

Spinal Manipulative Therapy and Cerebral Vascular Disorders

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On a recent visit to the National Library of Medicine, I came across an article published in a refereed Russian journal.¹ This article was devoted to the hot topic of chiropractic, and I'm happy to provide an abstract of the published results for the readers of Dynamic Chiropractic.

It is accepted in manual medicine that certain cases of cardiovascular and cerebrovascular diseases are concurrent with vertebrogenous disorders that can cloud the clinical picture. In this article, special indications for manual therapy in patients exhibiting the stages of cerebral vascular disorders, such as disturbances of neuromuscular functions in the cervical and thoracic locomotor apparatus, were elaborated.

Dr. Ezhov studied 100 patients (61 men and 39 women) in the initial stages of cerebral vascular disorders. They ranged in age from 35 to 55, and presented with complaints of headache, dizziness, tingling, fatigue, memory impairment, and sleep disturbances.

All patients had neurological complications of dystrophic and degenerative disease based in the cervical and/or thoracic regions. The patients were evaluated using psychological and psychiatric tests, ECG, EEG, reoencephalography (indirect evaluation of cerebral blood circulation using cutaneous electrodes), and blood biochemistry. X-ray findings showed marginal sclerosis of the lamina of vertebral bodies with diminished cervical lordosis and thoracic kyphosis, decreased disc height, and marginal osteophytes. The majority of patients presented with posture and gait changes; subluxations were found in C0-C2 (86 percent), C5-C6 (88 percent), C7-T1 (96 percent), T10-L2 (63 percent), and L4-S1 (82 percent), along with multiple trigger points in the temporal, occipital, trapezius, scalenus, and sternocleidomastoideus muscles.

Treatment of the experimental group (50 patients total) included soft tissue therapy for spine and neck muscles, trigger point therapy, postisometric relaxation of spasmed muscles, and spinal manipulation to subluxated vertebrae.

Treatment of control group (50 patients total) included soft tissue therapy for spine and neck muscles only.

Results showed considerable improvement of symptoms of cerebral vascular insufficiency in 48 percent of the experimental patients, and in 16 percent of the control group. Relief of such symptoms as dizziness, fatigue, sleep disturbances, paresthesia, and cardialgia was reached in the majority of experimental patients. Objective study of cerebral blood flow using reoencephalography showed statistically significant improvement of cerebral circulation in 24 percent of the experimental group. Study of catecholamines excretion showed normalization of noradrenaline level in the experimental group which didn't take place in the control group. The inference that spinal manipulations increase the activity of regulatory functions of the neuromediators in the body was drawn based on this information.

However, the author also describes patients whose symptoms worsened during manipulative treatment, which was subsequently stopped. These patients were initially diagnosed with an early form of cerebral vascular insufficiency with vegetovascular disturbances in the cervical region or/and with vertebral artery syndrome. The author states these diagnoses as a contraindication for spinal manipulations.

Reference

1. Ezhov VV. Manual Therapy at Initial Stages of Cerebrovascular Diseases. Voprpsy Kurortologii Fizioterrapii i Lechebnoi Fizicheskoi Kultury, 1994; 4: 6-9.

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