International Journal of Research in Medical Sciences
Aryana IGNW et al. Int J Res Med Sci. 2020 May;8(5):1921-1923
www.msjonline.org
pISSN 2320-6071 | eISSN 2320-6012

DOI: http://dx.doi.org/10.18203/2320-6012.ijrms20201952

Case Report

Latarjet procedure for failed arthroscopic Bankart repair: a case report

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Received: 16 March 2020
Accepted: 09 April 2020

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ABSTRACT

Arthroscopic Bankart Repair (ABR) provides acceptable results for recurrent anterior shoulder dislocation. However, recent studies have shown recurrent rates of 4-19% or even up to 35-40% in patients aged <25 years, and the results tend to get worse after long-term follow-up. The Latarjet procedure can improve anterior stability by multiple mechanisms, not only can the Bankart lesion be repaired and provide stability, but the transfer of the coracoid process extends the bony articular arc of the glenoid, and the addition of the conjoint tendon may provide dynamic stability as well. The Latarjet procedure for correcting recurrent anterior shoulder dislocation led to good and excellent results in 82.7% of the cases. The Latarjet procedure had the lowest re-dislocation rate, which was significantly lower than the arthroscopic Bankart repair. Latarjet procedure is effective in terms of restoring anteroinferior glenohumeral stability and good option for failed arthroscopic Bankart repair. Recurrence rates of instability are acceptable and re-operation rates were low.

Keywords: Arthroscopic bankart repair, Letarjet procedure, Recurrent anterior shoulder dislocation

INTRODUCTION

Recurrent traumatic anterior instability of shoulder is best managed with operative management. The aim of surgery is to repair the capsule-labral soft tissue structures, and if required, the osseous defects, in order to provide anterior restraint and decrease the capsular volume.[1]

The Latarjet procedure, first described by Michel Latarjet in 1954, is used for recurrent anterior instability of the glenohumeral joint, most commonly associated with glenoid bone loss, or following failed soft tissue stabilisation procedures. The Latarjet procedure involves passing an osteotomised coracoid process graft with attached conjoint tendon through a horizontal splitting of the subscapularis tendon and securing the graft onto the anterior surface of the glenoid where the bony defect has occurred.[2]

CASE REPORT

A 43-year-old male came to Orthopaedic clinic with chief complaint of pain on his right shoulder after lifting his toddler son above shoulder. After that, he was unable to abduct and lift his shoulder due to pain. He had history of traumatic right shoulder dislocation about 7 years ago and underwent operation with arthroscopic bankart procedure.

On physical examination, his right shoulder was in adduction, external rotation, and square shoulder, with no sign of nerve injury.

Radiological examination showed anterior dislocation of glenohumerale joint with subglenoid position, good bone condition, no complication of fracture or avulsion involvement and visible sutures of post arthroscopic Bankart procedure.

Figure 1: Pre-operative X-ray. An anterior dislocation of glenohumerale joint with subglenoid position, good bone condition.

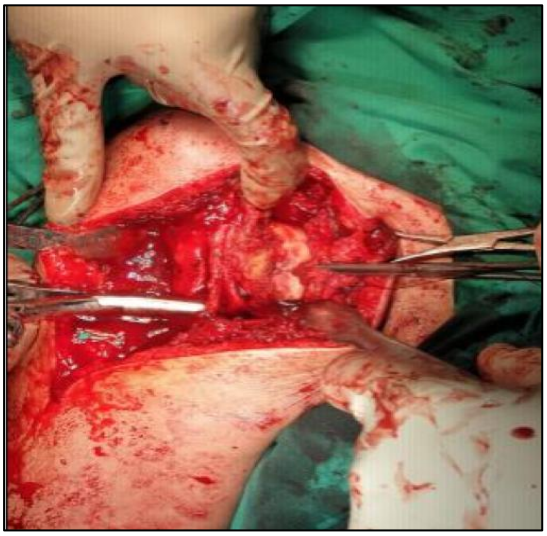

Figure 2: Intra operative Latarjet procedure.

Figure 3: Post-operative X-ray.

From the evidence of radiological examination (Figure 1), authors found that the patient had failed Bankart Procedure on his Right shoulder, and planned to do Latarjet Procedure. During the operation (Figure 2), the previous Bankart procedure repaired before implantation Latarjet Procedure. Post-operative x-ray was showed on figure 3. The follow up will be continue until 2 years post operation using Quick DASH Score for the functional outcome.

DISCUSSION

Arthroscopic bankart repair using suture anchor has become the most common surgery to treat post-traumatic antero-inferior shoulder instability and provides acceptable and good result. However several recent study have shown of reccurent rates up to 9%-40%.[1,2] Many factors including young age at the time of surgery, male sex, bony defects, joint hyperaxity, contact sport, poor quality capsules, forced overhead activity, and bony structures of glenoid and humeral head.[3-5]

The surgical treatment of anterior instability is evolving and more than 150 operation have been described for the treatment of reccurent anterior dislocation of the shoulder.[6,7] The primary goal of any stabilization procedure is to prevent reccurence of instability and Percentage of failure or recurrence after revision arthroscopic surgery was 36.4%, so an Arthroscopic revision procedure for failed instability surgery may generally be not recommendable.[6,8] The open latarjet operation procedure after failed arthroscopic bankart repair resulted in a low reccurence rate and good functional scores after a minimum of 24 months follow up.[3]

Described in 1954 by Latarjet, the essential feature of this procedure was the transplantation of the coracoid process to the neck of the scapula through the subscapularis tendon. The coracoid process flat was laid with its posterior surface against the neck of the glenoid.[6,9,10]

Latarjet procedure achieve good long time result and maintain stability with effect:[6]

- Increased bony surface area and increase the congruent arch of motion.
- Conjoint tendon provides provides a dynamic sling effect
- Labral repair increase anterior stability and bumper protects humeral head in direct contact with coracoid bone graft.[10-12]

Several studies have shown indication of latarjet procedure:

- Latarjet procedure indicated for patients with glenoid bone loss >20% [11,13] or >25%.[5,9]
- Inverted glenoid shaped is indication for bony procedure such as latarjet procedure.[12]
- More than 6 points of ISIS score advised undergo open surgery Latarjet Procedure.[6]

The result of latarjet procedure show an easy rehabilitation, a low rate re-operation, a good stability (low rate reccurent dislocation <5%), and excellent and good subjective outcomes.[6,12] Latarjet surgery with capsulo-labral (Bankart) repair thas low rates of complication at the same time as facilitating a rapid rehabilation, with 89% of athletes returning to sport at a mean of 3.2 months.[12,13]

In this case, we used coracoid process for Latarjet procedure and authors also repaired Capsulo-Labral (Bankart) complex before the Latarjet procedure. And after rehabilitation and 24 months follow up the result of Quick DASH Score are 13,6 (Good).

CONCLUSION

The open latarjet operation procedure after failed arthroscopic bankart repair results in a low reccurence rate and good functional scores. It shows an easy rehabilitation, a low rate re-operation, a good stability (low rate reccurent dislocation), and excellent and good subjective outcomes.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

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Cite this article as: Aryana IGNW, Zainuraditya R. Latarjet procedure for failed arthroscopic Bankart repair: a case report. Int J Res Med Sci 2020;8:1921-3.