

Editorial Commentary: Don't Beat Around The Bush, Consider Going Straight to the Latarjet Procedure in Martial Arts Contact Athletes With Anterior Shoulder Instability!



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Abstract: The number of mixed martial arts contact athletes has increased dramatically over the past 10 years. High-risk sports can lead to recurrent anterior shoulder instability, affecting athletes' performance. Arthroscopic Bankart repair without remplissage seems not to be the "gold standard" anymore. Despite being a higher-demanding technique, the Latarjet procedure outperforms soft tissue repair, whether in terms of stability or level of return to the same sport, in a patient population exposed to collision, contact, striking, or grappling. The indication of a such bony procedure should be strongly considered a primary treatment.

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The number of mixed martial arts contact athletes has been dramatically increasing over the past 10 years, and related shoulder pathologies are opening a new field of clinical and surgical exploration.¹ Without a doubt, mixed martial arts is currently one of the most popular sports among the young generation of athletes, as it combines highly intensive, brutal fights, mixed style, and realism in a well-marketed way. Joints and specifically the shoulder are exposed to over-physiologically constraining factors that can make the athlete a glorious winner or an unfortunate loser.

In my practice since 2008, I have evaluated and treated shoulder instability at all levels of competition for one of the most impressive collision athletes, rugby.²⁻⁴ Rugby differs from Mixed Martial Arts (MMA): it clearly involves collision at a high velocity but also mobility for grappling and submission. My experience allowed me to understand that surgical treatment aimed not only to restore stability, allowing for a return to the field, but also to make the shoulder stronger than its native uninjured shoulder.^{5,6} A soft tissue procedure can provide acceptable clinical results if there is no bone loss on the glenoid or humeral side.

However, such an anatomic presentation is uncommon in the setting of contact sports.^{7,8} The beauty of the Latarjet procedure is that it combines bone reconstruction and the so-called sling effect, which reinforces anterior-inferior locking of the shoulder.^{5,6} The second issue that I observed is that the time out of competition for athletes needs to be reduced at any cost. Short-term immobilization, quick rehabilitation with biomechanically stable fixation, and minimal muscular damage are essential.⁹ Even if suture anchors undoubtedly enhance the quality of the soft tissue fixation, failure unfortunately would come from the tissue itself.

Rossi, Brandariz, Pasqualini, Turan, Larrague, Tanoira, and Ranaletta, in the study "Greater Return to Sport and Lower Recurrences With the Latarjet Procedure Versus Bankart Repair Without Remplissage in Martial Art Contact Athletes With Glenohumeral Instability and Glenoid Bone Loss Less Than 20%"¹⁰ reported an interesting comparative retrospective series of MMA contact athletes exposed to anterior shoulder instability with glenoid bone loss less than 20%, treated by arthroscopic Bankart repair without remplissage (n = 28) or the Latarjet procedure (n = 32). The study is a new milestone to prove that Latarjet outperforms Bankart repair in a specific population requiring very high shoulder stability. This article considered post-operative apprehension as persistent instability equal in weight to dislocation or subluxation, to avoid any

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potential underestimation of failure. Their results show a recurrence rate that was reported up to 4 times higher after arthroscopic Bankart repair compared to Latarjet (25% vs 6%). Interestingly, the 6% recurrence rate in the Latarjet group had no dislocation or subluxation but only painful apprehension that limited sports. This painful apprehension could be either a subtle instability or an impingement with screws.¹¹ Despite a similar time to return to sport, the preoperative level was achieved in 81% of the Latarjet group compared to 61% in the Bankart group, with a rate of reoperation in 6% and 18%, respectively. No significant difference was reported in functional scores as well as the rate of the patient acceptable symptomatic state threshold. No major complication (neurologic, vascular issue) was reported in any group of this series.

Shah et al.¹² reported an unacceptable rate of postoperative complications, placing Latarjet at the same time in the drawer of “tricky and risky procedures.” This has never been my experience, even as a young, trained shoulder surgeon, but I confess that this is the most demanding step-by-step procedure.¹³ Revision for screw removal can be required in about 5%, but we should not consider this a true complication, since we have routinely removed hardware for fracture fixation in the past.¹¹

As reported by Rossi et al.,¹⁰ Latarjet does not decrease external rotation, with the arm at the side, more than Bankart repair. Consequences of stiffness in external rotation are minimal for rugby players because it remains a purely collision sport. However, MMA athletes could be impaired in grappling and submission, and caution must focus on this postoperative parameter. Therefore, in addition to arthroscopic Bankart repair, a Hill-Sachs remplissage could have been discussed in this specific patient population. Indeed, a meta-analysis showed that it reduced recurrent instability by 4-fold, decreasing apprehension without increasing the loss of external rotation.^{14,15} However, the indication for contact and collision athletes remains controversial regarding the long-term success.^{16,17}

Using a bony procedure despite no preoperative glenoid bone loss may lead to criticism. But reports from the French experience suggest that the benefit of the sling effect in the Latarjet procedure surpassed the concerns about the amount of bone loss, the glenoid track concept, and the primary or recurrent instability setting.¹⁸

To conclude, the more contact a sport imposes, the more robust the procedure needs to be. Thus far, the Latarjet procedure, when properly performed, offers the specifications required for MMA contact athletes.

Disclosure

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that could have appeared to influence the work reported in this paper.

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