

Outcomes of Superior Labrum Anterior to Posterior (SLAP) Repair vs. Biceps Tenodesis of SLAP Lesions in Females: A Retrospective Review

Adeeb Jacob Hanna¹, Matthew Pedar Wallingford, William Lewis Johns, John Hayden Sonnier¹, Sommer Hammoud², Brandon Erickson¹, Srinivas Kambhampati³, Michael G Ciccotti⁴, Meghan Elizabeth Bishop

¹Rothman Orthopaedic Institute, ²Rothman Institute, ³Sports Medicine, ⁴The Rothman Institute

INTRODUCTION:

There is no consensus on whether superior labrum anterior to posterior (SLAP) repair or biceps tenodesis yields superior long-term outcomes in managing SLAP tears. No previous study has examined outcomes of these procedures in female patients. The purpose of this study was to compare outcomes following SLAP repair and biceps tenodesis for SLAP tears in females. The authors hypothesized there would be no difference in outcomes between patients who underwent SLAP repair or biceps tenodesis.

METHODS:

Female patients who underwent SLAP repair or biceps tenodesis for treatment of SLAP tears between 1/1/2014 and 9/1/2019 were retrospectively reviewed. Patients undergoing a concomitant procedure were excluded. Patients completed American Shoulder and Elbow Surgeons (ASES), single assessment numerical evaluation (SANE), and visual analog scale (VAS), and a custom return to activity surveys at a minimum 2 years postoperatively.

RESULTS:

The study included 65 female patients; 38 (58.4%) underwent arthroscopic SLAP repair and 27 (41.5%) underwent open- or arthroscopic-biceps tenodesis. There was no significant difference in laterality of procedure but patients in the repair group were significantly younger (36.7±8.44 years vs. 44.4±10.4 years, $P = .003$). At minimum 2-year follow up, there was no significant difference in ASES scores (SLAP: 78.3 vs. BT: 80.0, $P = .591$), SANE scores (77.0 vs. 80.1, $P = .722$), or VAS scores (26.4 vs. 24.4, $P = .530$). Furthermore, rates of participation in sports prior to surgery (58.8% vs. 37.0%, $P = .152$) and rates of return-to-sport after surgery (75.0% vs. 80.0%, $P = 1.000$) did not significantly differ.

DISCUSSION AND CONCLUSION:

Female patients undergoing surgical treatment of SLAP lesions with either repair or biceps tenodesis show comparable subjective outcomes and return to sport at minimum 2 years. These results are comparable to those seen in prior studies focusing on predominantly male cohorts. Further research is necessary to define precise treatment indications for this pathology

	in SR N=38	this BT N=27	P Value
ASES Score	78.3 (22.4)	80.0 (23.8)	.591
SANE	77.0 (25.2)	80.1 (22.2)	.722
VAS	26.4 (28.2)	24.4 (29.7)	.530
Participated in recreational sport prior to surgery			.152
Yes	20 (58.8%)	10 (37.0%)	
No	14 (41.2%)	17 (63.0%)	
Returned to Sport following surgery			1.000
Yes	15 (75.0%)	8 (80.0%)	
No	5 (25.0%)	2 (20.0%)	
How long after surgery until you returned to sport participation?			.663
Less than 6 months	9 (60%)	3 (37.5%)	
Between 6 months and 1 Year	3 (20%)	3 (37.5%)	
More than 1 year	3 (20%)	2 (25%)	
Revision:			1.000
Yes	1 (2.63%)	0 (0.00%)	
No	37 (97.4%)	27 (100%)	

Table 1. Survey responses and surgery details comparing SLAP repair and Biceps Tenodesis, SR: SLAP repair, BT: Biceps tenodesis, ASES = American Shoulder and Elbow Surgeons, SANE = Single Assessment Numeric Evaluation, VAS = Visual Analogue Scales SLAP = superior labrum anterior to posterior, Mean (SD), No (%)

	specific in female Arthroscopic BT N=14	patient Open BT N=13	P Value
ASES Score	85.9 (19.2)	73.6 (27.3)	.238
SANE	81.4 (22.5)	78.6 (22.6)	.922
VAS	16.8 (22.3)	32.5 (35.1)	.248
Participated in recreational sport prior to surgery	1.50 (0.52)	1.77 (0.44)	.236
Yes	7 (50.0%)	3 (23.1%)	
No	7 (50.0%)	10 (76.9%)	
Returned to Sport following surgery			1.000
Yes	5 (71.4%)	3 (100%)	
No	2 (28.6%)	0 (0.00%)	
How long after surgery until you returned to sport participation?			.915
Less than 6 months	2 (40%)	1 (33.3%)	
Between 6 months and 1 Year	2 (40%)	1 (33.3%)	
More than 1 year	1 (20%)	1 (33.3%)	

Table 2. Survey responses and surgery details comparing arthroscopic versus open Biceps Tenodesis (BT), ASES = American Shoulder and Elbow Surgeons, SANE = Single Assessment Numeric Evaluation, VAS = Visual Analogue Scales, Mean (SD), No (%)