

Case Presentation for Suprascapular Neuropathy

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ABSTRACT

CASE HISTORY: The patient is an 18-year-old female collegiate volleyball player who has suffered progressive shoulder pain in her right shoulder. She states that the pain has progressively gotten worse over the past 3-4 years. The sharp pain began when she would raise her right arm above 90 degrees when hitting an overhand serve. Over time, the pain progressed and became noticeable in additional movements. The patient had noted significant weakness in both her right arm and right shoulder. The patient states when she sleeps on her right arm/shoulder she wakes up in severe pain. She has tried sleeping with the right elbow in extension which has helped in alleviating the pain. **PHYSICAL EXAM:** The patient's vital signs were all within normal ranges. A physical exam was performed and identified pain with Hawkins-Kennedy and empty can. Manual muscle testing demonstrated infraspinatus (2/5) and supraspinatus (3/5) weakness. Upper Quarter Y Balance Test revealed right and left composite scores of 85.7 and 96.1, respectively. **DIFFERENTIAL DIAGNOSES:** Suprascapular nerve palsy; Ulnar nerve palsy; Infraspinatus atrophy; Subacromial impingement syndrome; and rotator cuff injury. **TESTS & RESULTS:** An X-ray for the right arm and shoulder was also performed which did not show any pathologies. The patient had a magnetic resonance imaging (MRI) of the right arm and shoulder revealing two lesions in the head of the humerus. An MRI of the cervical spine without contrast was performed and revealed a mild disk bulge at C5 and C6 with no significant Neural Foramina Stenosis (NF) narrowing. There was straightening and very slight reversal of the normal cervical lordosis. A nerve conduction study was performed and identified a right sided suprascapular neuropathy at the spinoglenoid notch with significant motor axon loss. Lastly, electrophysiologic testing was done which identified right sided ulnar neuropathy. **FINAL DIAGNOSIS:** Right sided suprascapular neuropathy at the spinoglenoid notch. Right sided ulnar neuropathy. **DISCUSSION:** Suprascapular neuropathy is a very uncommon cause for shoulder pain and is often times misdiagnosed. Frequently the diagnosis of suprascapular neuropathy is mistaken for subacromial impingement syndrome, rotator cuff injuries, etc. Common signs and symptoms of suprascapular neuropathy are pain and weakness in the shoulder, atrophy, and often burning and aching. Suprascapular neuropathy is reported to only be found in 0.4% of patients with shoulder pain. The compression of the suprascapular nerve at the spinoglenoid notch is often due to repetitive use and space-occupying lesions. Athletes that perform sports like tennis, weight-lifting, and volleyball are more likely to experience a suprascapular neuropathy injury. **OUTCOME OF THE CASE:** The patient has been diagnosed with suprascapular neuropathy caused by compression of the suprascapular nerve at the spinoglenoid notch. This patient has been prescribed a rehabilitation program involving the throwers ten to strengthen her rotator cuff muscles along with improving her scapular and glenohumeral stabilization and proprioception. The athlete is participating in normal practice and play and has been told to take over the counter anti-inflammatory medications such as ibuprofen, as needed. **RETURN TO ACTIVITY AND FURTHER FOLLOW-UP:** The patient is to remain in normal practice and play and continue her basic rehabilitation program. She has been referred to a surgical doctor and has been asked to seek a surgical consultation in the future.