

SPINE & SPORTS: The myth of neck manipulation and stroke

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The association between having a stroke after chiropractic neck joint manipulation has been a contentious subject, recently resurfacing in the media after the death of a celebrity who sought chiropractic treatment after a fall.

This topic begs for clarity on the subject of stroke and any correlation to chiropractic treatment which may include joint manipulation of the cervical spine. It is important to dispel any myths or hysteria that have unfairly targeted doctors of chiropractic (DCs), as stroke soon after neck joint manipulation is in fact extremely rare.

Every 40 seconds someone in the U.S. suffers a stroke, and the odds of stroke increase during surgery, with some heart conditions, with hypertension and from taking certain prescription medicines. Common genetic factors, such as mutation on chromosome C677T, also predispose individuals to arterial wall tearing, or dissection, leading to clot formation and stroke. Of the many causes of stroke, only one is caused from aneurysm of a neck artery, where the dilated or weakened vessel wall leaks and develops a clot that eventually dislodges and enters the brain. In these cases, sudden neck pain with or without headaches may be the first and only symptom preceding a stroke.

Neck joint manipulation has often been blamed for causing dissection (or a tearing) of the carotid or vertebral arteries in the neck, but research has shown otherwise, that during skilled manipulation there is no sufficient stress placed on

these arteries to cause a tear. Routine rotation or extension bending movements of the neck may actually stress them more. Skilled neck joint manipulation does not cause cervical artery dissection, rather the dissection with clot development preexists in the patient, and various neck movements, including that from manipulation, may speed the stroke along. This explains why people have strokes during mundane activities such as looking behind when driving, or having their hair washed at a salon.

Chiropractic is a health care profession. It is not any particular technique of joint manipulation, despite the fact that DCs have the most training in it and perform 90 percent of joint manipulations. Others who perform joint manipulation include some MDs, DOs, PTs, athletic trainers, Chinese medicine practitioners and coaches. People sometimes even try it on themselves to get a stimulating crack! But the media, and sometimes medical professionals, erroneously define any type of joint manipulation – regardless of who is providing it – as being chiropractic.

Nevertheless, while DCs have the most training in and experience with joint manipulation, their most important job is to be vigilant in screening patients who might be in the midst of arterial dissection or embolism that is masquerading as neck pain and headaches. While these patients have the same stroke odds visiting an MD, it is curious that media only places blame when a chiropractor is involved. Again, these cases are extremely rare, so much so that it is difficult to study.

Doctors of chiropractic certainly wish there were zero cases of stroke, but its rare occurrence is now understood to be the result of a preexisting condition in the patient that is sped along to stroke by neck manipulation, just as it could by medical care, medicines or gazing at stars. The safety of care provided by doctors of chiropractic for those suffering with musculoskeletal conditions is clearly supported in scientific literature, therefore it's time we dispel the hype regarding neck joint manipulation causing a stroke and focus on its benefits, which patients deserve.

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