

Response to 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

Muhammad Junaid Ijaz¹, Hossein Karimi², Syed Amir Gillani³, Ashfaq Ahmad⁴, Muhammad Asad Chaudhary⁵

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'¹ by Ijaz et.al¹ 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.² 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.

Answer: We included previously diagnosed patients of mild and moderate CTS referred by a neuro-physician.

2. The electrophysiological assessment is a sensitive tool to diagnose CTS.³ 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.²

Answer: The authors main objective was treatment of patients through neural mobilization and its effects on functional capacity of CTS patients.

3. The American Academy of Neurology, the American Association of Electrodiagnostic Medicine, and the

¹School of Physiotherapy, King Edward Medical University, Lahore, Pakistan;

²Department of Physical Therapy, University of Lahore, Lahore, Pakistan;

³University Institute of Physical Therapy, University of Lahore, Lahore, Pakistan;

⁴University Institute of Physical Therapy, University of Lahore, Lahore, Pakistan;

⁵Department of Physical Therapy, Shalamar Medical and Dental College, Lahore, Pakistan.

Correspondence: SMuhammad Junaid Ijaz e-mail: junaid_gondal92@yahoo.com

American Academy of Physical Medicine and Rehabilitation have provided recommendations for electrophysiological testing.⁴ An RCT must mention the parameters on which diagnosis and severity of CTS was determined.³

Answer: Patients included were already diagnosed so it was not included in the article.

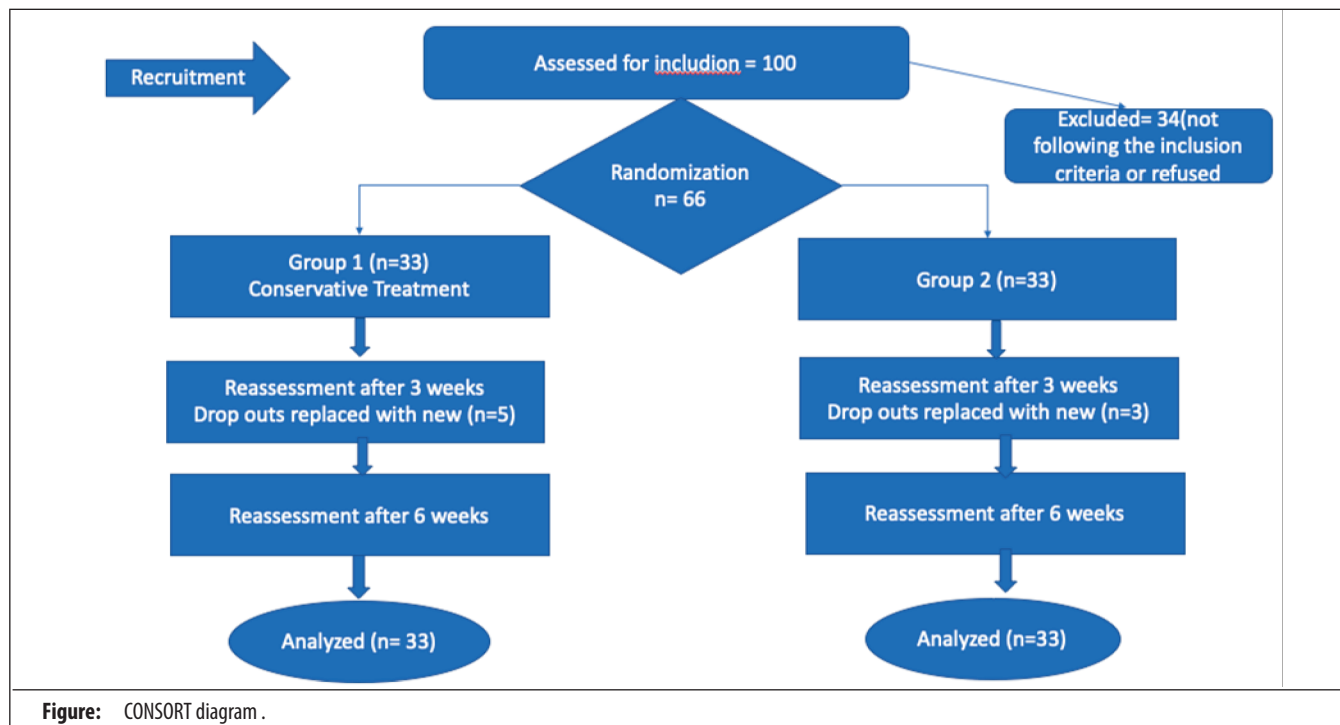
4. Boston carpal tunnel is a validated patient centred outcome measure for CTS.⁵ However, the original questionnaire is in English language. To the best of our knowledge, there is no validated Urdu version available to assess the symptom severity in local Pakistani population. Most of the Pakistanis 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

Answer: Well the most of patients were obviously not educated. I can say that most of them even can't read Urdu questionnaires. So we assisted all the patients in understanding the questions and then answers were written under supervision of therapist.

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?

Answer: Statistician just applied the tests on given data as group 1 and group 2. He wasn't aware what treatment was given to group 1 and group 2 that's why its mentioned that biostatistician was blinded.

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 was collected were just sake for 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.

Answer: The reviewer's suggestions are taken in to account and will be incorporated in future studies. However, vigorous activity was the focus and most of the patients in Pakistan work hard to earn their bread and butter and work for more than 10 to 12 hours a day. So that's why vigorous activity was considered as a parameter.

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.

Answer: Reference numbers are corrected. This is a published paper now and at the time of writing of article, there were no local appropriate references to be cited.

8. It is mandatory to include Consolidated Standards of Reporting Trials (CONSORT) figure while reporting an RCT. This is missing from this article.

Answer: CONSORT diagram is added. 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

References

1. Ijaz MJ, Karimi H, Gillani SA, Ahmad A, Chaudhry MA. Effect of median nerve neuromobilization on functional status in patients with carpal tunnel syndrome: A double blinded randomized control trial. *J Pak Med Assoc* 2022; 72: 605-9.
2. Zuniga AF, Keir PJ. Diagnostic and Research Techniques in Carpal Tunnel Syndrome. *Crit Rev Biomed Eng.* 2019;47(6):457-471. doi: 10.1615/CritRevBiomedEng.2020030827.
3. Jablecki CK, Andary MT, So YT, Wilkins DE, Williams FH. Literature review of the usefulness of nerve conduction studies and electromyography for the evaluation of patients with carpal tunnel syndrome. *AAEM Quality Assurance Committee. Muscle Nerve* 1993; 16: 1392-414.
4. Padua L, Coraci D, Erra C, Pazzaglia C, Paolasso I, Loreti C, Caliandro P, Hobson-Webb LD. Carpal tunnel syndrome: clinical features, diagnosis, and management. *Lancet Neurol.* 2016;15(12):1273-1284. doi: 10.1016/S1474-4422(16)30231-9.
5. Padua L, Padua R, Lo Monaco M, Aprile I, Tonali P. Italian CTS Study Group. Multiperspective assessment of carpal tunnel syndrome: a multicenter study. *Neurology* 1999; 53: 1654-59.