



CERVICOTHORACIC SPRAIN AND STRAIN

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Case History

On 8/24/2017, a 36 year old female writer presented with complaints of right more than left frequent pain in the neck and upper back with radiating pain into the right interscapular area. She reported the insidious onset of her pain was several weeks prior to the first visit following 2 weeks of increased emotional stress, as well as some arm symptoms prior to presentation at the office. Her pain level at time of presentation was 3/10 on a 10-point pain scale. Provocative activities were stress and head and arm motion. Palliative factors were epsom salt baths, heat, foam roller, and massage. She described the pain as warm and radiating which was frequent. She described similar episodes in the past, which occurred approximately 3 times per year, but were less painful in comparison and of only approximately 2 days in duration.

Treatment History

The patient reported no prior treatment for this condition. The only prior experience with chiropractic treatment was during a previous occurrence and was negative.

Past Medical History

Past medical history was non-contributory with prior hospitalization for an allergic reaction to a bee sting. Fractures were limited to the right distal ulna. Current medication at the time of her presentation was birth control, a joint complex, and Vitamins B12 and D. Family and social medical history were non-contributory.

Physical Examination

Patient presented as a normal, proportionate female adult with fair to poor posture, a normal gait, and a cooperative demeanor. Her height was recorded at 5'7", weight at 162 pounds. Cervical range of motion was recorded actively observed. Flexion 30/60 degrees with right thoracic pain. Extension 60/75 degrees with right thoracic pain. Left lateral flexion is 40/45 degrees. Right lateral flexion 30/45 degrees with right thoracic pain. Left rotation 76/80 degrees. Right rotation 64/80 with right thoracic pain. Thoracic range of motion was recorded actively observed. Flexion 30/50 degrees with stretch pain. Left rotation 45/60 degrees. Right rotation 35/60. Orthopedic examination demonstrated the following positive findings: cervical hyperextension, cervical hyperflexion, cervical distraction which was palliative, bilateral cervical maximal foraminal compression locally, and right shoulder depression. Neurologic examination was negative for light touch, stretch reflex, or muscle strength abnormalities. Palpatory examination revealed +3/4 tight and tender bilateral suboccipitals, cervical and thoracic paraspinals, levator scapula, upper trapezius, rhomboid, posterior scalene, middle scalene, and cervical and thoracic segmental dysfunctions.

Imaging

No radiographs or other imaging was ordered or obtained for this patient.

Diagnosis

History and physical exam show cervicothoracic sprain and strain with associated segmental dysfunction. Suspected possible C5-6 intervertebral disc involvement, but this was never confirmed or examined with imaging.

Treatment Plan

Evaluation and management, appropriate home care, lifestyle modifications or supplementation, chiropractic manipulative therapy, and appropriate physiotherapy modalities. Objectives to increase physical capacities, increase range of motion, and decrease pain. Treatment frequency set at 2 times per week for 4 weeks with a reevaluation to take place at that time. Anticipated reaching 40-60% overall improvement over the next 30 days. She underwent Cox® Protocol 2 chiropractic spinal manipulation and manual therapy soft tissue techniques for 6 visits over approximately 6 weeks with therapeutic exercises and recommendations for home care and appropriate biomechanics provided on the first and third visits.



Figures 1 and 2: Here, Protocol 2 is being applied to cervical spine in combination with occipital restraint strap.

Clinical Outcome

Within 2 treatments, the patient had achieved the majority of the overall improvement in her pain and the subsequent 4 treatments served to retain the benefit and complete full return to pre-injury status which she reported during the 6th visits. Patient did not return for re-examination, but the benchmarks set forth in the treatment plan were met and exceeded over fewer visits than expected.

Discussion

There is ample evidence for efficacy and appropriateness of both chiropractic care generally and Cox® Technic flexion-distraction, specifically in regards to low back pain. As early as 1983, Cox et al. showed with 100 consecutive low back pain patients, 50% relief was attained in 11 treatments over 16 days, and maximal relief within 16 treatments. (1) Even very difficult conditions like lumbar spinal stenosis show improvement with flexion-distraction technique. (2) This case concerns treatment in the more controversial neck and upper back region. While significant research has been done showing the efficacy and safety of chiropractic treatment of neck and upper back pain, the topic remains contentious with regard to sensationalized risk factors for stroke related to cervical manipulation. (3) More research, like this case study, will help illuminate the efficacy and contextualize the safety concerns. Cox® Technic does not involve the high-velocity low-amplitude thrusts commonly associated with chiropractic treatment and potentially increased risks of stroke, thus providing a safe and less-controversial, yet effective way to apply spinal manipulation. Using Cox® Technic in the neck and upper back, our case is one of the growing body of evidence that shows safe and effective results are achievable similar to those shown in the low back. (4)

Conclusion

The patient could not be reached via telephone for follow-up. To our knowledge, the patient's condition is still stable and satisfactory to date, and her prognosis remains favorable with adherence to appropriate biomechanics and home care. The overall clinical outcome has been excellent with Cox® Technic, and while further studies are needed, flexion-distraction appears to be a viable and safe form of conservative care in the neck and upper back.

References

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