

## Still Terrorized by the "Chiropractic Stroke"

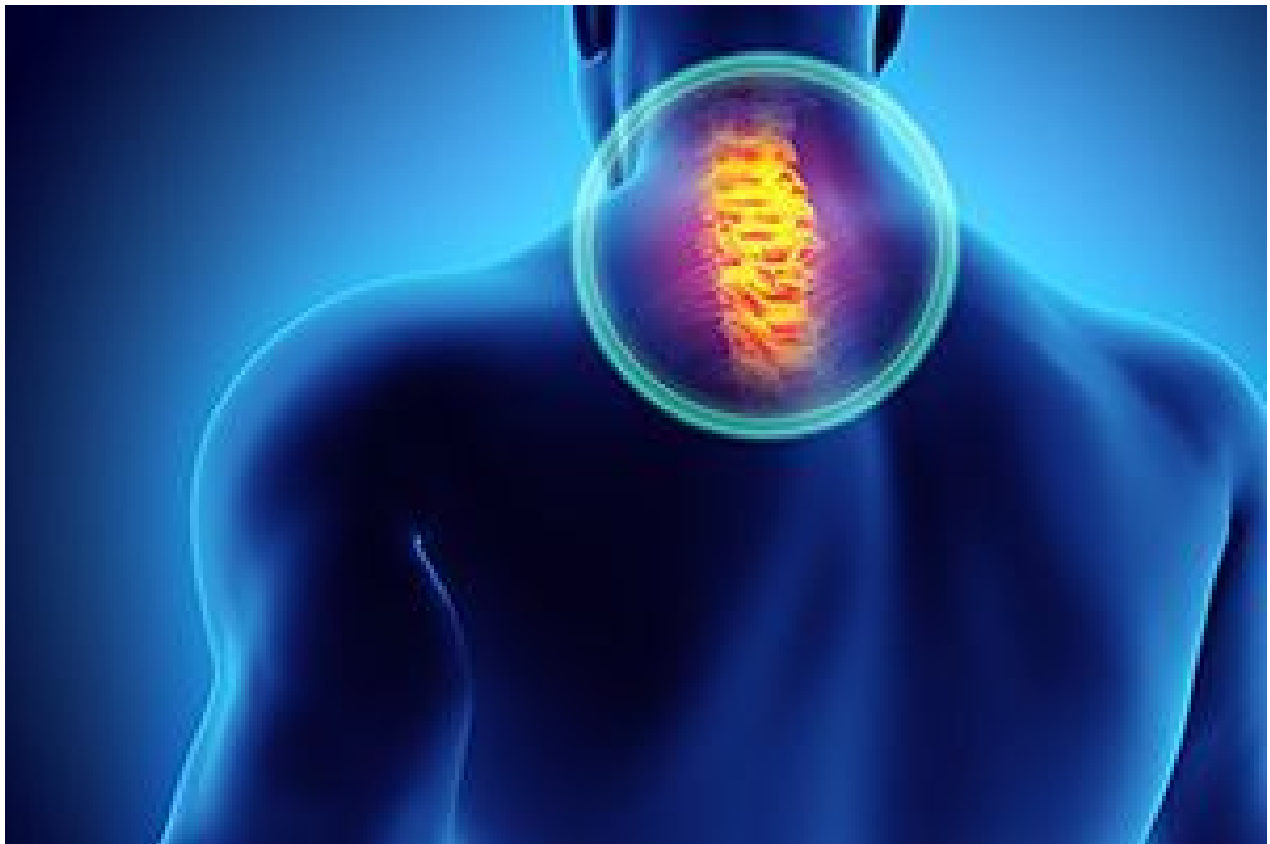
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As Dr. Tate approaches Room 2, she scans Marty's health record. Marty was just in a couple of months ago with some neck pain. Having been a patient on and off for over five years, Marty and Dr. Tate know each other fairly well.

"Hi, Dr. Tate," says Marty. "Thanks for seeing me today on such short notice. I picked up some neck pain and a headache a few days ago, and cannot seem to shake it. Things are crazy at the bank this week and I guess the stress has gotten to me. I took some Tylenol, which seemed to help, but it is not gone."

Dr. Tate runs through the usual questions as she palpates Marty's neck. "Where do you hurt? What makes it better? What makes it worse?" She is obviously out of adjustment at C2 and has tension in her neck muscles and traps. Same problem as last time.

"Lie on your back and let's see if we can fix this." Marty lies on the table and Dr. Tate continues to check her out, and then gives her an adjustment. In 20 seconds, Marty is extremely dizzy and then becomes nauseated. She is obviously having a vertigo attack. Dr. Tate is bewildered. *What the heck is going on?*



As Dr. Tate instructs her assistant, Valerie, to bring her a steth and a sphygmomanometer, she ponders: *Did I loosen an otolith? Is this a vaso-vagal response? Blood sugar?*

"Have you eaten today?" Dr. Tate asks Marty. Despite Marty's clearly growing anxiety, she replies, "Not today. I was too busy for breakfast this morning." Val brings in a cold rag for Marty's head. That helps her nausea ... and the dizziness is improving.

Dr. Tate lets Marty lie there for a while and she improves a bit. Then things get worse; now she is vomiting. At that point, Dr. Tate asks Valerie to call 911. She can't pinpoint what is going on, but she does know the patient is declining.

In the hospital, the emergency department doctors check out Marty. After three hours, they decide they are dealing with a vertebral artery dissection. Neurology is called and Marty is managed. She makes a recovery over eight weeks, but she is left with some lingering residuals.

Someone at the hospital (no one knows who) tells Marty her chiropractor tore the artery in her neck. Word scatters through the community. A lawsuit is initiated and I get a call.

As I review the chart, the allegations from the plaintiff expert are the same as I have seen in the past: "insufficient history, insufficient exam, weak consent, should have picked a safer treatment, should have done pre-manipulative vascular testing. The chiropractor is worthless and inadequate."

In reviewing the facts, it becomes clear. The chiropractor did everything any prudent DC would have done. Marty obviously had a pre-existing, spontaneous dissection of her neck artery, which caused her to have neck pain and headache. She went to see her chiropractor and during the manipulation, the thrombus embolized. Dr. Tate did not tear the artery.

#### The Research Speaks for Itself

Cervical artery dissections usually occur spontaneously. Trauma is not required to cause a dissection. Fukuhara studied 83 cases of patients suffering spontaneous dissections. Their dissections were discovered when they began to suffer neurological symptoms. Before neurological symptoms presented, the patients primarily experienced headache and/or neck pain (73 percent).<sup>1</sup>

Lee studied spontaneous cervical artery dissections and found them to occur rarely in the population. Spontaneous carotid artery dissections occur in 2/100,000 people per year and spontaneous vertebral artery dissections occur in 1/100,000 people per year.<sup>2</sup>

The best research shows that cervical spinal manipulation (CSM) performed by chiropractic physicians does not cause stress on the vertebral arteries.<sup>3</sup> Neck range of motion actually stresses the arteries more than CSM.

Research on blood flow through the vertebral arteries during neck range of motion and during CSM demonstrates "no significant changes in blood flow or velocity in the vertebral arteries" during the procedures.<sup>4</sup>

Cassidy demonstrated, in his research covering nine years and 109 million person-years of observation, that the incidence of vertebrobasilar injury (VBI) and stroke following chiropractic physician exposure was identical to the incidence following exposure to a general medical practitioner.<sup>5</sup> Since MDs do not adjust the spine, the conclusion was obvious. VBI often presents with neck pain and headache. This leads the suffering patient to see doctors. Sometimes those are MDs and sometimes those are DCs. If the patient goes to an MD and is later found to have a dissection, there is no allegation that the MD caused the dissection. If the patient goes to the DC and is later found to have suffered a dissection, the patient is often told that the chiropractor tore

the artery. This often leads to lawsuits.

In 2015, Buzzatti was able to measure the movement of the atlas and axis in motion during CSM. This work reinforced the findings of several other studies that CSM does not endanger the spinal cord and vertebral arteries more than an active rotation of the head.<sup>6</sup>

In 2016, a group of neurosurgeons from Penn State Hershey Medical Center and Johns Hopkins University School of Medicine determined there was "no convincing evidence to support a causal link between chiropractic manipulation and CAD (cervical artery disease)."<sup>7</sup> They stated in their article that there is significant bias in the literature against CSM, and that the belief in a causal link between CAD and CSM may inappropriately lead to episodes of litigation as a negative consequence.

### It's Time to Get the Truth Out

There is gross misunderstanding in the general population regarding cervical artery dissection and stroke. Over the past decade, cervical arterial dissection has been studied with regards to cervical manipulation and any risk that may be inherent. There has been increasing clarity as to causation versus association with regards to arterial dissections and cervical manipulation. CSM is *not* a risk factor for neck artery injury in a healthy patient.

Cervical artery dissections occur rarely in the population; but when they do, we usually do not know the cause of the dissection.

When the artery dissects, the patient often has headache, sometimes with neck pain. When patients experience neck and headache pain, they often decide to see a doctor, and sometimes those doctors are chiropractic physicians.

Patients with dissections who seek chiropractic care and who then proceed to have a stroke are often told that the chiropractor caused their stroke. This leads to misunderstanding and inappropriate litigation.

The chiropractic profession has been terrorized by this issue for too long. *It is time to get the truth out!*

*Editor's Note:* The vignette at the beginning of this article represents a collage of closed cases the author has reviewed as a malpractice expert. The people in the vignette are not real and the names are fictional.

### References

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