Rehabilitation of a Bankart Lesion

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Introduction

A shoulder bankart repair is utilized to assist with stabilization of the shoulder joint, increase integrity of the capsule, and repairing the actual shoulder labrum. The repair is completed through two types of procedures, an open bankart or arthroscopic procedure. Following the surgery, the athlete would begin rehabilitation to strengthen and stabilize the joint facilitating a return to full activity. The following case presents a review of the rehabilitation process of an arthroscopic bankart surgery for shoulder instability leading to a labral tear finding.

Purpose

The purpose of this case study is to demonstrate the rehabilitation process of an arthroscopic bankart repair. Rehabilitation is a six month long process of intense exercises. This process can be divided into three different phases. The goal of the first phase is to regain early range of motion. The goal of the second phase is to maintain range of motion and increase strength and stability. The goal of the final phase is the athlete returning to full functional activity.

Rehabilitation

• Week 1-2: Decrease Pain through ice and Interferential electric stimulation; Begin early range of motion through active assistive range of motion to 60° shoulder flexion, 45° internal rotation, and 5-10° external rotation; Begin early contractions of muscles through isometrics
• Week 3-4: Decrease use of sling during the day; Increase Range of Motion through active assistive range of motion to 120-140° shoulder flexion, 35-45° external rotation, 45-60° internal rotation and initiate shoulder extension
• Week 4-6: Discontinue use of sling at night; Increase range of motion through active range of motion to 160° shoulder flexion, 70° of external rotation at 90° abduction, 75° internal rotation at 90° abduction, and 30-35° of shoulder extension; initiate joint mobilization; initiate UBE; initiate light isotonic strengthening through exercise bands
• Week 6-10: Progress strengthening using exercise bands; Increase all ranges of motion through active range of motion
• Week 10-14: Progress strengthening using exercise bands; initiate isotonic strengthening exercises through the use of dumbbells; initiate cardiovascular endurance training (low impact)
• Week 14-18: Initiate “Throwers 10 Program” to strengthen muscles involved with throwing the use of exercise bands and dumbbells; Start exercises at 90° shoulder abduction, initiate batting progression
• Week 18-24: Continue with “Throwers 10 Program;” continue batting progression, Initiate throwing progression; initiate plyometrics; initiate scapular strengthening
• Week 24-26: Continue “Throwers 10 Program;” Continue throwing progression, continue plyometrics, continue scapular strengthening
• Week 26+: Continue “Throwers 10 Program;” Return to normal athletic activity

Background

• 21 year old female; Right hand dominant
• College senior
• Position: First base and Catcher
• MOI: Throwing from first base to home plate, felt shoulder slide in and out of socket
• 2 previous surgeries on same shoulder
• Opted for the Arthroscopic surgery
• Diagnosis: Shoulder Pain, Shoulder Instability

Uniqueness

Signs and symptoms and previous history are what lead to the diagnosis of this injury. Diagnostic MRI was inconclusive because of the previous surgeries. During the rehabilitation of this athlete, there was a set-back that required the athlete to discontinue strengthening exercises for 2 weeks. Athlete was able to recover, and return to strengthening shortly after. With a focus on scapular strengthening this athlete was also able to develop proper throwing mechanics which she stated she never had before. Athlete returned to full activity without pain on time. Athlete is doing well.

Conclusion

This case is important to clinicians to ensure appropriate rehabilitation programs are designed to ensure a successful outcome. This case demonstrates one way to rehabilitate a shoulder after labral surgery. With a combination of range of motion exercises, strengthening exercises, and functional exercises, this athlete was able to return to full activity. It is also important to note that proper shoulder maintenance exercises need to be done to prevent re-injury occurring by focusing on scapular strengthening.