Category: Shoulder - Instability


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Summary:
In young active patients with an arthroscopic Bankart repair a glenoid index (GI) beyond a cutoff of 0.58 was associated with significantly higher probabilities of recurrence in the postoperative period. Intraclass correlation coefficient (ICC) was used to determine interobserver reliability. Results: The mean age at time of surgery was 25.6 years old (19 to 29), the mean follow-up was 53.3 months (29 to 89). The 95 shoulders who met the inclusion criteria were divided into 2 cohorts, 47 shoulders had a GI ≤ 1.58 (Group A) and 48 a GI > 1.58 (Group B). At final the follow-up, 5 shoulders in group A (10.6%) and 17 shoulders in group B (35.4%) suffered a recurrence of instability. Those patients with a GI > 1.58 had a hazard ratio of 3.86 (95%CI: 1.42-10.48) (p=0.004) compared with those with a GI = 1.58 of suffering a recurrence. When correlating glenoid index measurements between raters, we observed an intraclass correlation coefficient (ICC) of 0.76 (95% CI: 0.63-0.84), these results fall under the qualitative definition of good interobserver agreement. Conclusion: In young active patients with an arthroscopic Bankart repair an increased GI was associated with significant higher rate of postoperative recurrences. Specifically, those subjects with a GI > 1.58 had 3.86 times the risk of recurrence than those subjects with a GI = 1.58. Level of evidence: 3, retrospective cohort study.

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Cover Your Six (And Nine!): Posterior and Combined Type Shoulder Instability Remain an Elusive Diagnosis, A 10-Year Cross Sectional Study of 416 Patients from a Single Military Base

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Summary:
Posterior and combined-type shoulder instability is more common in military patients when compared to civilian populations and is less likely to present with diagnostic physical exam or MRI findings. Data: Background Glenohumeral instability represents a common cause of shoulder pain and disability among active-duty members of the military and is associated with the development of glenoid osteochondral defects; however, little data exist regarding clinical outcomes following combined arthroscopic glenoid microfracture and labral repair. Purpose To report clinical outcomes and survivorship following combined microfracture of isolated chondral lesions of the glenoid and labral repair among active patients less than 40 years of age. Additionally, we sought to compare outcomes with patients who underwent isolated shoulder stabilization procedures during the same time period. Methods All active-duty military patients under the age of 40 years who underwent simultaneous microfracture of chondral lesions of the glenoid and labral repair for shoulder instability between January 2011 and January 2017 with complete outcome scores were identified. Thirty-one patients met final inclusion criteria. Outcome scores were compared with 209 patients who underwent shoulder stabilization procedures during the same time period. Results Thirty-one patients who underwent simultaneous labral repair and glenoid microfracture and 209 patients who underwent isolated shoulder stabilization procedures during the same time period were included. Average follow-up was 95.58+/-23.12 for microfracture patients and 83.38+/-25.93 for instability patients (p=0.014). All patients in the microfracture group were male with an average age of 31.90+/-6.28 years, which did not differ significantly from the instability cohort. The average size of the glenoid defect was 1.23 cm2+/-1.03 cm2. There were no complications and no patients progressed to further surgery in the microfracture group. Microfracture patients had statistically significant increases in the mean American Shoulder and Elbow Surgeons (ASES) score (46.13+/-10.15 vs. 79.90+/-.15.87, p < .0001) and Single Assessment Numeric Evaluation (SANE) (46.61+/-19.08 vs. 79.13+/-.14.43, p < .0001). Mean pain posterior, and combined-type instability. Methods A retrospective review was conducted of patients treated surgically for shoulder instability from a single military base during a ten-year period. Each case was characterized as isolated anterior, isolated posterior, or combined, according to arthroscopic findings. Information was collected on patient demographics, history of trauma, time to surgery, associated pathological findings, and survivorship. Patients were followed for a minimum of two years follow-up. Results: A consecutive series of 416 patients (394 men, 22 women) underwent primary shoulder stabilization surgery from January 2010 to December 2019. There were 158 patients (38%) with isolated anterior instability, 139 (33%) with isolated posterior instability, and 119 (29%) with combined instability. The mean patient age was 29.1 years. History of trauma was more prevalent with isolated anterior instability (129, 81.7%) than with either isolated posterior instability (95, 68.4%) or combined instability (73, 61.3%) (p=0.047 and p=.001, respectively). There were no significant differences in the rates of medical discharge or revision procedures between groups. Conclusions: The findings of this study suggest that young, active-duty military patients are at increased risk for isolated posterior and combined-type shoulder instability when compared to civilian patient populations. Additionally, patients with posterior and combined-type instability are less likely to have diagnostic physical exam or MRI findings than patients with anterior instability. Orthopaedic surgeons should maintain a high index of suspicion for instability when evaluating and treating young, active military patients who present with shoulder pain, even in the absence of diagnostic physical exam or imaging findings.
also decreased significantly as measured by the pain Visual Analogue Scale (VAS) (8.10 +/-1.47 vs. 2.65 +/-1.78, p<.0001). When compared to the instability cohort, microfracture patients had significantly worse postoperative ASES (89.03 +/-14.28 vs 79.90 +/-13.87, p<.001), SCB (91.23 +/-14.20 vs 79.13 +/-14.43, p<.0001), and VAS (1.55 +/-1.92 vs 2.65 +/-1.78, p<.003) scores, as well as a decreased range of motion in forward flexion (155.48 +/-10.3 vs 151.29 +/-11.76, p=0.039) and external rotation (65.17 +/-0.64 vs 63.65 +/-8.34, p=0.010). Fewer patients in the microfracture cohort met the SCB, PASS, or MOI for the ASES (p=0.0044, p=0.0035, p<.0001), the PASS or MOI for the SCB (p<0.0001 and p<.0001), or the PASS for the VAS (p=0.0001). At latest follow-up, only 58% of microfracture patients had returned to active-duty military service compared to 93.78% of isolated instability patients (p<.0001). Conclusion Isolated glenoid osteochondral defects remain a challenging pathology to treat. Combined microfracture and arthroscopic labral repair produced modest, albeit statistically significant, improvement in patient reported outcome measures and may be a reasonable treatment option for patients with chondral lesions who are not candidates for arthroplasty. However, only 58% of patients were able to maintain active-duty military service at midterm follow up compared to 93.78% of patients who underwent labral repair without concomitant microfracture.

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Anterior Glenoid Rim Fracture: Complication After Arthroscopic Bankart Repair In Young Athletes

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Summary: Fracture through anchors in athletes is a rare complication of an arthroscopic Bankart repair, and could be associated with the use of bioabsorbable anchors. Identifying this rare complication is of utmost importance for a proper treatment allowing young patients to return to sport without any limitation.

Data:
Introduction: Knotted and knotless suture anchors are used in arthroscopic Bankart repair providing stability for athletes. Anterior glenoid rim fracture has been described as a complication after initial surgical treatment in recurrent anterior instability. Objective: To evaluate the incidence of anterior glenoid rim fracture of the glenoid through anchors and return to sport after revision surgery. Materials and Methods: 979 surgeries were performed for shoulder instability and sociodemographic features. A retrospective study was performed to analyze the prevalence of kinesiophobia in patients with anterior gleno-humeral instability treated with Bankart procedure and the correlation between the kinesiophobia and some outcome predictors of the pathology and sociodemographic features. Methods A retrospective study was conducted. Patients who underwent arthroscopic Bankart repair starting from December 2018 in our institution, with a minimum of 6 months after the surgery, were included. A preoperative computed tomography (CT) scan was performed in all patients. Exclusion criteria were: glenoid bone defect > 20% of the area of the inferior part of glenoid, bilateral bone defects with ‘off-track’ pattern, combined treatment with rotator cuff tears, and/or previous surgery. Primary outcome was the Tango Scale of Kinesiophobia (TSK-13). Secondary outcomes were: the Western Ontario Shoulder Instability Index (WOSI), the Depression Anxiety Stress Scale 21 (DASS-21), the Tegner Activity Score and the H-G Ratio. Univariate and Multivariate analysis was performed to determine which predictors were independently associated with the kinesiophobia. Significance was set at <.05. Results The study included 132 patients: 109 males and 23 females. Mean age (± SD) of patients was 19 ± 8 years. The mean follow-up was 84 months. The mean pre-operative shoulder dislocation was 15. 117(89%) patients were performing sports without risk or increased recurrence. 19 patients (14.4%) experienced a recurrence of dislocation after surgery. The analysis showed a significant correlation between kinesiophobia and the number of pre-operative shoulder dislocation and both with recurrence of post-operative shoulder dislocation. All the score (ASES, WOSI, Tegner, DASS-21) in the post-operative setting showed a significant correlation with Kinesiophobia. Conclusion Kinesiophobia after arthroscopic Bankart repair is independently associated with number of pre-operative shoulder dislocation, recurrence of post-operative shoulder dislocation and score for subjective evaluation at follow-up.

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Long-Term Outcomes Following Arthroscopic Labral Reconstruction with a Modified Inferior Capsular Shift for Anterior Shoulder Instability

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Summary: Arthroscopic labral reconstruction with a modified inferior capsular shift for anterior shoulder dislocation at average 13-year follow-up yields a low failure rate, no evidence of glenohumeral joint narrowing, and a high rate of return to sports without risk or increased recurrence.

Data:
Background: Treatment for the dislocated shoulder is fraught with controversy across the globe. Recurrence rates of anterior shoulder instability are highest in young, high risk athletes. The purpose of this study was to evaluate patient activity level and function following arthroscopic labral reconstruction with a modified inferior capsular shift by a single surgeon at a mean 13-year follow-up comparing patients greater than 25 years of age to patients less than 25 years old. Methods: Between 1999 and 2010, 56 patients with a documented anterior dislocation underwent an arthroscopic labral reconstruction with a modified inferior capsular shift and met the inclusion criteria. The technique utilized included a minimum of 3 anterior suture anchors placed below the equator along with sutures placed to perform a glenoid-based inferior capsular shift with or without a rotator interval closure