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Letter to Editor

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Does Really Level of Transforaminal Epidural Steroid Injection Affect the Treatment Outcome?

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To the editor,

I read with great interest, the article by Adilay et al. entitled "Comparison of the Effect of Single Lumbar Transforaminal Epidural Steroid Injections for the Treatment of L4-5 and L5-S1 Paramedian Disc Herniation" (1). They reported that L4-5 transforaminal epidural steroid injections (TFESI) were more effective than L5-S1 TFESI. However, considerable inaccuracies were evident in the design of the study that could question the validity of this conclusion. It is an established fact that the effects of disc herniation depend on the location and size of the herniation relative to the diameter of the spinal canal (3). The definition of "paramedian disc herniation" is very broad, which could compromise proper patient selection. It does not provide sufficient information regarding the size of the herniation and severity of mechanical compression of the nevre root. Therefore, patient groups might be heterogeneously distributed. One of the MRI grading systems should have been used to demonstrate that levels of TFESI could affect the treatment response.

Further, my other concern is that the needle tip shown in the image provided in the article is far too medial. This position of the needle tip could lead to dural puncture, or intrathecal, subdural, or intradiscal injection that could cause serious complications including central canal, cauda equina, or conus medullaris syndromes, persistent paresthesias, arachnoiditis, meningitis, and/or discitis. In the preganglionic approach for TFESI, the needle should not advance medially beyond the midpedicular line or at the 12 o'clock position of the inferior pedicle at its superior aspect, to avoid complications (2).

In carefully selected patients, TFESI is an effective, relatively low-risk alternative to surgery, if performed meticulously and by expert hands. Careful patient selection and identification of patients who need surgery or TFESI is equally important. Hence, randomized, prospective, properly designed studies are required.

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