Dynamic Chiropractic

BACK PAIN

On-Line Computer Searching

CONSERVATIVE TREATMENT OF CERVICAL DISC HERNIATIONS

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During the last few years there has been a significant number of new research studies or analysis of existing research that supports the efficacy of conservative treatment of low back pain. But what about conservative treatment of the cervical spine? Specifically let us look for literature that addresses the conservative management of cervical disc herniations, a condition seen by all chiropractors.

Conducting a computerized online search of the biomedical literature for articles related to conservative treatment for cervical disc herniations can be accomplished in several ways. The places to search could include Medline, Embase, CINAHL, MANTIS (Chirolars) and perhaps a few others. But for convenience and minimal cost, most articles would be found by just searching MANTIS, which include chiropractic, manual medicine and other conservative information, and Medline which includes more medically-oriented treatment including drug therapy and surgery.

To maximize information from these sources it will be necessary to use the special terms used by the indexers of these databases. These terms are part of the medical subject headings (MeSH). Appropriate words to be used to obtain information about the conservative treatment of cervical disc herniations would include the following:

1. "Intervertebral disk displacement" -- This term is used for indexing articles discussing disc rupture, bulging, herniations or any number of other similar ways of expressing disc pathology.

2. "Cervical vertebrae" -- This is the proper MeSH term to identify the anatomical region of the cervical spine.

3. The next decision relates to locating the term(s) that will narrow the search to conservative treatment. For this we have a number of choices. We can include, for example, the following terms: "therapy," "drug therapy," "diet therapy," or "exercise therapy." The search might also be helped by specifically excluding nonconservative treatment by stating "not surgery."

Spending a few moments to use the proper MeSH terms will greatly improve the search. The MeSH terms are readily available from the National Library of Medicine and can be accessed online via Grateful Med and on the Internet with MANTIS searches. There is not an abundant amount of research supporting the conservative treatment of cervical disc problems. This is not because there are many negative studies, but simply because there have been so few studies undertaken. The studies that have been conducted look very promising. There is a growing awareness that surgery may not be the best approach for most patients. A recent article from Spine (see below) emphasizes this point. There are many treatment approaches from drug therapy to manipulation that may be as effective and provide more patient satisfaction at less cost than surgery.

The results of the search described above conducted through both MANTIS (Chirolars) and Medline located many relevant articles. Here are a few:

Saal J., Nonoperative Management of Herniated Cervical Intervertebral Disc with Radiculopathy, Spine Aug 1996; 21(16):1877-83.

Author's Abstract:

Study Design: A longitudinal cohort study design was used. All patients underwent a systematically and uniformly applied treatment program with increasing intervention as further pain control was needed. All patients were followed up by questionnaire evaluating function and symptoms.

Objectives: The role of surgical versus nonsurgical treatment of patients with cervical disc herniation has not been adequately studied. The majority of published data reflects surgical outcomes, with little available data regarding the outcome of nonoperatively treated patients. Frequently, these patients are treated surgically if they have neurologic loss or radiculopathy that persists after rest or minimal intervention. In the authors' clinic, patients with cervical herniated nucleus pulposus and radiculopathy are treated with an aggressive physical rehabilitation program.

Summary of Background Data: All patients treated by the authors during a specified time period with a clearly defined diagnosis of cervical herniated nucleus pulposus were evaluated for outcome.

Results: Twenty-four patients were successfully treated without surgery. Twenty patients achieved a good or excellent outcome, of these 19 had disc extrusions. Two patients underwent cervical spine surgery. Twenty-one patients returned to the same job. One patient retired.

Conclusion: Many cervical disc herniations can be successfully managed with aggressive nonsurgical treatment (24 of 26 in the present study). Progressive neurologic loss did not occur in any patient, and most patients were able to continue with their pre-injury activities with little limitation. High patient satisfaction with nonoperative care was achieved on outcome analysis.

BenEliyahu D., Magnetic Resonance Imaging Follow Up Study of 27 Patients Receiving Chiropractic Treatment for Cervical and Lumbar Disc Herniations, Conference Proceedings of the Chiropractic Centennial Foundation Jul 1995; 271-2.

Author's Abstract:

Conclusion: This series of 27 patients compares favorably to reports in chiropractic literature on the efficacy of chiropractic care for the management of disc herniations. There was a statistically significant association ($p<.003$), with a Kappa of 0.56 between VAS scores, clinical outcome and posttreatment disc changes observed on repeat MRI. The study showed that 80% of those patients treated resulted in good clinical outcome with almost two thirds showing reduction or regression of previously observed disc herniations. The average VAS scores also reduced by 80% as well. These results suggest that chiropractic care is a safe and effective treatment approach to patients with disc herniations. There was good correlation between the postcare MRI and the patients clinical outcome.

Brouillette D., Gurske D., Cervical Treatment of Cervical Radiculopathy Caused by a Herniated Cervical Disc, Journal of Manipulative and Physiological Therapeutics Feb 1994; 17(2):119-23.

Author's Abstract:

Objective: To present a case of cervical radiculopathy, caused by an MRI documented herniated cervical disc, which was treated with conservative care including chiropractic manipulative therapy.

Clinical Features: A 60-year-old woman was treated by a chiropractor for symptoms including a deep, constant, burning ache in the left arm, and severe neck and shoulder pain. A diagnosis of acute herniated cervical disc was made based on the findings of physical examination and an MRI study of the patient's cervical spine. Important orthopedic findings included exacerbation of the radicular symptomatology with the performance of Valsalva's and cervical compression tests. Neurologic findings included absent biceps and hyporeflexive triceps reflexes on the left, as well as C6 sensory deficit and C7 and C8 sensory hypesthesia. The primary finding on the MRI scan was posterior and lateral herniation on the C6-7 disc.

Intervention and Outcome: Treatment included chiropractic manipulative therapy, longitudinal cervical traction and interferential therapy. The patient began a regular schedule of treatments, which started on daily basis but were gradually reduced as the patient progressed. By the third week of treatment, neck and shoulder pain was completely resolved. Subjective evaluation indicated the radicular pain to be improved by 60% within six weeks. The patient's pain, numbness and grip strength returned to normal within five months.

Conclusion: Conservative treatment including chiropractic manipulative therapy seems to be a reasonable alternative to surgery, for cervical radiculopathy caused by a herniated cervical disc. Clinical trials should be performed to evaluate long term success rate, risk of permanent disability, rate of recovery and cost effectiveness of this and other forms of treatment for cervical radiculopathy caused by herniated nucleus pulposus.

Tibbles A., Cassidy J., Cervical Disc Herniation Missed at Operation: A Case Report, Journal of the Canadian Chiropractic Association Mar 1992; 36(1):17-21.

Author's Abstract:

Disc herniations are less common in the cervical spine than in the lumbar spine. Nevertheless, chiropractors can anticipate seeing a small number of patient with this problem on an annual basis. When confronted with this problem, it is important to diagnose the level of the herniation. This report describes a case in which a cervical disc herniation was treated surgically at the wrong level. The patient subsequently presented for chiropractic treatment. He was pain-free upon completion of a short course of manipulation.

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