

# THE JOURNAL *of the* AMERICAN OSTEOPATHIC ASSOCIATION



*The Journal of the American Osteopathic Association* (JAOA) encourages osteopathic physicians, faculty members and students at colleges of osteopathic medicine, and others within the health care professions to submit comments related to articles published in the JAOA and the mission of the osteopathic medical profession. The JAOA's editors are particularly interested in letters that discuss recently published original research.

Letters must be submitted online at <http://www.osteopathic.org/JAOAsubmit>. Letters to the editor are considered for publication in the JAOA with the understanding that they have not been published elsewhere and are not simultaneously under consideration by any other publication. All accepted letters to the editor are subject to editing and abridgment.

Although the JAOA welcomes letters to the editor, these contributions have a lower publication priority than other submissions. As a consequence, letters are published only when space allows.

## The Somatic Connection: Manual Therapy Is Beneficial for Cervical Radiculopathy

To the Editor:

I read Dr Seffinger's review<sup>1</sup> of the Nee et al article<sup>2</sup> about nerve-related arm and neck pain with great interest. Cervical manipulation has been controversial for many years, particularly regarding potential complications.<sup>3-7</sup> I believe it is incumbent on all osteopathic physicians and osteopaths to be aware of the risks of cervical spine manipulation, particularly high-velocity techniques, and specifically in patients who present with radicular complaints.

I am concerned that Dr Seffinger's review of the 2012 article<sup>2</sup> may lead to some confusion about the indications for use of manual treatment or therapy in

various cervical conditions. Nee et al<sup>2</sup> discuss manual therapy for nerve-related neck and arm pain, yet Dr Seffinger discusses such treatment for cervical radiculopathy,<sup>1</sup> which may be entirely different from the neck and arm pain. In addition, one of the inclusion criteria required pain reproduction during a "neurodynamic test for the median nerve" by wrist extension,<sup>2</sup> which introduces another variable that is not necessarily related to cervical radiculopathy. This criterion adds more confusion and less specificity to the proposed treatment regarding the indications. In other words, what is the condition that is actually being managed by the manipulation—what the authors<sup>2</sup> term *neural tissue management*? It is important for practitioners to be mindful that equal reflexes and normal strength do not necessarily confirm the absence of a serious underlying condition.<sup>8</sup>

The causes of neck pain are multifactorial, and regardless of the source of symptoms, the pain may remain localized or refer to the upper limb.<sup>8</sup> Serious conditions can masquerade as less ominous disorders.<sup>8</sup> Local muscular, ligamentous, or joint conditions certainly respond well to manual treatments.<sup>9</sup> However, when disk protrusions compress nerve roots or the spinal cord, manipulation of the spine can become dangerous and counterproductive.<sup>3-7</sup> Known complications from cervical spine manipulation include vertebrasilar insufficiency or stroke, lateral medullary infarction, internal carotid artery dissection, cerebral infarct, cervical myelopathy, cervical radiculopathy, long thoracic nerve palsy, diaphragmatic palsy, central retinal artery occlusion, cervical fracture or dislocation, epidural hematoma, intervertebral disk herniation, and tracheal rupture.<sup>3-7</sup> In fact, death can result from inappropriate manipulation.<sup>3-7</sup> Therefore, it is essential to determine a specific diagnosis before initiating treatment.

The use of advanced imaging and electrodiagnosis may be essential in patients who present with radicular features, because such testing can identify compromised neural structures and help guide appropriate management.<sup>8</sup> The fact that patients treated in this study "safely receive short-term relief" is concerning, because offering manipulation as the initial treatment may delay a complete workup and more optimal long-term care. (doi:10.7556/jaoa.2013.040)

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## References

1. Seffinger MA. Manual therapy is beneficial for cervical radiculopathy [abstract of Nee RJ, Vicenzino B, Jull GA, Cleland JA, Coppieters MW. Neural tissue management provides immediate clinically relevant benefits without harmful effects for patients with nerve-related neck and arm pain: a randomised trial. *J Physiother.* 2012;58(1):23-31]. *J Am Osteopath Assoc.* 2013;113(7):571-573.
2. Nee RJ, Vicenzino B, Jull GA, Cleland JA, Coppieters MW. Neural tissue management provides immediate clinically relevant benefits without harmful effects for patients with nerve-related neck and arm pain: a randomised trial. *J Physiother.* 2012;58(1):23-31. doi:10.1016/S1836-9553(12)70069-3.
3. Gay RE, Bauer BA, Yang RK. Integrative medicine in rehabilitation. In: Braddom RL, ed. *Physical Medicine and Rehabilitation.* 3rd ed. Philadelphia, PA: Saunders Elsevier; 2007:507-521.
4. Smith WS, Johnston SC, Skalabrini EJ, et al. Spinal manipulative therapy is an independent risk factor for vertebral artery dissection. *Neurology.* 2003;60(9):1424-1428.
5. Sakaguchi M, Kitagawa K, Hougaku H, et al. Mechanical compression of the extracranial vertebral artery during neck rotation. *Neurology.* 2003;61(6):845-847.
6. Vick DA, McKay C, Zengerle CR. The safety of manipulative treatment: review of the literature from 1925 to 1993. *J Am Osteopath Assoc.* 1996;96(2):113-115.
7. Laughlin TM. Complications of spinal manipulation: a literature review 1975-1984. *Osteopathic Annals.* 1986;14:21-23.
8. DePalma MJ, Slipman CW. Treatment of common neck problems. In: Braddom RL, ed. *Physical Medicine and Rehabilitation.* 3rd ed. Philadelphia, PA: Saunders Elsevier; 2007:797-824.
9. Braut JS, Kappler RE, Grogg BE. Manipulation, traction and massage. In: Braddom RL, ed. *Physical Medicine and Rehabilitation.* 3rd ed. Philadelphia, PA: Saunders Elsevier; 2007:437-457.

## Response

Dr Sucher brings up several good points in his letter to the editor.<sup>1</sup> The indications for use of manual management of the cervical spine have been debated among manual practitioners and physicians for decades. Physical therapists have developed clinical practice guidelines based on patients'

functional response to physical maneuvers and recommend manual treatment for patients with nerve-related arm and neck pain—without making a definitive diagnosis of the cause. Patient improvement in the short term has been demonstrated,<sup>2</sup> but as Dr Sucher points out, does this improvement create a scenario of delay of care if there is an occult pathologic condition that is missed? With appropriate follow-up, manual therapists should determine if their patients' symptoms or functioning do not improve, regress, or worsen, and they should refer patients for further diagnostic examinations and treatment as needed.

However, some questions remain: Should patients be thoroughly evaluated first by means of specific tests? And if so, will insurance companies or patients pay for these tests? I recently had lancinating, shooting pain down my left arm from my neck to my elbow that was persistent for 6 weeks and had not improved with cervical traction, massage, acupuncture, or osteopathic manipulative treatment. The pain was reproduced with neck extension and concomitant left sidebending. Spurling maneuver focused at the left C6 nerve root also reproduced the pain. A cervical spine radiograph showed only mild degenerative changes in the C5-C7 vertebrae. I was given gabapentin, which helped control the pain. In addition, my physiatrist ordered a magnetic resonance image, but it was denied by my insurance company because I had not had 6 weeks of physical therapy first and because I did not have left arm or hand muscle weakness.

I saw a physical therapist, and he performed nerve tissue gliding, muscle stretching, cervical mobilization, and cervical soft tissue manipulation. He instructed me in exercises to strengthen my postural and shoulder support muscles. The

pain resolved within a week and I no longer needed medication. It would seem prudent to diagnose the condition first, but that is not the way the economic world works. I do not know what the long-term benefit will be yet, but I certainly would feel more comfortable if I had a magnetic resonance image to rule out or identify any nerve pathologic condition. I suppose I can pay for one myself. However, I, along with my physicians, physical therapist, and wife, am happy I am out of pain and off medication, and because I am progressively functioning better, there is no longer any immediate concern about underlying pathologic conditions.

Indeed, as Dr Sucher points out,<sup>1</sup> there is a difference between radiculopathy and other types of nerve-related arm pain, such as carpal tunnel syndrome and referred pain to the arm from somatic or visceral pathologic conditions. I admit I used the term *radiculopathy* too loosely in my abstract<sup>3</sup> and stand corrected. I agree that a precise diagnosis leads to the safest, most appropriate, and timeliest treatment; it would be great if the health care reimbursement system worked that way, too. (doi:10.7556/jaoa.2013.041)

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## References

1. Sucher BM. The Somatic Connection: manual therapy is beneficial for cervical radiculopathy [letter]. *J Am Osteopath Assoc.* 2013;113(10):725-726. doi:10.7556/jaoa.2013.040.
2. Nee RJ, Vicenzino B, Jull GA, Cleland JA, Coppieters MW. Neural tissue management provides immediate clinically relevant benefits without harmful effects for patients with nerve-related neck and arm pain: a randomised trial. *J Physiother.* 2012;58(1):23-31. doi:10.1016/S1836-9553(12)70069-3.

3. Seffinger MA. Manual therapy is beneficial for cervical radiculopathy [abstract of Nee RJ, Vicenzino B, Jull GA, Cleland JA, Coppeters MW. Neural tissue management provides immediate clinically relevant benefits without harmful effects for patients with nerve-related neck and arm pain: a randomised trial. *J Physiother*. 2012;58(1):23-31]. *J Am Osteopath Assoc*. 2013;113(7):571-573. doi:10.7556/jaoa.2013.012.

## Osteopathic Training for MDs

To the Editor:

In his July 2013 letter to the editor, Dr Fredricks<sup>1</sup> expressed his opposition to allowing allopathic physicians (ie, MDs) to participate in osteopathic graduate medical education programs. I recall the similar “us vs them” climate and mentality so prevalent when I was an osteopathic physician (ie, DO) in medical training more than 30 years ago.

I am grateful that the 2 allopathic military residency programs that I completed (1 in family medicine and 1 in aerospace medicine) did not take a similar closed-door policy toward DO applicants that Dr Fredricks would apply toward MD applicants.

When Dr Still practiced medicine in the late 19th century, the medical profession he reacted against was not scientifically based and would not have been recognized—or permitted—by any modern school of medicine. Today, both DOs and MDs practice essentially core scientific medicine, as I have witnessed over the past 30 years in both military and civilian clinical settings in the United States and overseas.

The values and principles<sup>2</sup> of holistic, patient-centered, preventive, and health-vs disease-focused care in a primary care setting that some, such as Dr Fredricks, would claim as unique and exclusive to osteopathic medicine are the same as those held by most of the US and international MDs I have worked with. Additionally, such values and principles were repeatedly emphasized during my military family medicine residency—accredited by the Accreditation Council for Graduate Medical Education—in the 1980s.

I recommend that the “us vs them” mentality that continues to maintain artificial barriers between the osteopathic and allopathic medical schools be abandoned

as anachronistic and unhealthy, especially in light of the fact that most DOs obtain their residency training from allopathic sources. (doi:10.7556/jaoa.2013.042)

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**Editor's Note:** The views expressed above are the author's and are not intended to represent any positions held by the US Department of Defense or the US Air Force.

## References

1. Fredricks TR. Osteopathic training for MDs [letter] [published correction appears in *J Am Osteopath Assoc*. 2013;113(10):727]. *J Am Osteopath Assoc*. 2013;113(7):506-507. doi:10.7556/jaoa.2013.002.
2. Overview of osteopathic medical education/ accreditation/the four-year curriculum. American Association of Colleges of Osteopathic Medicine website. <http://www.aacom.org/resources/bookstore/cib/Documents/2014cib/2014cib-10%20Overview%20of%20OM%20Education%20Accreditation%20Curriculum.pdf>. Accessed September 6, 2013.

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## Correction

The *JAOA* regrets an error that appeared in the following letter to the editor:

**Fredericks TR. Osteopathic training of MDs [letter]. *J Am Osteopath Assoc*. 2013;113(7):506-507. doi:10.7556/jaoa.2013.002.**

Dr Fredricks' last name incorrectly appeared as “Fredericks” instead of “Fredricks.” This change will be made to the full text version of the letter online.