



Australian Association of Musculoskeletal Medicine

Abdi S, Datta S, Trescot AM, Schultz DM, Adlaka R, Atluri SL, Smith HS, Manchikanti L. Epidural steroids in the management of chronic spinal pain: a systematic review. Pain Physician. 2007 Jan;10(1):185-212.

University of Miami, Miller School of Medicine, Miami, FL 33136, USA. sabdi@med.miami.edu

BACKGROUND: Epidural injection of corticosteroids is one of the most commonly used interventions in managing chronic spinal pain. However, there has been a lack of well-designed randomized, controlled studies to determine the effectiveness of epidural injections. Consequently, debate continues as to the value of epidural steroid injections in managing spinal pain. **OBJECTIVE:** To evaluate the effect of various types of epidural steroid injections (interlaminar, transforaminal, and caudal), in managing various types of chronic spinal pain (axial and radicular) in the neck and low back regions.

STUDY DESIGN: A systematic review utilizing the criteria established by the Agency for Healthcare Research and Quality (AHRQ) for evaluation of randomized and non-randomized trials, and criteria of Cochrane Musculoskeletal Review Group for randomized trials were used.

METHODS: Data sources included relevant English literature performed by a librarian experienced in Evidence Based Medicine (EBM), as well as manual searches of bibliographies of known primary and review articles and abstracts from scientific meetings within the last 2 years. Three reviewers independently assessed the trials for the quality of their methods. Subgroup analyses were performed among trials with different control groups, with different techniques of epidural injections (interlaminar, transforaminal, and caudal), with different injection sites (cervical/thoracic, lumbar/sacral), and with timing of outcome measurement (short- and long-term).

OUTCOME MEASURES: The primary outcome measure is pain relief. Other outcome measures were functional improvement, improvement of psychological status, and return to work. Short-term improvement is defined as 6 weeks or less, and long-term relief is defined as 6 weeks or longer.

RESULTS: In managing lumbar radicular pain with interlaminar lumbar epidural steroid injections, the evidence is strong for short-term relief and limited for long-term relief. In managing cervical radiculopathy with cervical interlaminar epidural steroid injections, the evidence is moderate. The evidence for lumbar transforaminal epidural steroid injections in managing lumbar radicular pain is strong for short-term and moderate for long-term relief. The evidence for cervical transforaminal epidural steroid injections in managing cervical nerve root pain is moderate. The evidence is moderate in managing lumbar radicular pain in post lumbar laminectomy syndrome. The evidence for caudal epidural steroid injections is strong for short-term relief and moderate for long-term relief, in managing chronic pain of lumbar radiculopathy and postlumbar laminectomy syndrome.

CONCLUSION: There is moderate evidence for interlaminar epidurals in the cervical spine and limited evidence in the lumbar spine for long-term relief. The evidence for cervical and lumbar transforaminal epidural steroid injections is moderate for long-term improvement in managing nerve root pain. The evidence for caudal epidural steroid injections is moderate for long-term relief in managing nerve root pain and chronic low back pain.

Comment: This paper from 2007 provides supportive evidence for the use of epidural injection of corticosteroids in managing radicular pain. The authors conclude that there is moderate evidence for lumbar transforaminal epidural steroid injections for long-term improvement in managing nerve root pain. The evidence for caudal epidural steroid injections is moderate for long-term relief in managing nerve root pain and chronic low back pain.

The full text article is available free at painphysicianjournal.com or more simply via the top right hand corner of the Pubmed abstract available at <http://www.ncbi.nlm.nih.gov/pubmed/> – David Roselt