PHOTOBIOMODULATION EFFECT ON THE PRODUCTION OF CYTOKINES USED IN ORAL LICHEN PLANUS PATHOGENESIS

Oral Lichen Planus (OLP) is a chronic mucocutaneous inflammatory autoimmune disease. The lesions may be asymptomatic or have severe pain. The standard treatment consists of using topical and systemic corticosteroids, which are associated with clinical improvement although there may be side effects or a lack of response to the therapy. The Photobiomodulation (FBM) has been shown to be effective in the treatment of inflammatory diseases, reducing the release of inflammatory cytokines, promoting analgesic effect and accelerating the repair process. There are no studies in the literature that evaluated the effects of FBM on the modulation of inflammatory cytokines in OLP. Thus, this work aims to evaluate the concentration of TNF-α, IL-17, IL-1β in the serum of patients with OLP, treated with FBM, when compared to conventional treatment. Patients diagnosed with OLP were randomized into two groups (control and FBM). The control group patients were treated with topical 0.05% clobetasol propionate, 3 times a day for 4 weeks and with laser equipment off, twice a week. In the FBM group, the irradiation was performed twice a week with low power InGaAIP diode laser (680 ± 20nm, power 100mW, energy density 177J / cm2, 5 seconds, 0.5J total energy per point) for 4 consecutive weeks and with placebo gel, 3 times a day for 4 weeks to mask the treatment. Peripheral blood was collected at baseline (D0) and at the end of treatment (D30). After processing, the plasma will be aliquoted for evaluation of cytokines by ELISA.