Chiropractic Malpractice: A Pain in the Neck

Chiropractic malpractice can cause serious injury to a patient. Know what to look for in evaluating these types of personal injury cases.

I. Introduction

There are approximately 280 million visits to chiropractors every year in the United States and the numbers are increasing annually. “[C]hiropractors are the third largest group of health care providers” who directly treat patients. Many patients see chiropractors for treatment of headaches and neck pain. That treatment commonly involves manual manipulation of the cervical spine by the chiropractor. Such neck manipulation is often described as a “high velocity thrust” to the cervical spine (the part of the spine from the bottom of the skull to the base of the neck). These neck manipulations are “often accompanied by popping sounds.” The thrusts take spinal joints “slightly beyond their [natural] range of motion.” The intent is to correct misaligned vertebrae, which the chiropractor attributes as the cause of the patient’s pain.

Most patients assume chiropractic neck manipulation is safe and without significant medical risk. But, according to medical doctors, chiropractic neck manipulation can cause vertebral artery dissection resulting in stroke. “[P]atients with stroke caused by vertebral artery dissection are five times more likely to have recently visited a chiropractor.” These dissections are the result of a tearing in the inner lining of arteries in the neck caused by “over-stretching the artery during rotational manipulation.”

“Rotating and tilting the neck stretches the … arteries” of the neck, producing “a shearing force … that may produce … tearing” in the inner lining of the arteries. The causal effect between chiropractic manipulation and stroke is also supported by their temporal relationship – many patients report stroke symptoms immediately or a few days after chiropractic manipulation of the cervical spine. According to most medical doctors, stroke is a very real and very dangerous risk to chiropractic patients that few, if any, are aware of before they undergo manual manipulation of their cervical spine.

Many chiropractors downplay the link between neck manipulation and stroke. In July 2010, the Connecticut
Board of Chiropractic Examiners issued a declaratory ruling that

“there is simply not enough evidence to find that joint mobilization, manipulation or adjustment of the cervical spine causes strokes or cervical artery dissections in patients or that patients are at risk for stroke when a chiropractor performs a joint mobilization, manipulation or adjustment of the cervical spine.”

Chiropractic supporters contend that stroke after chiropractic manipulation of the cervical spine is unpredictable, rare and often due to unknown or natural factors such as artery wall defect or neck trauma from daily movements.

Determining the frequency of stroke caused by manipulation is difficult because under-reporting of stroke caused by chiropractic manipulation is rampant and vertebral artery dissection can occur in the absence of chiropractic manipulation. Moreover, “the early signs of [vertebral] arterial dissection include neck pain, which could be the reason for a patient to consult a chiropractor” in the first place.

In this article, I’ll discuss the mechanism of injury and the legal issues lawyers face in evaluating these types of cases.

II. The Mechanism of Injury

Approximately 20 percent of the blood supplied to the brain is carried by the right and left vertebral arteries. These arteries run vertically alongside the spine until they reach the upper neck, near the base of the skull. At that point, they turn horizontally for a short distance away from the eyes before turning again at the base of the skull to go up into the brain. It is at the point – where the vertebral artery travels horizontally – that it is most vulnerable to injury from chiropractic manipulation. Rotational force at this position can cause the inner lining of one or both vertebral arteries to tear or “dissect.” These vertebral artery dissections can cause the artery wall to balloon out and either burst or prevent adequate blood flow from reaching the brain. Either way, the brain is starved of vital oxygen and nutrients and the result is a stroke. The symptoms of a vertebral artery dissection are “[n]eck pain, headache, vertigo, vomiting” and loss of muscle coordination. The patient can be left with permanent neurological dysfunction since the cerebellum and brain stem (the motor function centers of the brain) are often most affected.

III. Legal Issues During Case Evaluation

When evaluating a case involving potential claims of negligence against a chiropractor, there are several legal and investigative issues a lawyer should explore.

Patient Medical History. The patient’s prior medical history is filled with possible defenses and must be explored early on. Find out the patient’s medical history prior to the chiropractic visit. That includes exploring the cause of the patient’s neck pain that prompted the visit in the first place. What was the activity that created the neck pain? There are reports of people sustaining vertebral artery dissections simply by playing tennis or turning their neck sharply to back out of the driveway. Neck pain from a twist of the neck may just be sore muscles … or it might be a vertebral artery dissection. How long has neck pain been present? Sudden neck pain could be attributed to a recent vertebral artery dissection. It may be a pre-existing vertebral artery dissection if the pain started before the chiropractor was seen. Conversely, recurring neck pain or pain that has lingered more than two days without any stroke-like symptoms is probably not related to vertebral artery dissection. Has the patient been to other chiropractors recently? Explore this question to be sure another chiropractor isn’t the true culprit.

Review the Records. Look for documentation of the type, angle and amount of force applied to the neck. Review for a description of the patient’s condition because immediate physical changes (dizziness, nausea, ear ringing, etc.) are common. Incomplete and unclear documentation by chiropractors is common, so be prepared for surprises during their deposition.

Research the Chiropractor. Unlike medical doctors, most chiropractors are fiercely competitive. Advertisements and websites touting their services and qualifications are a way of life. Comb through these materials and find out as much as you can about the chiropractor. Make sure to check out links to other materials from the chiropractor’s website. They can lead you to materials that directly conflict with the chiropractor’s position. It is also important to identify
the age range of the chiropractor. Most chiropractic schools now have strict admission requirements and a rigorous course schedule, but these are relatively new developments. Older chiropractors were not subject to these standards. In one recent case, I learned that the chiropractor had not attended college and his only pre-chiropractic education was his training in the United States Navy as an electrician!

**Read the Literature.** There are many medical and chiropractic articles on the subject of cervical spine manipulation and stroke. Take the time to read the literature so that you can become familiar with the mechanism of injury and signs of a vertebral artery dissection. For instance, the presence of rotational force during the manipulation is often described in the literature. It is also helpful to learn the theory by which neurologists consider a link exists between chiropractic manipulation and stroke and the basis for theories that not enough evidence exists to make that connection.

**Know the Debate.** The connection between cervical spine manipulation and stroke is in the eye of the beholder to some extent. Most of the literature by the medical community (much of it by neurologists) suggests the link between chiropractic manipulation and stroke is clear and the occurrence rate is greatly underreported. They suggest incident rates as high as “1 per 40,000 manipulations.” On the other hand, much of the medical literature by chiropractors suggests that if there is a link, it is a rare event occurring as infrequently as 1 in 5.85 million cervical spine manipulations.

**Consider the Timeline.** Determine the time between the chiropractor’s manipulation on the patient and the onset of stroke symptoms. Was the patient taken directly to a hospital from the chiropractor’s office or did they go home for a time period? Unlike most medical negligence cases, the patient isn’t in the hospital. It is crucial to discover any time gap between when the patient saw the chiropractor and when the patient was eventually diagnosed with a vertebral artery dissection or stroke. Any gap in time opens the possibility that the patient did something which actually caused the injury rather than the chiropractor’s manipulation. Delay in seeking treatment after the alleged malpractice by the chiropractor can jeopardize a case.

**Evaluate Subsequent Medical Providers.** You need to determine whether subsequent medical providers delayed in diagnosing the vertebral artery dissection or stroke. A recent chiropractic visit in conjunction with stroke symptoms should be a red flag to medical doctors that the patient may have a vertebral artery dissection. The patient should be worked up properly by subsequent medical personnel. Any emergency room doctor or neurologist will agree that chiropractic manipulation is linked to vertebral artery dissection and that diagnosis must be explored in a patient with a history of recent chiropractic treatment and complaints of stroke symptoms.

**Be Aware of Bias Against Chiropractors.** Despite a continuing change in attitude towards chiropractors, many potential jurors still hold chiropractors on the same level as voodoo witch doctors and acupuncturists. They generally do not have the same level of prestige as a medical doctor, and making cases against them is much different from a juror-receptiveness perspective. Keep this juror bias in your mind as you evaluate a case. This bias against chiropractors permeates into the medical field as well. While investigating a case, meet with the patient’s treating doctors, particularly their neurologist. Chiropractors and neurologists are long-time foes on the issue of cervical spine manipulation and stroke, and you need to know how the neurologist in your case will handle this issue. On more than one occasion, I’ve had treating neurologists willing to testify on behalf of my client that the cause of the patient’s vertebral artery dissection was chiropractic manipulation. The perceived bias against chiropractic manipulation by neurologists in particular may be fueled by the fact that a patient experiencing a stroke subsequent to chiropractic manipulation is likely seen by multiple neurologists but only one chiropractor.

**Chiropractic Liability Insurance.** Be aware that chiropractors in Missouri are not required to carry professional liability insurance. If you find yourself evaluating a negligence case against a chiropractor, it is crucial that you contemplate this. It may come as a shock to the plaintiff’s lawyer who has invested $15,000 and many hours in a case only to find out there is no liability insurance coverage.

**Informed Consent.** Most medical doctors contend that patients should be given informed consent of the risk of stroke from cervical spine manual manipulation. However, the field of chiropractic medicine has not made informed consent the standard of care.

With the increasing number of chiropractors and the ever-growing number of patient visits to them in the United State, this area of litigation will continue to grow. In my research, I found case law in Connecticut, Illinois, Iowa, Nevada, New Jersey, New Mexico, Tennessee, Texas, and Wisconsin describing claims that chiropractic manipulation caused a stroke. Certification and policing of the chiropractic community by states continues to be lax because of their relatively new position in the healthcare field. As more and more people visit chiropractors, these cases
will find their way to you. Be prepared to evaluate and handle them.

Endnotes
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2 Changing Views of Chiropractic ... and a National Reappraisal of Nontraditional Health Care, RAND Corporation research brief series (2001); available at www.rand.org/pubs/research_briefs/RB4539/index1.html.

3 Id.

4 Id.


6 Id.

7 Leon-Sanchez at 201.

8 Ernst at 330.

9 Id.

10 Leon-Sanchez at 203.

11 Id.

12 Leon-Sanchez at 202.

13 W.S. Smith et al., Spinal Manipulative Therapy is an Independent Risk Factor for Vertebro-Artery Dissection, 60 NEUROLOGY 1424, 1427 (May 2003).


15 Scott Haldeman et al., Unpredictability of Cerebrovascular Ischemia Associated with Cervical Spine Manipulation Therapy, 27 SPINE 49, 54 (2002); Scott Haldeman et al., Clinical Perceptions of the Risk of Vertebral Artery Dissection After Cervical Manipulation: The Effect of Referral Bias, 2 SPINE J. 334 (2002).

16 Ernst at 336.

17 Id.


20 Hufnagel at 687.

21 Id.

22 Id.

23 Leon-Sanchez at 202.

24 Id. at 201.

25 Id. at 202.


29 Ernst at 336; Leon-Sanchez at 203.


34 Klimko v. Rose, 422 A.2d 418 (N.J. 1980).

35 Gonzales v. N.M. Bd. of Chiropractic Exam’rs, 962 P.2d 1253 (N.M. 1998).


38 Hannemann v. Boyson, 698 N.W.2d 714 (Wis. 2005).