

## Comment on “Long-term Follow-up of the Effectiveness and Safety of High-voltage Pulsed Radiofrequency Treatment for Infraorbital Neuralgia: A Retrospective Study”

### TO THE EDITOR:

We read the article by Sun et al (1), titled “Long-term Follow-up of the Effectiveness and Safety of High-voltage Pulsed Radiofrequency Treatment for Infraorbital Neuralgia: A Retrospective Study” with great interest. This study is of considerable clinical value, given the scarcity of literature on this topic, particularly those with long-term follow-up and a large sample size. However, we would like to offer some suggestions regarding the study design.

First, the primary outcome of this study was the pain relief rate, as measured by the Barrow Neurological Institute (BNI) pain scale. The BNI pain scale was originally developed by the Barrow Neurological Institute to assess the efficacy of Gamma Knife radiosurgery for trigeminal neuralgia (2) and has also been applied to evaluate the efficacy of radiofrequency therapy (3) and microvascular decompression for trigeminal neuralgia (4). Although the infraorbital nerve is a major branch of the trigeminal nerve, there are notable differences between infraorbital neuralgia and trigeminal neuralgia, particularly since patients may derive greater benefit from interventions targeting the peripheral nerve when the pain is confined to a specific nerve branch. Therefore, the reliability and validity of the BNI pain scale should be evaluated before applying it to infraorbital neuralgia. The NeuPSIG guidelines on neuropathic pain assessment (5) recommend the use of numeric rating scales or visual analog scales to measure pain intensity in studies assessing treatment effects on neuropathic pain. We suggest including these scales in future studies for a more comprehensive assessment.

Additionally, the researchers collected preopera-

tive baseline characteristics, including gender, age, body mass index, disease duration, BNI pain intensity, and comorbidities. Stratified analyses based on these confounding factors could be conducted to identify the factors influencing the efficacy of high-voltage pulsed radiofrequency treatment for infraorbital neuralgia. This would be valuable for developing personalized treatments for chronic pain.

Moreover, the researchers did not report the types or dosages of medications used by patients during the follow-up period. This information is critical, as it may significantly impact long-term pain relief in patients with infraorbital neuralgia. It would also be important to clarify whether local anesthetics or glucocorticoids were administered following pulsed radiofrequency treatment, as these could affect the continuity of the treatment's efficacy.

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