Evaluating Long-Term Outcomes of the Latarjet Procedure

Walter Smith MD[1], Allyson N Pfeil BS[1], Matthew A Coker BS[2], Ross Doehrmann DO[1], Alexandra Mathews[1], Derek Fukuda[1], Corey F Hryc PhD[1], Hussein A Elkousy MD[1], T. Bradley Edwards MD[1]
[1] Fondren Orthopedic Research Institute, Texas Orthopedic Hospital, Houston, TX [2] Texas A&M School of Engineering Medicine, Houston, TX.
walter.smith@fondren.com

Introduction: Anterior glenohumeral instability often necessitates surgical intervention to prevent recurrence. The open Latarjet procedure is a technique that transfers the coracoid process and conjoined tendon to the anterior glenoid for a triple blocking effect. Originally popularized in Europe, this procedure has become increasingly performed in North America. This study aims to present the long-term outcomes of the largest series of Latarjet procedures performed in North America.

Material & Methods: We identified 413 Latarjet patients treated between January 2003 and January 2023, and invited them to participate digitally in sharing their perspectives and clinical histories. To date, 94 patients have completed patient-reported outcome measures including Single Assessment Numeric Evaluation (SANE) and Western Ontario Shoulder Instability Index (WOSI) and responded to questions about dislocations, prior and additional surgery, and instability. Patients were stratified into short-term (ST) (1-9 years postoperative; n=48) and long-term cohort (LT) follow-up (≥10 years postoperative; n=44). Student's t-, modified Wald, and Chi-square tests were evaluated for significance at $P < 0.05$.

Results: Overall, 93.5% of respondents required no additional shoulder surgery, 95.6% reported no dislocations, and 80.4% reported no slipping. The mean SANE and WOSI score were 84.8 and 21.0, respectively. No differences were observed between ST and LT subgroups with respect to postoperative dislocations, (4.2 vs. 4.6%), instability (16.7 vs. 22.7%), prior surgery before Latarjet (47.9 vs. 40.9%), SANE scores (84.5 vs. 85.2), composite WOSI scores (19.7 vs. 22.5), or WOSI subcategories, respectively (Table 1). LT patients required additional postoperative shoulder surgeries compared to ST (ST=0%; LT=13.6%; $P < .01$).

Discussion: Both short-term and long-term results indicate positive clinical outcomes. The long-term data suggests that these benefits are durable, and the Latarjet procedure should be considered as a viable and reliable treatment option for anterior glenohumeral instability. This study indicates that long-term Latarjet clinical and patient outcomes are consistent and favorable in a North American patient population.

IMAGES AND TABLES:

Table 1. Short Term Versus Long Term Outcomes After Latarjet.

Variable	Short Term (n=48)	Long Term (n=44)	*P* Value
Average Follow-Up	4.75 ± 2.42	13 ± 3.04	-
Additional Surgery to Shoulder	0 (0%)	6 (13.64%)	**.0081**
Dislocation Since Surgery	2 (4.17%)	2 (4.55%)	.9291
Instability Since Surgery	8 (16.67%)	10 (22.73%)	.4642
Shoulder Surgery Before Latarjet	23 (47.92%)	18 (40.91%)	.4994
SANE	84.52 ± 15.73	85.16 ± 13.77	.8366
WOSI Physical	17.74 ± 15.95	20.29 ± 22.56	.4159
WOSI Sport	18.61 ± 19.91	22.68 ± 24.33	.3806
WOSI Lifestyle	18.64 ± 21.85	22.77 ± 23.50	.3847
WOSI Emotional	28.73 ± 28.58	29.37 ± 30.82	.9179
WOSI Composite	19.66 ± 18.13	22.52 ± 23.08	.5085

Abbreviations: SANE=Single Assessment Numeric Evaluation, WOSI= Western Ontario Shoulder Instability Index