revision (12.6% vs. 11.1%, $p < 0.001$ and 12.1% vs. 10.4%, $p < 0.001$, respectively), and tended to take more pain medication ($p < 0.001$). 15,173 patients (average age 55.3) underwent biceps tenodesis, of whom 1,631 (10.7%) underwent revision shoulder surgery within three years. Average rate of revision surgery was statistically higher for SLAP repair vs. tenodesis (11.5% vs 10.7%, $p < 0.001$). Average time to revision was 410 days for SLAP repair vs 386 days for biceps tenodesis ($p = 0.021$). Total cost of SLAP repair (\$12,826) was slightly lower than costs for biceps tenodesis (\$14,942), $p < 0.001$.

Conclusion: Overall the rates of revision and cost data for SLAP repair and biceps tenodesis are similar, however SLAP repair is associated with a small but statistically higher rate of revision shoulder surgery within three years, particularly in females older than 35 years.

Randomized Prospective Analysis of Arthroscopic Suprpectoral and Open Subpectoral Biceps Tenodesis: 1 Year Follow-up

SS-27

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Introduction: Surgical treatment for biceps pathology can include tenotomy or various forms of tenodesis. Techniques for tenodesis include intra-articular soft tissue fixation or osseous fixation, suprapectoral osseous fixation, and subpectoral osseous fixation. Regarding the latter two, it is unclear if there is a clinical or surgical benefit of performing an open subpectoral biceps tenodesis (OBT) versus arthroscopic suprapectoral biceps tenodesis (ABT). This randomized clinical trial assesses these two techniques.

Methods: Patients diagnosed with biceps tendinopathy who met the inclusion criteria were randomized into the ABT or the OBT group. Prior to surgery, patients were asked a series of questions regarding their anterior shoulder pain and underwent a subsequent shoulder exam. Follow-up was completed at 3 months, 6 months, and 1 year time points, during which the shoulder exam and patient questionnaires were completed.

Results: A total of 38 patients were enrolled, 18 ABT and 20 OBT, with a mean age of 43.5 ± 10.5 years and a mean BMI of 28.3 ± 5.4 . The surgical time for the ABT group, 17.2 ± 3.7 minutes, was significantly greater than the OBT group, 11.7 ± 6.1 ($p < 0.01$). One patient was converted from the ABT group to the OBT group due to sheering of a severely attenuated tendon preventing an ABT. One patient in the OBT group required a revision tenodesis. No significant difference ($p > 0.05$) was found in strength or anterior shoulder pain. Additionally, no significant difference ($p > 0.05$) was found in clinical outcome scores (ASES, Constant subjective, WORC, KJOC) between the two groups.

Conclusion: This randomized clinical trial suggests there is no clinical difference between the two techniques. Additionally, while the arthroscopic procedure requires more surgical time, the revision rates are not different. Besides the cosmetic concern for an additional scar, we recommend decisions to be made based on surgeon preference and experience.

Biceps Tenodesis Versus Tenotomy in Treatment of Lesions of Long Head of Biceps Brachii in Patients Undergoing Arthroscopic Shoulder Surgery

SS-28

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Introduction: To compare patient-reported and objective outcomes between biceps tenotomy and tenodesis in patients with lesions of the long head of biceps tendon (LHBT).

Methods: The study is a prospective, randomized, controlled trial targeting patients +18 years of age