
Editorial: An Appeal for a Rational Approach to Strokes and Cervical Manipulation

Vascular dissection, especially of the vertebrobasilar arteries, is a recognized but extremely rare complication of spinal manipulation in the cervical region. Whenever a serious complication is a potential outcome of a therapeutic intervention, it is essential for the practitioner to identify patients at risk so that the intervention can be altered to reduce risk. Towards this end, chiropractic curricula have for many years included training students to assess for risk factors in the patient history and to perform screening tests for the vertebral arteries during the physical examination prior to application of manipulation to the cervical spine.

However, it is fairly well established that the physical examination procedures used to screen for risk of damage to the vertebral arteries have no clinical utility. Please note that I did not say that they have little or limited utility; they have absolutely none. No case of vertebral artery dissection following manipulation has ever been associated with abnormal or asymmetrical blood pressure. No case of vertebral artery dissection following manipulation has ever been associated with a bruit, either prior to manipulation or following the injury. The entire battery of provocative tests for the vertebral arteries (George's, Maigne's, DeKlyne's, etc.) has been fairly conclusively demonstrated incapable of detecting arterial pathology or anomaly, and there is no evidence to suggest that such anomalies are associated with increased risk of vertebral artery dissection. In fact, one of the positive findings of such maneuvers is vertigo. This finding is far more likely to be an indication for manipulation (e.g., cervicogenic vertigo) than an indication that manipulation should be avoided.

So we find ourselves in a situation where we train our future practitioners to rely on clinical assessments of no demonstrable utility, which may in fact be harmful in that they may create a false sense of security following an unremarkable screening for risk of vertebral artery damage. Knowing as we do that these tests are useless, why do we still train students to use them? I contend that we are caught in a mindless cycle of habit, and that it is high time we broke out of it. We continue to teach the procedures because they are the legal standard of care. The procedures are considered the legal standard of care because we continue to train our students to use them. This unreasonable process will continue into perpetuity until the educational community agrees to stop it.

During the ACC conference at which this issue of *The Journal of Chiropractic Education* is being distributed, there will be an annual meeting of technique faculty from all member institutions. I would like to urge that body to consider this issue, and to either issue a consensus statement or agree to a process to develop one. I believe that we should discontinue training our students to perform these useless screening procedures, and focus instead on training them to avoid techniques that pose relatively higher risk of injury, to recognize the early signs of post-manipulation vertebral artery injury, and to respond appropriately when these

signs develop. This would constitute a small but necessary step in moving towards a curriculum that is based in fact rather than habit. I would also like to recommend the NCMIC publication “Current Concepts in Vertebrobasilar Complications following Spinal Manipulation” by Allan G.J. Terrett as reading of interest and relevance to all chiropractic faculty.

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Journal Editor