



at Thomas Jefferson University

Outcomes of SLAP Repair vs. Biceps Tenodesis of SLAP Lesions in Females: A Retrospective Review

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I (and/or my co-authors) have something to disclose.

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Introduction

No consensus as to whether SLAP repair (SR) or biceps tenodesis (BT) for management of isolated SLAP tears yields superior long-term outcomes.
No previous studies have examined the outcomes of these procedures in female patients.

The purpose of this study is to evaluate and compare the outcomes of patients who undergo SLAP repair and biceps tenodesis for isolated SLAP tears





Materials and Methods

Institutional Database Query 2014-2019 Inclusion Criteria

- Over 18 years old
- Female
- Undergo either SLAP repair or Biceps Tenodesis for SLAP lesion Exclusion
- Less than 18 years old
- Revision procedure
- Concomitant rotator cuff repair, clavicle excision, non-SLAP labral repair, capsular reconstruction
- Concomitant adhesive capsulitis, or significant DJD at time of surgery





Materials and Methods

- Collected patient characteristics (age, race, BMI, height, laterality, hand dominance, prior surgery)
- Functional Outcomes
 - American Shoulder and Elbow Surgeons (ASES), single assessment numerical evaluation (SANE), and visual analog scale (VAS) for pain surveys
 - Custom return to sport survey
- Differences between groups evaluated using T-tests or Mann-Whitney U test for continuous data & Fisher's Exact test for categorical data





Results

	SR	BT	P Value		
	N=38	N=27			
Race:			0.100		
White	33 (86.8%)	18 (66.7%)			
Other	5 (13.2%)	9 (33.3%)			
Age (years)	36.7 (8.44)	44.4 (10.4)	0.003*		
BMI	27.4 (6.78)	28.9 (7.93)	0.424		
Height	64.8 (2.75)	65.8 (3.03)	0.178		
Laterality:			0.280		
Right	22 (57.9%)	20 (74.1%)			
Left	16 (42.1%)	7 (25.9%)			
Hand Dominance:			0.168		
Left	5 (13.2%)	1 (3.70%)			
Right	25 (65.8%)	15 (55.6%)			
Unknown	8 (21.1%)	11 (40.7%)			
Table 1a: Demographic information SLAP repair and Biceps Tenodesis, No (%), Mean (SD), SR = SLAP Repair, BT = Biceps Tenodesis					





Results

	SR	BT	P Value		
	N=38	N=27			
Surgery on the Dominant Side:			0.031*		
Yes	15 (39.5%)	13 (48.1%)			
No	15 (39.5%)	3 (11.1%)			
Unknown	8 (21.1%)	11 (40.7%)			
Prior surgery: No	38 (100%)	27 (100%)			
Presence of a Concomitant			0.507		
procedure:					
No	36 (94.7%)	27 (100%)			
Yes	2 (5.26%)	0 (0.00%)			
Presence of a Concomitant			0.006*		
Pathology:					
No	27 (71.1%)	9 (33.3%)			
Yes	11 (28.9%)	18 (66.7%)			
Table 1b: Surgery information SLAP repair and Biceps Tenodesis, No (%),					
Mean (SD), SR = SLAP Repair, BT = Biceps Tenodesis					





Results

	SR	BT	P Value		
	N=38	N=27			
ASES Score	78.3 (22.4)	80.0 (23.8)	0.591		
Rate Affected Shoulder	77.0 (25.2)	80.1 (22.2)	0.722		
Pain in Shoulder that Received Surgery	26.4 (28.2)	24.4 (29.7)	0.530		
Participated in Sport Prior to			0.152		
Surgery					
Yes	20 (58.8%)	10 (37.0%)			
No	14 (41.2%)	17 (63.0%)			
Return to Sport after Surgery			1.000		
Yes	15 (75.0%)	8 (80.0%)			
No	5 (25.0%)	2 (20.0%)			
Revision:			1.000		
No	37 (97.4%)	27 (100%)			
Yes	1 (2.63%)	0 (0.00%)			
Table 1c: Survey responses and outcome details comparing SLAP repair and Biceps					
Tenodesis, No (%), Mean (SD), SR = SLAP Repair, BT = Biceps Tenodesis					





Limitations

- The retrospective design did not allow for the randomization of patients
- Difference in demographics between SR and BT groups





Discussion

- Despite previous literature containing predominantly male cohorts, postoperative ASES outcome scores in this study of all female patients (78.3 in SR cohort, 80.0 in BT cohort, P = .591) are similar to prior studies
 - Mean ASES score of 88.2 following SLAP repair (80.4% male military population)³
 - Mean ASES 87.4 in SR vs 89.9 in BT groups, P = .8719 (75% male, mean age 45.2 in SR, 52.0 in BT group, P = .0049)¹
 - Mean ASES 92 in SR vs 91.2 in BT groups, P =.85 (80% male, mean age 24.3 in SR, 26 in BT group, P = .07)²





Discussion

- Despite commonly being treated with SLAP repair for young overhead athletes, there is some literature to suggest that these patients with isolated SLAP tears who are treated with BT had better ASES and RTS participation compared to those treated with repair ⁴
- SR cohort were more involved in sport prior to surgery (58% vs 37%, P = .152), may be explained by significantly younger age of SR cohort (36.7 years vs 44.4 years, P = .003) and suggests the practice bias of many surgeons
- In this study 4 of the 5 SR cohort members who did not return to sport participation cited shoulder pain or dysfunction as their reason, while neither of the 2 BT cohort members attributed their lack of return to pain or dysfunction





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