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Long Term Clinical Outcomes And Complications Following Latarjet Procedure In The Adolescent Population – A Systematic Review

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Faculty Disclosure Information

- No conflicts of interest to disclose.



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Introduction

- Recurrent shoulder instability poses unique clinical challenges in the adolescent population, particularly in young athletes [1,2].
- The Latarjet procedure is well-described in adults [3,4,5,6], but outcomes in the adolescent population are less frequently reported.
- We present a review of outcomes following adolescent Latarjet, including functional scores, return to sport, and complications.



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Methods

- Systematic review (PRISMA guidelines) [7].
- Databases: Embase, PubMed, Google Scholar
- Inclusion: Adolescents ≤ 20 years who underwent Latarjet for anterior instability between 1990-2024, min. 6 months follow up.
- Outcomes assessed: PROMs, return to sport, complications, recurrence, radiographic outcomes, and ROM.



Patient Demographics

Demographic Parameter	Value
Studies included	6 [8,9,10,11,12,13]
Total Shoulders	391 (385 patients)
Latarjet Procedures	293
Mean Age at Surgery	16.7 years (range: 13–20)
Male	87.3%
Engaged in Contact Sports	63%
Mean Follow-up (years)	7 (range: 2–26)



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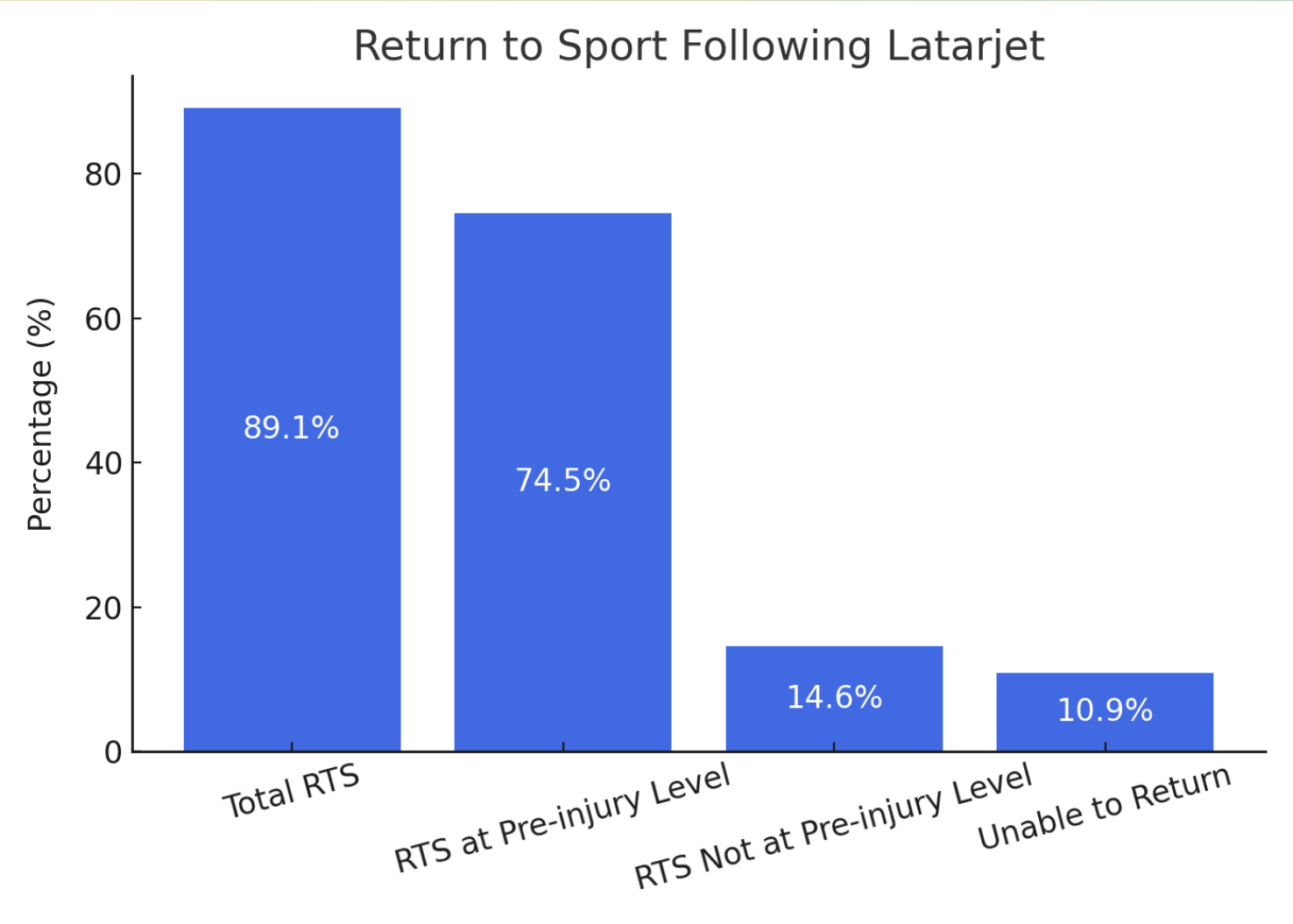


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Patient Reported Outcomes (PROMs)

- Average SSV (used in 4/6 studies): 90 (range 84–95).
- Average Rowe score (used in 3/6 studies): 90 (range 80–95).
- Two studies compared Latarjet with Bankart repair; neither found significant difference in SSV or WOSI scores [8,9].

Return to Sport



Return to Sport Category	Percentage (%)
Total RTS	89.1%
RTS at Pre-injury Level	74.5%
RTS Not at Pre-injury Level	14.6%
Unable to Return	10.9%



Complications & Reoperations

Number of patients (%)

Total Complications

41 (14)

Reoperation Rate

22 (7.5)

Recurrent Instability

15 (5.1)

Revision stabilisation surgery

6 (2)

Hardware Removal

13 (4.4)

Hematoma requiring evacuation

2 (0.7)

Infection requiring washout

2 (0.7)

- Latarjet significantly lower recurrence than Bankart or non-operative [8,9,10].



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Skeletal Immaturity Considerations

- Low recurrence and high RTS in skeletally immature adolescents [10,11].
- Minor OA changes observed, generally not clinically significant and with good outcomes [11].
- High screw removal rate (11%) emphasizes potential benefits of alternative fixation methods.



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Discussion

- High RTS (~90%) with low recurrence (5.1%), comparable to adult literature [3,4,5].
- Complication rate (14%) higher than adults, primarily hardware-related [14,15].
- PROMs demonstrate consistent good-excellent functional outcomes, reinforcing procedure reliability.
- Standardized RTS definitions needed for clearer comparisons across studies [5,8,9].
- Longer-term follow-up studies essential for assessing durability and quality of life implications.



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Conclusion

- Latarjet procedure in the adolescent population presents good to excellent functional outcomes with high return to sport rate and low rate of recurrence in medium to long term
- Risk of complications and re-operation highlights need for careful patient selection



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