



Post-MVA of 20 years Producing Neck Pain and Headache Eased with Cox® Technic System of Spinal Pain Management

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CHIEF COMPLAINT:

On August 10, 2020, this 49 year old female patient presented with pain in the neck that she described as a pinching and rated a 4/10 with numbness in the bilateral upper extremities that radiated to all the fingers at night and during the day to the elbows. This was an on-going chronic problem that started about 20 years ago. In 2001, she had cervical fusion and her condition responded well until a MVA in 2012 which according to the patient, destroyed the titanium and it needed to be replaced. Since then, she had been to Dr Moreno, Dr Gohel and Dr. Deuryla at Ramos Pain Clinic. She has undergone physical therapy without relief. She gets partial relief with RF ablation every 12-18 months for about 6 years.

She was getting what appeared to be associated occasional headaches on the left side.

She also complained of interscapular pain rated an 8/10 that extended down to her bra strap and then radiated towards the front with the worst pain at the strap, posteriorly. Questionable relief with ablation which she had several times. Nothing specific aggravated the pain except the pain got worse as the day progressed.

Lastly, she complained of constant lower back pain rated 8/10 that radiated down the left lower extremity to the knee. It was radiating to the foot, but she had an injection in her lower back that did relieve the leg and foot pain. She has had physical therapy, epidural steroid injection and ablation with no relief noted.

She stated that she lived with constant pain, she was very irritable and gained 80 lbs since 2012.

IMAGING:

MRI of the cervical spine on 11/21/2019:

- C2-C3: No disc osteophyte complex, spinal stenosis or foraminal narrowing.
- C3-C4: Disc osteophyte complex slightly asymmetric to the right, which nearly completely effaces the anterior thecal sac. Mild spinal stenosis and moderate bilateral foraminal narrowing.
- C4-C5: Postoperative changes. No abnormal enhancing scar tissue. No spinal stenosis and mild bilateral foraminal narrowing.
- C5-C6: Postoperative changes. No abnormal enhancing scar tissue. No spinal stenosis or left foraminal narrowing and mild-to-moderate right foraminal narrowing.
- C6-C7: Postoperative changes. No abnormal enhancing scar tissue. No spinal stenosis or foraminal narrowing.
- C7-T1: Anterolisthesis with disc uncovering. Mild spinal stenosis and severe bilateral foraminal narrowing.
- Fusion C4-C7

MRI of Lumbar Spine:

- L1-L2: No disc bulge, spinal stenosis or foraminal narrowing.
- L2-L3: No disc bulge, spinal stenosis or foraminal narrowing.
- L3-L4: No disc bulge, spinal stenosis or foraminal narrowing. Trace fluid in the right facet joint and minimal bilateral facet arthropathy.
- L4-L5: Mild loss of intervertebral disc height with a circumferential disc bulge. Mild to moderate bilateral facet arthropathy with a small amount of fluid in the right and trace fluid in the left a joint. No spinal stenosis and mild right and minimal left foraminal narrowing.



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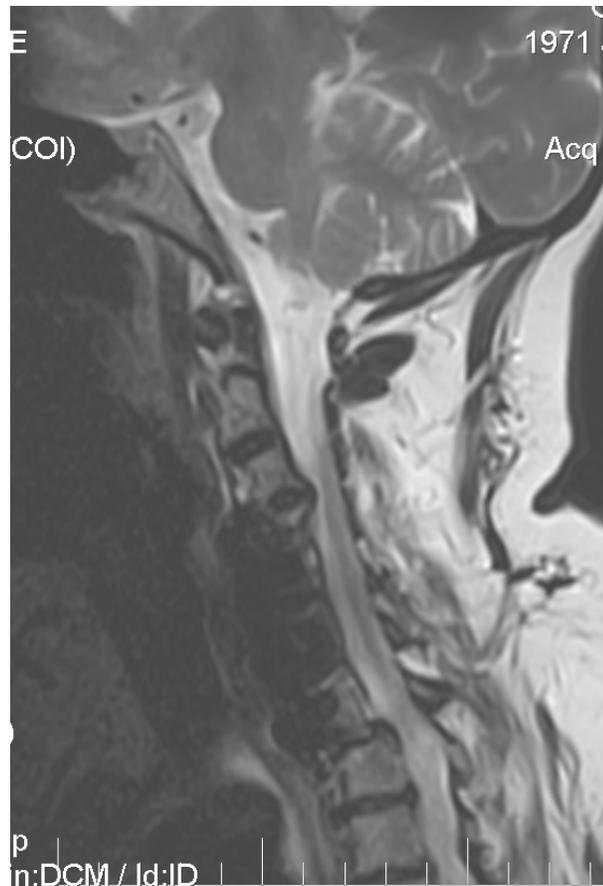


- L5-S1: No disc bulge or spinal stenosis. Mild-to-moderate bilateral facet arthropathy with trace fluid in both facet joints. Mild bilateral foraminal narrowing with abutment of the exiting L5 nerve root on the right.

MRI of Thoracic Spine 12/6/17

- Bulging discs T3-4, T4-5, and T5-6. Mild anterior vertebral offset T2 on T3. Minimal anterior vertebral offset T9 on T10. Mild Spondylitic changes.
- She was able to perform her activities of daily living (ADLs), but they were becoming more difficult. Ibuprofen provided temporary partial relief.

Following are screenshots of the MRIs. I apologize for the quality, particularly of the lumbar. The thoracic images are not available.



OBJECTIVE EXAMINATION FINDINGS:

Limitations noted in her active cervical range of motion:

Flexion 40 with pain in the neck.

Extension 20 with pain in the neck and left arm.

Left/right rotation 40 and 50 with pain in the neck and left arm.

Lateral flexion normal bilaterally with pain in the left arm to the left and right arm to the right.

Thoraco-Lumbar ROM was normal with pain upon flexion and extension.

Spurling's or Formanial Compression Test is positive both to the left and right.

VBI Test, VAS or vertebral artery screening test (George's Test) was normal.



SLR negative bilaterally.
Hibbs and Laguerre's positive on the left.
Milgram's test positive.

Muscle strength was normal in the upper extremities at 5/5 bilaterally, the upper deep tendon reflexes are normal at +2 bilaterally in her biceps, brachioradialis and triceps and her superficial sensation was normal when tested with a pinwheel in the upper extremities over her C5, C6, C7, C8 and T1 dermatomes.

Phalen's Test was negative. Tinnel's Sign was not present.

Palpation of the soft tissue structures were normal in her upper body with the exception of spasm, tenderness, pain and trigger point activity in her left cervical paraspinal muscles and right cervical paraspinal muscles. 4/5. Mild hypertonicity Lumbar paraspinal muscles.

MRI of the cervical spine was obtained by her primary care physician on 4/23/13 which demonstrated a left lateral bone spur which does not indent the cord but extends into and narrows the left lateral foramen at C3-4. At C4-5, there is desiccation of the disc and no evidence of herniation or stenosis. There is mild desiccation and narrowing of the disc at C5-6. There is a small central disc protrusion that does not indent the cord. There is a small right foraminal disc protrusion which compresses the right foramen. A bone spur is also narrowing the left foramen.

An EMG and NCS of the upper extremities were performed which demonstrated no evidence of radiculopathy and some evidence of left ulnar neuropathy most likely at the tunnel of Guyon.

PRESENT ASSESSMENT:

PATIENT'S WORKING DIAGNOSIS LIST:

M50.121 Cervical Disc Disorder with C3-4 Radiculopathy
M50.121 Cervical Disc Disorder with Radiculopathy C4-5
M50.122 Cervical Disc Disorder with Radiculopathy C5-6
M50.123 Cervical Disc Disorder with Radiculopathy C6-7
M54.2 Cervicalgia
R20.1 Skin hypoaesthesia
R20.2 Skin Paraesthesia
R51.0 Cervicogenic Headache
M51.16 Lumbar Intervertebral Disc Disorder With Radiculopathy L1-4
M51.17 Lumbar Intervertebral Disc Disorder With Radiculopathy L5/S1
M54.5 Lumbar Spine Pain
M51.24 Thoracic Disc Disorder w/ Myelopathy; w/o radiculopathy
M51.24 Thoracic Disc Disorder w/ Myelopathy; w/o Radiculopathy
M54.6 Thoracic spine pain
E66.01 Obesity due to Excess Calories

PLAN:

SHORT TERM TREATMENT GOALS:

Alleviate 50% of her symptoms within one month of three times per week treatment.

TREATMENT:

Cox® cervical, thoracic and lumbar distraction.
Ultrasound on the lumbar paraspinal musculature 10 minutes.
Electrical Muscle Stimulation on the cervical paraspinal muscles 15 minutes.

PROGRESS:

Within several weeks, she demonstrated gradual, steady improvement in her neck, mid and lower back. She continued with treatment at a frequency of 3x per week for about 3 months. Her pain level reduced to 0-2/10 throughout her spine. She did contract Covid and missed a couple of months of treatment and suffered an exacerbation. She undergoes prn care presently with her pain level varying between 0 and 2 depending on her level of activity and occasionally increasing to a 4/10. She rarely takes ibuprofen and cancelled her ablation appointments.

DISCUSSION:



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First, I am going to provide my opinion with this case based on over 30 years of clinical experience, thousands of hours of post graduate education with a significant portion in neurology and electrodiagnosis. The premise of chiropractic has been based on correcting structural dis-relationships and lack of movement and the effect on function and health. We have also concentrated on subluxation/fixation of vertebrae and their effects on discs and facets. I believe that surgical fixation of vertebrae is a perfect example of the resulting consequences on the adjacent joints above and below the fixation. In this case, C4-7 were fused, and the effects are obvious on C7-T1. It certainly would have been helpful to have “pre-imaging” studies showing healthy or relatively healthy C3-4 and C7-T1 discs and joints in proving the direct relationship between lack of movement and structure/function.

I can safely state without prejudice or bias that Cox® Distraction has changed this patient’s quality of life and without it, she never would have responded as well as she has, and I am confident it will save her from future surgery. She no longer feels the need to undergo ablation. It would be helpful if she lost weight, but at this time she is clearly not motivated. I have not given up encouraging her to do so.

Radiofrequency ablation of the C2 dorsal root ganglion is being done with the goal of a “successful outcome” of at least 50% pain relief at 6 months post-surgery. (1) One study reports on sensory disturbance after cervical radiofrequency ablation has been documented in 2%–55% of patients. This is a wide range of disturbances, and most are temporary and do not require treatment, but some do. (2) I am surprised that we are not seeing a higher incidence of permanency.

Interestingly for those doctors who concentrate on upper cervical lesions in the case of cervicogenic headaches, there is a paper entitled *Lower Cervical Disc Prolapse May Cause Cervicogenic Headache: Prospective Study In Patients Undergoing Surgery* which demonstrates that lower cervical disc prolapses most likely cause headaches via the trigeminal nerve. (3) Further, surgical removal of disc herniations for headache relief have been offered to headache patients as well. Removing one or two cervical discs in patients unresponsive to prior treatments that was shown to result in 63%/64% of unilateral/bilateral cervicogenic headache relief or improvement at 19.8 and 25.5 months. (4) A randomized control trial of spinal manipulation and spinal mobilization for relief of cervicogenic headache found that manipulation and mobilization have comparable effects on disability, pain, global rating of change score, and cervical ranges of motion. (5) Cox® Technic offers research-documented, gentle protocols in its manipulation approach.

As with all treatments we must discuss contraindications. Cox® Distraction has very limited contraindications except for the obvious spinal fractures, severe osteoporosis, and infections.

References:

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