



Treatment of Large C6-7 Disc Extrusion Using Cox® Technic Protocols

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Introduction

This case exemplifies the effectiveness of chiropractic care on a large cervical disc herniation amid some skepticism from the patient's family and support from a local spine surgeon. The patient's husband was a cautious about his wife's choice of chiropractic. During the report of findings and discussion of the MRI results, he expressed his desire for a second opinion. Working with local surgeons is commonplace, so an appointment was arranged, all documentation was sent, and a chiropractor-to-surgeon phone discussion was conducted before patient's consultation visit. The surgeon was confident the patient would do well with surgery, the surgeon supported conservative care as he was aware of other shared patient cases' successes. While waiting on the surgical appointment that was not for two weeks, the patient commenced with the treatment plan. By the consultation date, she had made significant improvement. The orthopedic surgeon recommended that she continue care.

History

Patient was a 53 year old real estate agent who presented with severe right sided neck pain with radiating, burning pain to the right hand. Symptoms presented shortly after rolling logs in her backyard to her pond approximately 1 week prior to her initial visit. Her neck and right arm pain was constant, increased with sitting, computer work, driving. Unfortunately as a real estate agent she was performing these tasks on a daily basis. She rated her pain an 8/10 (10 being the worst pain) accompanied by muscle spasms and decreased range of motion. Patient was having trouble sleeping due to pain. She had been taking Advil, which had not provided relief. Patient denied headaches or upper extremity weakness.

Examination Findings

Foraminal compression and extension compression test caused right sided neck and upper trapezius pain. Maximum foraminal compression produced right sided neck pain with radiation to the right elbow. Shoulder depression test on the right caused right sided neck and upper trapezius pain. AROM was severely decreased through all planes due to pain and restriction. Palpation revealed tenderness over the cervical paraspinal and right upper trapezius musculature. Facetogenic restrictions were noted throughout the middle and lower cervical segments.

Neurological evaluation of the upper extremities revealed 4/5 motor strength of the right triceps. Deep tendon reflexes were 2+ bilaterally, sensation was equal bilaterally.

MRI Findings

C5-6 disc osteophyte complex indented the thecal sac. Uncovertebral hypertrophy changes left greater than right causing mild left neural foraminal narrowing. Mild narrowing of the central canal was noted.

C6-7 large broad based right paracentral extruded disc which extended laterally at the right neural foramina causing mild asymmetric narrowing of the spinal canal and severe narrowing of the right neural foramina with encroachment of the C7 nerve root. The extruded disc appeared to extend superiorly and inferiorly. It measured 10mm in craniocaudal dimension and 12 mm in transverse dimension. In addition, there was a small central/left central disc osteophyte complex. See Figures 1 and 2.

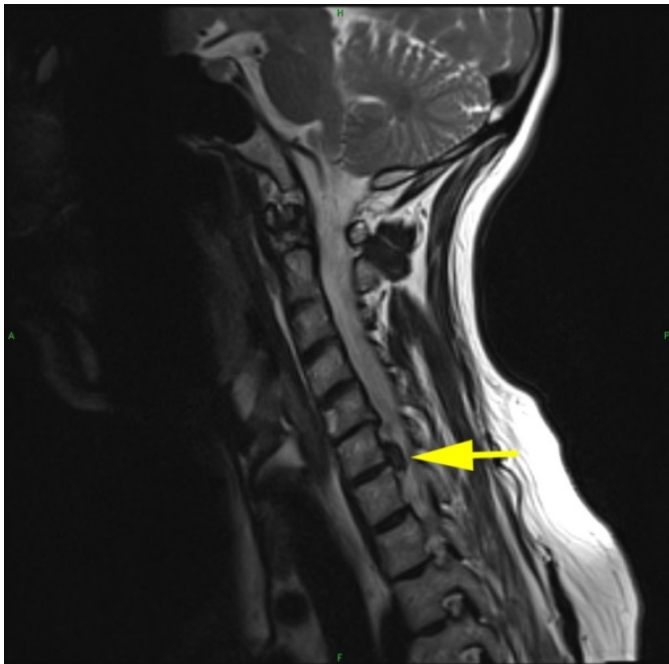


Figure 1. A large extruded free fragment of disc material posterior to the C6-7 disc space migrated cephalward posterior to the C6 vertebral body to a great extent and to a lesser degree caudad to the disc space posterior to the C7 vertebral body. (See arrow.)

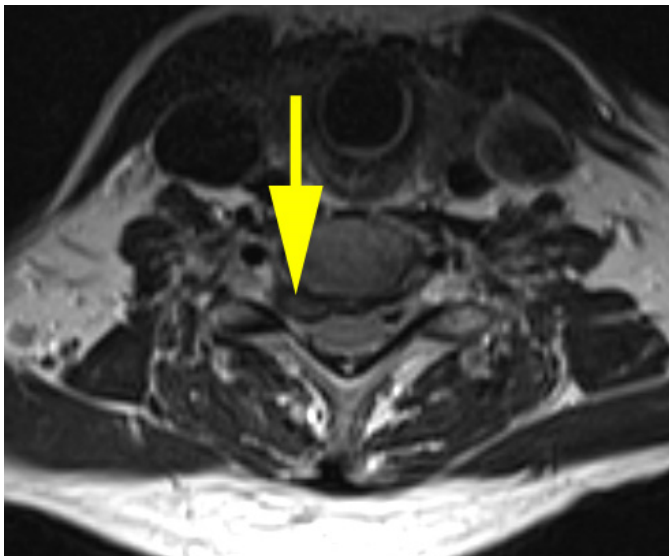


Figure 2. The large extruded fragment of C6-7 disc settled within the lateral recess and osseoligamentous canal causing severe stenosis and C7 nerve root compression and probable chemical inflammation. (See arrow.)

Treatment Plan

Treatment consisted of Cox® cervical spine decompression Protocol 1 using long Y-axis at a frequency of 3 times per week for 4 weeks or until 50% improvement in subjective and objective findings. Protocol 1 involved a single contact of the C6 spinous process, lifting C6 away from C7. The contact hand and the hand on the cervical headpiece tiller bar move together. Five 4-second motions of this cephalward motion was repeated three times with trigger point therapy applied to the surrounding soft tissue between each set. The Rule of 50% in Cox Protocols guided treatment type and frequency: 50% relief suggested the addition of Protocol 2 to the treatment and reduced patient visits by 50%. Post adjustment electric muscle stimulation was applied to the cervical spine. Patient was instructed on proper home management such as the application of ice to the affected region and proper ergonomics. Figure 3 shows the spinal manipulation with Protocol I long y-axis distraction decompression of a cervical disc herniation.



Figure 3.

Outcome

After 6 treatments, the patient reported a reduction in pain and centralization of right arm/hand pain to the elbow. After 12 treatments (1 month) patient had at least 50% reduction in pain and further centralization of symptoms to the upper trapezius. There was also restoration of right triceps strength to 5/5. The patient had complete resolution of symptoms at 20 visits (2 months of care). The patient had not taken time off from work during the course of her care although it was recommended. She was encouraged to continue supportive care.

Discussion

This case report illustrated Cox® Technic flexion distraction spinal manipulation for a large C6-7 disc extrusion with overview of the care by a spine surgeon who supported use of the manipulative approach thereby allowing treatment with chiropractic that effectively prevented a surgical intervention. Patients with spine and radicular pain seek chiropractic care both before and after surgical interventions. Medical literature reports that primary care physicians are least likely to feel confident in their ability to manage



musculoskeletal pain and neuropathic pain (1), pain that chiropractors treat daily. In 2015, the Neck Pain Task Force shared evidence that mobilization, manipulation, and clinical massage are effective interventions for the management of neck pain. (2) Published research states that conservatively treated cervical spine disc herniation patients without myelopathy responded better than surgically treated patients. (3) A research study reports that the multidisciplinary approach to low back and radicular pain reduced lumbar disc surgery by approximately two thirds. (4) Multidisciplinary and interdisciplinary treatment of spine conditions such as this case is common, becoming an accepted normal line of treatment for disc herniation and spine pain for the benefit of the patient. This case illustrates the success of conservatively treating a large cervical disc herniation with radicular pain and motor weakness with spinal manipulation. It further demonstrates how interdisciplinary acceptance of chiropractic spinal manipulation may be established in the healthcare community by exposure and shared patient cases like this.

References:

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