

Insights Into Chiropractic

Discerning the true nature of an alternative health care method

Disc Herniations: Conservative or Surgical Treatment?

INTRODUCTION

Treatment for low back problems 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(1-3).

Surgery is an option for treating intervertebral disc (IVD) herniations, and many physicians believe that it is the most effective method for dealing with this type of lesion(4). But what does the scientific literature say about surgery for IVD lesions? Is surgery the only option for the patient suffering with a disc herniation or are there other alternatives that should be considered first?

CONSERVATIVE OR SURGICAL TREATMENT?

Only one prospective, randomized, controlled trial comparing surgical versus conservative treatment in patients with a confirmed diagnosis of a herniated lumbar IVD appears in the indexed scientific literature. The study(4) performed by Weber and published in 1983 in the medical journal *Spine* is a landmark study that has profoundly influenced thinking regarding spinal surgery to the present day(5).

In Weber's study, a group of 126 patients with a confirmed diagnosis of a herniated lumbar IVD and uncertain indications for surgery were randomly assigned to surgical or conservative treatment groups. Follow-up studies were performed at 1-year, 4-year, and 10-year intervals. Although the surgically treated patients demon-

strated recovery levels greater than the conservatively treated patients at the 1-year interval, at 4 years and 10 years after treatment those differences were no longer statistically significant. These findings led Weber to conclude,

"...approximately 60% of the operated patients may have been submitted to an unnecessary surgical procedure. Even though the operated patients generally expressed their satisfaction with the result, an operation should not be performed if other treatment will give equivalent results within an acceptable period of time. Consequently, if the neurologist or another specialist is in doubt regarding further treatment, the patient with low back pain and sciatica should not automatically be referred to the surgeon. The fact that the immediate prognosis after surgery is better does not alter this view(4)."

In a recent critical review of Weber's study, Bessette et al.(5) evaluated Weber's study by current standards for scientific clinical trials. Their conclusion was that, although Weber's study has some limitations, he did not overstate what his data demonstrated. Furthermore, Bessette and colleagues pointed out that this small, randomized, prospective trial is far superior data from which to proceed clinically than mere anecdote. Finally, they conclude,

"Most physicians consider surgery to be the best option for some patients with herniated lumbar disks with intolerable pain not responsive to conservative treatment."

However, based on the existing literature, we believe that surgery is probably not better than conservative treatment in the long run(5)."

Other studies demonstrate good or excellent outcomes for the nonsurgical treatment of patients with herniated lumbar IVD syndrome(6,7), and still others demonstrate a better outcome in the conservative treatment for herniated lumbar disks(8) or severe low back pain, if the patient received manipulation as treatment versus "conventional" medical treatment (shortwave diathermy, pelvic tilt exercises, proper lifting mechanics education).

In general, most patients with low back pain can be managed without surgical intervention, even those with discogenic or mild to moderate radicular pain from IVD herniation. Because chiropractic manipulation has been shown to be clinically efficacious (9-14), cost effective (10,11,13-15) and safe (16,17), with high levels of patient satisfaction (9,12,16-18), it seems logical that a clinical trial of chiropractic treatment should be attempted for patients with low back pain of mechanical origin. In the event conservative chiropractic treatment fails, then consideration of other more invasive forms of treatment should be considered with surgical intervention as a last resort.

No consensus exists as to the exact length of conservative treatment before the consideration or actual undertaking of surgical intervention in patients with low back pain who have failed conservative therapy. On the basis of a review of surgical versus conservative studies, Postacchini makes the following recommendations:

"The indication for surgery may be absolute or relative. The indication is absolute in those rare patients with a cauda equina syndrome, in the presence of severe motor deficits resulting from a large extruded or migrated disk fragment, and in patients with intractable pain. In all other cases, the indication is relative. It essentially depends on

four factors: 1) duration of radicular symptoms; in my experience, the chances of resolution of symptoms with conservative care decrease progressively with increasing time (in terms of months rather than weeks); 2) type (e.g., contained, extruded, or sequestered) and size of herniation; it is more likely that the symptoms decrease in severity or disappear when the herniation is contained and small than in the presence of a large migrated disk fragment; 3) presence of nerve root canal, or central spinal canal, stenosis; the chances of spontaneous resolution of symptoms are significantly higher in the presence of a normal size spinal canal; and 4) quality and severity of symptoms; there is a greater indication for surgery in patients with severe exclusively radicular, pain than in those with moderate low back and leg pain because in the former patients, the symptoms are less likely to resolve spontaneously and the results of surgery tend to be better. The presence of a mild or moderate motor deficit does not necessarily affect the indication for surgery or conservative management because the chances of resolution of the deficit are similar with the two types of treatment. In all patients with a relative indication, surgery should be performed when no significant improvement has been obtained with conservative care. The time that the latter should last is not well determined, but in most cases, it should not be less than 2-3 months. Patients who do not improve considerably after this period have fewer chances to have an adequate resolution of symptoms with increasing time (19)."

CONCLUSION

Both conservative and surgical interventions have been shown to be effective in the treatment of discogenic and radicular pain syndromes. Conservative treatment should be the first line of treatment in patients without absolute signs for surgical intervention (patients with a cauda equina syndrome, in the presence of severe

motor deficits, and in patients with intractable pain).

Of the available conservative treatments, chiropractic management has been shown through multiple studies to be safe, clinically effective, cost-effective, and to provide a high degree of patient satisfaction. As a result, in patients with discogenic or radicular pain syndromes for whom the surgical indications are not absolute, a minimum of 2 to 3 months of chiropractic management is a viable alternative.

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