2023 Congress Abstracts: Shoulder Instability

The SIRSI Score Predicts Psychological Readiness to Return to Sports After Surgical Stabilization of Glenohumeral Instability

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Summary:
The SIRSI score is a useful tool for predicting if patients are psychologically ready to return to sport after glenohumeral stabilization surgery.

Data:
Background: Literature is scarce regarding the influence of psychological readiness in returning to sports after shoulder instability surgery. Purpose: To evaluate the predictive ability of the SIRSI scale in measuring the effect of psychological readiness on return to sports and to compare it between athletes who returned to sports with athletes who did not return to sports.

Study Design: Prospective Cohort Study. Level of Evidence: II Methods: A prospective analysis was performed of patients who underwent an arthroscopic Bankart repair or a Latarjet procedure between January 2019 and September 2020. Psychological readiness to return to play was evaluated using the SIRSI score. Preoperative and postoperative functional outcomes were measured by the ROWE, ASOSS, and WOSI scores. The predictive validity of the SIRSI scale was assessed by the use of receiver operating characteristic (ROC) curve statistics. The Youden index was calculated and used to determine a SIRSI scale cut-off point that best discriminate psychological readiness to return to sports. Logistic regression analysis was performed to evaluate the effect of psychological readiness on return to sports and return to pre-injury sports level. Results: A total of 104 patients were included in this study. Overall, 79% returned to sports. The SIRSI scale had excellent predictive ability for return-to-sport outcomes (return to sports: area under ROC curve, 0.87 [95% CI, 0.80-0.93]. Return to pre-injury sports level: area under ROC curve, 0.96. [95% CI, 0.8-0.91]). A cut-off level of = 55 was used to determine if an athlete was psychologically ready to return to sports and to return to pre-injury sports level (Youden index: 0.7 and 0.9, respectively) Of those who returned to sports, 99% were psychologically ready to return to play with a SIRSI median of 65 (IQR 35-41). In comparison, in the group that did not return to sports only 1% achieved psychological readiness with a SIRSI median of 38.5 (IQR 35-41) (p <0.001). Regression analysis for the SIRSI scale effect on return to sports was performed. For every 10-point increase in the SIRSI scale, the odds to return to sports is increased by 2.9 times Moreover, those who did not achieve their pre-injury sports level have shown poorer psychological readiness to return to play and SIRSI score results. Conclusion: The SIRSI score is a useful tool for predicting if patients are psychologically ready to return to sport after glenohumeral stabilization surgery. Patients who returned to sports and those who returned to their pre-injury sports level were significantly more psychologically ready than those who did not return. Therefore, we believe that the SIRSI Score should be considered along with other criteria that are evaluated to decide if the patient is ready to return to sports.

Arthroscopic Bankart Repair For Recurrent Anterior Shoulder Instability: Outcomes with Minimum 10-Year Follow-Up

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Summary:
Despite arthroscopic Bankart repair being the technique of choice for recurrent anterior shoulder instability, our minimum 10-year follow-up results on 150 patients suggest higher than optimal recurrence and revision rates, especially in patients younger than 23 years old.

Data:
INTRODUCTION Arthroscopic Bankart repair has become the technique of choice for recurrent anterior shoulder instability. Despite enthusiasm for this method of stabilization, there is a paucity of long-term follow-up studies. Some longer-term follow-up studies have suggested higher recurrence rates than initially reported. The purpose of this study is to describe baseline characteristics of patients with recurrent instability and determine long-term clinical outcomes associated with arthroscopic Bankart repair. METHODS Records from a single surgeon were reviewed from 2001-2011 (minimum 10-year follow-up) for arthroscopic Bankart repair to treat recurrent anterior shoulder instability. No patient with glenoid bone loss greater than 20% was included. Detailed chart review was performed for 150 patients using inpatient records, outpatient records, operative reports, and surgeon’s personal operative records in order to obtain demographic data, determine operative technique, and calculate recurrence and revision rates. Patient reported outcome measures (PROMs) were obtained prospectively, including OSS, WOSI, and SANE scores. Surgical technique included lateral decubitus, minimum 3 anchors, double-loaded high strength suture, posteroinferior plication, and often interval closure. Recurrence was defined as any dislocation or subluxation event that necessitated clinical evaluation. RESULTS 150 patients were included in our cohort. Average follow-up was 15.1 years, range 10.1-20.7. Average age was 24.0, range 13.5-58.0. Recurrent instability occurred in 35/150 (23.3%). Revision surgery performed in 21/150 (14.0%). Thirty out of 35 (85.7%) recurrences and 19 out of 21 (90.5%) revisions occurred in patients who were under 23 years old at time of index surgery. Average time to recurrence was 44.7 months. Seventeen of the 35 recurrences occurred beyond the 24-month follow-up mark. Fifty-six (37%) patients completed prospective PROMs. Average SANE score 86.8, range 25-100. Average WOSI 378.5, range 0-1700. Average OSS 41.6, range 13-48. DISCUSSION AND CONCLUSION Despite enthusiasm for arthroscopic Bankart repair, our long-term results, especially in patients younger than 23 years old, suggest higher than optimal recurrence and revision rates despite using modern day suture anchor and capsular tightening techniques.

Similar Clinical, Return To Sports, Recurrence and Revision Outcomes Between Female and Male Athletes Following Arthroscopic Bankart Repair

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Outcomes and Successful Healing At A Minimum 1 Year of Follow-Up

Category: Shoulder - Instability

return to play following ABR.

median time to recurrence was 48 months in both groups (p = 0.94% (n = 99) male and 99% female p = 0.997). There were no differences between the groups regarding postoperative functional outcomes, with the majority of patients achieving the minimal clinically significant difference ( Rowe: 98% female and 99% male p = 0.584; ASOS: 100% female and 99% male p = 0.646). The overall recurrence rate was 9.7% (%16), with a rate of 10.3% (%16) in female and 9.4% (%10) in male athletes (p = 0.851). Time to event analysis showed that the median time to recurrence was 48 months in both groups (p = 0.848). The overall revision rate was 3% (%4), without significant differences between groups (p = 0.556). Conclusion: When compared within similar sports, there does not appear to be sex-related differences in functional outcomes, recurrence, or return to play following ABR.

Category: Shoulder - Instability

All-Arthroscopic All-Suture Anchor Dynamic Anterior Stabilization for the Treatment of Anterior Glenohumeral Instability Produces Good Clinical Outcomes and Successful Healing At A Minimum 1 Year of Follow-Up

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Summary:
The onlay modification of the dynamic anterior stabilization utilizing the all-arthroscopic method of fixation of the long head of the biceps tendon (LHB) with all-suture anchors and the double double-pulley technique produces good clinical results and successful healing of the LHB and is safe for the treatment of anterior glenohumeral instability with less than 20% GBL at 1-year minimum follow-up

Data:

Background: The dynamic anterior stabilization (DAS) with the long head of the biceps tendon (LHB) is a new arthroscopic soft-tissue procedure for the treatment of anterior glenohumeral instability with limited to subcritical glenoid bone loss (GBL). Few studies have reported the results of different arthroscopic methods of transposing and fixing the LHB tendon to the anterior glenoid rim. The purpose of the current study was to report the results of the onlay DAS for the treatment of anterior glenohumeral instability with less than 20% GBL. The hypothesis was that the onlay modification of the DAS that utilizes the all-arthroscopic method of fixation of the LHB with all-suture anchors and the double double-pulley (DDP) technique would produce good clinical results and successful healing of the transposed LHB and would be safe for the treatment of anterior glenohumeral instability with less than 20% GBL. Methods: From 2018 to 2021, patients with anterior glenohumeral instability and less than 20% GBL were enrolled in a prospective study on DAS and followed-up to 48 months. The primary outcomes were: Western Ontario Shoulder Instability Index (WOSI), Rowe score, range of motion, strength. The secondary outcomes were ability to return to play (RTP), RTP at same level, lack of recurrence of instability, successful LHB healing, and lack of complications. Magnetic resonance imaging (MRI) was used to measure GBL, Hill-Sachs interval, glenoid track, and assess LHB integrity. Results: Eighteen consecutive patients underwent the DAS. Fifteen patients had a minimum follow-up of 12 months (mean, 23.93 ± 13.67 months). 12 were male, 3 female; 73.3% practiced recreational sports; mean age at surgery, 23.40 ± 6.53 years; mean number of dislocation episodes, 10.13 ± 8.42; mean GBL, 8.21±7.39% (range, 0–20.24%); mean Hill-Sachs interval, 15.00 ± 2.96mm; mean glenoid track, 18.87 ± 2.57mm; mean Beighton score, 1.13 ± 2.80 points; 33.3% had a concomitant SLAP lesion type I or II. The mean improvement in the WOSI and Rowe score (959.27 ± 386.70 and 74.00 ± 22.22 points) was significant (p<0.001 and p<0.001) and more than 6 and 7 times higher than the minimum clinically important difference, respectively. The mean improvement in active elevation, abduction, external and internal rotation, and strength (23.00±27.76, 33.33±43.78%; 8.33±13.58%, 0.79±1.28 points, and 1.89 ± 5.11 kg) was significant (p = 0.006, p = 0.011, p = 0.032, p = 0.044, and p = 0.034). RTP rate was 93.33%. RTP at same level was 60.00%. One severely hyperlax patient (Beighton 8) had an atraumatic redislocation episode at 8 months postoperatively. Therefore, the recurrence rate of anterior instability in the overall group was 6.7%. No complications were reported in the overall group. The MRI of each patient showed successful LHB healing to the glenoid bone at a mean follow-up period of 9.36 ± 5.66 M (range, 6.02 – 25.35 M). Conclusions: The onlay modification of the DAS using the LHB and the DDP technique produces significant and clinically important improvements in shoulder function, successful LHB healing, and is safe for the treatment of anterior glenohumeral instability with less than 20% GBL, with or without SLAP lesions, without severe hyperlaxity.

Category: Shoulder - Instability

Arthroscopic SLAP Repair and Biceps Tenodesis Combined with Anterior Labral Repair for Type V SLAP Lesions Both Yield Excellent Outcomes in Active-Duty Military Patients

Abstract ID: 21931
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Summary:
Both arthroscopic SLAP repair and combined arthroscopic-assisted subsectoral biceps tenodesis and anterior labral repair led to statistically and clinically significant increases in outcome scores, marked improvement in pain, and high rates of return to unrestricted- active duty in military patients with type V SLAP lesions.

Data:

Background: shoulder posterior SLAP (SLAP) lesions and anterior instability are common causes of shoulder pain and dysfunction among active-duty members of the US military. However, little data has been published regarding the surgical management of type V SLAP lesions. Purpose To compare the outcomes of arthroscopic SLAP repair with those of combined arthroscopic-assisted subsectoral biceps tenodesis and anterior labral repair for type V SLAP tears in active-duty military patients younger than 35. Study Design Cohort, Level III Methods All consecutive patients from January 2010 to December 2015 who underwent arthroscopic repair or combined biceps tenodesis and labral repair for type V SLAP lesions with minimum 5 years follow up were identified. Outcome measures including the visual analog scale (VAS), the Single Assessment Numerical Evaluation (SANE), and the American Shoulder and Elbow Surgeons (ASES) shoulder score were administered pre- and post-operatively and scores were compared between groups. Results Eighty-four patients met inclusion criteria for the study. All patients were active-duty military at the time of surgery. Average follow-up was 102.59+/−20.98 months in the repair group and 94.50+/−27.11 months in the tenodesis group (p = 0.1281). There were no significant differences in preoperative range of motion or outcome scores between groups. Both groups experienced statistically significant improvements in outcome scores postoperatively (p<0.0001 for all), however, tenodesis patients reported significantly better VAS (2.52+/−2.36 vs 1.50+/−1.91, p = 0.0328), SANE (86.82+/−11.00 vs 93.43+/−8.81, p = 0.0034), and ASES (83.32+/−15.31 vs 89.90+/−13.31, p = 0.0394) scores. With regard to clinical significance, the number of patients who achieved the minimal clinically important difference (MCID), substantial clinical benefit (SCB), and patient