

Epidural Glucocorticoids May Not Be Effective for Spinal Stenosis

Epidural injections of glucocorticoids and lidocaine were no more effective than lidocaine alone according to a randomized double-blind study.

Christopher Mina, MD

January 22, 2015 – Epidural injections using glucocorticoids and lidocaine did not provide significantly greater relief of pain associated with lumbar spinal stenosis at 6 weeks than injections with lidocaine alone in a randomized, double-blind, multisite study.

Dr. Janna L. Friedly, MD, with the Department of Rehabilitation Medicine at the University of Washington, in Seattle, and colleagues reported their findings in the July 3, 2014 issue of *The New England Journal of Medicine*.

The study included 400 patients aged ≥ 50 years with lower back, buttock, or leg pain rated over 4 on a 0 to 10 scale, a score of 7 or higher on the 24 point Roland-Morris Disability Questionnaire (RMDQ), and central lumbar spinal stenosis confirmed by CT or MRI. The patients were randomly assigned to two groups receiving either 1 to 3 mL of glucocorticoids with 0.25% to 1% lidocaine or an equivalent volume of 0.25% to 1% lidocaine alone.

Assessments of pain intensity and RMDQ scores were done at baseline, at 3 weeks, and at 6 weeks. Both groups showed decreased self-assessed pain and lower RMDQ scores at 3 and 6 weeks. At 3 weeks, the glucocorticoid with lidocaine group showed a small but significant reduction in pain and RMDQ scores compared to the lidocaine group. But at the primary endpoint of 6 weeks, there was no significant difference between the groups.

Regarding secondary results, the glucocorticoid with lidocaine group showed a greater improvement in depressive symptoms and greater satisfaction scores than the lidocaine group. There was no significant difference in clinically meaningful improvement, pain related interference with activity, physical function, quality of life, or anxiety between the groups.

Adverse events including excessive pain, headache, fever, dizziness, and numbness occurred in 21.5% of the glucocorticoid with lidocaine group compared with 15.5% in the lidocaine group. In addition, more patients in the glucocorticoid plus lidocaine group had low morning serum cortisol levels at 3 and 6 weeks.

The authors conclude that “in the treatment of symptoms of lumbar spinal stenosis, epidural injections of glucocorticoids plus lidocaine offered minimal or no benefit over epidural injections of lidocaine alone at 6 weeks.”

The authors report multiple sources of commercial support including a grant from the Agency for Healthcare Research and Quality.

Friedly JL, Comstock BA, Turner JA, et al. A randomized trial of epidural glucocorticoid injections for spinal stenosis. *N Engl J Med*. 2014;371(1):11-21.