

INSIGHTS INTO CHIROPRACTIC

Discerning the true nature of an alternative health care method

What are the contraindications for chiropractic spinal manipulation?

INTRODUCTION

Spinal pain syndromes are one of the most prevalent health care challenges in North America(1,2). For working adults, low back pain is the most common ailment causing disability for men and women under 45 years of age(1). On any given day, up to 2 percent of the U.S. population is disabled by low back pain, half of these victims are chronically disabled and half are temporarily disabled by their symptoms(3).

Recently, neck pain has been shown to be a significant factor causing disability in the adult population. Up to 4.6% of the population may report neck pain of significant intensity that it, ". . . significantly restricts their activities of daily living(2)."

The costs of this health care epidemic are enormous. Diagnostic and treatment costs, loss of time from work, and disability payments account for the up to \$20-\$50 billion annual estimated expense of dealing with low back problems alone in the U.S.(4)

Treatment for pain syndromes of spinal origin is controversial. Little consensus exists among clinicians as to the best forms of treatment. This is evidenced by the highly variable rates of surgery and hospitalization in different regions of the United States(5-7).

Recent guidelines published by the Agency for Health Care Policy and Research (AHCPR), a division of the U.S. Department

of Health and Human Services, indicates that for the clinical entity of acute low back problems (defined as low back or low back and back-related leg symptoms of less than three months duration), "Relief of discomfort can be accomplished most safely with nonprescription medication and/or spinal manipulation(8)." Further, the AHCPR guidelines state that, "Within the first 3 months of low back symptoms, only patients with evidence of serious spinal pathology or severe, debilitating symptoms of sciatica, and physiologic evidence of specific nerve root compromise corroborated on imaging studies can be expected to benefit from surgery(8)."

In addition, the Quebec Task Force on whiplash-associated disorders has determined that, based upon the best available scientific evidence, manipulation and mobilization performed by trained persons, exercise, and the use of non-steroidal anti-inflammatory drugs are the most appropriate treatment for non-surgical cases of neck pain secondary to automobile accidents(9).

These findings suggest that the vast majority of patients with acute low back problems and/or neck pain may be managed appropriately within the domain of chiropractic treatment paradigms.

But, chiropractic manual methods have relative and absolute contraindications for their use. If a medical practitioner intends to recommend chiropractic treatment to a patient,

Articular derangements
 Arthritides
 Acute arthritis of any type
 Rheumatoid arthritis
 Acute ankylosing spondylitis
 Cervical spondylosis with vertebral basilar ischemia
 Dislocation
 Hypermobility
 Ruptured ligaments
 Bone weakening and destructive disease
 Calve's disease
 Fracture
 Malignancy
 Osteomalacia
 Osteoporosis
 Osteomyelitis
 Tuberculosis (Pott's disease)

Circulatory disturbances
 Aneurysm
 Anticoagulant therapy
 Vertebral basilar insufficiency
 Vertebral artery disease
 Disc lesions with serious neurologic changes
 Neurologic dysfunction
 Cauda equina syndrome
 Upper motor neuron lesion
 Unclassified
 Infectious disease
 Psychologic intolerances

Adapted from: Haldeman S. Modern Developments in the Principles & Practice of Chiropractic. New York: Appleton & Lange, 1980:380-381.

Table 1. Relative and/or Absolute Contraindications to Spinal Manipulative Therapy

then he/she must be confident that the chiropractic professional to which they might refer a patient is well acquainted with the relative and absolute contraindications to their particular method of treatment. Fortunately, chiropractic education emphasizes this knowledge and standard teaching and reference texts discuss this topic in depth.

KNOWN CONTRAINDICATIONS

Table 1 lists the factors identified as relative and/or absolute contraindications to spinal manipulative therapy(10). These factors can be divided into broad categories designated as articular derangements, bone weakening and destroying diseases, circulatory disturbances, disc lesions, neurologic dysfunction, and unclassified factors.

Although these factors have been identified as contraindicators for spinal manipulative therapy, the presence of any one factor in one area of the spine does not preclude the use of spinal manipulative therapy in other areas. For example, Gatterman states, "Although hypermobility may be a relative contraindication to manipulation in one area of the spine, for example, it may be compensatory to movement restriction in another area where manipulation is the treatment of choice. The

patient who has suffered a "whiplash" injury frequently exhibits restricted motion in the upper cervical articulations, while stretching of the ligaments at the apex of the cervical curve in the midcervical spine has allowed the joints in this area to become hypermobile. Specific short-lever manipulation to the upper cervical joint with restricted motion permits the stretched ligaments in the midcervical region to heal, but manipulation of the mid-cervical segments is contraindicated(11)."

Forceful manipulations may be contraindicated because of one or more factors presented in Table 1. Less forceful procedures, however, may still be used(11). For these reasons, the chiropractic physician must be keenly aware of the patient's medical history, so that he may adapt his technique as necessary to accommodate the patient's individual needs.

Table 2 lists general standards governing clinical decision making regarding spinal manipulative therapy.

CONCLUSION

In general, the vast majority of low back and neck pain patients can be managed with conservative treatment. However, no form of treatment is suitable for every patient, and

- Long-term anticoagulant therapy warrants caution when applying forceful spinal manipulative therapy.
- Bone weakened by neoplasm is an absolute contraindication to forceful manipulation.
- The presence of inflammatory joint disease is a relative contraindication to chiropractic manipulation of the affected articulation.
- In systemic arthritides (eg, rheumatoid arthritis), an atlantodontoid interspace greater than 5mm in children or 3mm in adults as determined by flexion radiograph precludes cervical manipulation.
- Forceful manipulation of patients showing evidence of bone thinning is contraindicated in the adjacent joints.
- Hypermobility and unstable vertebral motion units represent an absolute contraindication to forceful, nonspecific manipulation.

- Emergency decompressive surgery is required in all patients who show signs of cauda equina syndrome. Prompt referral of these patients, as of any patient showing advancing neurological deficits, is imperative.
- Aneurysm involving a major blood vessel is an absolute contraindication to manipulation.
- The physician must avoid techniques known to be hazardous, such as excessive rotation in the cervical spine or use of the knee-chest position for patients who are unable to relax in this posture or who have spondylolisthesis and hyperlordosis.

Source: Adapted from Chiropractic Standards of Practice and Quality of Care (pp221-238) by HJ Vear, ed, Aspen Publishers, Inc, © 1992. Chiropractic physician must be keenly aware of the patient's medical history, so that he may adapt his technique as necessary to accommodate the patient's individual needs.

Table 2. Standards governing clinical decisions in the application of spinal manipulative therapy.

respect for the relative and absolute contraindications to chiropractic manipulation must be observed if chiropractic treatment is to be applied in a manner that is satisfactory for all concerned parties.

Because chiropractic manipulation has been shown to be clinically efficacious(8,12,13-17), cost-effective(13,14,16-18), and safe(8,19,20), with high levels of patient satisfaction(12,15,19-21), it seems logical that a clinical trial of chiropractic treatment is a logical alternative for patients with low back pain or neck pain of mechanical origin.

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