

Revision and Re-Dislocation Rates of Subluxators and Dislocators After Primary Shoulder Instability

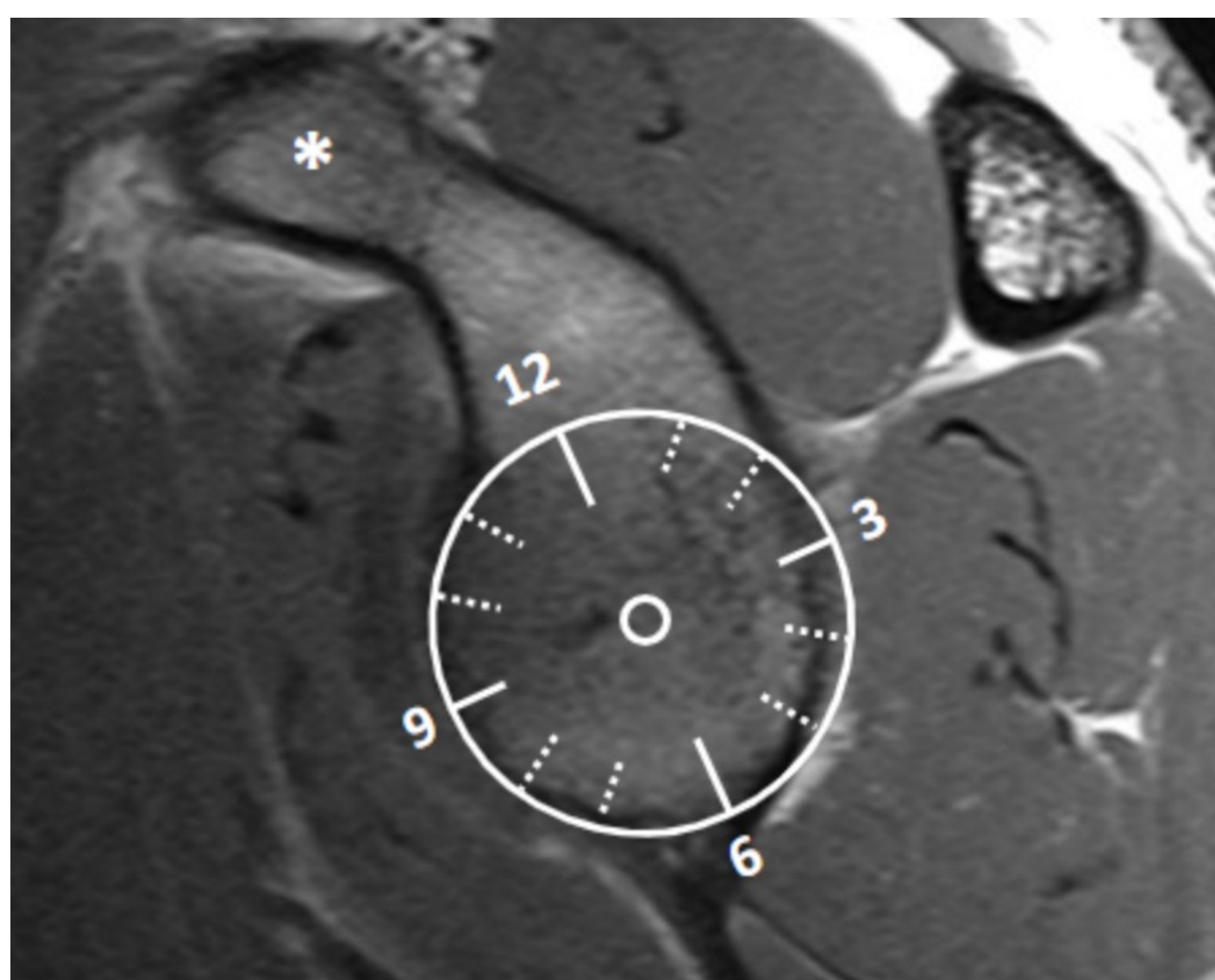
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Investigation performed at the Pittsburgh Shoulder Institute (University of Pittsburgh Medical Center)

OBJECTIVE

- Compare epidemiology and outcomes between subluxators and dislocators after first-time anterior instability (FTAI)
- It was hypothesized that subluxators would have a milder clinical presentation and better outcomes in comparison to dislocators.

METHODS

- Surgically managed FTAI patients from a single institution
- Defined subluxation and dislocation based on whether instability event required manual reduction, as seen in prior literature¹
- Exclusion criteria: prior stabilization, multidirectional and recurrent instability.
- Labral tear location was determined using the clock method



Clock method for measuring labral tears.² * = coracoid process, denoting anterior shoulder

RESULTS

Table 1. Baseline characteristics of the subluxators and dislocators.

	Subluxator (n=137)	Dislocator (n=109)	P-value
Male, n (%)	97 (70.8)	79 (72.5)	ns
BMI, median ± SD	25.9 ± 6.5	26.5 ± 6.5	ns
Dominant Hand, n (%)	58 (54.2)	48 (51.6)	ns
Bony Bankart, n (%)	12 (8.8)	16 (14.7)	ns
Hill-Sachs, n (%)	72 (52.6)	96 (88.1)	<0.001
Rotator Cuff Tear, n (%)	9 (6.6)	12 (11.0)	ns
SLAP Tear, n (%)	37 (27.0)	31 (28.4)	ns
Labral Tear Size, median ± SD	3.4 ± 2.1	3.4 ± 1.9	ns

Table 2. Treatment characteristics of the subluxators and dislocators.

Variable	Subluxator (n=137)	Dislocator (n=109)	P-value
Surgery, n (%)			ns
Arthroscopic	118 (86)	87 (79.8)	
Open	15 (10.9)	19 (17.4)	
Latarjet	4 (2.9)	3 (2.8)	
Remplissage	8 (6.0)	20 (18.9)	0.002
Anterior Labral Repair, n (%)	125 (91.2)	103 (29.9)	ns
Anterior Anchors, median (SD)	3.2 ± 1.3	3.5 ± 1.0	ns
Posterior Labral Repair, n (%)	43 (31.6)	32 (29.9)	ns

Subgroup Analysis of Prospectively Collected Data:

- 35 Subluxators and 25 Dislocators
- 6.4 and 7.1 years follow-up, respectively (no significant difference)
- Survey of various measures of Patient reported outcomes, including:
 - Subjective Shoulder Value
 - American Shoulder and Elbow Society Score (ASES)
 - Western Ontario Shoulder Instability (WOSI) Index
 - Brophy Score
 - Return to work
 - Return to sport (and sports participation)
 - Shoulder re-dislocation and revision

NO SIGNIFICANT DIFFERENCES in any patient reported outcome between subluxators and dislocators

DISCUSSION

- Hill-Sachs lesions: More in dislocators
- Remplissage: Less in subluxators
- **No significant differences in revision rates or patient reported outcomes**
- **Consistent both in short-term and longer-term (~7 year) follow-up**

CONCLUSION

- No differences in surgical or patient reported outcomes, even after up to 7.1 years average follow up
- Given comparable injury characteristics, revision rates, and outcomes, a tendency to bias subluxation event as “less severe” should be reconsidered

Future prospective studies comparing outcomes of first-time instability is needed

REFERENCES:
[1] Owens et al. *JBJS*. 2010
[2] Mannava et al. *OJSM*. 2018