

## Comments on the article “Comparing the efficacy of continuous and pulsed ultrasound therapies in patients with lateral epicondylitis: A double-blind, randomized, placebo-controlled study”

Dimitrios Stasinopoulos 

Department of Physiotherapy, University of West Attica, Athens, Greece

Received: July 27, 2021 Accepted: September 07, 2021 Published online: December 01, 2021

Dear Editor,

I read with interest and would like to give congratulations to Ünver et al.<sup>[1]</sup> for their interesting randomized, placebo-controlled trial that contributes to the understanding of the efficacy of therapeutic ultrasound in the management of lateral elbow tendinopathy (LET). I would like to stress the importance of the trial, since the consequences are still unclear in terms of adopting the gold-standard physiotherapy approach for the management of LET. The results of this trial aid in the decision making of clinicians, academics, policy makers, researchers and ultimately patients. Precisely due to the significant influence that these results may have on practice, I would like to raise some comments that may complement the discussions provided by the authors and enhance the interpretation of the study findings. Specifically, I would like to mention the following:

1. In the manuscript, the term lateral epicondylitis (LE) was used. However, the most appropriate term to use in clinical practice is LET, as terms such as LE and/or tennis elbow make reference to inappropriate anatomical, pathophysiological, and etiological terms.<sup>[2]</sup>

2. Parameters (dosology) of therapeutic ultrasound are important for its effectiveness.<sup>[3]</sup> The following ultrasound parameters were not mentioned:

- The total energy, the dose per treatment, and the energy density<sup>[4]</sup>
- The recommended intensity (1 W/cm<sup>2</sup>).
- The recommended duration of treatment (5 min)
- Why they used the pulse ratio of 1:4. This pulse ratio is recommended for acute injury.<sup>[3]</sup>
- Why they used this frequency (1.5 MHz). The recommended frequency is 3 MHz.<sup>[3]</sup>

3. The authors also did not explain why patients received treatment every 48 h, totally 10 sessions.

4. Physical agents such as therapeutic ultrasound are not effective treatment approaches, when these are applied as sole treatment in the rehabilitation of tendinopathy such as LET.<sup>[5]</sup> An exercise program, supervised or home, is the recommended approach for the treatment of

**Corresponding author:** Dimitrios Stasinopoulos, PT, PhD. Department of Physiotherapy, Faculty of Health and Caring Sciences, University of West Attica, 12243 Athens, Greece.

e-mail: [dstasinopoulos@uniwa.gr](mailto:dstasinopoulos@uniwa.gr)

*Cite this article as:*

Stasinopoulos D. Comments on the article “Comparing the efficacy of continuous and pulsed ultrasound therapies in patients with lateral epicondylitis: A double-blind, randomized, placebo-controlled study”. Turk J Phys Med Rehab 2021;67(4):545-546.

LET.<sup>[5]</sup> Therefore, physiotherapy modalities are applied as a part of the rehabilitation process.<sup>[3]</sup> The authors did not explain why they used the therapeutic ultrasound as monotherapy.

Overall, I believe that the aforementioned questions raised in this editorial may be helpful to interpret the results of the present randomized, placebo-controlled study. I am aware of the difficulties in carry out a research study and, once again, I congratulate the authors for their project.

#### **Declaration of conflicting interests**

The author declared no conflicts of interest with respect to the authorship and/or publication of this article.

#### **Funding**

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

## **REFERENCES**

1. Ünver HH, Bakılan F, Berkan Taşçıoğlu F, Armağan O, Özgen M. Comparing the efficacy of continuous and pulsed ultrasound therapies in patients with lateral epicondylitis: A double-blind, randomized, placebo-controlled study. *Turk J Phys Med Rehab* 2021;67:99-106.
2. Stasinopoulos D, Johnson MI. 'Lateral elbow tendinopathy' is the most appropriate diagnostic term for the condition commonly referred-to as lateral epicondylitis. *Med Hypotheses* 2006;67:1400-2.
3. Stasinopoulos D, Cheimonidou AZ, Chatzidamianos T. Are there effective ultrasound parameters in the management of lateral elbow tendinopathy? A systematic review of the literature. *Int J Phys Med Rehabil* 2013;1:117.
4. Belanger AY, editor. *Therapeutic Electrophysical Agents. Evidence Behind Practice*. 3rd ed. Philadelphia: Wolters Kluwer; 2015
5. Dimitrios S. Exercise for tendinopathy. *World J Methodol* 2015;5:51-4.

**This letter was submitted to the authors of the manuscript; however, not responded.**