Conservative Treatment of a Posterior Labrum Tear in College Football Athlete

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Abstract

In this case report, the athlete suffered a left shoulder dislocation during the first scrimmage of the season. The dislocation was reduced by the team physician and the athlete was unable to play for the duration of the scrimmage. The next day the athlete was given a shoulder brace and was able to practice. The following day he reported to the athletic training room with increased posterior shoulder pain and active range of motion deficits. After a thorough clinical examination the athlete was referred for imaging that revealed a posterior glenoid labrum tear. The athlete in consultation with the physician elected against surgery performed until end of the season. He was treated conservatively with pain modulation, ROM exercises, and strengthening of the shoulder stabilizing muscles, specifically the rotator cuff and scapular stabilizers.

Background

- 18-year old male
- 86.2 kg pounds and 187.9 cm
- Left hand dominant
- Division III collegiate football player
- No previous history of injury

Clinical Presentation

- Athlete complained of shoulder feeling unstable
- Point tender along posterior aspect of shoulder joint
- Active range of motions deficits in flexion, abduction, external rotation, and internal rotation
- Majority of pain occurring with flexion and internal rotation
- Positive O'Brien's test
- Positive posterior apprehension test

Differential Diagnosis

- Posterior labrum tear
- Posterior shoulder instability
- Supraspinatus strain
- Posterior deltoid strain

Treatment

Initial treatment included active assisted range of motion exercises and isometric strengthening. A low frequency electrical stimulation machine was applied over the area of the injury for controlling pain and reduction of swelling. The athlete's rehabilitation exercises progressed to strengthen the rotator cuff and scapular stabilizers. The athlete received rehabilitation daily for 3 weeks before attempting to return to play. The athlete aggravated his injury and felt he could not play without undergoing surgical repair but did not want to have surgery until after the season had ended. Conservative treatment was resumed to reduce the athlete's pain, restore full motion, and regain his strength.

Uniqueness

Posterior labrum tears are the least common tear of the labrum and are most likely to occur in contact athletes who engage their opponents with arms in front of the body. Research has demonstrated improvements with SLAP tears when treated non-surgically and this case allows posterior labrum tears to be evaluated for the improvements made using conservative treatment rather than surgical repair.

Conclusion

This case explored the conservative treatment of an uncommon labrum tear and the possibility of returning to sports without surgery. In this case report the conservative treatment was effective in decreasing pain and restoring the athlete's range of motion and strength. However, the return to sport that caused the injury caused the injury to become further aggravated due to the nature of the sport. In contact sports it seems unlikely that a return to sports without surgery will be an effective form of treatment without causing further irritation to the injury.

References