ABSTRACT TITLE: Surgical Management of Subcritical Bone Loss: Bankart versus Latarjet

BACKGROUND
The glenohumeral joint is the most dislocated joint in the body, and surgical treatment is recommended in the young, male, contact athlete. The arthroscopic Bankart repair is considered the first-line surgical treatment for glenohumeral instability; however, with “critical” glenoid bone loss of greater than 25%, a bony procedure is often performed. Shaha et al defined the subcritical bone loss as bone loss greater than 13.5%. The purpose of this study compare the surgical results of the Bankart Repair versus the Latarjet in the treatment of subcritical bone loss. The null hypothesis is that there is no difference in patient reported outcomes between the Bankart Repair and the Latarjet in the treatment of anterior shoulder instability with subcritical bone loss.

STUDY DESIGN
Retrospective Cohort Study; Level of Evidence III

METHODS
Subjects were consecutive patients with glenoid bone loss between 10-20%, who underwent an isolated anterior arthroscopic labral repair or an open Latarjet at a single military institution. Data were collected on demographics, the Western Ontario Shoulder Instability (WOSI) score, Single Assessment Numeric Evaluation (SANE) score, and failure rates. The average bone loss across the groups were calculated.

RESULTS
The Bankart Group consisted 26 shoulders in 26 patients with an average age of 26.6 years (SD: 5.2) and bone loss of 15.1% (3.5). The Latarjet Group consisted of 20 shoulders in 19 patients with an average age of 26.5 years (SD: 4.9) and bone loss of 16.0% (SD: 2.4). There was no statistical difference between groups (p>0.05). For the Bankart Group, there were 4 failures (15.4%) and the Latarjet Group had 2 failures (10.0%).

The average WOSI for the Bankart Group was 729 (570) and the Latarjet was 775 (499); while the average SANE for the Bankart Group was 59.8 (29.4) and the Latarjet Group was 76.05
There was no statistical difference in WOSI ($p=0.824$); however, there was a statistical difference in the SANE ($p=0.049$).

**CONCLUSION**

In active, male, military patients with 10%-20% anterior glenoid bone loss, both the arthroscopic Bankart and the open Latarjet demonstrate a WOSI score outside the standard for a clinically acceptable outcome; however, the open Latarjet demonstrated statistically higher SANE score.