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LETTER

Rethink of the New Treatment for Refractory Painful Diabetic Peripheral Neuropathy [Letter]

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Dear editor

We interestedly read an article published in the *Journal of Pain Research* titled "Efficacy and Safety of Ultrasound-Guided Pulsed Radiofrequency Therapy of Stellate Ganglion on Refractory Painful Diabetic Peripheral Neuropathy".[1] At present, blood glucose control and life management cannot effectively reduce the pain symptoms of diabetic peripheral neuropathy (DSPN), and drug therapy also has obvious side effects.[2] So, we would like to express our sincere respect to the authors and thank them for their research and in-depth discussion of the application of ultrasound-guided pulsed radiofrequency therapy in DSPN. Their research opens up a new possible therapy for chronic pain that is difficult to cure. However, we still want to suggest some improvements to further refine the breadth and depth of the study.

First, studies have shown a significant decrease in response rate and overall response rate during all postoperative follow-up periods, which clearly suggests that the effect of the therapy is time-dependent; however, the authors did not explore other ways to maintain or improve long-term efficacy. Therefore, we suggest further distinguishing pain grade and attack frequency of DSPN and formulating corresponding treatment plans for different patients. At the same time, we recommend ultrasound-guided pulsed radiofrequency therapy as an adjunct treatment to DSPN, as the existing literature shows that electroacupuncture provides good relief for chronic pain with few side effects.[3]

Second, the safety of ultrasound-guided pulsed radiofrequency therapy remains to be considered and the authors' exploration of adverse reactions is insufficient. Although the study population reports no serious complications, there were still 24 patients (42.8%) who experienced adverse reactions such as hoarseness and numbness,[1] so we thus have reason to suspect the therapy may have long-term adverse reactions. In fact, this has been mentioned in other literature.[4] Therefore, we recommend longer-term follow-up of patients to help clarify long-term effects.

Finally, the cost-effectiveness of ultrasound-guided pulsed radiofrequency therapy is unclear, which may result in unnecessarily high medical costs for both patients and the social medical security system. It is also difficult to achieve effective allocation of medical resources at the macro-level, which thus makes meeting medical needs difficult. Therefore, we recommend improving the cost accounting applied to this treatment, which we believe will help us determine whether the treatment is suitable for large-scale distribution and is economically sustainable.

In conclusion, this study provides new ideas for the treatment of DSPN. Despite some limitations, such as its long-term efficacy, safety and economic feasibility, its contribution to the exploration of innovative treatments is indisputable. We look forward to the joint efforts of researchers in various fields to promote the further improvement of relevant treatment programs that will benefit more patients in future.

Disclosure

The authors report no conflicts of interest in this communication.

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References

1. Wang J, Xu W, Wang Q, et al. Efficacy and safety of ultrasound-guided pulsed radiofrequency therapy of stellate ganglion on refractory painful diabetic peripheral neuropathy. *J Pain Res*. 2024;17:4521–4531. doi:10.2147/JPR.S497061
2. Petersen EA, Stauss TG, Scowcroft JA, et al. Durability of high-frequency 10-kHz spinal cord stimulation for patients with painful diabetic neuropathy refractory to conventional treatments: 12-month results from a randomized controlled trial. *Diabetes Care*. 2022;45(1):e3–e6. doi:10.2337/dc21-1813
3. Zheng Y, Li S, Kang Y, et al. Electroacupuncture alleviates streptozotocin-induced diabetic neuropathic pain via the TRPV1-mediated CaMKII/CREB pathway in rats. *J Mol Neurosci*. 2024;74(3):79. doi:10.1007/s12031-024-02256-w
4. Annison DR, Smith N, Salt E, Noblet T, Rangan A, McDaid C. Physical harms associated with suprascapular nerve block interventions in the non-surgical management of acute and chronic shoulder pain: a systematic review. *Shoulder Elbow*. 2024;17585732241255679. doi:10.1177/17585732241255679

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