THE DIFFERENTIAL DIAGNOSIS OF INTRASPINAL TUMORS AND PROTRUDED INTERVERTEBRAL DISKS AND THEIR SURGICAL TREATMENT*

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The syndrome of protruded intervertebral disk has been well established and the high degree of accuracy with which the diagnosis is made, not only by the neurologist and the orthopedist but also by the general practitioner of medicine, speaks well for the high type of medicine and surgery that is being practiced in this country today.

Fig. 1. Back of patient who had undergone, elsewhere, lumbosacral fusion and, six months later, fasciotomy without relief of low back and left sciatic pain of four years' duration. An intradural and extradural neurofibroma was removed from beneath the bone graft, with immediate relief of the patient's symptoms. In this case, lumbar puncture had not been performed prior to the fusion operation. The scar of the fusion operation is indicated between the two arrows on the left, and that of the laminectomy for removal of the tumor, between the two arrows on the right.

In the majority of cases of protruded intervertebral disk, the diagnosis can be accurately made on the basis of the history and physical findings. Many patients, however, present themselves with histories of intractable pain of root type, and these patients require special methods of examination before accurate diagnosis can be made. If diagnostic errors are to be kept at a minimum, and if the best results are to be obtained from therapeutic efforts, the mistake should not be made of considering every intractable low

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back and sciatic pain as being due to protruded intervertebral disk. It should be remembered constantly that trauma may initiate the symptoms of intraspinal neoplasm just as well as those of protruded intervertebral disk.

It is extremely important, in planning and executing the operation for relief of intraspinal pressure, to know which of the following is indicated:

Relatively extensive laminectomy for removal of a tumor or a relatively short operation, with little or no sacrifice of bone, for removal of a protruded intervertebral disk. In compensation cases, likewise, it is important to know prior to operation what the pathologic condition is likely to be and, above all, it is important to avoid an unnecessary surgical procedure whenever possible (Fig. 1).

During the past several years, my neurosurgical colleagues and I at the Mayo Clinic have encountered a great many intraspinal neoplasms mas-