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Evaluation of Arthroscopic Repair to Panlabral Lesions of the Glenoid: A Retrospective Review of Patient Outcomes Over a Ten-Year Period and Matched Cohort Analysis

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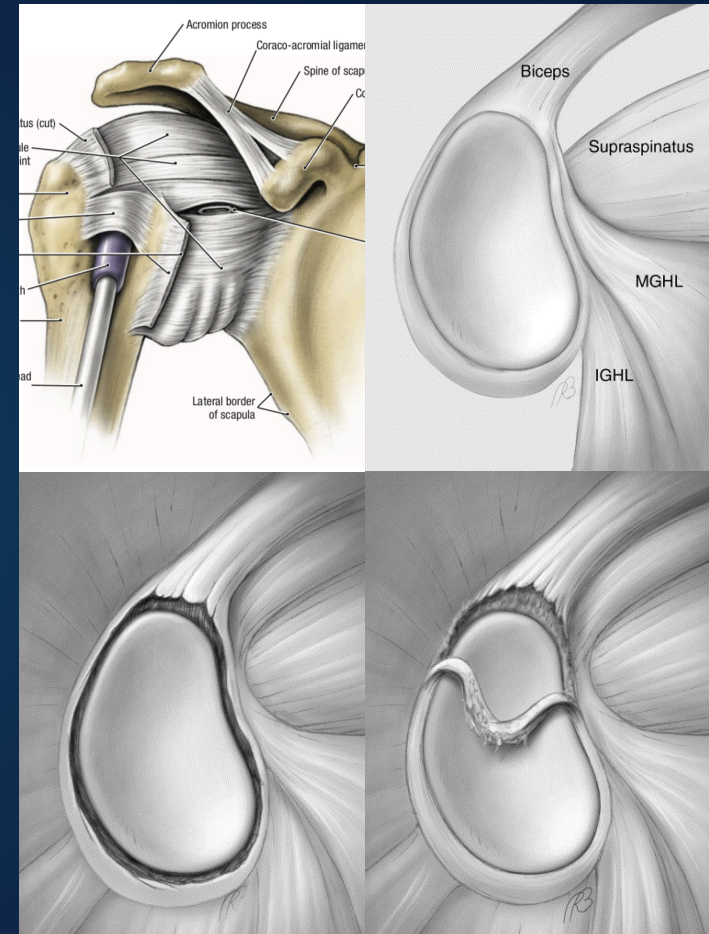
Disclosures

- I have nothing to disclose

Introduction

Shoulder labral tears can lead to chronic instability and pain often in overhead athletes, but they *can happen to anyone*. (1) Nonoperative treatment has historically shown poor outcomes (especially in younger patients (2-4)) and thus surgical repair has become standard of care. (5-10)

While most tears are small, some "*panlabral*" tears extend *around the entire glenoid*. Though believed to represent 2.4% of all tears (11), because they are rare their true incidence and outcomes are not well studied (1). The largest study to date looked at 41 patients (1) while others have looked at just 10. (12) Currently we surgically treat panlabral tears the same way as other labral tears, but given the *limitations in small sample size and lack of comparison groups in studies*, it's imperative to conduct larger studies of panlabral tears to better understand their true incidence and outcomes in order to move towards evidence-based treatments.



Clockwise from top left: Anterior view of the right shoulder joint (13), a normal labrum, a superior labrum anterior to posterior (SLAP) tear, and a panlabral tear of the glenoid. (14)

Objectives & Hypothesis

- Research Question
 - The purpose of our study is to evaluate whether there is a difference between panlabral repairs and superior labral anterior posterior (SLAP) repairs: How do the functional outcomes of patients with panlabral repairs compare to patients with SLAP repairs?
- Hypothesis
 - The rate of return to activity in patients with panlabral repairs and patients with SLAP repairs does not differ significantly

(Tokish et al. found a high rate of satisfaction and ability to return to activities after panlabral repair. (1) While their sample size was small and lacked a comparison group, Nascimento et al. reported panlabral repairs with good to excellent results in their 10 patients. (12) These findings align with current outcomes after arthroscopic SLAP repair.)

Approach & Results

- Study design
 - Retrospective cohort study
- (P) Population / study sample
 - All shoulder labral repairs at Rothman Institute from 2006-2016
- (I) Intervention
 - Arthroscopic shoulder labrum repair
- (C) Comparison group
 - Patients with panlabral repairs vs. patients with SLAP repairs (**independent variable**)
- (O) Outcomes
 - 1° Rates of return to activity 6+ months after surgery (**dependent variable**)
 - 2° ROM, strength, complications
- Data source and collection
 - Medical record abstraction, patient callback, data entry in Excel
- Analysis
 - Chi-squared, Fischer Exact, Independent t-test
- Rationale for Approach
 - Given the low incidence rate of panlabral tears a prospective study was not feasible and a retrospective cohort study design was chosen. Patient medical charts were thoroughly abstracted for all data relevant to comparing SLAP repairs and panlabral repairs.

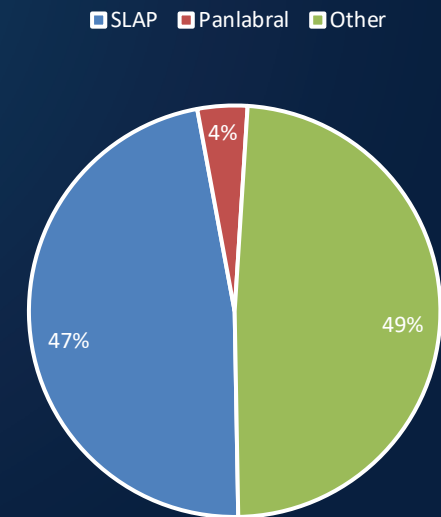
Approach & Results

- 739 patients enrolled
 - 350 SLAPs, 29 360° panlabrals (34 if 270°), 360 other
- 3.9% incidence of 360° panlabrals (4.6% if 270°)
- 140 (18.9%) REDCap responses thus far

	Shoulder Labrum Tears N=739		
	SLAP	Panlabral	Other
Patients	350 (47)	29 (4)	360 (49)
Age	32 ±10	33 ±9	n/a
Males	297 (85)	27 (93)	n/a
Complications	24 (7)	3 (10)	n/a

- 1° outcome (rates of return to activity):
 - currently underpowered, ongoing
 - Phone called/REDCap emailed 140 patients (60 SLAP, 3 360° panlabral, 77 other)
- 2° outcomes (ROM, strength, complications):
 - no difference ($p > .05$) between SLAPs and panlabrals (360° or 270°)
 - Interestingly panlabrals did better in:
 - Abduction and ER at 90° at 2, 3, 4, 5mo (underpowered at 6mo)
 - IR at 90° at 4, 5mo

Shoulder Labrum Tears N=739



Conclusions

- Largest comparative cohort study of panlabral tears to date
- Compared to 2.4% incidence in current literature (11), true incidence may be higher at 3.9% or more
- This data provides strongest support to date that **panlabrals do just as well as commonly performed SLAP repairs**
- Limitations
 - Retrospective study
 - Response bias

Future Directions

- Focus on finishing collection of 1° outcomes for all panlabral patients
- Aim for 80% rule



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