# Letter to the Editor

## To the Editor:

We intensively read the recent article, "Comparative effectiveness of parasagittal interlaminar (IL) and transforaminal (TF) cervical epidural steroid injection (ESI) in patients with cervical radicular pain: A randomized clinical trial" written by Sim JH et al (1). In the article, they compared the effectiveness of the parasagittal IL and TF approaches for cervical ESI in patients who were suffering from cervical radicular pain. There was no significant difference between the 2 groups. However, numeric rating scale (NRS-11) pain score was lower in the TF group than the parasagittal IL group after one month. In conclusion, parasagittal IL ESI was recommended for radicular pain in terms of clinical efficacy and safety.

While the drug given during TF ESI spreads directly to the anterior epidural region, the spread in IL ESI may be limited in the posterior epidural region. The advantage of the TF approach is that the drug can be delivered directly to the anterior epidural area where the pathology is. However, the TF approach can cause serious complications such as cerebral or spinal cord infarction and transient ischemic attack (2-5).

The drug given during IL ESI may not reach the pain generating area in the presence of inflammation and fibrous tissue because the fluid follows the path of least resistance. In a study, it was shown that the success of IL ESI was negatively affected in patients with high spinal level cervical disc herniation and severe foraminal stenosis (6).

The percutaneous epidural neuroplasty (PEN) procedure is considered to be more effective than ESI. During PEN, the catheter can be directed into the anterior epidural space, closer to the dorsal root ganglion and ventral aspect of the nerve root. Microadhesions that may be present around the nerve root that is inflamed by the herniated disc could be removed by adhesiolysis (7,8). It has also been shown that PEN application reduces the need for additional treatment (9). Cervical PEN showed a favorable clinical effect in patients who did not respond to IL ESI (10-12).

The more favorable results for cervical PEN are believed to be a result of a more localized, selective block in the epidural space placed closer to the dorsal root ganglion and ventral aspect of the nerve root compared to ESI. By greater selective targeting of lesions, symptom relief was maintained for a longer duration using the cervical PEN treatment (8).

Based on our own clinical experience, we consider that PEN is superior to ESI. We do not prefer TF ESI application because of its possible complications.

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