

Older Patients, Stroke Risk and Manipulation

STUDY REINFORCES LOW RISK, COMPARABLE TO PRIMARY CARE.

Editorial Staff

The first population-based study in the United States to evaluate stroke risk following spinal manipulation - and the first involving older adults - suggests that "[c]hiropractic cervical spine manipulation is unlikely to cause stroke in patients aged 66 to 99 years with neck pain. For patients who saw a chiropractic physician, the adjusted probability of any type of stroke was lower than those who saw a primary care physician at days 1 through 24 after office visit, but higher at days 25 to 30, but these temporal associations are of doubtful clinical significance."¹

JMPT Editor-in-Chief Claire Johnson, DC, MSED, underscored the value of the study findings for chiropractic practitioners and the profession: "This new study offers additional information that will help practitioners inform older patients about the safety of chiropractic manipulation. Keeping in mind that there are different types of stroke and that we must always be alert for stroke signs, this study suggests older patients with neck pain can be reassured that manipulation is an unlikely cause of vertebrobasilar stroke."

Published as an [open-access paper](#) in the February 2015 issue of *JMPT*, the study reviewed Medicare administrative data on beneficiaries ages 66-99 with neck pain who utilized either chiropractic or primary (medical) care exclusively for one or more visits in 2007. Eligible beneficiaries had at least one allowed Medicare B claim that year for a chiropractic office visit with spinal manipulation or a primary care office visit for evaluation and management. Beneficiaries with one or more visits to both provider types were excluded.

The study authors pointed out that although Medicare does not require the manipulation site to be specified, the site must be related to the patient's complaint. Thus, all patients presenting with neck pain should have received cervical spine manipulation.

Select observations / recommendations made by the investigators appear as follows:

- "[Our results] are consistent with reports by Rothwell et al and Cassidy et al, which suggest that VBS is uncommon in older adults."
- "The specific incidence of VBS was too low to report, but the incidence was less than 9.8 per million Medicare part B beneficiaries aged 66 to 99 years with office visit for neck pain. This result is remarkably consistent with the incidence rate of 9.7 cases of VBS per 1,000,000 population reported by Lee et al."
- "Because vertebral artery dissection and associated thromboembolism are the most plausible mechanism by which spinal manipulation could cause stroke, our findings support current best evidence suggesting that manipulation of the cervical spine is unlikely to be a significant cause of stroke in older adults."
- "The true probability of stroke is probably unaffected by an office visit to either type of provider."

- "Chiropractic physicians must be able to recognize symptoms of stroke to provide early detection and when necessary refer patients for appropriate treatment."

Reference

1. Whedon JM, Song Y, Mackenzie TA, et al. Risk of stroke after chiropractic spinal manipulation in Medicare B beneficiaries aged 66 to 99 years with neck pain. *JMPT*, 2015 Feb;38(2):93-101.

APRIL 2015