

Can ozone injections be blinded in research?

Alper Mengi¹, Erkan Özduration²

¹Department of Pain Management, Sultan 1st Murat State Hospital, Edirne, Türkiye

²Department of Pain Management, Sivas Numune Hospital, Sivas, Türkiye

We read with interest the study by Hesam et al.,^[1] titled, “Local ozone injection compared to local glucocorticoid injection in carpal tunnel syndrome: A randomized controlled trial.” We congratulate the authors for their valuable contributions. However, we have concerns regarding the article and would like to discuss some points.

In the mentioned study, one group was administered ozone injections, while the other group was administered triamcinolone acetonide. In both applications, 1 mL of 1% lidocaine was used. Although it is stated that this study was conducted in a double-blind design, the article does not mention that there was a measure that prevented patients from seeing the contents of the injection syringes during administration. Considering that the patients read the consent form before the study, the patients were aware that they were being injected ozone with a syringe containing air. Therefore, the study should be considered assessor-blind rather than double-blind due to its design. The patients' awareness of the ozone therapy, which is popular and well-known,^[2] may be a source of bias in the study results.

Another point that should be emphasized is that ozone was injected along with lidocaine. Local anesthetics used in carpal tunnel syndrome injections alone may have positive effects in both the short and

long term.^[3] Therefore, it is difficult to attribute the effects observed in the ozone-treated group entirely to ozone.

Data Sharing Statement: The data that support the findings of this study are available from the corresponding author upon reasonable request.

Author Contributions: All authors contributed equally to this article.

Conflict of Interest: The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

Funding: The authors received no financial support for the research and/or authorship of this article.

REFERENCES

1. Hesam F, Khatibi AA, Vafaeenasab M, Tirandazi B, Sharifi Dorcheh F. Local ozone injection compared to local glucocorticoid injection in carpal tunnel syndrome: A randomized controlled trial. *Turk J Phys Med Rehabil* 2024;70:251-8. doi: 10.5606/tftrd.2024.12590.
2. Re L. Ozone in medicine: A few points of reflections. *Front Physiol* 2022;13:842229. doi: 10.3389/fphys.2022.842229.
3. Karadaş Ö, Tok F, Akarsu S, Tekin L, Balaban B. Triamcinolone acetonide vs procaine hydrochloride injection in the management of carpal tunnel syndrome: Randomized placebo-controlled study. *J Rehabil Med* 2012;44:601-4. doi: 10.2340/16501977-0990.

Corresponding author: Alper Mengi, MD, Edirne Sultan 1. Murat Devlet Hastanesi, Algoloji Kliniği, 22030 Edirne, Türkiye.

E-mail: a_mengi22@hotmail.com

Received: May 29, 2024 **Accepted:** August 20, 2024 **Published online:** October 16, 2024

Cite this article as: Mengi A, Özduration E. Can ozone injections be blinded in research? *Turk J Phys Med Rehab* 2024;70(x):i. doi: 10.5606/tftrd.2024.15350.



This is an open access article under the terms of the Creative Commons Attribution-NonCommercial License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes (<http://creativecommons.org/licenses/by-nc/4.0/>).