

Abstract

Background: This case study follows a D-3 collegiate football athlete who is now in the rehabilitation phase from suffering his second Bankart lesion in the same shoulder. The athlete had an anterior dislocation during a scrimmage his junior year after an opponent landed on his arm which caused the first tear. The surgery for this one only required 3 anchors to hold back to place and did rehab for 5 months until was cleared to do full speed and contact. Halfway through the athlete's senior year football season, the same thing happened where someone fell on his arm after a play and caused an anterior dislocation. The athlete continued their season after this however, they had 8 other times after this game where the same dislocation happened and then 2 more after the season. This surgery required 7 anchors this time and needed to use part of the RTC as well. The athlete is now in their 14 weeks post op and is working on strengthening the shoulder. They will not participate in the current football season.

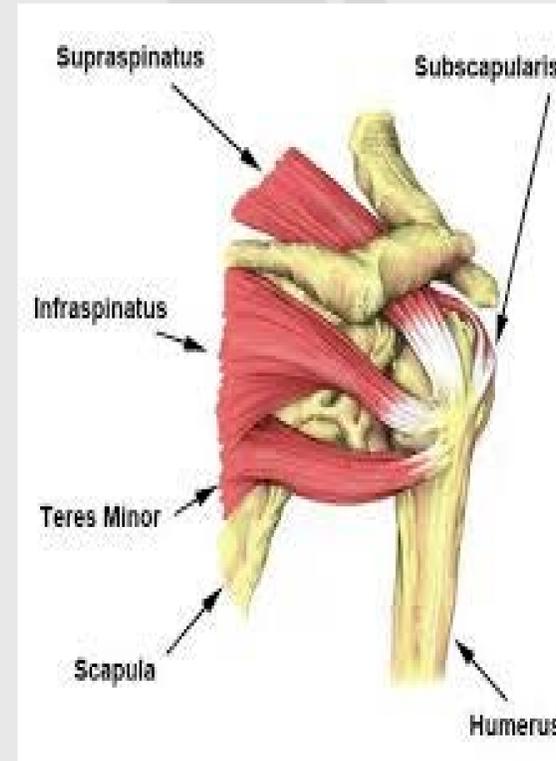
Prevention: After dislocating their arm during the senior season, they decided to use a couple strategies in ways that can prevent the arm from dislocating. They first started with a Sully Brace and a shoulder patch attachment from the chest type brace. While advancing towards their play offs, KT tape and ACE wraps were also applied (all four together) in hope to prevent another dislocation. Unfortunately none of these prevented the athlete from dislocating 10 other times.

Surgery: The first lesion required 3 anchors, 2 in the front and 1 in the back of the labrum. Since this was the first time the athlete had torn the labrum and did not receive any more trauma, it was not that bad of a tear comparing to the second. For the second lesion, this required 7 anchors, 4 anchors in the front and 3 in the back of the labrum. Reconstruction surgery was also done on the ball of the shoulder using the RTC. Because there were multiple dislocations after the initial tear, it caused more stress and trauma on already torn labrum which is why so much was done during surgery the second time. Both surgeries were done arthroscopically on the right shoulder.

Rehab: For the first tear, the athlete had to work in 5 months of rehab to be cleared for full speed and contact within their sport. Only 4 months was needed for the athlete to get back to lifting however. The second tear required 7 weeks of stabilization in a sling and then rehab for 4-5 months in order to achieve full range of motion and full strength. The athlete is currently in their 14th week now and has reached full range of motion in shoulder flexion and abduction with slight pain at the range. Shoulder external rotation and horizontal adduction have gotten better but are not at full just yet. They are focusing right now on muscles that activate on the scapula as well the RTC muscles as a group and individually

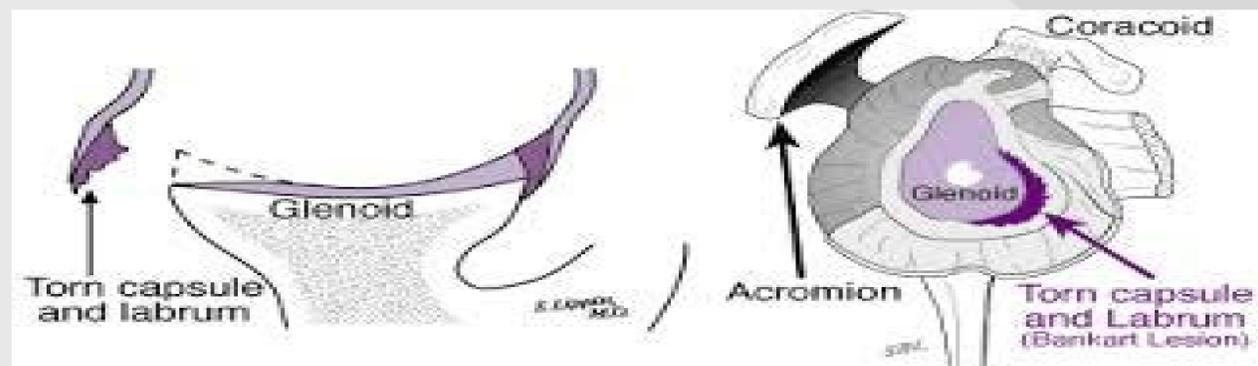
Introduction

Football has become increasingly popular over its timeline and has really taken a spot of idolism with the athletes it produces and the younger crowds that look up to these players and want to grow up to be like them. Now it may seem like being a professional or even just an athlete participating in the sport will bring all sorts of good times and benefits however that is not the case. Injuries are quite common in sports such as football due to its heavy contact gameplay as well as intense training and practicing. Some of the most common structures that get affected tend to be towards the lower extremity like the knee or ankle as they take a lot of stress and have are used during quick movements. However, there are upper extremity areas that can receive injuries like the shoulder which usually makes up to about half or two thirds of upper extremity injuries (Helgeson 2014). The repetitive throwing, hits, and tackles, and falls create a lot of force being acted on the shoulder and its surrounding structures. As we have gone through our senior fall semester clinical rotation, we have seen a variety of injuries now especially stemming from football. The one that is to be the most interesting is of a football player who has now had two Bankart lesions in the same shoulder resulting from the same mechanism of injury both times.



Anatomy

Understanding the anatomy of the glenohumeral joint along with the structures and musculatures is key in illustrating the Bankart Lesion. The glenohumeral joint is a ball and socket joint that is considered to be unstable due to the glenoid fossa (socket) being smaller than the head of the humerus (ball). The glenohumeral ligaments contribute to the main source of stability in the shoulder and are what protect from anterior dislocations. The glenoid labrum is another contributor to stability of the joint as this is a fibrocartilage ridge that encompasses the glenoid cavity that helps deepen and reinforce the head of humerus into the fossa. Lastly, the rotator cuff muscles aid in stabilization within the joint as these muscles attach to multiple tuberosities on the head of the humerus and fuse with the joint capsule. A Bankart Lesion is an avulsion of the anteroinferior labrum from the glenoid rim. This tends to damage the inferior ligaments and labrum the most.



Case Report

Patient: An 18 year old Division III football player in his freshmen year of college and is at 14 weeks post Bankart surgery operation. This injury was a result from an initial tackle along with several subluxations of the right shoulder. The following information will describe and explain the mechanism of injury, surgery, and preventions taken.

Mechanism of Injury: The athlete was scrimmaging during his junior year football season and received a posterior force and tackle that caused an anterior dislocation of the right humerus. After the initial injury, there were a few subluxations until the first surgery to repair the labrum. During the athlete's senior year, the same reoccurrence happened on the same shoulder along with 8 noted subluxations during various games throughout the season. It is unclear if the tear was from the initial collision or subluxations.

Surgery: For the initial tear, the athlete had 3 anchors put in the labrum to repair the lesion. There were two anchors on the anterior side and one on the posterior side. The second surgery required more stability to be added along with utilizing rotator cuff muscles. This surgery had 7 anchors applied with 4 anchors on the anterior side and 3 anchors on the posterior side. The rotator cuff muscles were also reconstructed on the head of the humerus. Both of these surgeries were done arthroscopically.

Prevention: The athlete's high school athletic trainer attempted to use protection equipment and medical supplies to prevent the athlete from dislocations through multiple strategies. This initially started with the use of the Sully Brace along with a shoulder patch attachment from the chest brace. The Sully Brace is used to restrict, stabilize and assist in movement of the glenohumeral joint however it was not enough to prevent subluxations. KT tape and ACE wraps were used later in the season to add the extra stability and restrictions needed.

References

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