Cervical Spine: Post Car Accident, Headache, 3 disc herniations

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HISTORY

A 46 year old female seeks treatment after a motor vehicle accident on May 3, 2016, involving front left impact while attempting to cross an intersection. The accident resulted in total damage to her vehicle, air bag deployment, and restraint by shoulder lap belts. She visited the local hospital emergency room via ambulance with complaints of neck pain, left shoulder pain, and low back pain. X-rays were taken of the cervical spine and left shoulder; both were negative for fracture. Treatment after the accident included naproxen and cyclobenzaprine as needed and four-plus months of physical therapy that improved her low back pain but rendered no improvement in neck and left shoulder pain. No MRIs were taken. Her attorney referred her to my chiropractic clinic for evaluation and treatment on September 20, 2016.

CHIEF COMPLAINTS

The patient explains that she experiences daily headache, constant left shoulder pain, constant neck pain that radiates into her left shoulder and arm as a 7 out of 10 on the numerical pain scale with 0 being no pain, and mild low back pain with no radiation of pain.

EXAMINATION

The physical examination revealed a head tilt slightly to the right, compression testing as positive on the left, and Spurlings' test as positive on the left. Active left rotation and lateral flexion are diminished due to pain. Active left shoulder ranges of motion were slightly diminished in all planes. Provocative testing for rotator cuff tear was equivocal. Deep tendon reflexes were normal.

IMAGING

MRI of Cervical Spine was performed on September 29, 2016.

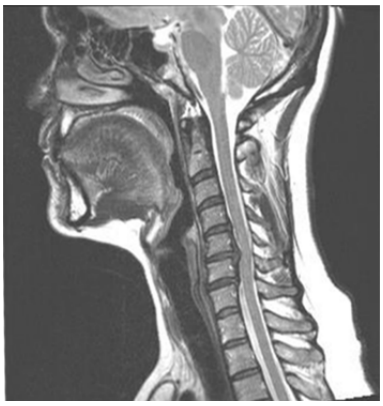

Figure 1

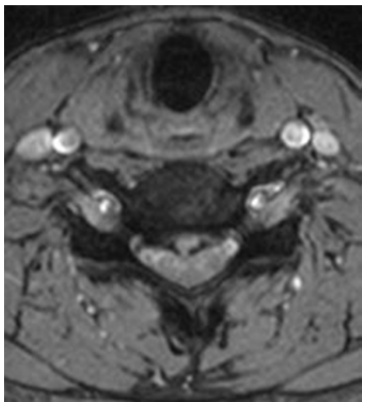

Figure 2

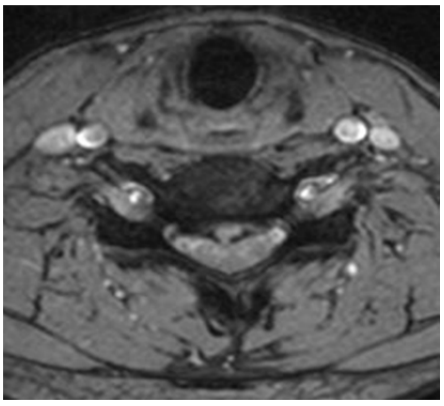

Figure 3

- C4-C5 Broad Based Disc Bulge, effacement of thecal sac, mild spinal stenosis, and mild right greater than left neural foraminal narrowing
- C5-C6 Minimal Grade I retrolisthesis and large midline extruded disc herniation, moderate spinal stenosis compressing the cord, and moderate bilateral neural foraminal narrowing
- C6-C7 Minimal Grade 1 retrolisthesis, broad based disc bulge, effacement of thecal sac, mild spinal stenosis, mild right greater than left lateral recess narrowing

An EMG/NCV was also performed on November 17, 2016, revealing left C6-C7 radiculopathy and mild bilateral carpal tunnel syndrome.

DIAGNOSIS

- C4-C5, C5-C6, C6-C7 spinal stenosis due to intervertebral disc herniation with foraminal stenosis
- Left C6 and C7 radiculopathy with bilateral carpal tunnel syndrome

TREATMENT PLAN AND OUTCOMES

The treatment plan was initiated with treatment sessions of three times a week for four weeks monitoring for 50% relief of pain. Treatment started with tolerance testing and proceeded with Cox® Cervical Protocol 1 via long-y-axis distraction using a C4 spinous contact held firmly while long- axis distraction was performed from the taut point – the point at which all the slack in the cervical spine from the spinous contact forward is achieved by moving into long-y axis – for three sets of five 4-second pumps with trigger point therapy between each set to the affected dermatome.

Headaches disappeared in week 2. Cervical ranges of motion returned to normal in 3 weeks. Pain was reduced by 50% in week 3.

With the 50% relief attainment, Cox® Cervical Protocol 2 – treatment to each affected spinal level from the taut point into lateral flexion, flexion, rotation and coupled motion - was initiated in week 4 and continued at a frequency of 3 treatments a week for another 4 weeks.

At another 50% improvement in week 8, frequency of care was reduced to 2 treatments a week for another 4 weeks.

The patient is now on maintenance as needed. Her current status of pain is rated 2-3 out of 10 compared to 7 of 10 when first examined, thus superior minimal clinical improvement was obtained. Her pain is intermittent, and she is able to perform all activities of daily living without restrictions.

DISCUSSION

Relief using Cox® Technic flexion distraction protocols for cervical spine pain and related arm pain radiculopathy is documented. The 50% Rule guides progression from Protocol 1 to Protocol 2 as patients improve by 50% subjectively (VAS/NPS) and objectively and their visit frequency is reduced by 50% as well. (1) Kruse et al documented that a 51 year old woman who had 2 years of left arm pain due to a C5-6 disc herniation found relief with flexion distraction in 3 visits for 2 weeks then every 2 weeks for a total of 24 visits over 6 months. At one year, she is symptom free with normal neurological status. (2) A 60 year old male with cervical spine stenosis and radiculopathy due to multilevel central stenosis found no

significant relief from medication and physical/occupational therapy and did find significant relief of his subjective and objective findings after treatment with flexion distraction spinal manipulation. (3) A 33 year old man with severe neck pain and spasms with left arm pain radiculopathy and upper back pain due to a disc herniation at C6/7 found relief in 15 visits over 10 weeks. At two year follow up his subjective and objective findings remained stable. (4) Schleisser et al reported that cervical spine radiculopathy in a case series of 39 patients was relieved in a mean of 13.2 visits with statistically significant reduction in pain noted by visual analog scale pain score drops of 41.4 points from 50.1 to 8.7. (5)

CONCLUSION

This case of relief for post-motor vehicle accident neck and arm pain describes the use of Cox® Technic flexion distraction cervical spine protocols and the influence of the 50% Rule on the treatment plan progression.

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