

Patients With Untreated Long Head Of The Biceps Tendon Pathology During Rotator Cuff Repair Have Worse Objective And Subjective Outcomes

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Disclosures

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Background

- Rotator cuff injuries are the most common cause of shoulder disability¹ and overall the most common tendon injury, with about 30% of adults ages 60 and older having rotator cuff tears.²
- Concomitant Long Head Biceps Tendon (LHBT) pathology, in the form of dislocation, subluxation, partial or complete tear, or tendinitis, has been reported to be as high as 76% in patients with rotator cuff tears.³
- However, the benefits of addressing the biceps intraoperatively have been mixed.⁴⁻⁷
- **Therefore, the purpose of this study was to investigate both postoperative range of motion (ROM) and patient reported outcomes (PROs) amongst patients who underwent primary RCR without concomitant LHBT intervention.**

Methods

- Retrospective Cohort Study of all patients who underwent arthroscopic rotator cuff repair without concomitant long head biceps tenotomy or tenodesis between 2009 and 2023 at a single academic institution
- Patients grouped based on presence or absence of LHBT pathology intraoperatively

Exclusion Criteria

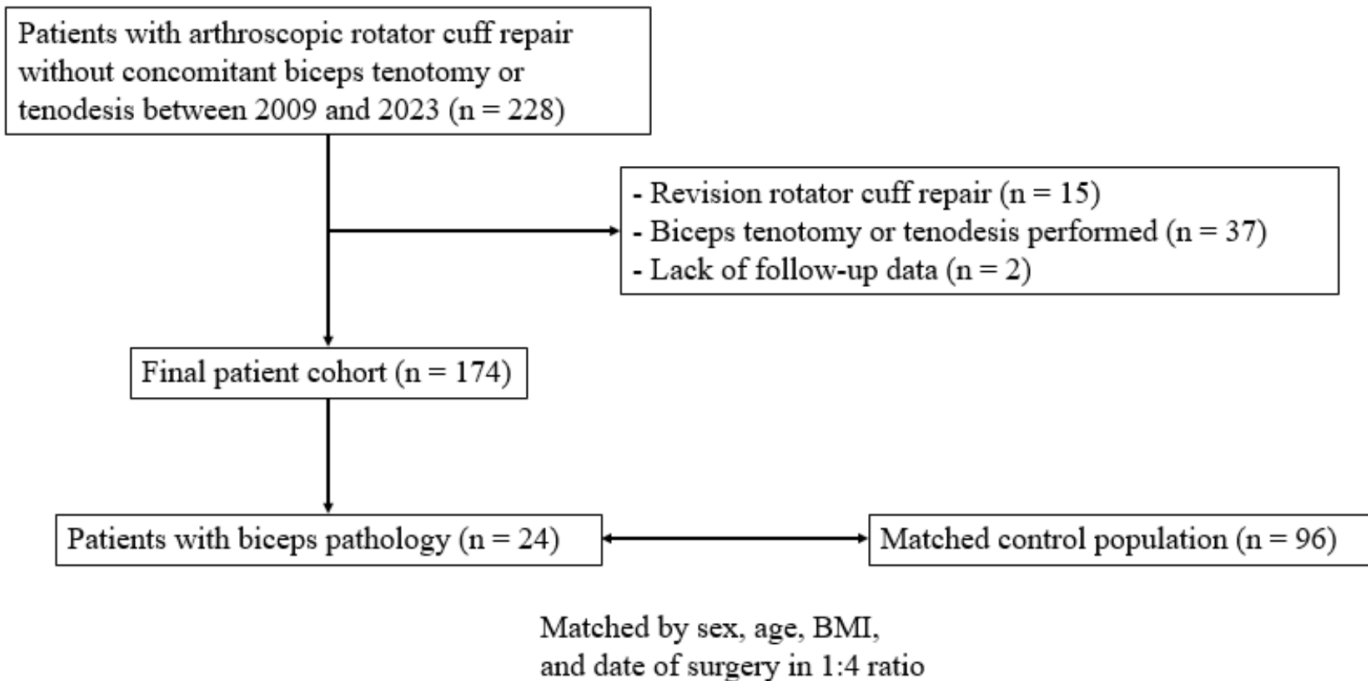
- Patients with LHBT addressed through debridement or superior labrum anterior to posterior (SLAP) repair
- Patients with the LHBT no longer present due to rupture, or prior procedure
- Any patient without follow-up data.

Data Collected

- Patient Demographics
- Intraoperative LHBT description
- Outcome variables:
 - Failure
 - Post-operative complications
 - Patient Reported Outcome Measures
 - Post-operative range of motion

Analysis

- Patients with LHBT pathology (cases) were matched in a 1:4 to those without LHBT pathology (controls).
- T-test was utilized for continuous variables
- Chi-square test or Fisher's exact test utilized for categorical variables
- Minimal clinically important differences (MCID) thresholds^{8,9}:
 - American Shoulder and Elbow Surgeons (ASES): 15.2
 - Subjective Shoulder Value (SSV): 13.5
 - Visual Analog Scale (VAS): 1.1



Results

- Average Age: 52.2 ± 14.8 years
- Average follow up: 16.8 ± 21.4 months
- **Patients with LHBT pathology noted intraoperatively did have significantly decreased postoperative external rotation compared to patients without LHBT pathology noted intraoperatively ($p = 0.013$).**
- **Rates of achieving MCID were significantly lower for patients with biceps pathology compared to controls (0% vs. 57.1%, $p = 0.019$)**

Results

- Postoperative forward flexion was comparable between cohorts ($p=0.58$).
- Zero (0%) patients with or without LHBT pathology noted intraoperatively had a failure postoperatively ($p = 1.00$).
- No significant differences in any complications between patients with or without LHBT pathology.
- Rates of achieving MCID for both SSV and VAS were not significant

Conclusion

Patients undergoing primary arthroscopic rotator cuff repair with LHBT pathology who did not have concomitant biceps intervention had decreased improvements in PROs and external rotation after surgery compared to patients without biceps pathology.

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