

Shoulder Trauma and Humeral Avulsion of the Glenohumeral Ligament (HAGL)

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ABSTRACT

CASE HISTORY: A 17-year-old right-hand dominant female presents with left shoulder pain. Pain has continued to worsen over time with continued participation in competitive cheerleading activities. Swelling occurred over the entire shoulder with pain having a burning sensation and a decrease in range of motion. Subject was given medication, however pain continued. Subject had no other shoulder injury and/or medical diagnoses. **PHYSICAL EXAM:** With all glenohumeral movement, pain persisted. Palpation also elicited painful results. **DIFFERENTIAL DIAGNOSES:** Rotator cuff tears are characterized by pain and weakness when lifting, lowering, and rotating the arm. SLAP (Superior Labrum Anterior and Posterior) tears however result in decreased motion, popping or locking sensations, as well as pain with movement. Alternatively, shoulder dislocations produce weakness, numbness, or tingling near the injury site. **TESTS & RESULTS:** Range of motion assessment validated declined movement while magnetic resonance imaging (MRI) provided evidence of a dislocated shoulder, broken acromion, and longitudinal tear on the bicep tendon. **FINAL DIAGNOSIS:** Based on how the injury occurred and MRI results, shoulder trauma and HAGL were diagnosed. **DISCUSSION:** Physicians treat shoulder trauma and HAGL in many ways. Arthroscopic surgery can be performed to repair causes of instability on the anterior-inferior aspect of the labrum only. Previous literature has shown this method to have long-term failure due to only repairing the anterior and inferior aspects of the shoulder. Another method of shoulder trauma and HAGL treatment repairs three aspects of the shoulder - anteriorly, inferiorly, and superiorly. Treatment of this kind has had much success due to repairing all causes of instability. This method also allows the patient to have all sources of injury repaired in one session, thus limiting the need for more surgery. Lastly, non-surgical options are utilized for shoulder injuries that do no damage ligaments and other soft tissue. Typically, ice and immobilization along with medications to reduce swelling are used. Specialists then work to improve strength of the muscles and range of motion as normal activities are slowly reintroduced. Success of this method is dependent upon injury severity and rehabilitation compliance with recovery usually occurring within weeks or months. **OUTCOME OF THE CASE:** The patient underwent arthroscopic surgery for rotator cuff reconstruction. Following surgery, she was prescribed an 8-week rehabilitation program along with codeine for pain. Her first follow-up occurred one day post-surgery to see how she was feeling. At 3-weeks post-surgery, she began a home exercise program, performing abduction and forward flexion exercises until fatigue 2-3 times per day. At 4-weeks post, she was able to elevate and laterally raise the arm when assessed by the physician that performed her surgery. Finally, at week seven, the patient returned to have her stitches removed and the home exercise program was discontinued due to patient's noncompliance. **RETURN TO ACTIVITY AND FURTHER FOLLOW-UP:** Following rehab, the patient gradually began to partake in athletic activity by cautiously doing overhead movements. Six months post-surgery, she was back to normal motions achieved prior to injury. Since surgery, she has not experienced any pain or limitations in regards to her left shoulder. Currently, the subject is 19-years-old and she continues to participate in cheerleading activities, both as an athlete and as a coach.