KEY PROCEDURES

LUMBAR EPIDURAL STEROID INJECTIONS

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Published outcomes of this procedure can be found at: *Curr Rev Musculoskelet Med*. 2008 Dec;1(3-4):212-22, *Phys Med Rehabil Clin N Am*. 2011 Feb;22(1):139-48, and *Anesth Analg*. 2014 Jan;118(1):236.

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Abstract

Lumbar radiculopathy is a common diagnosis for patients who present with low-back pain and leg pain, typically along a particular dermatome. This pain is commonly associated with a lumbar disc herniation. The prognosis is usually favorable, and the symptoms can resolve spontaneously over time. In patients in whom leg and back symptoms are severe, lumbar epidural (cortico)steroid injections are good options for the short to medium-term management of pain.

Currently, lumbar epidural steroid injections are performed with radiographic guidance systems and fluoroscopy. This method is preferred because of the increased accuracy in needle placement and the reduced risk of injury to nerves and vascular structures.

The procedure is performed with the following steps: (1) Following appropriate patient selection through clinical evaluation and assessment of imaging studies such as computed tomography or magnetic resonance imaging, the patient is prepared and draped after providing written informed consent. (2) The level of neural compression to be injected is identified with intermittent fluoroscopy and the use of a radiopaque marker. (3) The skin and subcutaneous tissues are anesthetized. (4) A spinal needle (Quincke or Tuohy type) is inserted after tissues are fully anesthetized. The needle is slowly advanced with the use of intermittent fluoroscopy until the target is reached. In the case of an interlaminar approach, this would be associated with a loss of syringe resistance and piercing of the ligamentum flavum. In the case of a transforaminal approach, this would be associated with the 6 o'clock position of the pedicle on the side in question. (5) Contrast material is then injected with the use of live fluoroscopy to confirm appropriate placement and exclude intravascular and intrathecal injection. (6) When adequate placement is confirmed, a solution of steroid and anesthetic is administered. The needle is then removed.

Most outcome reports after lumbar epidural steroid injections are favorable for radicular symptoms. Associated back pain may typically improve as well. Common complications include injection site pain or soreness, infections, allergy, and inadvertent dural puncture with spinal headache.

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