

Randomized Controlled Trial > J Oral Maxillofac Surg. 2022 Jan;80(1):70-80.

doi: 10.1016/j.joms.2021.07.014. Epub 2021 Jul 19.

Comparison of the Efficiency of High-Intensity Laser Therapy and Transcutaneous Electrical Nerve Stimulation Therapy in Patients With Symptomatic Temporomandibular Joint Disc Displacement With Reduction

Ömer Ekici¹, Ümit Dündar², Murat Büyükbosna³

Affiliations + expand

PMID: 34391724 DOI: [10.1016/j.joms.2021.07.014](https://doi.org/10.1016/j.joms.2021.07.014)

Abstract

Purpose: Many different treatment modalities have been tried in the treatment of temporomandibular joint (TMJ) disorders and different results have been reported. The aim of the study was to investigate and compare the effects of high-intensity laser therapy (HILT) and transcutaneous electrical nerve stimulation (TENS) therapy on the treatment of patients with TMJ disc displacement with reduction (DDWR).

Methods: Researchers conducted a prospective, single-blind, controlled clinical trial on patients with TMJ disc disease at a university's oral and maxillofacial surgery clinic. One hundred two patients were randomized into 3 groups (HILT, TENS and control group). The patients were evaluated in terms of maximum mouth opening (MMO), assisted MMO, Visual Analog Scale (VAS) (pain), and VAS (function). In addition, the disability status of the patients with the Jaw Functional Limitation Scale-20 (JFLS-20) and the quality-of-life with the Oral Health Impact Profile (OHIP-14) was evaluated.

Results: At the start of the trial, in terms of socio-demographic characteristics, no significant differences existed between the groups. Significant improvements were seen in pain (VAS), MMO, total JFLS-20 and total OHIP-14 scores in the HILT and TENS groups compared to the control group. At week 4, the VAS pain score decreased significantly in the HILT group compared to the TENS group (48 and 25%, respectively), while the MMO was significantly increased (24 and 10%, respectively). In addition, there was a significant improvement in both the total JFLS-20 score and the total OHIP-14 score at weeks 4 and 12 in the HILT group compared to the TENS group ($P < .05$).

Conclusion: It was observed that the healing effect of pulsed Nd: YAG laser therapy was significantly higher than TENS in patients with DDWR. Therefore, HILT should be a priority option over TENS therapy in patients with disc displacement.

FULL TEXT LINKS



ACTIONS

 Cite

 Favorites

SHARE



PAGE NAVIGATION

< Title & authors

Abstract

Similar articles

Publication types

MeSH terms

Related information

LinkOut - more resources