Dynamic Chiropractic

HEALTH & WELLNESS / LIFESTYLE

Can Correction of a Misaligned Atlas Reduce Blood Pressure?

RESULTS OF UNIVERSITY OF CHICAGO PILOT STUDY ARE PROMISING

Editorial Staff

In a pilot study conducted at the University of Chicago, a one-time specialized chiropractic adjustment, delivered to patients suffering from high blood pressure and misaligned C1 vertebrae, resulted in significant reductions in diastolic and systolic BP compared to controls. According to a press release from the University of Chicago Medical Center, Office of Public Affairs, the decrease in BP was equivalent to that seen with concurrent administration of two blood pressure drugs. None of the patients took any antihypertensive medications during the study period.

The study was led by George Bakris, MD, director of the Hypertension Center at the University of Chicago Medical Center. Study participants were referred to Dr. Marshall Dickholtz Sr., a Chicago-area chiropractor and member of the National Upper Cervical Chiropractic Association (NUCCA), for cervical assessment, including paracervical skin temperature determination, postural analysis, pre-alignment craniocervical X-rays, and supine leg-length check. NUCCA practitioners focus on precise manual adjustment of the Atlas.

Half of the 50 patients received a NUCCA adjustment, while the remaining half received a sham procedure, carefully designed to mimic the actual adjustment in order to ensure blinding. This was possible due to the delicate nature of the C1 adjustment. The primary outcome measure, assessed after eight weeks, was change in systolic and diastolic BP compared to baseline readings. Average age of the study participants was 52.7 years; 70 percent were male.

At week eight, differences were noted in systolic and diastolic BP when comparing the adjustment group with the control group (patients receiving the NUCCA adjustment: -17±9 mm Hg systolic, -10±9 mm Hg diastolic; patients receiving sham treatment: -3±11 mm Hg systolic, -2±7 mm Hg diastolic). Additionally, patients administered the NUCCA adjustment showed 0.04 degrees lateral displacement of C1 after eight weeks, compared to 1.0 degrees at baseline. By comparison, patients in the control group had an average of 0.5 degrees displacement after eight weeks, compared to 0.6 degrees at baseline.

The study authors emphasize that "[while] the mechanism as to why this improvement in blood pressure occurs is unknown and cannot be determined by this study ... the data presented, however, raise a number of important questions including a) How does misalignment of C1 affect hypertension?; and b) If there is a cause and effect relationship between C1 and hypertension, is malposition of C1 an additional risk factor for the development of hypertension?" A larger clinical trial is being planned to address these questions.

Resources

1. Bakris G, Dickholtz M, Meyer PM, et al. Altas vertebra realignment and achievement of

arterial pressure goal in hypertensive patients: a pilot study. *Journal of Human Hypertension,* March 2, 2007 (advance online publication).
2. "Special Chiropractic Adjustment Lowers Blood Pressure Among Hypertensive Patients With Misaligned C-1 Vertebra." Press release from the University of Chicago Medical Center, Office of Public Affairs, March 14, 2007.
3. For additional information about the National Upper Cervical Chiropractic Association, visit www.nucca.org.

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