Insights Into Chiropractic

Discerning the true nature of an alternative health care method

Chiropractic: The Only Proven Effective Treatment in Acute and Chronic Whiplash

INTRODUCTION

Whiplash is the common term used to describe injury to the soft-tissues of the neck arising from an automobile accident. Much controversy exists regarding this common cause of neck pain, headache, and disability. The accumulated literature suggests that up to 42% of patients suffering a "whiplash" injury will have long-term symptoms, and that if they are still symptomatic after three months there is about a 90% chance that they will remain so(1).

Doctors of chiropractic routinely treat patients suffering this type of injury with remarkable results-even for those with chronic pain. In this newsletter we shall examine the recent literature on the subject of whiplash and the role that chiropractic manipulative therapy plays in treating this common problem.

THE QUEBEC TASK FORCE

The issue of "whiplash" is so controversial that in 1995 an international task force of twenty-five experts was commissioned to review the available literature on the subject and report their findings to the medical community. The findings of The Quebec Task Force on Whiplash Associated Disorders(2) was published in the medical journal Spine.

The Task Force recommended that patients be placed into one of five categories based upon their history, physical examination findings, and radiographic findings. The clinical presentation of these categories follows. Grade 0 Whiplash Associated Disorder (WAD) presents with a history of involvement in an automobile accident but no physical complaints about the neck and no physical signs. Grade I WAD presents with symptomatic complaints of neck pain, stiffness, and tenderness but no objective physical signs upon examination. Grade II WAD includes neck complaint and musculoskeletal signs of decreased cervical range of motion and point tenderness upon palpatory examination. Grade III WAD includes all the above plus neurologic involvement of one or more of decreased or absent deep tendon reflexes, motor weakness, and/or sensory deficits. Finally, Grade IV WAD includes the all symptoms related to Grades I, II, and III WAD as well as fracture and/or dislocation.

In general, Grades I, II, and III WAD may be treated conservatively. Recommendations include (A) reassurance that the condition is benign and generally self-limiting, (B) nonnarcotic analgesia and nonsteroidal anti-inflammatory agents (for not more than about three weeks), (C) range of motion exercises, (E) manipulation or mobilization by trained persons, and (F) return to normal activities as soon as possible. Uncomplicated cases should resolve with such treatment within three to six weeks with a maximum of about twelve weeks prior to multidisciplinary team reassessment. These recommendations were made following an extensive review of the scientific literature.

Many common treatments were found to have little or no scientific validation regarding their use. These treatments included corticosteroid injections of the facet joints, pulsed electromag-

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netic treatment, magnetic necklace, and subcutaneous sterile water injection.

The Task Force recommendations further state that soft collars should NOT be used in Grade I-III WAD because studies indicate that they may prolong disability by promoting inactivity and lack of movement. Prolonged rest is seldom indicated, and muscle relaxants are contraindicated since they tend to sedate muscles and do not promote mobility and movement.

CHIROPRACTIC TREATMENT OF WHIPLASH

Woodward et al.(3) undertook a pilot study of chiropractic treatment of patients suffering from chronic whiplash symptoms. Twenty-eight patients with whiplash symptoms lasting an average of 15.5 months were assessed using the classification system of Gargan and Bannister(4): Grade A=symptom free; Grade B=mild nuisance symptoms not interfering with activities of daily living or requiring medication; Grade C=intrusive symptoms causing frequent use of analgesics and interfering with activities of daily living; or Grade D=severely disabling symptoms causing lost employment, repeated medical treatment and continual use of analgesics.

At the time of referral, 27 of the 28 patients had category C or D symptoms. Chiropractic treatment was carried out and the patients reassessed by two examiners who were blinded as to the patients' initial symptom category. Following treatment, 26 of the 28 patients had improved (93%). Sixteen had improved by one symptom category and 10 by two symptom categories.

Although a small study, these findings are compelling given the generally poor overall outcome of standard medical interventions with patients suffering whiplash associated disorders.

THE JOURNAL OF ORTHOPAEDIC MEDICINE STUDY

More recently, Khan et al.(5) conducted a retrospective review of 93 consecutive patients treated for chronic whiplash symptoms by a doctor of chiropractic.

The patients were separated into groups based upon their initial presenting symptoms and physical examination findings. **Group 1** consisted of patients with neck pain and restricted cervical range of motion, but no neurological findings (altered sensation in a specific dermatomal pattern). **Group 2** consisted of patients with neck pain, restricted range of motion, and neurological signs, symptoms, or both. The neurological symptoms consisted of subjective numbness, tingling, or "pins and needles" sensation in a specific dermatomal pattern in the arm or hand, as well as both hypo and hyperaesthesia. Finally, **Group 3** patients were those who complained of severe neck pain, but who had normal cervical range of motion, no neurological signs or symptoms. Additionally, it was noted that these **Group 3** patients had a variety of bizarre symptom including visual disturbances, nausea, vomiting, chest pain, blackouts, and unusual pain distributions that did not correspond to dermatomal patterns.

Patients in each group were also sorted using the Gargan and Bannister classification system(4) described above. Table 1 demonstrates the group classifications prior to chiropractic manipulative therapy.

Patients were then treated with chiropractic manipulative therapy for an average of 19.3 treatments over an average time period of 4.1 months.

	A	B	C	D
Group 1	0	15	24	11
Group 2	0	4	23	5
Group 3	0	1	6	4

Table 1. Pre-treatment groups separated by symptom category: A = no symptoms, B = nuisance symptoms, C = intrusive symptoms, D = disabling symptoms.

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Following discharge, an examiner who was unaware of the patients' initial symptom classification then contacted each of the subjects by telephone interview.

In **Group 1**, there were eleven grade D patients before treatment. After treatment, two moved to grade C and seven patients improved to grade B. There were 24 grade C patients before treatment. After chiropractic manipulative therapy, fifteen moved to grade B and five became asymptomatic (grade A). Finally, seven of fifteen patients moved from grade B to grade A following the use of chiropractic manipulation.

In **Group 2**, there were five grade D patients before treatment. After treatment, two moved to grade C and three patients improved to grade B. There were 23 grade C patients before treatment. After chiropractic manipulative therapy, thirteen moved to grade B and ten became asymptomatic (grade A). Of the four grade B patients, two improved to grade A while two remained unchanged.

In **Group 3**, none of the eleven patients improved to an asymptomatic state. Of the four grade D patients, two remained unchanged while one improved to grade C and one to grade A. Five of six grade C patients remained unchanged while one improved to grade B. The one grade B patient in this group deteriorated to grade C status.

The overall post-treatment status of **Groups 1, 2**, and **3** are presented in Table 2.

	A	B	C	D
Group 1	12	30	6	2
Group 2	12	18	2	0
Group 3	0	2	7	2

Table 2. Post-chiropractic treatment, Groups 1,2, and 3 separated by symptom category: A = no symptoms, B = nuisance symptoms, C = intrusive symptoms, D = disabling symptoms.

Overall 74% of patients improved, however, this study also identified a group of patients who seemed NON-responsive to chiropractic manipulative therapy. These patients were in **Group 3** and appeared to have a psychological component to their pain. These findings led the authors to conclude: "The results from this study provide further evidence that chiropractic is an effective treatment for chronic whiplash symptoms. However, our identification of a group of patients who fail to respond to such treatment, highlights the need for a careful history and physicial examination before commencing treatment(5)."

CONCLUSION

Whiplash Associated Disorder is a common affliction in the United States with up to 42% of patients exhibiting long-term symptoms. Most treatments used in dealing with this ubiquitous problem have not been shown to be effective by rigorously controlled scientific studies. The one possible exception to this finding is chiropractic manipulation. In fact, the findings of success with this problem were so compelling it led Khan et al. to conclude that, "Chiropractic is the only proven effective treatment in chronic cases(5)."

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