

# Which Methods of Epidural Steroid Injections Is More Effective in Reducing the Radicular Pain; Transforaminal or Interlaminar?

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Jong Min Byun and his colleagues should be praised for bringing much-needed evidence to the debate about the effectiveness of forceful transforaminal epidural steroid injections (TFESI) on radicular pain [1]. They explored "the effectiveness of a forceful saline injection on lumbar TFESI using non-particulate steroids" [1], and concluded that "a forceful saline injection did not have a significant effect during the treatment of radicular pain." Although the present study is well-managed, the authors of Jong Min Byun's research are congratulated to launch a comparative study between the effects of forceful TFSEI versus interlaminar epidural steroid injections (ILESI) on radicular pain in their future research.

While TFSEI and ILESI are both common techniques used to manage radicular pain, there the question is whether one of these 2 interventional methods has superior efficacy. The purported advantage of TFESI over ILESI is attributed to the enhanced deposition of medication to pain generators in the ventral epidural space. Hence, a smaller dose of epidural steroids during transforaminal injections is needed to reach the targeted pain generators, thereby managing pain, in comparison to intralaminar injections [2]. In spite of this advantage, the TFESI method is known to carry certain unique risk factors and is often implicated in permanent, severe complications in patients compared to ILESI. These include spinal cord infarction, paralysis, weakening of discs or the development of discitis [3,4]. Moreover, the TFESI technique does not decrease the risk of known complications attributed to ILESI, including hematoma formation, subdural and dural punctures, and cauda-equina syndrome [5].

According to the existing data, the long-term efficacy of TFESI is greater than that of ILESI. Nonetheless, there are conflicting data for the benefits common to both these methods. A recent, systematic review [6] revealed that the efficacy of these 2 techniques in terms of improvement in functionality and pain relief is not significantly different, in spite of the respective risks of each. Given the information cited here, it is obvious that future studies in which the standardization of both approaches as well as steroid dosage may help to resolve existing controversies about whether the transforaminal or interlaminar administration of steroids for radicular pain is more effective.