

Chiropractors don't raise stroke risk, study says

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TORONTO — A Canadian study indicates there is no increased risk related to chiropractic treatment in the heated debate about whether neck adjustments can trigger a rare type of stroke.

Researchers say patients are no more likely to suffer a stroke following a visit to a chiropractor than they would after stepping into their family doctor's office.

The findings, published today in *the journal Spine*, help shed light on earlier studies that had cast a cloud on the chiropractic profession and suggested that their actions resulted in some patients suffering a stroke after treatment.

“We didn't see any increased association between chiropractic care and usual family physician care, and the stroke,” said Frank Silver, one of the researchers and also a professor of medicine at the University of Toronto and director of the University Health Network stroke program.

“The association occurs because patients tend to seek care when they're having neck pain or headache, and sometimes they go to a chiropractor, sometimes they go to a physician. But we didn't see an increased likelihood of them having this type of stroke after seeing a chiropractor.”

A rare cause for stroke, arterial dissection occurs when one of the neck arteries supplying blood to the brain is torn. A stroke can occur when a clot, formed on the torn membrane, is dislodged and subsequently travels to the brain, blocking circulation.

The two neck arteries are susceptible to compression with neck rotation. But it is rare. It occurs spontaneously, or after minimal neck movements, such as looking backward to reverse a car.

Critics charge that the twisting and pulling of the neck frequently done by chiropractors can damage arteries, leading occasionally to stroke.

However, a research paper published in 2001 in the Canadian Medical Association Journal found there is only a one-in-5.85-million risk that a chiropractic neck adjustment will cause a stroke.

In this study, the Canadian team looked at nine years of data in Ontario, and found only 818 patients with this kind of stroke. Unlike the previous study in 2001 that investigated the relationship between chiropractic visits and vertebral artery stroke, *researchers in this study also studied visits to family doctors that preceded this kind of stroke.*

Dr. Silver said researchers were looking for an increased association between chiropractic care and stroke. Although they found this association, they also discovered it to be the same as when patients visited a family doctor.

The researchers say the association is likely explained by patients seeking medical or chiropractic services for their neck pain rather than these services causing the stroke. In other words, patients had already damaged the artery before seeking help from either a medical doctor or a chiropractor, and then the stroke occurred after the visit.

The research paper says the results should be interpreted cautiously. Although the study provides the best data to date on the relationship between neck manipulation and vertebral artery stroke, researchers have not ruled out that in rare circumstances neck manipulation can be a potential cause of some strokes.

Co-author David Cassidy, a senior scientist at the University Health Network and a professor of epidemiology at the University of Toronto, said: “If someone says ‘Has it ever happened that a chiropractor has caused a stroke?’ I can't say it's never happened. But if it's happening, it's not happening at a greater risk than when it is in a GP office.”

Looking for symptoms of a stroke caused by a tear inside a neck artery can be difficult. Just because a person has a neck pain or headache doesn't mean it's going to lead to a stroke, Dr. Silver cautioned. Some of the symptoms include double vision associated with pain, droopy eyelids, numbness down one side of the body and dizziness.

<http://www.theglobeandmail.com/servlet/story/RTGAM.20080119.chiro19/BNStory/specialScienceandHealth/home>

Risk of Vertebrobasilar Stroke and Chiropractic Care: Results of a Population-Based Case-Control and Case-Crossover Study.

Supplementary Research Studies

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Abstract:

Study Design. Population-based, case-control and case-crossover study.

Objective. To investigate associations between chiropractic visits and vertebrobasilar artery (VBA) stroke and to contrast this with primary care physician (PCP) visits and VBA stroke.

Summary of Background Data. Chiropractic care is popular for neck pain and headache, but may increase the risk for VBA dissection and stroke. Neck pain and headache are common symptoms of VBA dissection, which commonly precedes VBA stroke.

Methods. Cases included eligible incident VBA strokes admitted to Ontario hospitals from April 1, 1993 to March 31, 2002. Four controls were age and gender matched to each case. Case and control exposures to chiropractors and PCPs were determined from health billing records in the year before the stroke date. In the case-crossover analysis, cases acted as their own controls.

Results. There were 818 VBA strokes hospitalized in a population of more than 100 million person-years. In those aged <45 years, cases were about three times more likely to see a chiropractor or a PCP before their stroke than controls. Results were similar in the case control and case crossover analyses. There was no increased association between chiropractic visits and VBA stroke in those older than 45 years. Positive associations were found between PCP visits and VBA stroke in all age groups. Practitioner visits billed for headache and neck complaints were highly associated with subsequent VBA stroke.

Conclusion. VBA stroke is a very rare event in the population. The increased risks of VBA stroke associated with chiropractic and PCP visits is likely due to patients with headache and neck pain from VBA dissection seeking care before their stroke. We found no evidence of excess risk of VBA stroke associated chiropractic care compared to primary care.