

Paper #16

Clinical Comparison of Intramedullary Cortical Button Fixation and Suture Anchor Fixation for Subpectoral Biceps Tenodesis.

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Summary:

The use of a suture anchor and intracortical button are both safe and effective techniques for subpectoral tenodesis.

Abstract:

PURPOSE

The long head of the biceps is a common source of anterior shoulder pain. Biceps tenodesis has been performed in patients with anterior shoulder pain in conjunction with rotator cuff tears and also for failed SLAP repairs. While there are varying tenodesis techniques, subpectoral tenodesis has several advantages, including maintaining the length tension relationship of the biceps muscle, decreased risk of groove pain by removing the tendon out of the groove, and superior cosmesis. The purpose of this study was to clinically evaluate early outcomes and complication rates of two techniques for subpectoral biceps tenodesis; intramedullary cortical button fixation compared to suture anchor fixation technique.

METHODS

The records of two fellowship trained Sports surgeons were reviewed to determine the number of patients who underwent subpectoral tenodesis. The majorities of cases were performed in conjunction with rotator cuff repairs and failed SLAP repairs. A total of 60 patients underwent open subpectoral biceps tenodesis including 30 with intracortical button and 30 with suture anchor fixation. Average follow up was 6 months (range, 3 to 14 months). Patient records were reviewed to determine ASES score and VAS pain scores pre- and post-operatively. Complications were determined as persistent pain at the tenodesis site, failure of fixation, cosmesis, deformity (popeye) and nerve and wound complications. The mean pre- and post-operative scores were compared among those receiving the same technique and then again between the two separate groups. Student t- tests were used to compare the means of each variable and a p value of <0.05 was considered to be statistically significant.

RESULTS

There were zero failures of fixation in this study. All patients showed significant improvement between their preoperative and postoperative status with regard to ASES score and VAS pain, (all p values <0.001). There was no significant difference in post operative VAS score, ASES score, or complication rates between the two groups. Two patients in the intra cortical button group had transient postoperative numbness along the lateral antebrachial cutaneous nerve caused by a homan retractor placed medially during the procedure.

CONCLUSIONS

The use of a suture anchor and intracortical button are both safe and effective techniques for subpectoral tenodesis. Both techniques showed significant improvement in pain and functional outcomes in all patients, with minimal complications. There were no significant differences between the two groups. The authors recommend taking caution when placing medial retractor during exposure to minimize risk of transient sensory disturbance.

CLINICAL RELEVANCE

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The subpectoral tenodesis with both methods by our senior authors demonstrated excellent results with minimal complications. When performing a subpectoral tenodesis, one should be cautious when placing retractors medially.