

Insights Into Chiropractic

Discerning the true nature of an alternative health care method

Chiropractic and Migraine

INTRODUCTION

Headache and neck pain sufferers make up as much as one third of patients seeking treatment from doctors of chiropractic(1). It is well known that that chiropractic management of acute and chronic neck pain is an effective alternative for patients suffering with this complaint(2-5). It is less well known, however, that chiropractic treatment can be beneficial for patients with migraine headache with and without aura. In this issue of "Insights Into Chiropractic" we shall look at some interesting studies regarding the chiropractic treatment of migraine headache.

MIGRAINE: INCIDENCE, COSTS, & THE CERVICAL SPINE

Migraine headache occurs in at least ten percent of the population and is three times more common in women than in men. The estimated annual cost of dealing with this affliction in the United States is over \$17 billion(6).

Migraines are defined as having the qualities of unilateral location, pulsating quality, and moderate or severe intensity which is aggravated by routine physical activity. Further, in order to be classified as migraine, the migraine sufferer must also experience nausea, vomiting, or both, or photophobia, phonophobia, or both. The terms migraine with aura and migraine without aura replace the old terms classic and common migraine, respectively, according to the classification system of the International Headache Society(7).

Empirical clinical observations suggest that the cervical spine may play a role in causing or aggravating migraine headache, however, the exact mechanism remains unknown. The upper three cervical spine segments generate nerve impulses to the trigeminocervical nucleus and also receive afferent input from the dura mater, scalp, and many suboccipital muscles. The trigeminocervical nucleus innervates the cranium and many intracranial and extracranial blood vessels. Interactions between these structures implicates the cervical spine as a possible generator or amplifier of migraine headache(8).

CHIROPRACTIC TREATMENT OF MIGRAINE

In 1978, Wright(9) presented a retrospective analysis of 87 patients receiving chiropractic treatment for both migraine with aura (n=53) and migraine without aura (n=34). Overall, 65 of the 87 patients reported an eighty percent reduction of migraine activity. Although a retrospective study suffering with a variety of design difficulties, this report was the first attempt to measure the possible effect of chiropractic treatment on this challenging clinical condition.

In a randomized trial including 85 migraine patients, Parker et al.(10) tested the effectiveness of either (a) chiropractic manipulation, (b) medical manipulation, or (c) mobilization performed by a physiotherapist. The study included a 2-month baseline period, a 2-month treatment period, and a 2-month follow-up period. The frequency of headaches was decreased by 40% in the chiropractic patients, 34% in the physiother-

apy patients, and by 13% in the medical manipulation patients. Headache severity was also reduced to greater extent in the chiropractic patients.

In a follow-up study to the original Parker et al. report, it was found that fourteen of the original 85 migraine patients had achieved a complete recovery. Of these fourteen, 8 had received chiropractic manipulation, 5 had received mobilization by the physiotherapist, and only 1 had received manipulation by the medical practitioner. These results were reported to have reached statistical significance(11).

Stodolny and Chimelewski(12) studied the effect of cervical spine manipulation on thirty-four migraine without aura sufferers. After one week of treatment they reported complete relief of headache in 75% of their subjects. They also noted a statistically significant increase in cervical range of motion and reduction in dizziness levels in most subjects.

Finally, Tuchin et al.(13) conducted a prospective, randomized, controlled trial of chiropractic spinal manipulation or placebo treatment of detuned interferential therapy with the electrodes placed on the patient with no current being sent through the machine. The 123 subjects with migraine with and without aura were recruited through newspaper advertisements. All subjects underwent a 6-month study period including a 2-month baseline period, 2-month treatment period, and 2-month follow-up period. Diaries were kept by all participants. Diaries noted the frequency, intensity, duration, associated symptoms, medication use, and disability related to each migraine episode. Patients were randomly allocated in a 2:1 ratio to either the treatment (n=83) or control (n=40) group.

The average response of the treatment group showed statistically significant improvement in migraine frequency, duration, disability, and medication use. Eighteen of the 83 treatment subjects reported greater than 90% reduction of their migraines with a further 41 of 83 reporting significant improvement. The mean number of

migraines per month reduced from 7.6 to 4.1 in the treatment group. The greatest improvement was noted in medication use. The average number of doses of medication used before treatment was 21.3 while it improved to only 9.8 doses per month for the chiropractic manipulation group. A significant number of the manipulation group subjects reduced their medication use to zero.

The authors point out that one of the strengths of their study is that it included a 2-month follow-up period. This is important in that many studies of migraine are of too short a duration to allow for the cyclical nature of migraines. This follow-up period adds to the validity of the findings of this investigation.

CONCLUSION

Migraine headache is a challenging clinical disorder. This condition extracts high costs from the community in general and the headache sufferer and their affected families, specifically. Two prospective studies investigating the effect of chiropractic spinal manipulation support the findings of additional uncontrolled reports that indicate a high rate of success in the reduction of headache frequency, duration, and intensity after spinal manipulation. As a result, chiropractic referral should be an option made available to the migraine patient seeking better control of their incurable condition.

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