DEGENERATIVE DISEASE AND INJURY OF THE BACK

Conservative Treatment of Low Back Conditions

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The majority of low back conditions seen by orthopaedic surgeons are treated conservatively. Following the teaching of Dr. J. Albert Key, the author's opinion is that most persisting low back pain with or without sciatica is due to some type of lesion of a lumbar disc. Even patients with disabling symptoms from lumbar disc lesions, with rare exceptions, should be given at least three to six weeks conservative treatment before a decision about surgery is made. One exception to this would be a patient with serious neurological deficit with paresis or paralysis in the lower limb, or where there is involvement of bladder or bowel control, when even emergency surgery may be indicated.

The author also believes that for an intervertebral disc to rupture, there must be pre-existing changes of degeneration in the disc. A normal nucleus pulposus surrounded by a normal annulus fibrosis should not herniate. For such to happen, trauma would have to be so severe that a vertebral body would fracture before the disc would rupture. The usual muscular sprain or wrenching injury of the low back causes symptomatology which should clear with conservative management of several weeks or more.

Conservative treatment of patients with low back pain, with or without sciatica, begins with rest with one or more of several measures. The patient will usually do this voluntarily by limiting his activities, perhaps with lighter work or by taking time off. A common method of resting the back is to splint it with a lumbosacral back support. This should be of a type that takes the lumbar spine out of lordosis and tries to hold it flattened with the abdomen compressed. The lordotic position will increase the bulge of an intervertebral disc while straightening the lower spine tends to flatten the disc. Heat with warm soaks or showers may help. Local heat with a heating pad or hydrocollator is useful. The patient should use a fracture board under his mattress, which may be firm or soft.

Resting in the so-called "contour chair position" is usually helpful. This may be done at home with pillows or with a lawn chair or TV chair. Symptomatic medications are used. Narcotics are avoided as much as possible, but some patients may require something like propoxyphene hydrochloride ("Darvon") or codeine. Muscle relaxants are commonly prescribed, but how effective they are I am not sure. The more tense or anxious individual may be helped by a tranquilizer. If leg length discrepancy of 1/4 inch or more is present, a heel lift should be prescribed to level the pelvis.

Physical therapy modalities of local heat, massage, diathermy, and ultrasound, or whirlpool baths, may help the patient. For the patient with more severe disabling symptoms, hospital management should be considered. This would consist of bed rest with the back rest and knee rest elevated, and leg traction or pelvic traction may be used. These only help immobilize the patient in bed and do not "replace" anything. Patients with clinical evidence of lumbar disc lesions may be helped by manipulative therapy. In my hands, this is most effective using general anesthesia. This can improve symptoms, sometimes dramatically, in over one-half of persons manipulated.

Associated medical problems should be evaluated properly and treated. Accompanying functional overlay, particular in the medicolegal cases, may be difficult to evaluate. Consultation with a neurologist or a neuropsychiatrist may be indicated to help evaluate the patient's symptoms and plan treatment. In difficult cases of low back pain with or without sciatica, we occasionally use a quantitative spinal examination as described by McCollum and Stephen (1). This can help distinguish the organic case from the patient with purely functional or psychogenic origin of complaint, or can indicate the patient with pain on an autonomic basis. In rare cases, to evaluate the percentage of organic versus functional or hysterical symptomatology, we may have a neuropsychiatrist examine the patient under amobarbital (2).

One observation is that in medicolegal cases, the greater the amount of possible gain, the greater is the percentage of functional or psychogenic overlay. This is seen fairly often in compensation cases, but more frequently and to a more severe degree in those cases that may be tried in federal courts with much larger awards than under workers' compensation. This is

noted particularly with workers involved in interstate commerce, whose cases are eventually tried in Federal courts.

For the patient who still has marked disability and has not responded to conservative measures, surgery may need to be considered. But before surgery on the low back is performed in such cases, a myelogram, in my opinion, is indicated.

REFERENCES

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