

Editorial Commentary: Arthroscopic Latarjet: An Analysis of Outcomes and Complications Through its Learning Curve



Domenico A. Santagada, M.D., Brent J. Morris, M.D., and Simone Cerciello, M.D.

Abstract: The arthroscopic Latarjet has been proposed in the past decade to reduce the rate of bone block malpositioning, decrease soft-tissue damage associated with open approach, and possibly decrease intraoperative complications. Several recent studies have reported similar or even superior results with arthroscopic Latarjet compared with those achieved with open technique. However, arthroscopic Latarjet is known to be more technically demanding and some feel that it should be performed by expert shoulder surgeons with advanced arthroscopic skills. Surgical innovations should be adopted when they have potential advantages for patients. Despite the initial challenges and learning curve of arthroscopic Latarjet, experience and technical skills may reduce the rate of intraoperative complications for this technically demanding procedure.

See related article on page 3221

The Latarjet procedure is considered by some to be the gold standard in the treatment of glenohumeral instability especially in those situations where soft-tissue procedures are at high risk of failure, such as collision athletes, and in patients with severe bone loss. However, there is general concern regarding the potential drawbacks of this operation: intraoperative complications, bone block malpositioning, and development of late arthritis. Recent studies have shown a rate of complications of 21%,¹ coracoid bone block malposition of 15.4%,² and late arthritic changes in 38.2%.³ The arthroscopic Latarjet has been proposed to address these problems and potentially reduce additional soft-tissue damage. Although soft-tissue dissection is reduced by the arthroscopic approach, graft positioning and intraoperative complications are still a source of concern.⁴ Kordasiewicz et al. reported a correct position of the graft in the axial plane in 40.5% of patients and in the sagittal plane (between 3 and 5 o'clock) in 54.6% of cases.

Recent data regarding intraoperative complications and revision surgery are variable. Complications range from 4%⁵ to 16.5%,⁶ and need for revision from 5.4%⁷ to 5.7%.⁶ Regarding the rate of late arthritic changes, all of the reported studies only reported intermediate follow-up, which is not sufficient to draw clear conclusions. The 3 available recent systematic reviews and meta-analyses concluded that the arthroscopic Latarjet procedure is a valid alternative to open surgery, although it is more technically demanding, requires longer operative time, and should be performed only in high-volume centers by experienced arthroscopists.⁶⁻⁸ The technical demands may be overcome with experience because operative time has been shown to significantly decrease with surgical experience and reaches a plateau after 30 cases.⁹

This evidence has been recently confirmed by Kordasiewicz, Kiciński, Małachowski, Boszczyk, Chaberek, and Pomianowski¹⁰ in their article, "Arthroscopic Latarjet Stabilization: Analysis of the Learning Curve in the First 90 Primary Cases - Early Clinical Results and Computed Tomography Evaluation." The article showed a significant decrease in surgical time, frequency of complications, and number of hardware problems after the first 30 cases. Innovation should always be encouraged because it is the seed for improvement and the best way to ensure the appropriate treatment for all our patients. In addition, it

Rome, Italy (D.A.S.); Houston, Texas (B.J.M.); Crotona, Italy (S.C.).

The authors report no conflicts of interest in the authorship and publication of this article. Full ICMJE author disclosure forms are available for this article online, as [supplementary material](#).

© 2019 by the Arthroscopy Association of North America
0749-8063/19958/\$36.00

<https://doi.org/10.1016/j.arthro.2019.08.018>

should be highlighted that the same technical problems have been similarly described for the open Latarjet.¹¹ Therefore, we should firmly adopt innovations and new surgical techniques when appropriate to achieve the best results, while acknowledging the potential drawbacks and understanding our own technical skills.

References

1. Domos P, Lunini E, Ascione F, et al. Clinical and radiographic outcomes of open Latarjet procedure in patients aged 40 years or older. *J Shoulder Elbow Surg* 2019;43:1899-1907.
2. Willemot L, De Boey S, Van Tongel A, Declercq G, De Wilde L, Verborgt O. Analysis of failures after the Bristow-Latarjet procedure for recurrent shoulder instability. *Int Orthop* 2019;43:1899-1907.
3. Hurley ET, Jamal MS, Ali ZS, Montgomery C, Pauzenberger L, Mullett H. Long-term outcomes of the Latarjet procedure for anterior shoulder instability: A systematic review of studies at 10-year follow-up. *J Shoulder Elbow Surg* 2019;28:e33-e39.
4. Kordasiewicz B, Małachowski K, Kiciński M, et al. Intraoperative graft-related complications are a risk factor for recurrence in arthroscopic Latarjet stabilization. *Knee Surg Sports Traumatol Arthrosc* 2019;27:3230-3239.
5. Xu J, Liu H, Lu W, et al. Clinical outcomes and radiologic assessment of a modified suture button arthroscopic Latarjet procedure. *BMC Musculoskelet Disord* 2019 Apr 16;20:173. doi:10.1186/s12891-019-2544-x.
6. Cerciello S, Corona K, Morris BJ, Santagada DA, Maccauro G. Early outcomes and perioperative complications of the arthroscopic Latarjet procedure: Systematic review and meta-analysis. *Am J Sports Med* 2019;47:2232-2241.
7. Hurley ET, Lim Fat D, Farrington SK, Mullett H. Open versus arthroscopic Latarjet procedure for anterior shoulder instability: A systematic review and meta-analysis. *Am J Sports Med* 2019;47:1248-1253.
8. Horner NS, Moroz PA, Bhullar R, et al. Open versus arthroscopic Latarjet procedures for the treatment of shoulder instability: A systematic review of comparative studies. *BMC Musculoskelet Disord* 2018;19:255.
9. Bonneville N, Thélu CE, Bouju Y, et al. Arthroscopic Latarjet procedure with double-button fixation: Short-term complications and learning curve analysis. *J Shoulder Elbow Surg* 2018;27:e189-e195.
10. Kordasiewicz B, Kiciński M, Małachowski K, Boszczyk A, Chaberek S, Pomianowski S. Arthroscopic Latarjet stabilization: Analysis of the learning curve in the first 90 primary cases - early clinical results and computed tomography evaluation. *Arthroscopy* 2019;35:3221-3237.
11. Ekhtiari S, Horner NS, Bedi A, Ayeni OR, Khan M. The learning curve for the Latarjet procedure: A systematic review. *Orthop J Sports Med* 2018;6:2325967118786930.