Abstract

Background

Epidural steroid injection is a low-risk alternative to surgical intervention in the treatment of lumbar disc herniation. The objective of this study was to determine the efficacy of epidural steroid injection in the treatment of patients with a large, symptomatic lumbar herniated nucleus pulposus who are surgical candidates.

Methods

One hundred and sixty-nine patients with a large herniation of the lumbar nucleus pulposus (a herniation of >25% of the cross-sectional area of the spinal canal) were followed over a three-year period. One hundred patients who had no improvement after a minimum of six weeks of noninvasive treatment were enrolled in a prospective, non-blinded study and were randomly assigned to receive either epidural steroid injection or discectomy. Evaluation was performed with the use of outcomes scales and neurological examination.

Results

Patients who had undergone discectomy had the most rapid decrease in symptoms, with 92% to 98% of the patients reporting that the treatment had been successful over the various follow-up periods. Only 42% to 56% of the fifty patients who had undergone the epidural steroid injection reported that the treatment had been effective. Those who did not obtain relief from the injection had a subsequent discectomy, and their outcomes did not appear to have been adversely affected by the delay in surgery resulting from the trial of epidural steroid injection.

Conclusions

Epidural steroid injection was not as effective as discectomy with regard to reducing symptoms and disability associated with a large herniation of the lumbar disc. However, epidural steroid injection did have a role: it was found to be effective for up to three years by nearly one-half of the patients who had not had improvement with six or more weeks of noninvasive care.

Level of Evidence

Therapeutic study, Level I-1a (randomized controlled trial [significant difference]). See Instructions to Authors for a complete description of levels of evidence.