

Predicting the Outcome of Periradicular Therapy is based on Strict Inclusion/Exclusion Criteria and Co-Medication

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LETTER TO THE EDITOR

We read with interest the article by Veljanovski et al. on a prospective study on outcome predictors of peri-radicular therapy (PRT) in 166 patients with chronic lumbar or radicular pain who were evaluated for pain reduction after 2 weeks, 3 months and 6 months after PRT with 3ml lidocaine, 2ml bupivacaine, 2ml triamcinolone [Veljanovski, D. *et al.*, 2023]. The improvement at 6 months was found to be greatest in patients without nerve root compression, with pain localization at the L4-L5 level, and with extra-foraminal hernia [Veljanovski, D. *et al.*, 2023]. It was concluded that the response to transforaminal epidural steroid injection was more favourable the shorter the pain duration, the lower the degree of root compression and the smaller the injection volume and type of herniation area, [Veljanovski, D. *et al.*, 2023]. The study is excellent but has limitations that should be discussed.

The major limitation of the study is that it did not account for all possible causes of lumbar or radicular pain and were therefore not excluded in all included patients, particularly those with normal imaging. In how many patients was the MRI of the lumbar spine normal and therefore unindicative of pre-injection symptoms? Not considered were neuroborreliosis, which can manifest as Bannwarth syndrome, Elsberg syndrome, Tarlov cysts, small fibre neuropathy manifesting as regional pain syndrome, camptocormia, axial myopathy, scoliosis, facet joint arthrosis, compression fracture, osteoporosis, sacro-ileitis, sacro-iliacal joint arthrosis, spondylosis, spondylarthrosis, chondrosis, or osteochondrosis. How many of the patents underwent cerebrospinal fluid testing prior to PRT?

Another limitation of the study is that the degree of depression was not measured in the study. Because

chronic pain can be secondary to depression, it is critical to assess how pain, pain intensity, and response to treatment are related to the degree of depression. It is also conceivable that the pain was merely a manifestation of depression and had no morphological substrate. Depression needs to be thoroughly ruled out, especially in patients with lumbar pain but no morphological abnormalities on the MRI, such as herniated disc or absolute vertebral stenosis.

A third limitation is that the co-medication of the included patients was not mentioned. We should know how many were on regular pain medication, how many were taking antidepressants, and how many were taking muscle relaxants or sedatives. Co-medication can greatly affect the outcome of PRT.

There is a discrepancy regarding the inclusion criteria. The second sentence of the method section states “patients with chronic lumbar or radicular pain were included” [Veljanovski, D. *et al.*, 2023]. However, one inclusion criterion was “radiculopathy lasting at least 4 weeks under conservative treatment, clinically and radiologically (MRI) diagnosed lumbar radiculopathy (disc herniation and mechanical compression of the radix).” This discrepancy should be clarified. We should also know if patients with lumbar pain but no radicular pain were included. There is also a discrepancy between the inclusion criteria (“radiologically (MRI) diagnosed lumbar radiculopathy (disc herniation and mechanical compression of the radix”) and the statement that improvement was highest in those without nerve root compression [Veljanovski, D. *et al.*, 2023]. This discrepancy needs to be resolved. How many had radiculopathy on imaging but no radicular pain?

Overall, the interesting study has limitations that call the results and their interpretation into

question. Addressing these issues would strengthen the conclusions and could improve the status of the study.

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Compliance with Ethics Guidelines: This article is based on previously conducted studies and does

not contain any new studies with human participants or animals performed by any of the authors.

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