



Despite a Recommendation for Surgery, A C6-7 Disc Herniation Causing Arm Pain into the Fingers and Upper Back, An Inability to Sleep and Emotional Upset Relieved with Cox® Technic

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INTRODUCTION

This is a case study of a patient with a congenitally narrow central spinal canal with a large right paracentral disc herniation at C6-C7.

HISTORY

On December 21, 2011 an obese 47 year old Caucasian male presented himself for examination and treatment. He was cooperative, alert to time and place and in obvious discomfort presenting with a right Bakody Sign. He related that approximately one month before, while traveling in an airplane to Spain, his neck began to feel uncomfortable and stiff. He described his neck pain as a constant pressure sensation. Then five days prior to coming into the office the pain spread out to his right shoulder, right upper back, between his shoulder blades and into his right arm. The pain shoots into his right arm causing the muscles in his forearm to spasm. He has numbness into his right hand which comes and goes. His right hand feels weaker than his left hand. Moving his head in certain directions, like rotation, increases the intensity of his pain. The patient is emotionally upset because he claims to have not slept in the past few days as he cannot find a comfortable position. He also relates that over the past few months' side sleeping has caused his hands to fall asleep.

Prior to seeking care in my office the patient saw his primary care physician who prescribed a "muscle relaxor" and a "non-steroidal anti-inflammatory." The patient has also self-treated with a heating pad, therma-care patch, Ben-Gay, and hot showers.

The patient's past history includes an episode of left sided sciatica in 1999 leaving him with a permanent loss of his left Achilles reflex. He had the surgical removal of a benign growth from the roof of his mouth. He currently takes over the counter medications for acid reflux.

His family history reveals that his father has a history of "back problems" and his mother has hypertension.

EXAMINATION

Examination revealed that the patient carries his head in an anterior antalgic lean. While the Foramina Compression Test was essentially negative, the RT/LT Shoulder Depressor Tests and RT/LT

Maximal Cervical Compression Tests produced right sided cervical spine pain. The seated Dorsolumbar Circumduction Test bilaterally produced pain in the upper thoracic spine. Using a goniometer the cervical ranges of motion were:

Anterior bending: 30 degrees with pain.

Left lateral bending: 35 degrees.

Left rotation: 50 degrees with pain.

Posterior bending: 20 degrees with pain.

Right lateral bending: 10 degrees with pain.

Right rotation: 15 degrees with pain.

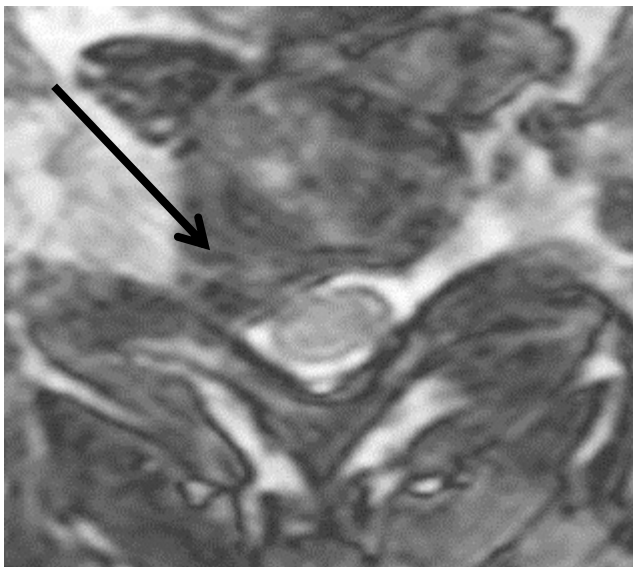
The deep tendon reflexes of the Biceps, Triceps, Brachioradialis, and Patella were +2 bilaterally. The left Achilles was 0 the right Achilles was +2. Using a Whartenberg Pinwheel the right C7 and C8 dermatome levels were reduced, all other dermatome levels of the upper extremities were noted to be within normal limits. Using a dynamometer the left hand grip strength was 105/105/105 lbs per square inch; the right hand was 85/90/85 lbs per square inch. The patient reports to be right handed. Paravertebral muscles spasms were present from the sub-occipital region to the mid-thoracic spine, the trapezius muscles and SCM muscles. Tenderness on digital pressure extended from the sub-occipital region to the mi-thoracic spine.

RADIOGRAPHIC EXAMINATION:

On December 21, 2011, the patient had two cervical films taken. Analysis of these films reveals the following: essentially negative for evidence of recent fracture as visualized. Spondylosis is noted at the C5-C6 joint level with Lushka Joint hypertrophy, anterior and posterior spur formations. The C5-C6 disc space is thinned. There is a bilateral elongation of the C7 transverse processes. The lateral film reveals a loss of the normal cervical lordosis. The A-P film reveals a lower right shoulder along with a right lateral lean to the upper thoracic and cervical spine.

CERVICAL SPINE MRI FINDINGS:

I referred the patient for an MRI of the cervical spine as my suspicions were of a HNP of the cervical spine, which was performed on December 23, 2011. The MRI reveals the following significant findings (See the axial and sagittal MRI images.):



*Figure 1
Axial Image 10/40 T2W FFE 3D shows the large
right sided C6-C7 disc herniation (See arrow.)*



Figure 2
Sagittal T2 TSE section 10/15 showing
the large C6-C7 disc herniation (See
arrow.)

“There is a mild to moderate diffuse congenital narrowing of the cervical spinal canal.”

“At C5-6, there is a small left paracentral disc protrusion and uncovertebral degenerative change especially on the left. There is mild to moderate narrowing of the central spinal canal and left lateral recess. The left neural foramen is mildly narrowed.”

“C6-7, there is a moderate to large right paracentral disc herniation which fills the right side of the spinal canal and causes severe narrowing of the right lateral recess and proximal right neural foramen. The central spinal canal is moderately narrowed. There is potential for impingement upon the right C7 nerve roots.”

“T1-2, there is a small to moderate right paracentral disc protrusion which causes mild to moderate narrowing of the central spinal canal on the right. Tiny disc protrusions are seen at the T2-3 and T3-T4 levels as well.”

DIAGNOSIS:

HNP of C6-C7 resulting in a right-sided cervicoradiculopathy, hypoesthesia, paravertebral muscle spasms, and weakness of the right upper extremity, complicated by a congenitally narrowed central spinal canal.



TREATMENT:

Cox® Decompression Spinal Adjustments, along with trigger point ultrasound, electrical muscle stimulation, ice packs/hot packs as needed. Initial course of care three times per week for four weeks or until pain reduction of 50% is achieved, with a re-evaluation at the conclusion of this trial of care to determine the patient's future needs.

TREATMENT GOALS:

To reduce the patient pain level by 50% within one month of care. If the patient does not improve during this trial of care I may consider referring the patient for a consultation with a neurosurgeon.

DISCUSSION:

This patient presented himself in obvious distress and emotionally upset. My initial impression of a herniated nucleus pulposus of the cervical spine compressing the C7, C8 nerve root levels, was confirmed by MRI two days later. I explained to the patient that our goal is to first reduce the pain and that I expected to achieve at least a 50% reduction within the first month of care. I informed him that the cervical headpiece on the Cox® 7 table is designed to accomplish decompression of the spinal nerve roots as well as the spinal canal, that his feedback during the testing and treatment phase is needed to test his tolerance of the adjustment.

On December 21, 2011, the patient received his first Cox® Decompression Adjustment of the cervical spine, Protocol 1, along with electrical muscle stimulation and ice packs at the cervicothoracic junction. The patient tolerated the procedure well.

The patient had not been able to obtain a full night sleep for a week. In order to properly heal, the patient must also be able to rest and sleep. He therefore was directed back to his medical physician to seek some assistance so he can sleep. His physician prescribed Tylenol with codeine on December 24, 2011, which allowed him the ability to get a few hours of rest. On this day I also changed the physiotherapy modalities to trigger point ultrasound to the posterior cervical spine and trapezius muscles.

On December 27, 2011, the patient had his fourth visit and related that he was beginning to feel better. The MRI report was received this day and I discussed its findings with the patient. Since the disc herniated at C6-C7 was so large, compromising the central spinal canal and right neuroforamen, I referred the patient for a neurosurgical consult. The patient was adamant that he did not want surgery, and I informed him that this was a prudent decision in the event conservative care was unsuccessful.

By January 3, 2012 the patient described that he primarily had an ache under his right shoulder blade and slight numbness at the tips of his right thumb, index finger and middle finger of his right hand. He was now being adjusted using Protocol 2 for the cervical spine on the Cox® 7 Table head piece.

On January 9, 2012 the numbness in the fingertips of his right hand was easing up, he primarily felt a "deep pain" into his right elbow.

On January 18, 2012 I performed a re-examination, which revealed that the LT/RT Shoulder Depressor Tests and LT Maximal Cervical Compression Tests were now negative. The RT Maximal Cervical



Compression Test was positive for cervicothoracic junction pain. The Seated Dorsolumbar Circumduction Test was essentially negative bilaterally. Using a goniometer the cervical ranges of motion were:

Anterior bending: 50 degrees	Posterior bending: 45 degrees.
Left lateral bending: 35 degrees.	Right lateral bending: 30 degrees.
Left rotation: 50 degrees.	Right rotation: 50 degrees.

The deep tendon reflexes of the Biceps, Triceps, Brachioradialis, and Patella were +2 bilaterally. The left Achilles was 0 the right Achilles was +2. Using a Whartenberg Pinwheel the right C7 and C8 dermatome levels were reduced, all other dermatome levels of the upper extremities were noted to be within normal limits.

The patient also noted that his pain level was now a 4/10, describing that he felt 70% improved.

The patient saw the neurosurgeon on January 20, 2012, who recommended surgical decompression of C6-C7. The patient related that he declined this suggestion, and he wanted to see if he would continue to improve without surgical intervention. The neurosurgeon then recommended that he return in six weeks for follow-up visit.

Over the course of the next six weeks I saw the patient 10 additional times with the patient making continued positive progress. On February 24, 2012, he had his last visit in my office with him stating that he primarily has a tight sensation in his neck, which is noticed primarily if he sits poorly. He has no pain in his upper extremity and "no numbness in his right hand to speak of."

I present this case to highlight that spinal decompression using the Cox® 7 Table's cervical spine headpiece may be an effective tool in dealing with a significant HNP. It is also important to note that while the chiropractic approach to care is non-drug and non-surgical, at times the appropriate use of pain medication is essential in order for the chiropractor have the opportunity to care for the patient. This patient was in such extreme pain initially that he was not sleeping which ultimately inhibited the healing process, and the patient's ability to function. With the assistance of the patient's primary care physician, a pain medication was prescribed allowing the patient the opportunity to sleep and undergo a non-surgical decompression protocol, thereby avoiding surgery.

Respectfully submitted,
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