

Bankart Repair vs Latarjet Procedure in Combat Sports Athletes: A Systematic Review and Meta-analysis

Authors: Rohan Patel¹, Mahmoud Selim¹, Baijaeek Sain^{2,3}, Vishal Patel³

¹ King’s College London, London, UK, ² United Lincolnshire Hospitals NHS Trust, Lincolnshire, UK, ³ Royal Berkshire NHS Foundation Trust, Reading, UK

BACKGROUND

- Anterior shoulder instability is common in combat sports due to high-impact and repetitive movements.
- Bankart (soft-tissue) and Latarjet (bone-block) are widely used joint-preserving procedures.
- The optimal procedure for high-demand athletes remains uncertain.

OBJECTIVES

- Compare functional outcomes (Constant Score) between Bankart and Latarjet.
- Evaluate recurrence rates and return-to-sport (RTS) at any/same level.
- Appraise study quality (NIH) and certainty of evidence (GRADE).

METHODS

- PRISMA-compliant systematic review and meta-analysis.
- Databases: PubMed, MEDLINE, Embase, Scopus, CINAHL.
- Screening: 546 → 266 → 103 → 7 included studies.
- Random-effects model (DerSimonian–Laird).
- Outcomes: Constant Score (CS), Recurrence, RTS.
- Risk of bias: NIH tool; certainty: GRADE.
- PROSPERO ID: CRD420251128304.

RESULTS

- Constant Score (CS): Bankart 90.5 (95% CI 86.3–94.7); Latarjet 88.4 (83.6–93.3).
- Recurrence: Bankart 21.2% (14.3–29.1); Latarjet 4.6% (0.3–13.8).
- RTS – same level: Bankart 72.9% (60.3–83.8); Latarjet 84.5% (71.1–94.3).
- RTS – any level: Bankart 87.4% (80.8–92.8); Latarjet 84.5% (71.1–94.3).

Discussion and Key findings

- Both procedures demonstrate excellent functional recovery and high RTS rates among combat sports athletes.
- Latarjet consistently yields lower recurrence risk and higher same-level RTS, supporting its biomechanical advantage as a bone-block stabilisation..
- Heterogeneity (61%) likely reflects differences in sport type, follow-up duration, and outcome measures.
- Findings suggest both procedures are effective for restoring shoulder function, but Latarjet may provide superior stability for high-impact or recurrent cases.
- Current evidence is limited by small sample sizes, retrospective designs, and variable measurement tools.
- Evidence limited by small retrospective studies.
- Further prospective, high-quality studies are needed to confirm these results and refine procedure selection in combat athletes.

References:

1. Hurley ET, Montgomery C, Jamal MS, Shimozono Y, Ali ZS, Mullett H. Return to sport after Latarjet for anterior shoulder instability: systematic review and meta-analysis. *Arthroscopy*. 2020;36(2):579–587.
2. Rossi LA, Brandariz R, Tanoira I, Pasqualini I, Ranalletta M. Arthroscopic Bankart repair in contact athletes: systematic review and meta-analysis. *Arthroscopy*. 2019;35(9):2566–2573.
3. Brandariz R, Rossi LA, Tanoira I, Ranalletta M. Arthroscopic Bankart vs open Latarjet in contact athletes: comparative study. *Arthroscopy*. 2022;38(3):612–621.
4. Bessière C, Trojani C, Carles M, Mehta SS, Boileau P. Open Latarjet provides greater stability than arthroscopic Bankart: a comparative study. *J Bone Joint Surg Am*. 2014;96(12):e98.
5. Tangari M, D’Angelo F, Glai Via A, Randelli F, Randelli P. Open Bankart repair in Judo athletes: 5-year results. *Am J Sports Med*. 2011;39(7):1509–1513.
6. Constant CR, Murley AH. A clinical method of functional assessment of the shoulder. *Clin Orthop Relat Res*. 1987;(214):160–164.
7. Ranalletta M, Rossi LA, Tanoira I, Bongiovanni S. Arthroscopic Bankart repair in combat athletes. *Orthop J Sports Med*. 2017;5(8):2325967117723209.

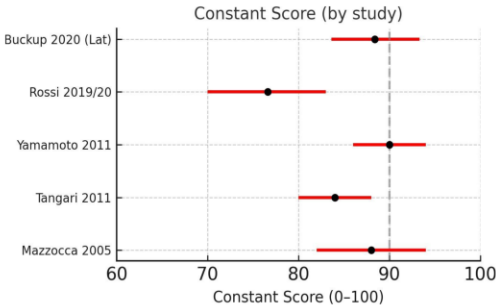


Figure 1. Constant Score (by study)

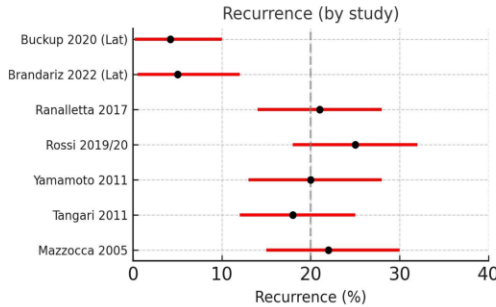


Figure 2. Recurrence (by study)

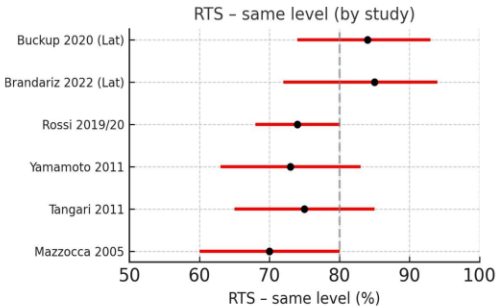


Figure 3. RTS – same level (by study)

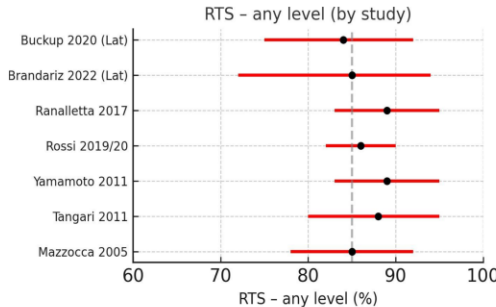


Figure 4. RTS – any level (by study)

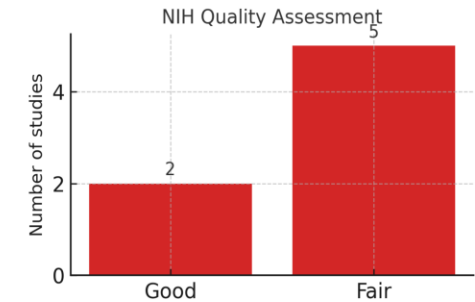


Figure 5. NIH Quality Assessment (Good vs Fair)

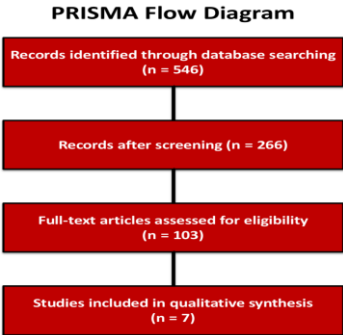


Figure 6. PRISMA Flow Diagram