Introduction

Traumatic shoulder joint instability characterized by damage to the joint capsule and labrum, for refixation are used suture anchors of various types. Own experience of using classical Bankart operation and using of anchor stabilization the shoulder capsule with open surgical interventions showed benefits of suture anchor stabilization the shoulder joint capsule.

Objective: To study the features of suture anchor stabilization of the capsule using open and arthroscopic treatment of shoulder instability and to find ways of optimization surgery.

Materials and Methods

The material for studying of features of capsule stabilization using suture anchors were the results of surgical treatment of 119 patients with traumatic shoulder instability. All patients were divided into two groups: the first group included 65 patients who underwent open surgery to capsule stabilization using suture anchors. In the second group included 48 patients who underwent arthroscopic stabilization of capsule using anchors too. Criteria for inclusion of patients into analysis were the presence of traumatic anterior instability of the shoulder and fact of anchors stabilization of capsule.

Results and discussion

The first phase of the study found that for the same length of capsule rupture the number of used anchors in the arthroscopic method of stabilization were 50% more than during open surgery. With further study, the length of separation capsules identified with “hour intervals,” and counted the number of anchors for different length of breaks capsules equal 2nd, 3rd, 4th and 5-
hour intervals. It was noted a clear trend to increase distance between anchors during open stabilize the shoulder joint of approximately 0.2 cm gap with the length of one “hour interval,” but in arthroscopic stabilization with massive rupture distance between anchors remained stable (fluctuations do not exceed 0.02 cm). This is evidenced by the advantage that with an open anchor stabilization easier to estimate the length of the damaged capsule, divide it into equal intervals and install anchors at intervals of 1-1.5 cm.

Arthroscopic surgery is more difficult to separate the zone of damage on proportional intervals, but easier to maintain standard distance between anchors range 7-9 mm. You can make a conclusion that arthroscopy to clearly maintain the interval between the anchors, but this period can be increased to 1.2-1.4 mm without loss of quality of fixation.

Conclusion

Increase the interval between the anchor to 1.2-1.4 cm and reduce the total number of anchors at arthroscopic stabilization of the capsule can be seen as one way of optimization the arthroscopic treatment of traumatic anterior instability of the shoulder.