



A Patient With Neck and Right Upper Extremity Pain Treated With Cox® Decompressive Spinal Manipulative Therapy

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INTRODUCTION

This case report describes the clinical presentation, evaluation and treatment of a middle-aged male patient that presented to our facility in September 2015 due to fairly severe neck pain that extended into the shoulder girdle and right upper extremity. The patient attributed the onset of his symptomatology to doing an exercise in the gym that he usually did not do. He had no significant prior history of similar problems. Our treatment included Cox® decompressive spinal manipulative therapy, adjunctive physiotherapeutic modalities and progressive return to normal activities. He was subsequently released from our care without residual symptoms of any kind.

PRESENTATION AND EXAMINATION FINDINGS

History of Present Illness: This 49 year-old gentleman reported that four days prior to consultation in our office, he had developed gradually intensifying onset of relatively severe pain in his neck, right midtrapezial region and right upper extremity that extended diffusely to the hand. He described the precipitating event as being “an exercise that I usually don’t do at the gym, the seated leg press.” The pain was not severe initially, but over the course of the next few days became of such severity that he mentioned it to a co-worker who referred him to our office for chiropractic orthopedic evaluation. He had not seen any other physicians in the interim between his injury and his presentation at my facility. He described his right arm pain as being dull in character, intermittent in frequency and mostly proximal in location although at times the pain extended into his right hand. Thus, there was no clear dermatomal distribution to his pain as he described it. Other than the incident at the gym, he denied any other significant trauma, falls, or precipitating event. He also denied any significant prior history of similar problems. No prior chiropractic treatment.

Past Medical History: His past medical history was notable only for BPH and removal of a basal cell carcinoma three months prior which was uneventful. Medications included Avodart, Alfuzosin and ibuprofen. Supplements included a multivitamin, B-12 and vitamin D. Other than his basal cell skin cancer removal, no surgeries.

Family History: Lung cancer in his mother, prostate cancer in his father. Otherwise unremarkable for significant neurologic or musculoskeletal disorders in first-order relatives.

Social History: Married, does not smoke or drink alcohol. He is an architect.

Physical Examination: This was a very pleasant, right-handed, 49-year-old male architect in some apparent discomfort. He was 74 inches tall, weighed 220 pounds. His blood pressure was 132/92 (seated), pulse was 69, O₂ saturation was 98%, temp was 97.7 F°, respirations were 22. He was holding his head and neck a bit rigidly without overt antalgic tilt. Gait and stance were otherwise normal. Pupils were equal, round and reactive to light and accommodation. There was no ptosis. Active cervical range of motion was decreased by approximately 50% to right rotation, and by approximately 25% to left rotation. All other cervical ranges were physiologic but painful at end point. Active lumbar range of motion was full. Right shoulder range of motion was painful upon full internal and external rotation. There was no acromioclavicular step off. No significant subacromial or bicipital groove tenderness. Upper extremity sensory function was intact to light touch. Tricep reflexes were 1+ on the right and 1-2+ on the left. Grip strength as tested by dynamometry was 60/60 on the right and 100/90 on the left. Lower extremity motor, sensory and reflex function was intact. Palpation showed paraspinal spasm and tenderness in the cervical and midtrapezial musculature, with tenderness in the cervical region being mostly on the right side. Cervical segmental dysfunction was noted to motion-augmented palpation. Myofascial trigger points were

present within the right midtrapezius, right levator scapula insertion and right infraspinatus muscle. Premanipulative screen/tolerance testing was negative for contraindications to treatment. (1)

IMAGING

In the lack of significant trauma, and taking into account his physical examination and the recent onset of this patient's symptomatology, it was felt that imaging could be deferred at that time although it was explained to the patient that should he not improve significantly within the next two weeks, an MRI of the cervical spine would be necessary. The author readily acknowledges that while many other physicians would have ordered radiographs and/or advanced imaging immediately, the author's significant experience with algorithmic protocols is such that it was felt that imaging could be safely deferred unless the patient experienced significant worsening of his symptomatology, or in the absence of satisfactory improvement within a two-week time frame. (2)

ASSESSMENT

His assessment at that time was possible cervical disc herniation with radiculopathy, cervical strain/sprain, cervicothoracic myofasciitis, cervical segmental dysfunction and possible rotator cuff tendinitis/tendinosis.

INFORMED CONSENT

A lengthy explanation was given regarding risks versus benefits of chiropractic treatment, alternatives, and no treatment at all, and all questions were answered to the best of my ability. I also made it clear that no guarantees could be made, nor were any implied, that his condition would resolve, and that there was also a possibility that his condition could worsen despite our best efforts. Our treatment plan was explained in detail and he expressed understanding and acceptance of such, as well as a desire to continue treatment in this facility. In particular, it was made clear that he may have a cervical disc herniation and that the only way to evaluate that would be to order an MRI but that I felt it was safe to defer such imaging up to two weeks to allow for a trial of conservative treatment unless he worsened significantly in the interim. In the event of a significant worsening he was to contact our office promptly.

TREATMENT & RESULTS

Adjunctive therapy initially included interferential therapy, cryotherapy and soft tissue mobilization over the cervical/midtrapezius musculature, right levator scapula insertion and right infraspinatus. Home care measures included avoidance of provocative activities, application of ice for ten minutes per hour two or three times a day, and gentle range of motion exercises as tolerated.

Manipulative treatment included Cox® decompressive spinal manipulative therapy utilizing Cervical Protocol 1 on The Cox®7 table (3). This was provided on alternating days for the first two weeks, at which point he had experienced significant relief, such that he wanted to try to go back to the gym and progressively increase his level of activity, to which the author agreed after a discussion with regard to prudent limitations. He continued to be seen on alternating days for the next two





weeks as we monitored his progress during his progressive increase in activity. His improvement continued steadily, so he followed up on a decreasing frequency basis over the course of the next 5-6 weeks with gradual continued improvement throughout that time and he was able to return to his usual activities of daily living. At the time of his last visit, approximately ten weeks after initial presentation, his VAS was 1/10, his grip strength was completely normal bilaterally, and his tricep reflexes were 1-2+ bilaterally. His cervical range of motion was slightly tight at the end point of right rotation but certainly greatly improved. He was released to PRN at the time of his last visit with instructions to continue his range of motion exercises.

He was seen for a total of seventeen visits over the course of approximately ten weeks.

DISCUSSION

This patient responded very well to a course of Cox® decompressive spinal manipulative therapy and various physiotherapeutic modalities in our facility. Had this patient not had the opportunity to undergo chiropractic treatment, it is highly likely that he would have undergone multiple imaging studies, would have been treated with medication and physical therapy, and possibly surgery. Of course, none of these imaging studies and alternative interventions are bad in and of themselves, and in fact are at times the best choice for the patient. The author feels, however, that if exposure to ionizing radiation (xrays) can be safely deferred under careful observation and monitoring during a trial of conservative treatment, the patient benefits. Further, MRI studies are expensive, and when unnecessary, add to the financial burdens of the patient and our healthcare system, and can result in unnecessary surgical intervention. Fortunately, this patient responded quite nicely to Cox® decompressive spinal manipulative therapy.

REFERENCES

1. Cox, JM: Neck, Shoulder, and Arm Pain: Mechanism, Diagnosis, and Treatment, 3rd edition. Chiro-Manis, Inc., 2004: chapter 7, pp. 182-184.
2. Ibid, chapter 7, pp. 181.
3. Ibid, chapter 7, pp. 185-186.

COMMENT:

Note that Dr. Priest did not do diagnostic imaging prior to treating this patient. That is totally within standard of care today in the absence of red flags. Literature states 4-8 weeks of conservative treatment in the absence of progressive neurological deficits as the correct treatment algorithm. With sufficient diagnostic workup, diagnostic impression, tolerance testing, and constant monitoring of the patient's response, this is the standard of care. I compliment Dr. Priest on following the literature in his care of this patient.

*Respectfully submitted,
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