

# Genicular Nerve Block as an Effective Treatment for Knee Pain: Addressing Variability and Enhancing Meta-Analysis Reliability [Letter]

Jia Liu , Chao Wen , Lichen Xu

Orthopedics Department, Dalian University Affiliated Xinhua Hospital, Dalian, Liaoning Province, People's Republic of China

Correspondence: Lichen Xu, Dalian University Affiliated Xinhua Hospital, 139 Yueling West Street, Ganjingzi District, Dalian City, Liaoning Province, People's Republic of China, Email 3833979935@qq.com

## Dear editor

Li et al<sup>1</sup> did a meta-analysis on the effectiveness of genicular nerve block (GNB) for knee pain. They found that GNB works better than other pain treatments for knee joint problems. We respect the work done in this study, but we have some suggestions to make the results stronger and more useful in practice.

First, the meta-analysis shows a lot of differences between the studies included ( $I^2=92.0\%$ ), which may make the results less reliable. The authors mention this difference but do not look into the causes of it. For example, differences in the medications used (like bupivacaine alone vs bupivacaine with steroids) and in the patient groups (like osteoarthritis vs rheumatoid arthritis) could change the results. A deeper look into these factors with a subgroup analysis or meta-regression could help explain the differences and make the results more accurate.

Second, the study uses different types of control groups, such as active placebos (eg, saline injections), non-active placebos (eg, no treatment), and other therapies (eg, physical therapy, electrical stimulation). However, the study does not explain how these differences affect the results. Active placebos might have some pain-relieving effects, while non-active placebos do not, which could make the results of GNB different. The study should examine these differences more carefully and suggest using a more consistent control group design in future research to make the results easier to compare.

Third, the authors talk about the subjectivity of pain assessment tools (NRS/VAS), but they do not discuss how using different pain scales in the studies affects the results. The NRS and VAS are related, but they are not exactly the same, so using both could cause differences in the results. A sensitivity analysis that excludes studies with different pain scales or converts the scores to a standard measure could help make the results more consistent.<sup>2</sup>

In conclusion, this meta-analysis gives helpful information about the effectiveness of GNB for knee pain, but fixing these issues could make the results stronger and more useful in practice. We appreciate the authors' work and encourage future research to build on these findings with more detailed studies and longer follow-up periods.

## Disclosure

The authors report no conflicts of interest in this communication.

## References

1. Li W, Xu F, Chen F, Cao L, Bao X. Effect of genicular nerve block (gnb) on pain in lesions of the knee joint: a meta-analysis of randomized controlled trials. *J Pain Res.* 2025;18:511–522. doi:10.2147/JPR.S503937
2. El Hadwe S, Wronowski F, Rehman S, Ansong Snr YO, Barone DG. Cylindrical vs paddle leads in spinal cord stimulation for the long-term treatment of chronic pain: a systematic review and meta-analysis. *Neuromodulation.* 2025;28(2):204–233. doi:10.1016/j.neurom.2024.10.007

Dove Medical Press encourages responsible, free and frank academic debate. The content of the Journal of Pain Research 'letters to the editor' section does not necessarily represent the views of Dove Medical Press, its officers, agents, employees, related entities or the Journal of Pain Research editors. While all reasonable steps have been taken to confirm the content of each letter, Dove Medical Press accepts no liability in respect of the content of any letter, nor is it responsible for the content and accuracy of any letter to the editor.

## Journal of Pain Research

**Dovepress**  
Taylor & Francis Group

### Publish your work in this journal

The Journal of Pain Research is an international, peer reviewed, open access, online journal that welcomes laboratory and clinical findings in the fields of pain research and the prevention and management of pain. Original research, reviews, symposium reports, hypothesis formation and commentaries are all considered for publication. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <https://www.dovepress.com/journal-of-pain-research-journal>

<https://doi.org/10.2147/JPR.S523096>