



Arthroscopic Bankart Repair for Recurrent Anterior Shoulder Instability Recovers Faster than Arthroscopic Posterior Capsulolabral Repair

LTC Joseph W. Galvin¹, D.O., CPT Patrick Rooney¹, M.D., John Slevin¹, P.A.-C.,
MAJ Henry Yu¹, M.D., Eric K. Turner¹, M.D., John Tokish², M.D., Jason Grassbaugh¹, MD,
COL (ret) Edward D. Arrington³, M.D.

¹ Madigan Army Medical Center, Tacoma, WA

² Mayo Clinic-Arizona, Scottsdale, AZ

³ University of Texas-Southwestern, Dallas, TX

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

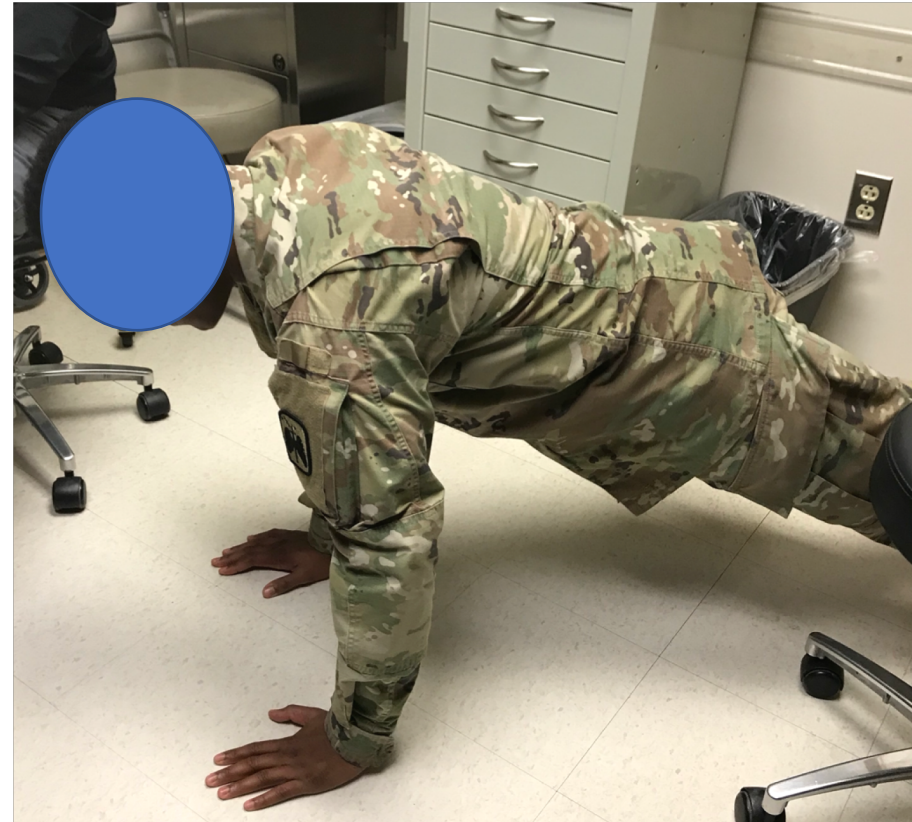
Detailed disclosure information is available via:

**AAOS Orthopaedic Disclosure Program on the AAOS
website at
<http://www.aaos.org/disclosure>**

**The authors have no disclosures relevant to the subject
of this presentation**

Background

- There is limited information on the speed of recovery in young military athletes undergoing arthroscopic shoulder stabilization for both unidirectional anterior and posterior shoulder instability



Purpose

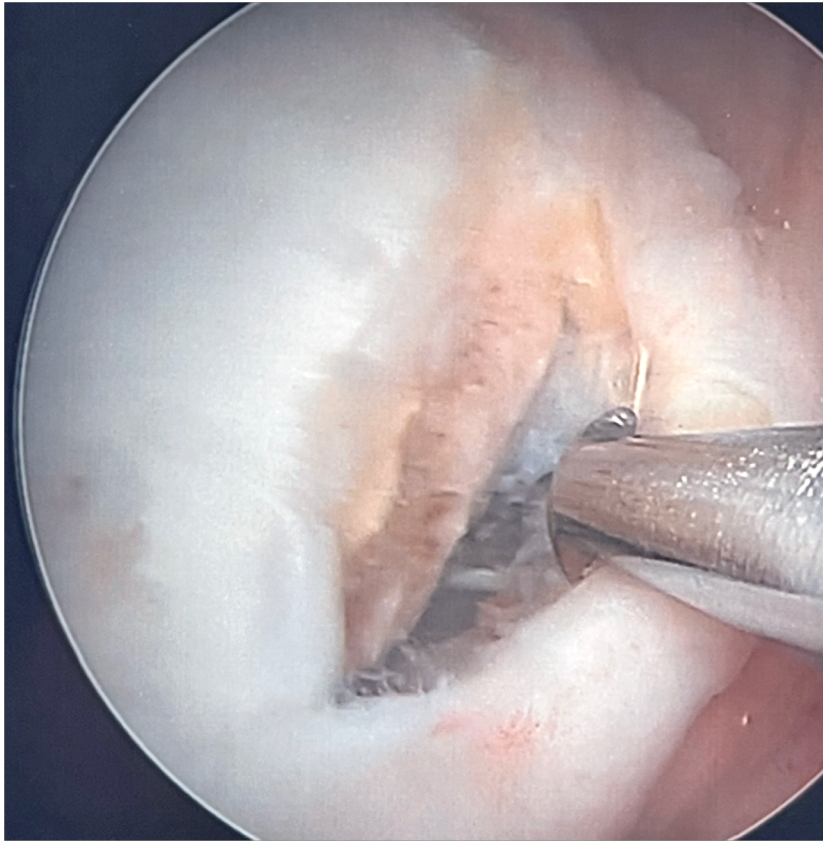
- to determine the speed of recovery following arthroscopic Bankart repair (ABR) for recurrent anterior shoulder instability and arthroscopic posterior capsulolabral repair (APCR) for posterior shoulder instability

Methods

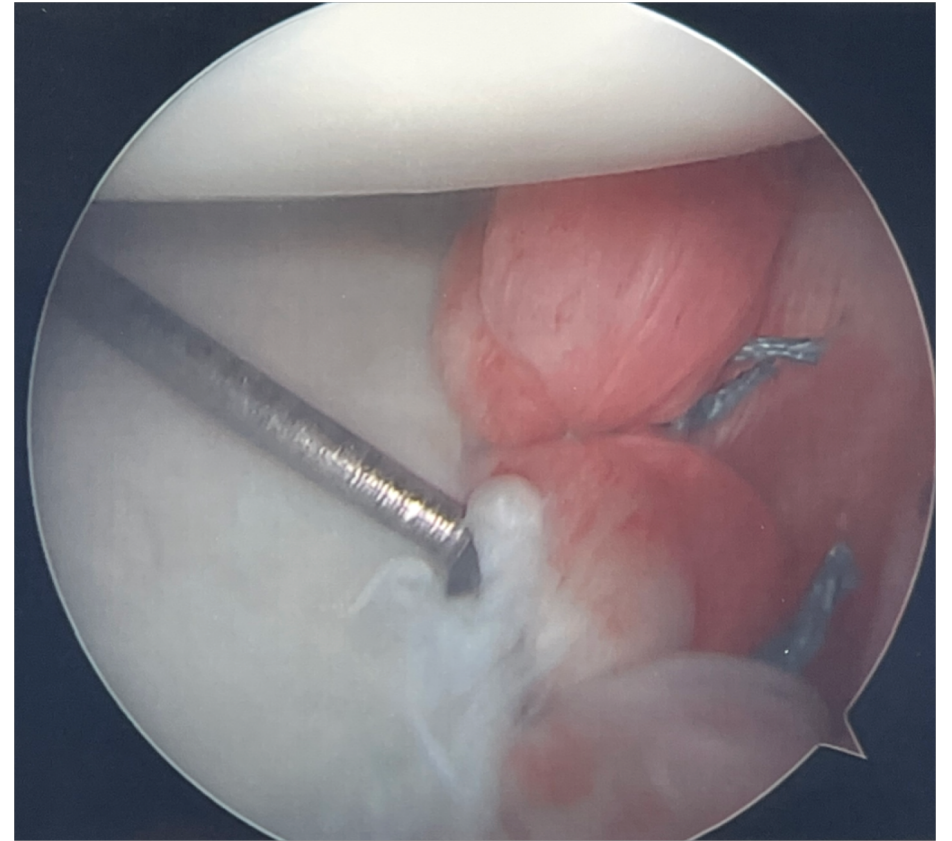
- Retrospective review of **prospectively collected data**, single institution
- **Inclusion criteria:** all patients undergoing arthroscopic Bankart repair for recurrent anterior shoulder instability & posterior capsulolabral repair for unidirectional posterior shoulder instability
- **Exclusion criteria:**
 - Revision arthroscopic labral repair
 - Multidirectional shoulder instability

Arthroscopic Bankart Technique

- Lateral decubitus position
- **At least 3** Knotless suture anchors



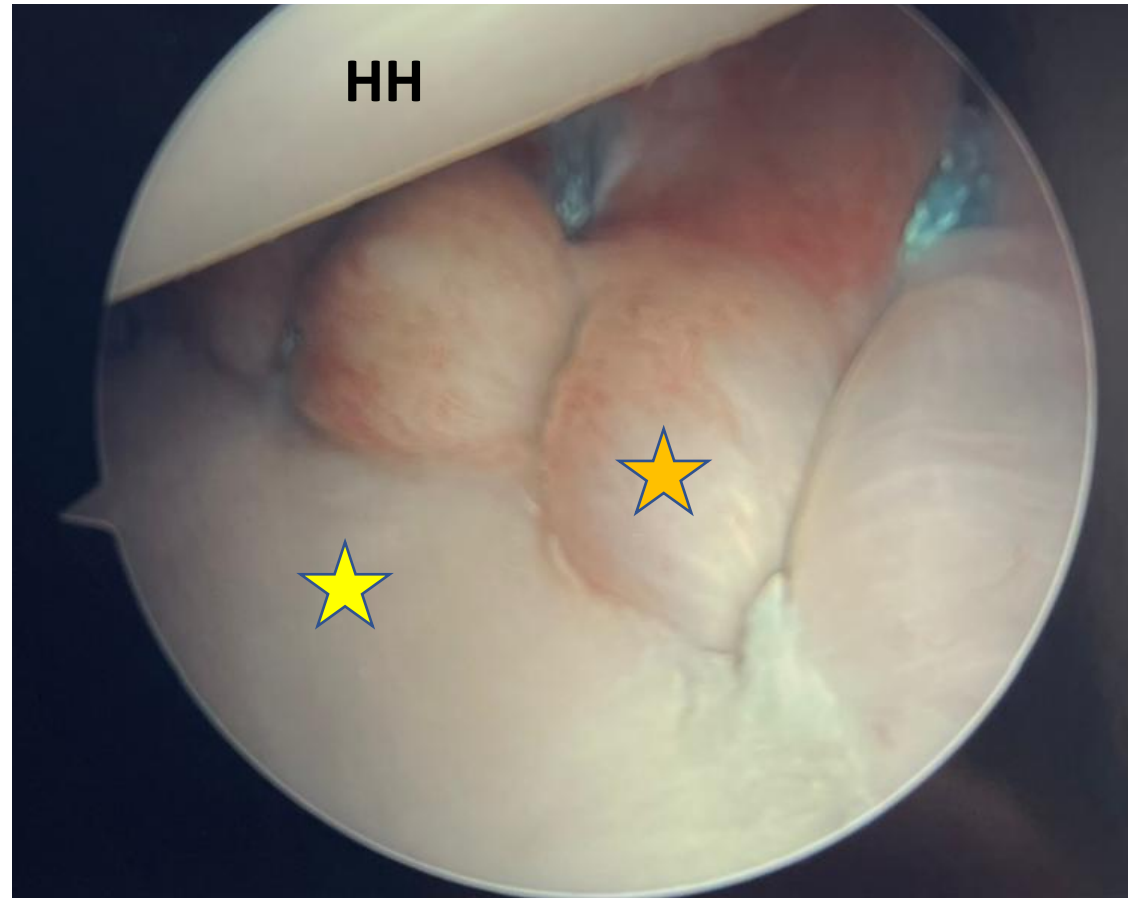
Left shoulder lateral decubitus viewing anteriorly with Bankart lesion being mobilized with liberator



Viewing anteriorly after 4-anchor arthroscopic Bankart repair

Arthroscopic Posterior Capsulolabral repair

- Lateral decubitus position
- **At least 3** knotless suture anchors



Right shoulder lateral decubitus. Viewing posteriorly after 4-anchor arthroscopic posterior labral repair

Postoperative PT protocol

- Shoulder immobilizer for 6 weeks (Protection)
- At 2 weeks postoperatively – start passive range of motion (PROM)
 - no overhead motion > 90 degrees for the first 4 weeks
- At 6 weeks postoperatively – start active range of motion (AROM)
- **Therapy regimen for posterior labral repair differed from arthroscopic Bankart repair**
 - **Posterior labral repair emphasized restrictions in internal rotation to protect the posterior capsule, until 3 months postoperatively**

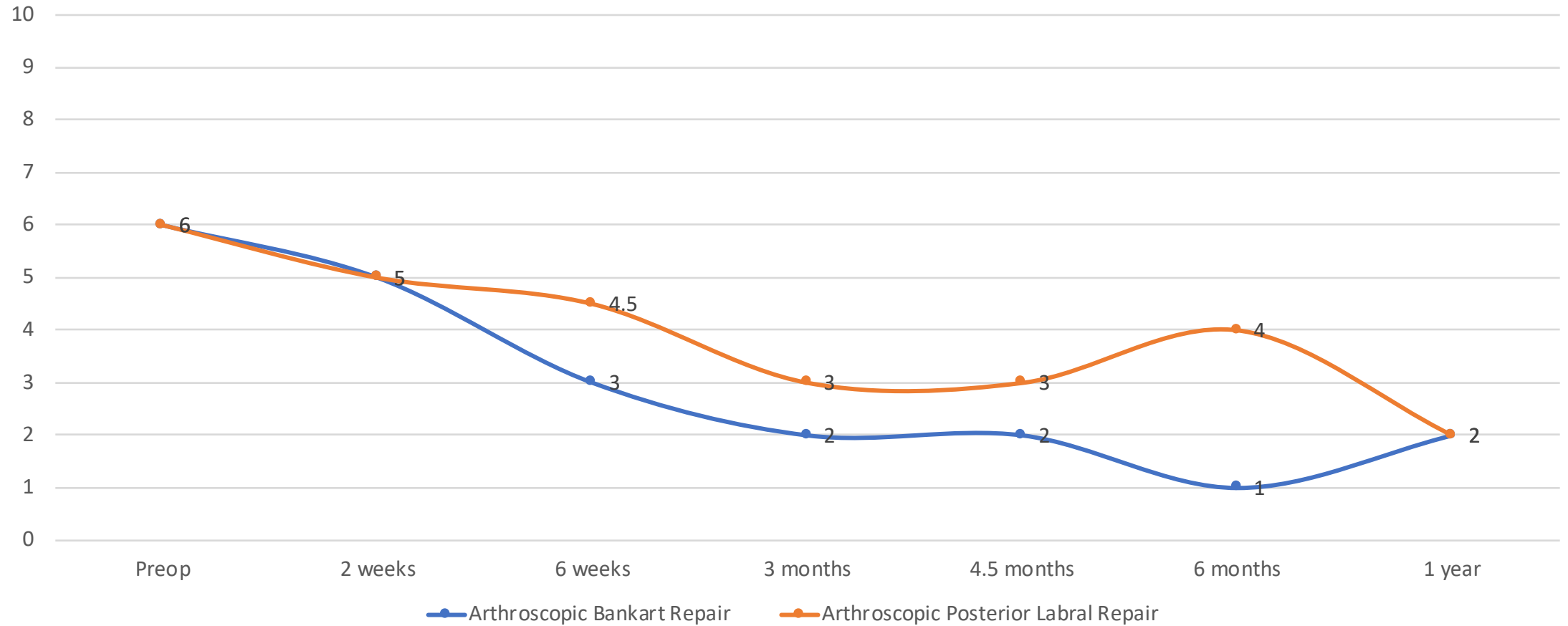
Methods

- Data collected included:
- **Preoperative outcome scores**
 - Subjective Shoulder Value (SSV)
 - American Shoulder and Elbow Surgeons (ASES) score
 - Visual Analogue Score (VAS) for pain
 - Western Ontario Shoulder Instability (WOSI) Index
- **Postoperative outcome scores**
 - **2 weeks, 6 weeks, 3 months, 4.5 months, 6 months, 1 year**

Demographics

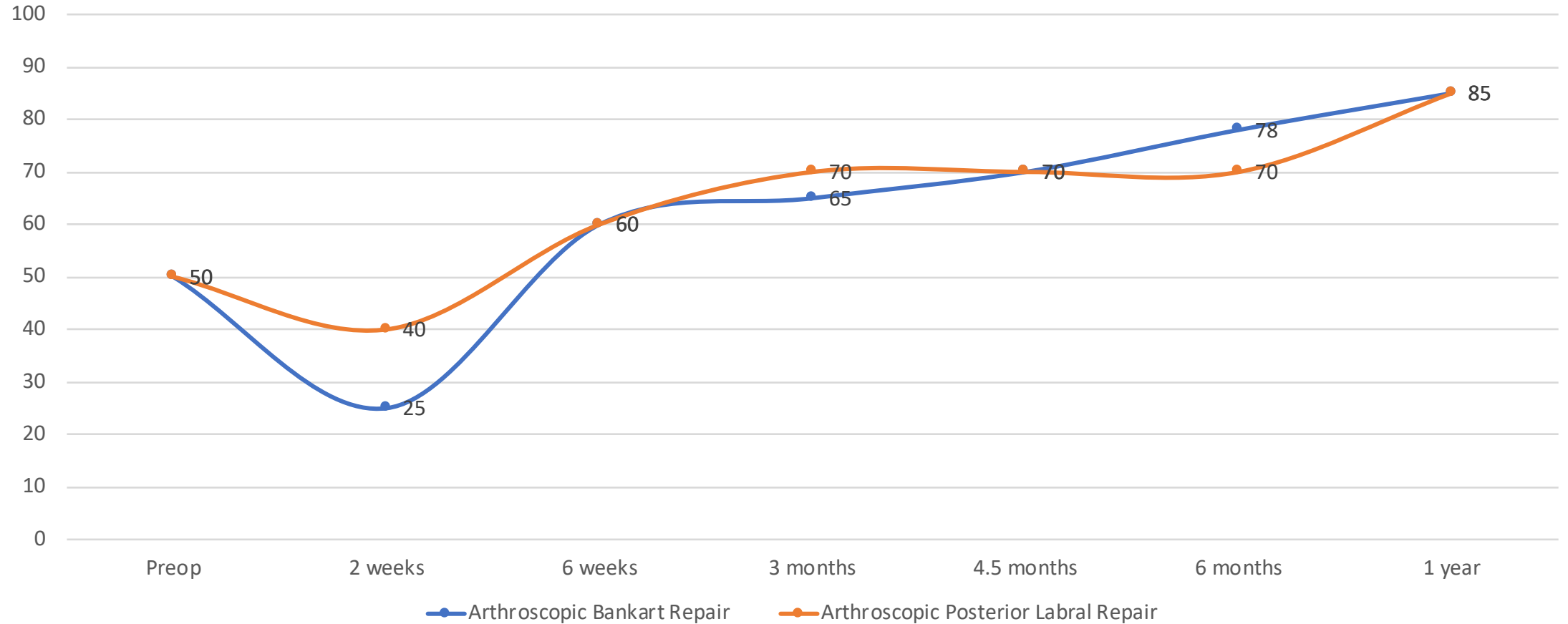
	Arthroscopic Bankart Repair n=38	Arthroscopic posterior labral repair n=24	P-value
Age, (years) (SD)	26 +/- 6	27.8 +/- 5	0.13
Sex (Male:Female)	36:2	23:1	1.0
Laterality (Left:Right)	17:21	12:12	0.79
Mean # of suture anchors	4.3	3.9	0.31
Mean follow up (months)	24 (12-33)	23.9 (12-34)	0.71

VAS Pain



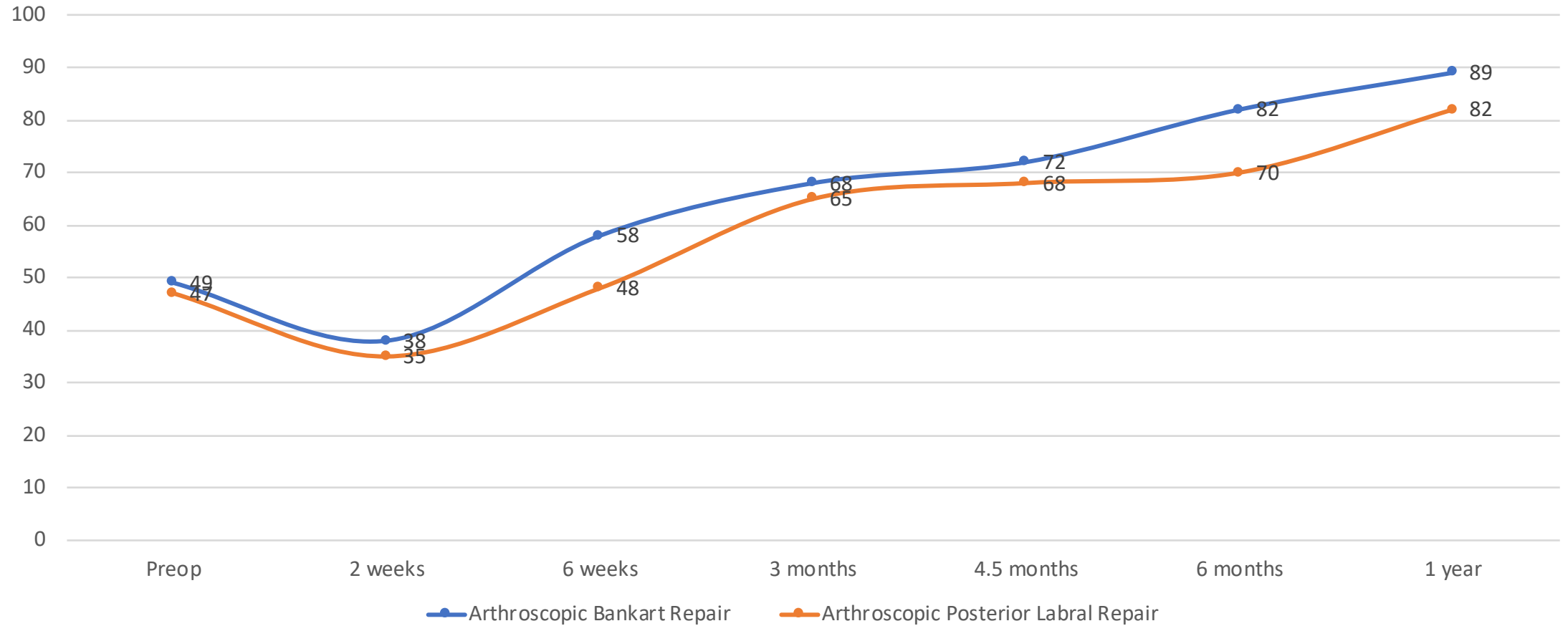
	Arthroscopic Bankart Repair	Arthroscopic Posterior Labral Repair	P-value
Preop	6	6	0.24
2 weeks	5	5	0.48
6 weeks	3	4.5	0.025
3 months	2	3	0.019
4.5 months	2	3	0.53
6 months	1	4	0.04
1 year	2	2	0.69

SSV



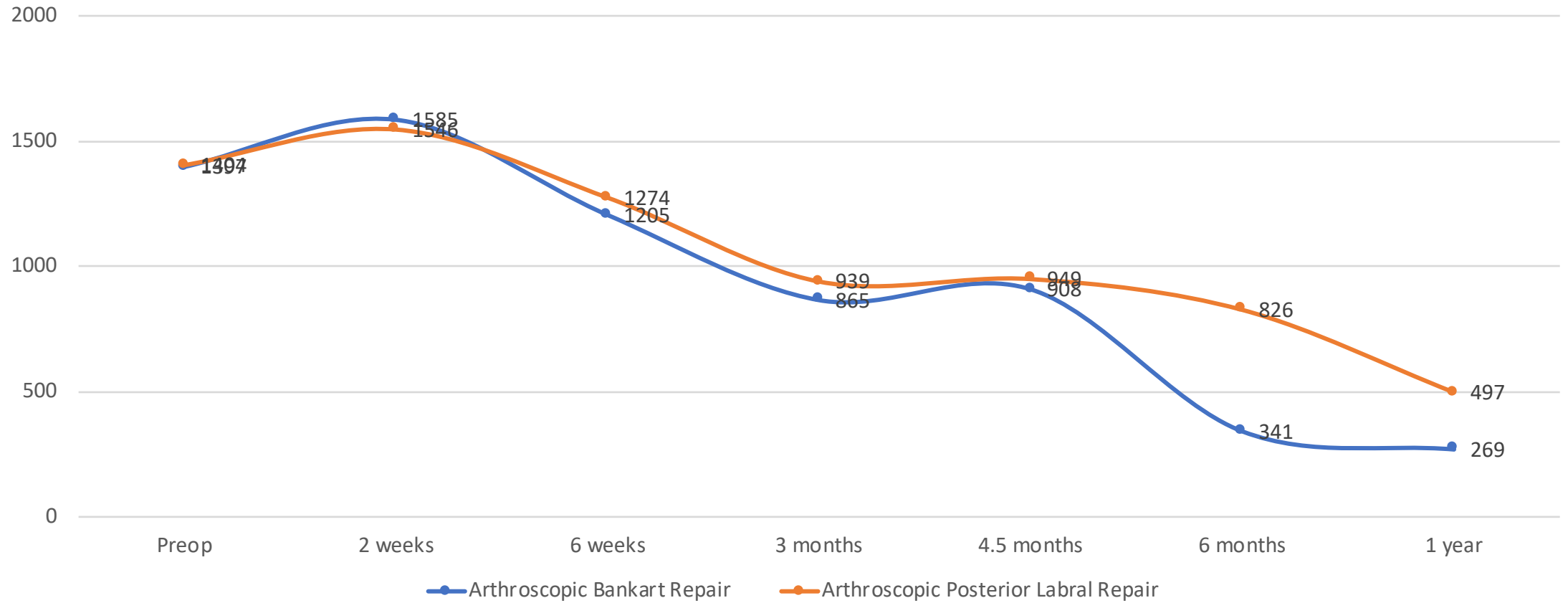
	Arthroscopic Bankart Repair	Arthroscopic Posterior Labral Repair	P-value
Preop	50	50	0.58
2 weeks	25	40	0.10
6 weeks	60	60	0.46
3 months	65	70	0.92
4.5 months	70	70	0.41
6 months	78	70	0.20
1 year	85	85	0.85

ASES



	Arthroscopic Bankart Repair	Arthroscopic Posterior Labral Repair	P-value
Preop	49	47	0.44
2 weeks	38	35	0.32
6 weeks	58	48	0.51
3 months	68	65	0.19
4.5 months	72	68	0.29
6 months	82	70	0.03
1 year	89	82	0.37

WOSI



	Arthroscopic Bankart Repair	Arthroscopic Posterior Labral Repair	P-value
Preop	1397	1404	0.50
2 weeks	1585	1546	0.90
6 weeks	1205	1274	0.62
3 months	865	939	0.95
4.5 months	908	949	0.35
6 months	341	826	0.02
1 year	269	497	0.16

Results

	Arthroscopic Bankart (n=38)	Arthroscopic Posterior Labral repair (n=24)	P-value
Complications	0/38 (0%)	0/24 (0%)	0.99
Reoperations	0 (0%)	0 (0%)	0.99
Recurrent Instability	2/38 (5.2%)	1/24 (4.2%)	0.5

- **Complications**

- none

- **Reoperations**

- none

- **Recurrent Instability**

- Arthroscopic Bankart repair – 2 patients had a recurrent subluxation episode (2/38) 5.2%
- Arthroscopic posterior labral repair – 1/24 (4.2%)

Discussion

- Prior studies have reported that the return to sport following arthroscopic Bankart Repair is **5 to 6 months** (Abdul-Rassoul H, Hurley ET et al)
- However, there is limited information on the speed of recovery in young military athletes comparing arthroscopic anterior and posterior shoulder stabilization
- Using preoperative and postoperative short-term patient reported outcomes scores, **we report recovery curves and objective data to inform patients and Commanders of the speed of recovery following surgery**

Limitations

- Small sample size
- Short-term follow up
- Multiple patient psychosocial variables that factor into reporting of subjective patient reported outcome measures

Conclusion

- Young patients undergoing arthroscopic Bankart Repair and arthroscopic posterior capsulolabral repair have a predictable trajectory of recovery with good outcomes
- **Patients undergoing arthroscopic Bankart repair for anterior shoulder instability recover significantly faster with less pain in the first 6 months than those undergoing posterior labral repair**
- However, at 1 year there is no significant difference in pain and patient reported outcome measures between the 2 surgeries

Thank you



References

1. Abdul-Rassoul H, Galvin JW, Curry EJ, Simon J, Li X. Return to Sport After Surgical Treatment for Anterior Shoulder Instability: A Systematic Review. *Am J Sports Med.* 2019 May;47(6):1507-1515. doi: 10.1177/0363546518780934. Epub 2018 Jun 27. PMID: 29949383.
2. Grubhofer F, Muniz Martinez AR, Ernstbrunner L, Haberli J, Selig ME, Yi K, Warner JJP. Speed of recovery of the most commonly performed shoulder surgeries. *JSES Int.* 2021 Apr 21;5(4):776-781. doi: 10.1016/j.jseint.2021.03.007. PMID: 34223429; PMCID: PMC8245973.
3. Dickens JF, Owens BD, Cameron KL, Kilcoyne K, Allred CD, Svoboda SJ, et al. Return to play and recurrent instability after in-season anterior shoulder instability: a prospective multicenter study. *Am J Sports Med.* 2014 Dec;42(12):2842-50. doi: 10.1177/0363546514553181. Epub 2014 Nov 5. PMID: 25378207.
4. Provencher MT, Bell SJ, Menzel KA, Mologne TS. Arthroscopic treatment of posterior shoulder instability: results in 33 patients. *Am J Sports Med.* 2005 Oct;33(10):1463-71. doi: 10.1177/0363546505278301. Epub 2005 Aug 10. PMID: 16093530.