EDITORIAL

Epidural Steroid Injection

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Epidural steroid injection (ESI), including transforaminal (TF) epidural injections and interlaminar (IL) epidural steroid injections are commonly performed procedures for the management of lumbosacral radicular pain.

Hashemi SM *et al (*1) in their study suggested that The PIL epidural injection is as effective as TF epidural injection in improving pain and functional status, in patients with chronic lumbosacral low back pain, due to disc degeneration. Effective pain relief was observed in 77.3% of patients in PIL group and 74.2% of patients in the TF group (P = 0.34), at 4 weeks.

It can be delivered through either transforaminal (TF), interlaminar, or caudal approaches. The TF approach is considered more efficacious than the interlaminar approach probably because of ventral epidural spread. However, catastrophic complications reported with the TF approach have raised concerns regarding its use. These concerns regarding the safety of the TF approach lead to the search for a technically better route with lesser complications with drug delivery into the ventral epidural space.

The parasagittal interlaminar (PIL) route is reported to have good ventral epidural spread. However, there is a paucity of literature comparing the effectiveness of PIL with TF. In the study of Ghai B *et al* (2) it was revealed that Epidural injection delivered through the PIL approach is equivalent in achieving effective pain relief and functional improvement to the TF approach for the management of low back pain with lumbosacral radicular pain. The PIL approach can be considered a suitable alternative to the TF approach for its equivalent effectiveness, probable better safety profile, and technical ease.

The study of Makkar JK *et al* (3) suggested that PIL approach is equivalent to TF and superior to MIL approach in terms of effective pain relief and decrease in disability in patients with unilateral lumbar radiculopathy. This study showed no deleterious effect on BMD . Patients having effective pain relief were significantly higher in group PIL (16 of 20 [80%]) and group TF (15 of 20 [75%]) compared with group MIL.

Johnson SM in their study reported that the percentage of patients using oral opioid analgesics decreased from 72% to 49% (p=<0.001) as well as it improved the quality of life of such patients. (4)

In a study by Vydra D1, *et al* (5) while studying the trends of Epidural steroid injections (ESI) use which is commonly used to treat refractory radicular spinal pain suggested that an increasing cumulative dose of exogenous corticosteroid may be harmful, knowledge of current practice patterns is limited regarding the choice of dose and frequency of epidural steroid injections (ESIs). For single cervical or lumbar injections of dexamethasone, most physicians (56.0%) reported using

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10 mg; 17% of physicians reported use of doses greater than 10 mg, with 6% using a dose of 20 mg per injection level. The most common particulate corticosteroid dose used during both cervical and lumbar ILESIs was 80mg (cervical=55.4%, lumbar=54.7%). During cervical and lumbar ILESIs, 17% and 12.7% of physicians reported using doses greater than 80mg, respectively. Almost 10% of physicians reported performing cervical TFESIs with particulate steroids. Forty percent of physicians reported allowing four ESIs at a given spinal segmental level per year (cervical/thoracic/lumbosacral). A small percentage of physicians reported allowing more than six ESIs annually (6%) and >10 injections annually (1%).

Thus, Epidural steroid injection (ESI),use for the chronic pain syndrome is well accepted form of treatment to used in non responders to dual or triple drug thearpy for pain including opoids, SSRI, or anti epileptic drugs. It is effective and safe as well but Larger clinical trials are required to establish the superiority of two methods in practice in the form of transforaminal (TF) epidural injections and interlaminar (IL) epidural steroid injections use.

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