

Challenges and Solutions in Evaluating Physiotherapy for Managing Lateral Elbow Tendinopathy

Dimitrios Stasinopoulos*

Associate Professor of Physiotherapy, Department of Physiotherapy, Faculty of Health and Caring Sciences, University of West Attica, Member of Laboratory of Neuromuscular and Cardiovascular Study of Motion (LANECASM), Athens, Greece

***Corresponding Author:** Dimitrios Stasinopoulos, Associate Professor of Physiotherapy, Department of Physiotherapy, Faculty of Health and Caring Sciences, University of West Attica, Member of Laboratory of Neuromuscular and Cardiovascular Study of Motion (LANECASM), Athens, Greece.

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I read with interest the research that contributes to the understanding of the efficacy of physiotherapy techniques in the treatment of lateral elbow tendinopathy (LET) [1]. I would like to comment on the following:

1. Although the clinical diagnostics terms lateral epicondylitis (LE) and tennis elbow (TE) are the most commonly used terms [2], the term LET is the most appropriate in clinical diagnosis because terms such as TE and/or LE, extensor (lateral) tendinopathy, lateral epicondylalgia/epicondylosis refer to inappropriate etiological, anatomical, and pathophysiological terms [3]. In addition, the currently accepted description is LET according to the international scientific tendinopathy symposium that took place in 2019 [4]. However, the term LET is the most appropriate for diagnosis when this refers to a tendon condition [5]. Lateral Elbow Pain Syndrome (LEPS) is the appropriate clinical term for Persistent LET (PLET) [5]. The term LEPS may be a label that references a variety of lateral elbow pain diagnoses such as nerve involvement, myofascial trigger points, neck/thoracic dysfunction, and tendinopathy, all involved in PLET [5]. Furthermore, the term lateral elbow disorders (LEDs) has also been proposed [2]. Three (see below) main anatomical sites responding to different prognostic times and treatment principles [1].
 - A-LED (Lateral Elbow Disorders-Arthropathic Prevalence);
 - N-LED (Lateral Elbow Disorders-Neuropathic Prevalence);
 - T-LED (Lateral Elbow Disorders-Tendinopathic Prevalence); and
 - M-LED (Lateral Elbow Disorders-Mixed Form).

Finally, it is time to avoid confusion removing the inappropriate clinical diagnostic terminology from the clinical vocabulary [6].

2. Strengthening management of LET is changing and now eccentric loading is not the only exercise option [1,7,8]. Practicians should consider concentric-eccentric loading with stretching exercises alongside or instead of eccentric contractions [7,8]. Isometric loading has been proposed to reduce LET pain increasing the strength at the angle of contraction avoiding inflammatory signs [1,7,8]. The loading program in LET management should include exercises not only for ECRB but also for rotator cuff, scapular muscles, and supinator strengthening [1,7,8]. Techniques to increase reduced proprioception are also recommended in patients with LET

- [7]. Finally, combining isometric or isotonic strength training with a visual cue or externally paced audio [7] increasing tendon neuroplastic training (TNT).
3. Electrophysical agents (EAs) (no electrical energy modalities) such as phototherapy (Low-Level Laser Therapy - LLLT and High-Intensity Laser Therapy - HILT), therapeutic ultrasound (TUS), and extracorporeal shock wave therapy (ESWT), are one of the most cost common used physiotherapy agents for the LET management [1,9,10]. EAs are used as a supplement to an exercise therapy and not as a substitute to loading [9]. According to the above, further research will find out the efficacy of EAs combined with exercise loading in patients with LET [9]. Furthermore, EAs are dose-response modalities, and the optimal dosology has not yet been found to be used in rehabilitation protocols [9]. Furthermore, meta-analyses (MA) and systematic reviews (SRs) are needed to specify the appropriate protocol. The World Association for Photobiomodulation Therapy, Stasinopoulos, *et al.* (2013), and The International Society for Medical Shockwave Treatment recommend LLLT, TUS, and ESWT dosage respectively for managing LET [11-14]. However, future clinical trials are required to support the recommended dosage. Moreover, the duration of LET symptoms associated with the effectiveness of EAs should be defined in a further SR and MA [15]. Finally, additional research should examine if the improvements in outcome measures (function pain, strength, etc.) remain in LET patients with longer follow-ups [15]. Answering the last one would eliminate the placebo effect related to participation in a trial or the self-limiting natural history of the condition [16]. According to these issues, EAs effectiveness in the LET management remains provocative and uncertain [17]. Stop re-evaluating existing randomized control trials (RCTs) in all kinds of reviews (systematic, umbrella or scoping) because RCTs have poor quality [17]. Future research avoids weaknesses in RCT methodology, accounting for 'parameters'/'appropriateness' of EAs in RCTs, systematic reviews and meta-analysis, and combining EAs to exercise therapy [17].

Overall, I think that the above comments raised in this editorial might help interpret the findings of the present research in the management of LET. A discussion on the above issues is most welcome as existing views may contribute to misinterpretation and inappropriate therapy.

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