



4700 West Lake Avenue
Glenview, IL 60025 - 1485
847-375-4731 Phone
info@painmed.org
.....
www.painmed.org

All materials presented at the AAPM's 28th Annual Meeting are embargoed for news or other publication until the date and time of the presentation of the meeting unless AAPM grants permission for early publication in advance.

**EMBARGOED FOR RELEASE FEBRUARY 24, 2012
5:30 PM Central Time/6:30 PM Eastern Time**

Contact Information
Susan M. Thompson
Director, Communications
American Academy of Pain Medicine
847-375-3686 office
sthompson@painmed.org

A Different Approach to Lumbar Epidural Steroid Injections Improves the Quality of Life and Everyday Functionality in Patients with Low Back Pain

February 24, 2012, Palm Springs, CA—Two different interventional approaches in the conservative care of radiculopathic low back pain were presented in a poster today at the 28th Annual Meeting of the American Academy of Pain Medicine. Results from a small study showed that patients receiving interlaminar lumbar epidural steroid injections (LESI), by either the midline (MIL) approach or the parasagittal (PIL) approach had significant improvement in pain relief, quality of life and everyday functionality. However, the PIL approach was more effective in targeting low back pain with radicular pain that was secondary to lumbar disk disease, compared to the MIL approach. Kenneth D. Candido, Chairman, Department of Anesthesiology, Advocate Illinois Masonic Medical Center, Chicago, and Professor of Clinical Anesthesiology at the University of Illinois Hospitals in Chicago reported these results.

A lumbar epidural steroid injection (LESI) is an elective procedure for pain control. “Despite limited evidence for efficacy and long-term improvement in pain and functionality of LESI, this is one of the most commonly performed interventional pain management procedures in the U.S.,” comments Dr. Candido. The purpose of this study was to evaluate the effect of

interlaminar LESI on the quality of life and everyday functionality and to compare the two different approaches, the midline (MIL) approach and the parasagittal interlaminar (PIL) approach.

The two most accepted types of treatments in the conservative care of low back pain with radiculopathy secondary to lumbar disk disease have been the midline approach and the transforminal technique, with the transforminal technique thought to be superior in terms of providing more effective pain relief and more superior analgesia. However, beginning in 2004, Dr. Candido indicated that they began to hear of several cases where permanent paraplegia and paralysis were associated with the transforminal technique. “This technique does not rely on approaching the interlaminar space but approaches the spine from a lateral aspect where the nerve root foramen is found. Paralysis occurs because the nerve root has a radicular artery, and if that artery is violated, the medication that is typically injected into the artery can cause an infarction of the spinal cord,” Dr. Candido stated. The parasagittal interlaminar approach was developed to maintain the safety of the midline approach, but enhance the analgesic efficacy of using interlaminar LESI.

In the parasagittal interlaminar approach, the needle is inserted towards the angled corner of the interlaminar space, unlike the midline approach in which the injection is made in the center of the space. If a patient is having right-sided pain, the needle will be inserted into the right corner, and in the left corner for left-sided pain.

After Institutional Review Board approval and written informed consent, 44 adult patients scheduled to undergo LESI for radicular low back pain were randomly assigned to one of two groups. The first group (22 patients) received LESI using the midline (MIL) approach, and the second group (22 patients) received LESI using the parasagittal interlaminar (PIL). The patients ranged in age from 18 to 80 and had a history of unilateral lumbosacral radiculopathic pain and lumbar disk disease including disk herniations, bulging discs and degenerated discs, where at least 50 percent of the disk height was preserved respective to contiguous levels (based on MRI findings). All patients completed the Oswestry Low Back Pain Questionnaire before injection

and on days 1, 7, and 28 after injections. The Oswestry Questionnaire is designed to give information about how the patients' back pain affects their ability to manage everyday life. Sections on impairments, such as pain, and abilities that include personal care, lifting, walking, sitting, standing, sleeping, social life, sex life and traveling are included as well.

The injections included 120 mg (2mL) of MPA (Methylprednisolone Acetate) + 1 mL of NSS (normal saline solution, sterile, no preservatives) + 1mL of Lidocaine 1%. The NRS (Numeric Pain Rating Scale) was recorded at rest and during movement 20 minutes before, and on days 1, 7, and 28 after the injection.

The results showed no difference in the basal Oswestry Low Back Pain Score between the PIL and MIL group (21.25 ± 7.60 vs. 19.50 ± 5.13). Both groups of patients had significant improvement in pain relief, quality of life and everyday functionality. The results showed that the PIL approach was more effective than the MIL approach in targeting low back pain with radicular pain secondary to lumbar disk disease. At day 28, the PIL group had an 11 on the Oswestry Scale, from a starting point of 22 (on a scale from 1 to 50, with 50 being severe pain). This was not only a statistically significant result but also a clinically significant result. "If we can improve a patient's overall daily function by about 50 percent and if this improvement can be persistent as it was in this study following a single injection for up to one month's time, the parasagittal interlaminar approach is a viable alternative to midline injection techniques, and a potentially safer alternative to the transforminal approach," Dr. Candido concludes.

[View Poster 144](#) - *The Effect of Lumbar Epidural Steroid Injections on Quality of Life and Everyday Functionality*

About AAPM

The American Academy of Pain Medicine is the premiere association for 2,400 pain physicians and their treatment teams. Now in its 28th year of service, the Academy's mission is to optimize the health of patients in pain and eliminate it as a major public health problem by advancing the practice in the specialty of pain medicine. More information is available at www.painmed.org.