

THE EFFECT OF SYSTEMIC VERSUS LOCAL TRANSCUTANEOUS LASER THERAPY ON TENSION-TYPE CEPHALEA AND OROFACIAL PAIN IN POST-COVID-19 PATIENTS: A PRAGMATIC RANDOMIZED CLINICAL TRIAL.

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Abstract

Orofacial pain and tensional cephalaea were symptoms commonly reported in COVID-19 patients, even after recovery, and were considered chronic pain in these cases. The pain control, in these cases, is mostly accomplished with the use of analgesic and anti-inflammatory drugs. However, there are auxiliary treatments that can reduce the amount of pharmacological intake and improve the quality of life of compromised individuals, one of them is photobiomodulation. Using lasers for treatments to control inflammation and pain is successfully performed, but the parameters and the ways of application are not yet strongly established. The aim of this research is to evaluate the effect of the application of photobiomodulation with red and infrared

lasers applied locally and systemically. For this purpose, individuals who have been diagnosed with COVID-19 and have had a tension headache and/or orofacial pain for more than 3 months will be selected by convenience. The participants will be divided into two different groups: G1- photobiomodulation with red and infrared laser with local application on the pain points (808 nm and 660 nm, 100 mW, 6J per point) and G2 -photobiomodulation with red laser with transcutaneous application on the radial artery (660 nm, 100mW, 30 minutes). All participants will be treated for a period of 4 weeks, with 8 application sessions. The effects will be measured by means of blood lactate level, Brief Pain Inventory, Visual Analog Scale (VAS), and Cephalaea Impact Test. The data will be collected weekly before and after the treatment, and the following tests will be applied: Analysis of variance (ANOVA), Tukey paired T-test, Kruskal-Wallis, or Wilcoxon, according to data distribution. $\alpha = 0.05$ will be considered as the level of statistical significance.

Keywords: photobiomodulation, cephalaea, orofacial pain, low power laser



Biography

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