

*Comment on Muhammad Junaid Ijaz et al (JPMA, Vol 72, No-04, April 2022)*

## **Effect of median nerve neuromobilization on functional status in patients with carpal tunnel syndrome: A double blinded randomized control trial**

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*Dear Editor,* We have read the article 'Effect of median nerve neuromobilization on functional status in patients with carpal tunnel syndrome (CTS): A double blinded randomized control trial' by Ijaz et.al<sup>1</sup> with interest. Considering that there are only few randomized controlled trials (RCT) from Pakistan published on management of CTS, this is a welcome addition. However, an RCT is considered the gold standard of clinical research and must adhere to the highest standards of conducting and reporting. We were able to identify few issues with the methodology and reporting of this trial which warrant mention

1. The diagnosis of mild to moderate severity of CTS was confirmed using physical tests and electroneuromyography. There are several clinical tests to diagnose CTS e.g., Phalen's, Tinel's tests, carpal compression test, sensory and motor testing and using Semmes-Weinstein monofilaments.<sup>2</sup> However, authors have not mentioned the clinical tests performed to determine the severity of CTS in this study. The criteria of mild to moderate CTS has also not been mentioned.
2. The electrophysiological assessment is a sensitive tool to diagnose CTS.<sup>3</sup> Needle electromyography is not particularly useful in most patients with mid CTS. Authors should explain the rationale for myography in patients with mild CTS in this trial.<sup>2</sup>
3. The American Academy of Neurology, the American Association of Electrodiagnostic Medicine and the American Academy of Physical Medicine and Rehabilitation have provided recommendations for electrophysiological testing.<sup>4</sup> An RCT must mention the parameters on which diagnosis and severity of CTS was determined.<sup>3</sup>
4. Boston carpal tunnel is a validated patient centred outcome measure for CTS.<sup>4</sup> However, the original

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questionnaire is in English language. To the best of our knowledge, there is no validated Urdu version available to assess the symptom severity in local Pakistani population. Most of the Pakistanis cannot read or understand English language. It is unclear if the questionnaire was in English or Urdu language and whether it filled by the patients themselves or were they assisted by the therapist. This needs little explanation what strategy was used to overcome this issue

5. Blinding of the statistician is not commonly done in physiotherapy trials. Even the high-quality trials may have some risk of bias when they do not report adequate measures in their study. We would like to know, how the statistician was blinded to the study outcomes and how the data was decoded before sending to statistician?
6. Another concern is about the baseline intergroup categorical variables. Several parameters are mentioned in Table 1 that have not been discussed further. In addition, CTS has no such correlation with marital status or height and probably data collected was just for the sake of data collection. Outcomes of this study might be more convincing if they included other relevant variables, like hand dominance, unilateral vs. bilateral symptoms and possible aetiology of CTS (metabolic vs. repeated trauma like typing). One of the parameters mentioned was vigorous activity. However, it is unclear that what constituted vigorous activity.<sup>5</sup>
7. Nineteen references have been cited but not even a single local reference has been used. It is important to cite local literature to provide relevant perspective. Moreover, reference sequence is incorrect and 2 references (number 4 and 18 and 7 and 9) have been mentioned twice.
8. It is mandatory to include Consolidated Standards of Reporting Trials (CONSORT) figure while reporting an RCT. This is missing from this article.

While we commend the authors on publishing this RCT we recommend that RCT must be conducted and reported

using recommended reporting guidelines and addressing all relevant aspects that can create a potential bias.

**Disclaimer:** None

**Conflict of interest:** None

**Funding disclosure:** None

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