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Risk factors of recurrence after an arthroscopic stabilisation procedure performed for traumatic anterior shoulder instability in pediatric population

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Arthroscopic stabilisation of traumatic anterior shoulder instability is being performed also in pediatric age group, and reports associated with risks of recurrent instability have been presented.. The aim of the current study was determining the risk factors of recurrence after the arthroscopic anatomic repair preformed in pediatric age group.

46 patients who underwent arthroscopic Bankart repair for traumatic anterior shoulder instability with the mean age of 17 ±0.8 (15-18) were included in this study. After an average follow-up time of 40.4± 22.7(24-155) months age, gender, dominant side, number of dislocations before surgery, participation in contact sports, Rowe and Oxford shoulder scores, labral lesion type, number of anchor used, and capsular laxity were assessed, and their correlation with recurrence were investigated.

Recurrence was encountered in 9 (19,5%) patients, on average, 16.1 ±13.43 months after surgery. The only risk factor of recurrence was found to be the history of five or more times of dislocation before surgery (p=0,006). Although statistically insignificant, when evaluated separately, it was found that patients with contact sports history had double times of recurrence rate if they had ALPSA or SLAP lesion and triple times of recurrence rate if they had capsular laxity. The recurrence rate was found to be 38,4% when accompained by capsular laxity, 50% when accompained by both capsular laxity and ALPSA lesion, and 100% when accompanied by all capsular laxity, ALPSA lesion and contact sports history.

Arthroscopic stabilisation of traumatic anterior shoulder instability in pediatric population is an appropriate technique, especially in those with less than five times of dislocation because of the low recurrence rate (3.4%). Surgical procedures that are non-anotomic, such as coracoid transfer or anterior glenoid bone block, should be considered in patients with high risk of recurrence rate after an arthroscopic anatomic repair because of the risk factors like history of five or more times of dislocation, being accompanied by an ALPSA, SLAP lesion, or a capsular laxity and participation in contact sports.

Keywords: Anterior shoulder instability, arthroscopic anatomic repair, pediatric population

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