



Whiplash: A Case For Co-Management

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Overview

Whiplash, a common medical phenomenon, is truly an enigma. While it is well recognized across language and geographical borders, the pathomechanics of this injury continue to be poorly understood. Perhaps this is the result of a long history of conflicting opinions respecting the validity of whiplash as a legitimate injury. Many in the insurance industry, including those involved in insurance-funded research, take the position that whiplash is a self-limiting phenomenon sustained by motives of personal gain such as litigation neurosis.^{1,2,3,4,5} From this perspective, the unacceptable costs each year in North America run into the billions of dollars.

Primary care physicians, medical specialists and whiplash victims, on the other hand, typically view whiplash as a legitimate injury arising from very real pathology.^{6,7,8} From this perspective, it has a prevalence comparable to epilepsy.⁹ Unfortunately, verifying the presence of a whiplash injury is difficult as clinical documentation is often limited to identification of lesions such as bruising, bleeding, swelling or restrictions in ranges of motion and localized point tenderness.

Establishing the Validity of Whiplash

Fueling the debate surrounding whiplash is the absence of reliable diagnostic tests validating its presence. Studies by Jonsson published in the journal *Spine Disorders* revealed that X-rays identified only four of 245 lesions found at autopsy.¹⁰ Follow-up studies by Taylor published in *Spine* revealed that X-rays miss 94% of minor lesions found at autopsy.¹¹ Additional studies report that even gold standards of diagnostic testing such as CT scan and MRI are usually ineffective in documenting soft tissue injuries associated with whiplash.¹²

While there are no reliable diagnostic tests capable of verifying soft tissue injuries associated with whiplash, autopsy research has shown the presence of a number of painful injuries that are not detectable by other means. These include micro-fractures to the subchondylar plates and articular surfaces, avulsion fractures of the endplates, tears in the annulus and anterior longitudinal ligament, as well as tears in the facet joint capsule and meniscus and hemarthrosis of the facet joint.¹³

In 1993, Barnsley et al published the results of their randomized double-blind studies using anesthetic blocks demonstrating that the cervical facets were a significant contributor to neck pain following whiplash.¹⁴ The following year, these authors published in *Spine* that the upper cervical facets are the most common cause of chronic neck pain and headaches following whiplash.¹⁵

Fortunately, research is beginning to clear up some of the misinformation and misunderstanding that has shrouded the debate around whiplash. It is now clear that the majority of whiplash victims will recover successfully within a matter of several weeks to several months.¹⁶ Unfortunately, approximately 15% of whiplash victims take much longer to recover and many go on to have permanent pain and functional limitations.¹⁷ It is this small group of patients which generates the staggering costs associated with whiplash injuries.

Chiropractic Treatment of Whiplash

During the past decade there has been a growing body of medical research supporting chiropractic intervention in whiplash. In 1996, Hurwitz published in *Spine* that there was, "Better evidence for treatment of chronic neck pain by spinal

manipulative therapy than for any other treatment.”¹⁸ The same year, Aker published additional research in the *British Medical Journal* supporting Hurwitz’s conclusion.¹⁹ In 1997, Khan et al published in the *British Journal of Orthopedic Medicine* that, “Chiropractic is the only proven effective treatment of chronic neck pain” when comparing medical, physiotherapy and chiropractic treatments.²⁰ In 1999, Giles published research in the *Journal of Manipulative and Physiological Therapeutics* confirming the effectiveness of spinal manipulation over NSAIDS or acupuncture for the treatment of neck pain.²¹

Co-management of Whiplash

Interdisciplinary co-management of whiplash cases between a medical physician and doctor of chiropractic provides a good opportunity for a patient’s quick and successful recovery. Chiropractors are familiar with established outcomes measurement tools including pain assessment and functional capacity evaluation. The evidence-based approach followed by chiropractors brings objective measures to a patient’s current health status, as well as monitoring their response to treatment. When a patient is referred for chiropractic care, expect an initial narrative report, as well as periodic progress reports throughout the patient’s recovery.

Typically, a whiplash patient visiting a chiropractic clinic will receive a comprehensive consultation and examination before treatment commences. Examination will include many of the neurological and orthopedic tests with which MDs are familiar. In addition, a chiropractor will conduct a comprehensive spinal assessment of intersegmental movement patterns in order to identify areas

of restricted or abnormal spinal movement and associated soft tissue injuries. If appropriate plain film X-rays may be ordered to rule out serious underlying pathology. When examination findings and recommendations have been discussed with the patient, informed consent to treatment will be obtained before treatment commences.

Usually in new injuries, chiropractic treatment will be intensive for the first week or so until acute symptoms subside. This helps reduce pain, inflammation and swelling, as well as spasms. After the initial acute phase, treatment is typically given on a decreasing frequency depending upon the specific needs of each patient. Periodic re-assessments are conducted in order to monitor recovery and to determine if further treatment is required.

A chiropractic treatment program often consists of spinal adjustments in conjunction with therapeutic modalities such as heat, ice, electrotherapy, ultrasound therapy, traction and a home exercise program. For the most part, patients find treatments painless and should soon experience significant relief.

Any questions regarding a patient’s chiropractic treatment program should be raised promptly to facilitate patient co-management. A multidisciplinary approach to whiplash helps to ensure patients’ speedy resolution to an injury that often presents challenges to recovery.

Dr. Roland Bryans is editor of “Whiplash: A Practitioners Guide to Understanding Whiplash Associated Disorders” published by The Canadian Chiropractic Association (1997).

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