Barral Institute Case Report

Neural Manipulation - Suprascapular Nerve Impingement

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**Abstract**

Working with precision dramatic improvements in impingement syndromes can be made quickly with manual therapy on the nerve. In this case, a suprascapular nerve impingement, first the impingement site had to be identified and released. Following this, specific, gentle treatment on the nerve itself as it passes through the area of impingement helps to restore movement of surrounding tissue, restore normal nutritive flow to the nerve and helps restore proprioceptive information about the nerve to the brain. This case study demonstrates the rapid success of such a treatment.

**Key Words**

Shoulder, pain, neural manipulation, rotator cuff, supraspinatus, infraspinatus, acromioclavicular joint, suprascapular nerve

**Introduction**

40 year old women presents with left sided posterior shoulder pain. Gradual insidious onset over the last month. Difficulty reaching behind her.

**Method**

General Listening was to the left upper extremity. Local listening at the point of the scapular notch. On palpation there was some thickening at the notch and at supraspinatus near the tunnel under the AC joint and slight atrophy of both the supraspinatus and infraspinatus. Weakness of supraspinatus and infraspinatus as 3+. AC joint mobility was limited.

Manual therapy was performed first on the superior transverse scapular ligament to open the notch. Then neural manipulation was performed on the suprascapular nerve at the scapular notch as well as at the inferior transverse scapular ligament.

Gentle fascial release of the supraspinatus muscle through the tunnel was also performed with arm movement. A home exercise was given of scapular depression and discussion about possible compression causes. It was determined the likely cause was carrying a heavy purse on that shoulder. The patient was advised to edit the purse contents to decrease the weight.

**Results**

Immediate retesting showed full AROM and minimal soreness. Follow up testing one week later showed full AROM of the shoulder. Strength was restored fully within a week. Pain resolved completely within the week.

**Discussion**

Entrapment of the suprascapular nerve can be a result of direct injury or a gradual compression such as a bag or purse.

Vertical compression on the suprascapular notch will lead to compression of the suprascapular nerve. This nerve innervates the posterior capsule of the shoulder and the AC joint as well as provide motor input to the supraspinatus and infraspinatus muscles. Entrapment of this nerve can mimic a rotator cuff injury and must need a reliable differential diagnosis. In this case, thickening of the superior transverse scapular ligament, difficulty with external rotation but not pain with resistance could be considered a clinical differential diagnosis.

Manual therapy would be an asset to treat these kinds of disfunctions as the wait times for imaging to determine the presence of a rotator cuff tear would cause the impingement to worsen. Literature suggests that surgery is often the choice of treatment once the impingement causes atrophy of both the supraspinatus and infraspinatus. Neural manipulation of the suprascapular nerve could help people avoid those surgeries as was the case here.

A gentle osteopathic technique such as the one used here would also have the added benefit of a decreased inflammatory response following treatment which is also beneficial in impingment syndroms.

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