

Modified cervical sidebending “Distraction” technique to help distinguish between cervical radiculopathy and glenohumeral arthropathy



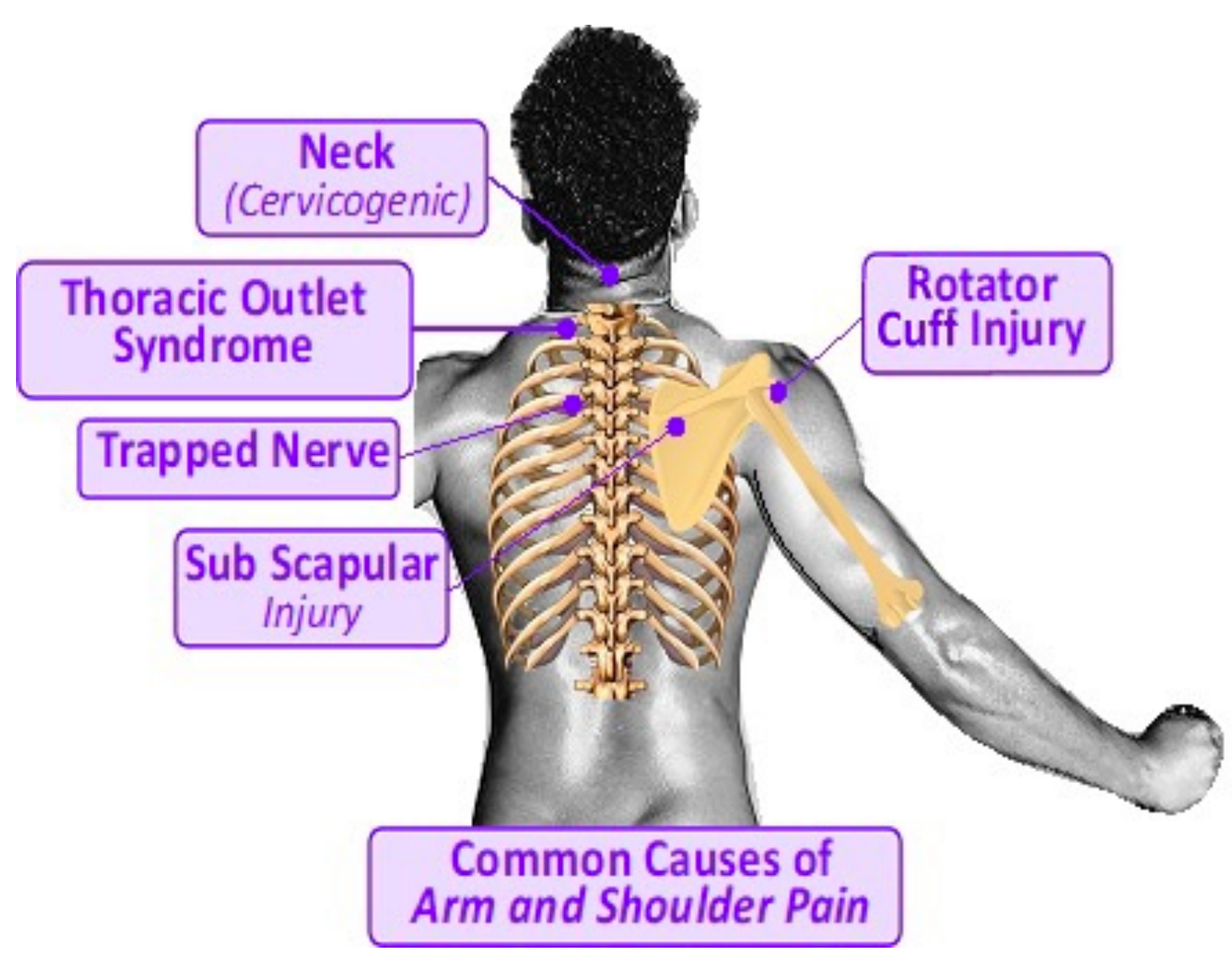
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INTRODUCTION

40 year old male with no significant past medical history presents to a pain management clinic with right sided neck and shoulder pain. His pain has been present for 3 months and started suddenly after playing golf. It has worsened after getting rear-ended in a car accident 1 month ago. The pain in the neck is sharp and stabbing in nature, and most bothersome when turning his head to the right. Patient denies relief from over the counter patches and has not tried any other medications. Extending the neck worsens his pain. X-rays of the neck show moderate facet arthropathy of the cervical spine. On physical exam, cervical sidebending of the neck. Right sided spurling test elicits anterior shoulder pain. Patient denies radiating or shooting pain down the arm. With the patient supine in a head-neutral position, right shoulder abduction is limited past 90 degrees secondary to 10/10 pain in the shoulder. Cervical sidebending to the left immediately relieves pain and allows the patient to further abduct the shoulder to 140 degrees.

PURPOSE

This patient presented with an interesting constellation of symptoms that in many scenarios can confound and make finding a true diagnosis quite challenging. Studies have shown that 1 in every 4 patients with cervical radiculopathy can develop shoulder impingement; making diagnosis that much more crucial. As a result, determining the true cause of pain in patients with cervical and shoulder pathologies is paramount to providing successful treatment recommendations.



RESULTS

This patient's nature of injury at a golf range along with anterior shoulder pain with arm abduction on physical exam pointed towards glenohumeral pathology or rotator cuff injury. However when positive spurling was elicited on the right side, the pathophysiology was not as clear. A proposed special test, the "cervical sidebending distraction test" proved to give us the answer in this patient. With the patient seated and head in a neutral position, the patient was asked to abduct his right arm. The patient was not able to tolerate abduction past 90 degrees due to pain. The patient was then asked to side bend his neck to the left, which was away from the affected side. The patient felt immediate relief and was instructed to further abduct his arm and was able to abduct another 60 degrees for a total of 140 degrees without pain. This test was very helpful to more or less rule out shoulder pathology as the cause for the pain as cervical motion would not have any alleviating or exacerbating effect on shoulder pathology. Cervical sidebending opened up the joint space on the right side, which alleviated this patient's radicular symptoms, thus pointing to a radicular etiology instead. This patient was able to avoid unnecessary shoulder imaging and treatment and was instead sent for cervical MRI with physical therapy to begin as well.

CONCLUSION

Differentiating between shoulder pathology and cervical spine pathology is often difficult as patients' areas of pain can overlap greatly from where pain would typically be expected. The classic cervical distraction test is used to diagnose cervical radiculopathy. A positive test is the alleviation of radicular symptoms or pain when applying distractive force to the cervical neck thereby increasing the joint space. This proposed modified cervical distraction test relies more on cervical sidebending away from the affected side to open up the joint space and therefore is a reliable test to differentiate between cervical radiculopathy and shoulder pathology in the setting of shoulder and neck pain with arm abduction. This proposed special test combined with a thorough history and physical can help diagnose the true nature of injury sooner and potentially avoid necessary imaging and lead to overall better results for the patient.

REFERENCES

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