



CHIROPRACTIC (GENERAL)

## Cervical Spondylosis and Chiropractic Adjustments

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### Abstract

A retrospective, single-case study of a postmenopausal patient presenting with bilateral hand numbness (left greater than right), waking her from sleep, requiring her to shake them and often causing numbness while she is on the computer; onset for one month.

### Method

During a five-year period, the author retrospectively reviewed a single case study in which a patient was discharged from chiropractic care for failure to follow the treatment plan outlined, in which case the rationale used was a potential for the development of cervical radiculopathy. This was based initially upon radiographic evidence of significant cervical spondylosis and the patient's psychiatric history that detailed an inability in thought processing, comprehension and performance behaviors. These conditions led to a probable poor chiropractic treatment compliancy outcome. The details of this case are reported. The purpose of this study was to report this type of complication as documented in a single-group practice of two chiropractors.

### Clinical Materials and Methods

I retrospectively reviewed data obtained on this patient, who underwent cervical CSMT between March 23, 1999, and Jan. 1, 2000, and was treated by one primary treating chiropractor of a single-group practice. In all cases, the following *International Classification of Diseases-9* diagnosis codes were established: 721.0, 719.41, 719.20, cervical spondylosis without myelopathy, shoulder pain, stiffness of joint. The following treatment-related results were determined: no adverse effect, no poor reaction or tolerance. The patient received pre-chiropractic CSMT radiographic data, intra-treatment

findings, and post-CSMT results. The results were evaluated with the patient using outcome assessment forms and objective interim evaluations as evidence-based. At discharge, the patient received an in-depth counseling session and was advised that due to failure to obtain orthopedic and neurological referrals provided, and failure to obtain the requested MRI of the cervical spine, numerous appointment changes, and in that the only compliancy was of the nerve conduction velocity testing to investigate the reported left shoulder pain - and thus findings of left carpal tunnel, early onset - it was felt that she was a poor candidate for cervical spine adjustments. The patient was accepted for control of a long-standing sacroiliac joint disorder, but signed an acknowledgment form that no cervical manipulative therapy would be provided. She ultimately sought chiropractic care elsewhere once her sacroiliac condition resolved.

The data recorded between this period and through Feb. 7, 2005, reinforced this chiropractor's decision with respect to the patient's management decisions, in that several various multispecialty practitioners discharged this patient for poor patient compliancy; one medical endocrinologist went so far as to document in an interim narrative, "I will no longer treat this patient, as she is attempting to control and influence my medical decision making." Record review indicates her psychiatrist documented: "Your continued inability to follow medication suggestions and recommendations over time make it more and more impossible to treat you; your wish to seek non-evidence-based medicine (no proof that it works) is understandable, unfortunately the last time you could have killed yourself." For the record, this doctor was referring to an emergency room admit as a result of overintoxication with natural remedies provided by a herbalist; the herbs reportedly adversely interacted with this patient's psychotropic drugs.

## Introduction

This 54-year-old woman suffered neck and primary left shoulder pain in 1999 as a secondary complaint to her low back and limb pain, when first evaluated many years ago at my facility. I was the treating chiropractor. She had previously seen a chiropractor who had performed a series of neck manipulations since a motor vehicle accident of 1995. After manipulation, the patient reportedly experienced a rapid onset of relief from her localized neck pain. After reporting that her chiropractor did not accept her group health insurance, the patient requested transfer of care to my facility. She anticipated that I would treat her in a similar fashion to her previous chiropractor.

At my initial evaluation, she presented on pain drawings and oral history with an ache across her upper back at the upper posterior cervical trapezium region, occasional into the shoulder area, mostly left-sided, and a low back limb involvement. She denied any numbness in the thumb and index finger of the left hand, the middle finger, or left arm/hand weakness. She reported "shoulder pain" that she described as a deep ache in the upper trapezium region bilaterally, with occasional left-sided pain greater than right-sided.

Initial radiography revealed a C4-C5-C6 spondylosis and cervical kyphosis. However, since her primary and greater complaint was the low back, she underwent initial care at this facility for a unilateral sacroiliac condition. While the cervical complaint was separate and, at that time, a lesser complaint than her low back and limb pain, a baseline diagnosis for the cervical complaint was warranted until further evaluation of her cervical complaint could be undertaken. Cervical radiographs were obtained and deemed medically necessary, considering that no previous radiographs were obtained from the transferring facility (no X-ray at that facility and no outside request); due to the chronicity of her neck and shoulder(s) complaint and undiagnosed condition; and because the mechanism of trauma

reported, post motor vehicle, mandated a need for a baseline limited radiographic study. Once her lower limb pain centralized, her cervical condition was next addressed via patient education and a process of ruling in and out the diagnostic criteria. Initially, a short trial of six upper thoracic adjustments was provided using diversified and Activator method for the cervical region. Post adjustment, the patient did well. The patient often complained that she "wanted a deep cervical adjustment and to make it crack." Muscle strength was 5/5 in the deltoids, biceps, triceps, wrist flexors, wrist extensors, and intrinsic. Despite her complaints over the adjustment technique, she was able to return to work and perform her job well as a realtor. Normal strength and no neck pain were observed at the one-year follow-up examination. The cervical complaint and intermittent left shoulder condition were thus attributed to cervical spondylosis at the level of C4-5.

During the course of initial care, this patient was referred out for medical management of a coexisting hypothyroid condition, a psyche condition, a postmenopausal condition, and a left carpal tunnel condition. Consulting physicians, in turn, referred for diagnostic studies, and opinions varied greatly as to causation or diagnostic impressions of the patient complaint, from shoulder impingement, to thoracic outlet syndrome, to fibromyalgia. The patient underwent surgery that included a partial hysterectomy and was not chiropractically managed at this facility for between two and three years.

In 2005, the patient presented again and requested this chiropractor's opinion as it related to her current complaint (bilateral hand numbness, left greater than right, waking her from sleep, requiring her to shake them and often causing numbness while she is on the computer; onset for one month). Her secondary complaint was neck stiffness. She reported that she recalled my patient education review with her on cervical spondylosis. She reported that she had some confusion in that she had been told by an orthopedist specialty that she required surgical intervention of her cervical spine. Furthermore, she had been seen in a variety of multiple medical disciplines (1 endocrinologist, 2 chiropractors, 1 rheumatologist, 1 neurologist, 2 orthopedic surgeons, 1 orthopedist in physical medicine and rehabilitation, and 1 psychiatrist) and requested their opinion of her bilateral hand complaints; opinions varied.

She hand-carried a current MRI of her cervical spine with her to my facility. These figures represent cervical Arthritis may affect the joints in the spine - joints that enable the body to bend and twist. Part of the problem may be the body's response to arthritis, which is to manufacture extra bone to stop joint movement. The extra bone is called a bone spur or bony overgrowth. In medical terms, the extra bone is called osteophytes, which may be found in areas affected by arthritis, such as the disc or joint spaces, where cartilage has deteriorated. The body's production of osteophytes is a futile attempt to stop the motion of the arthritic joint and deal with the degenerative process. The evidence of bony deposits can be found on X-ray (which allowed my initial cervical spondylosis impression). A bone spur may cause nerve impingement at the neuroforamen, as demonstrated by the signal degradation in Figure 3. Sensory symptoms include pain, numbness, burning, and pins and needles in the extremities below the affected spinal nerve root. Motor symptoms include muscle spasm, cramping, weakness, or loss of muscular control in a part of the body.

On examination, the cervical spine was nontender. The patient had 45 degrees flexion, 30 degrees extension, and 60 degrees right and left rotation without pain. The upper extremities demonstrated full strength, sensation and reflexes. There was a positive Phalen's sign on the left at about 20 seconds; negative on the right. There was no thenar atrophy present. Biceps and triceps reflexes were full. There was no Hoffman sign present. The neurodiagnostic studies were reviewed, demonstrating left carpal tunnel syndrome, possibly chronic. The cervical disk did not appear to be the primary

factor. I referred her to a neurologist to obtain updated nerve conduction velocity testing and electrical muscle galvanism testing, to determine any progression of her left carpal tunnel syndrome. I also referred her to a neurosurgeon to determine the necessity of the cervical disk surgery. Corticosteroid injections, volar splints, and hand rehabilitation with extremity chiropractic adjustments were prescribed; she was sent back to her previous treating chiropractor for this method of care. Surgical carpal tunnel release was suggested if conservative care measures failed or were self-limiting.



Figures 1-3, from top:  
Cervical spondylosis and  
its arthritic consequences.

Based on the MRI of the cervical spine and the fact that the old condition of cervical spondylosis C4-6 remained, she was asked to be monitored by a neurologist until her neurosurgical cervical follow-up was obtained (3-4 months from the initial visit). This would afford case management of her hand numbness to hopefully full resolution, and hopefully full satisfaction of the patient that a left-sided carpal tunnel syndrome was primary causation.

## Discussion

My concern for this patient in the initial course of investigating her complaint was whether there was any absolute contraindication to manipulation: neurological deterioration. Since she initially failed to heed my referrals to determine this, I objected to any deep cervical adjustments. Since she had no previous surgery of the cervical spine, there didn't seem to be any relative contraindications. But I felt that the early X-ray evidence of cervical spondylosis and the historical pattern of her neck and shoulder complaint (left) could have indicated a radicular finding, which can be a relative contraindication to manipulation.

Sadly, in today's consumer-driven health care, it is difficult for the chiropractor to obtain imaging studies or even complete radiographic analysis studies; to determine any degree of bony ankylosis and for suspected stenosis, flexion-extension studies and oblique studies are required, respectively. However, many of the insurance contracts held by our management companies seem to want us, as a profession, to persuade the patient into chiropractic adjustments as our only procedure in clinical case management, and to limit our use of radiographic obtainment, and thus, our right to render a diagnosis as we have been trained to do. Often, chiropractors are only reimbursed on a limited two-view study. In fact, this patient's insurance had refuted that I could even treat or diagnose a cervical spondylosis within the scope of my specialty, and attempted to deny the insurance claim. After several appeals, I was appropriately compensated.

It is my opinion that doctors of chiropractic may lose their clinical skills and ability to co-care or to work with various medical specialties, due to the current state of insurance limitations and carrier ignorance about what our profession does. Thus, when required to treat within this restricted environment, we may fail to recognize certain contraindications to adjustive care. This may be true, because I feel that chiropractors fail to be adequately reimbursed for their clinical diagnostic skills; in fact, many in the allopathic profession feel that "chiropractors can't help that." Well, if a chiropractor can diagnose it, most often before an allopathic doctor does (generally those below the level of neurology or orthopedic subspecialty), then that is the first step in proper patient case management. Yet, our clinical diagnostic criteria or level of reasoning is often denied, as if we are unable to afford critical thinking.

Chiropractors also fail to be adequately reimbursed for more than just the amount of time we spend in clinical management and examination; the reimbursable amount of the negotiated fee is also often limited or downcoded by the carrier to a limited or focused examination. Clearly, this is not what chiropractors do. A limited or focused examination is equivalent to a nurse taking a blood-pressure reading or a simple strain. The management companies who negotiate the contracts thus have chiropractors offering comprehensive levels of examination (review of systems, past medical history, medications, vital signs) that require 45 to 60 minutes with the patient, yet only reimburse at one-eighth of what a medical provider generalist would be paid.

But in all fairness, and because it is recognized that health care today is more consumer-driven, a greater premium percentage of responsibility falls on the employees who are subjected to payment, and hence, less procedures or plans are being offered by employers. Also, insurance plans subject to a deductible for imaging and a different deductible for laboratory also limit the patient in seeking co-care and outpatient referral. This industry insurance fee reduction to the provider may be what draws allopathic physicians into attending revenue-generated workshops that teach them about Botox cosmetology procedures and laser therapies to add to a greater cash practice. At least this is what my office has experienced, with a flood of advertising mailers for MD and DO continuing education workshops these past few months.

The incidence of complications after chiropractic adjustments has only been estimated in the literature; thankfully, the incidence is quite low. What today's chiropractors face are the many limitations to their care plans by the insurance carriers, the management companies who negotiate our contracts, the challenge of recognizing poor patient compliancy (often a result of a patient self-seeking care), and perhaps, the need to just say no; because you are the doctor, not the patient. Despite what the insurance carriers or contract management companies may have you believe.

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