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**ABSTRACT TITLE: Supscapularis split versus takedown in Latarjet Procedures in the Military**

**INTRODUCTION**

Anterior glenohumeral shoulder instability has been reported to have an increased incidence in military populations compared to the general population. The job demands of military personnel predispose them to initial glenohumeral instability events and recurrence. Patients with anterior shoulder dislocation at ages younger than 20 have a 90% rate of recurrence, and the majority of the military population is between the ages of 18-32. Of these military individuals, 13.8% of patients required more than one surgery or were medically discharged following shoulder dislocation repair at 2 to 7 years. Additionally, as high as 90% of patients had glenoid (shoulder) bone loss, and of those 18.9% had critical bone loss with glenoid bone loss greater than 13.5% reported to lead to worsened patient related outcomes with clinical significance. The Latarjet procedure is a surgery that is used to treat recurrent shoulder instability, including dislocations or subluxations caused by glenoid bone loss with reported good to excellent results. There are varying techniques to perform a Latarjet, including splitting the subscapularis versus taking it down during the approach. The purpose of this study is to evaluate the outcomes of the subscapularis split versus takedown in Latarjet procedures in an active duty cohort.

**METHODS**

We performed a retrospective review of a consecutive series of 29 active duty military patients who underwent a Latarjet procedure between 2013 and 2016 at a single military medical center. All cases were performed by fellowship trained sports medicine and shoulder and elbow orthopaedic surgeons. Patients were included if they had recurrent anterior shoulder instability after failing a course of non-operative management. Data on patient demographics and active duty status were reviewed as well as operative technique utilized. Clinical evaluation at follow-up included range of motion at last documented physical therapy session, rate of redislocation, time to pass first physical fitness test postoperatively, and changes in SANE, WOSI, and ASES scores.

## **RESULTS**

23 of 29 patients who received open Latarjet surgery with congruent arc technique were able to be contacted for follow up at an average of 3.6 years (2.1-6.5 years) from date of surgery. All 23 patients were males that were active duty at time of surgery from all branches of the military with multiple dislocations after a traumatic event. Average age of first dislocation was 22.5 years of age (14-43 years of age) and all patients received an open Latarjet surgery with congruent arc technique. Intraoperatively, 11 patients had subscapularis split and 12 patients had subscapularis takedown. There was no statistically significant differences in range of motion, rates of redislocation, time to pass first physical fitness test postoperatively, or changes in SANE, ASES, or WOSI scores when comparing pre and postoperative evaluation. Both groups had 2 patients each who received a permanent profile due to their shoulder and did not successfully complete a physical fitness test postoperatively.

## **DISCUSSION/CONCLUSION**

We demonstrate that in an active duty military population, subscapularis split versus takedown in Latarjet procedures offers no statistically significant differences in postoperative range of motion, rates of redislocation, time to pass first physical fitness test postoperatively, or changes in SANE, ASES, or WOSI scores. At minimum 2 year follow up, our patients maintained a high level of functional demand and had a low attrition rate from active duty status regardless of surgical technique.