

Low Back Pain with Radiculopathy: The Case for Improving Conventional Treatment

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Medical researchers continue to examine and to evaluate the clinical indications for lumbar disc surgery. Questions have been raised concerning the timing and the type of diagnostic tests ordered for low back pain,¹ the frequency of surgical procedures,² the inadequacies and the failures of surgical outcomes,^{2,3,4} and the safety and the efficacy of a wide variety of invasive measures.³

Recent studies have shown that in general patients with low back pain are not well served by conventional medical treatment. In particular the patient with lumbar radiculopathy requires conservative care which affords the following advantages:

- a) permits levels of functional improvement to determine the necessity of disc surgery;
- b) allows adequate time for functional improvement to occur;
- c) anticipates the regression or resorption of disc herniations over time without surgical intervention;
- d) incorporates chiropractic manipulation into conservative treatment protocols;
- e) avoids the untimely use of diagnostic imaging procedures and surgery.

In his 1987 award winning clinical study, Dr. Gordon Waddell, MD, discusses the failure of conventional medical treatment for low back pain and declares the need for a fresh clinical approach.⁵ Toward this end, Jeffrey Saal, MD, argues persuasively that the herniated nucleus pulposus with radiculopathy responds very well to nonoperative care, so much so that failure to respond should suggest stenosis. Not even weakness and the documented presence of extruded disc material negatively affects the results of nonsurgical treatment. Dr. Saal says: "The decision to operate should be based on the patient's level of function and whether that function can be improved by an active rehabilitation program, rather than on imaging studies and/or physical examination findings."⁶ Dr. Saal does not stand alone in making these observations and conclusions.⁷

Sufficient time must be given for the patient to respond to conservative treatment. A significant percentage of nonsurgically treated patients may not achieve maximum improvement before 12 weeks. There is no benefit in rushing the patient into surgery when no true surgical emergency exists. Even after 16 weeks of conservative management, patients referred for surgery have excellent to good outcomes.⁶

It comes as no surprise in this present environment of managed care, and with the profound disappointment in conventional therapy, that nonsurgical alternatives are being embraced. A study in Spine reported that 82 percent of patients treated conservatively realized a 51 percent to 100

percent decrease in residual disc fragment size. The overall nonsurgical success rate was 90 percent for those patients with disc extrusions and radiculopathy. No complications occurred from perithecal or perineural fibrosis. Total resorption of the largest extrusions were observed more often than not; the prognosis for patients with neurologic deficit was also favorable. "All the patients in this study had resolution of their leg and back pain complaints, which allowed them to resume normal activity."⁸

The observation of the regression or complete disappearance of disc herniations is well documented.⁷ A study published in *Radiology* magazine reported dramatic results. It detailed disc herniation reductions greater than 70 percent for 48 percent of patients and reductions greater than 30 percent for an additional 15 percent of patients who underwent (nonoperative) conservative care. Only eight percent (six of the 69 patients in the study) worsened clinically with conservative treatment, and researchers concluded that "lumbar disc herniation is primarily a medical (nonsurgical) disease."⁹

If lumbar disc herniation is not primarily a surgical disease, then medical practitioners should not be too quick to refer for surgical consult.⁷ The belief that surgically treated patients experience better recoveries during the first year no longer holds.⁶ In fact, "... high surgical volumes of 'simple' disc excisions or nucleotomies probably represent overtreatment in a group that carries a favorable prognosis in the short and long-term by nonoperative treatment."⁶

In search of the best conservative alternative, spinal manipulative therapy receives favorable reviews for safety and effectiveness.^{3,10-13} Comprehensive training and extensive experience have permitted the chiropractor to excel as the purveyor of manipulation within the health care community.¹⁴

In addition to chiropractic manipulation,¹⁰ conservative care for the patient with lumbar radiculopathy may include ice in the acute phase, moist heat in the subacute phase, lumbar support, stretching exercises, functional rehabilitation and back school. Patients who present initially with severe paralumbar muscle spasms may require electric muscle stimulation to relax the musculature sufficiently to permit manipulation. Patients who have concomitant pain of soft tissue origin may also benefit from various manual soft tissue manipulation techniques among which are trigger point therapy, myofascial release, and cross-fiber massage. Medically prescribed anti-inflammatories and analgesics may be appropriate if well tolerated by the patient. It is imperative that any drug side effects are reported immediately to the patient's medical physician. Total bed rest should not exceed three days on average.

Frequency of manipulation is daily for two to three weeks and less frequently over the next two to three weeks. When the patient achieves subacute status, frequency is reduced from twice to one weekly over four to eight weeks.

Clinical expectations for patients treated with manipulation are:

1. significant improvement is observed in four to six weeks;
2. low back and proximal leg pain will improve first;
3. pain in the distal portion of the leg and dural tension signs would improve moderately by

week six;

4. lower extremity paresthesia and muscle weakness may require several months of recovery time;
5. an absent ankle jerk reflex is unlikely to return.¹⁰

The chiropractic criteria for immediate surgical evaluation is cauda equina syndrome and saddle anesthesia. Criteria for a neurologic second opinion are:

1. distal leg pain is not moderately improved by week six;
2. dural tension is not significantly decreased by week six;
3. treatment causes increasingly severe leg pain;
4. neurologic deficit increases with treatment.¹⁰

Patients who warrant a neurologic second opinion are the legitimate candidates for MRI and CT scanning. It is vital that doctors of medicine and chiropractic come to consensus on the appropriate use of these and other diagnostic tests. Professional consensus, fashioned in the light of objective research and clinical results can curtail unnecessary spending due to inappropriate or premature testing.¹

It is my contention that the conventional medical approach to the treatment of lumbar radiculopathy can be improved. Implementation of the recommended changes would enhance the effectiveness of conservative care and reduce treatment costs as the numbers of diagnostic tests and surgeries fall over time.

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