

Bronfort et al. Efficacy of Spinal Manipulation for Chronic Headache: A Systematic Review. Journal of Manipulative and Physiological Therapeutics Volume 24, Number 7, September 2001.

Background: Chronic headache is a prevalent condition with substantial socioeconomic impact. Complementary or alternative therapies are increasingly being used by patients to treat headache pain, and spinal manipulative therapy (SMT) is among the most common of these.

Objective: To assess the efficacy/effectiveness of SMT for chronic headache through a systematic review of randomized clinical trials.

Study Selection: Randomized clinical trials on chronic headache (tension, migraine and cervicogenic) were included in the review if they compared SMT with other interventions or placebo. The trials had to have at least 1 patient-rated outcome measure such as pain severity, frequency, duration, improvement, use of analgesics, disability, or quality of life. Studies were identified through a comprehensive search of MEDLINE (1966-1998) and EMBASE (1974-1998). Additionally, all available data from the Cumulative Index of Nursing and Allied Health Literature, the Chiropractic Research Archives Collection, and the Manual, Alternative, and Natural Therapies Information System were used, as well as material gathered through the citation tracking, and hand searching of non-indexed chiropractic, osteopathic, and manual medicine journals.

Data Extraction: Information about outcome measures, interventions and effect sizes was used to evaluate treatment efficacy. Levels of evidence were determined by a classification system incorporating study validity and statistical significance of study results. Two authors independently extracted data and performed methodological scoring of selected trials.

Data Synthesis: Nine trials involving 683 patients with chronic headache were included. The methodological quality (validity) scores ranged from 21 to 87 (100-point scale). The trials were too heterogeneous in terms of patient clinical characteristic, control groups, and outcome measures to warrant statistical pooling. Based on predefined criteria, there is moderate evidence that SMT has short-term efficacy similar to amitriptyline in the prophylactic treatment of chronic tension-type headache and migraine. SMT does not appear to improve outcomes when added to soft tissue massage for episodic tension-type headache. There is moderate evidence that SMT is more efficacious than massage for cervicogenic headache. Sensitivity analyses showed that the results and the overall study conclusions remained the same even when substantial changes in the pre-specified assumptions/rules regarding the evidence determination were applied.

Conclusions: SMT appears to have a better effect than massage for cervicogenic headache. It also appears that SMT has an effect comparable to commonly used first-line prophylactic prescription medications for tension-type headache and migraine headache. This conclusion rests upon a few trials of adequate methodological quality.

Before any firm conclusions can be drawn, further testing should be done in rigorously designed, executed and analyzed trials with follow up periods of sufficient length.

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