## Effect of Low-Level Laser Therapy in the Treatment of Burning Mouth Syndrome: A Case Series

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## Abstract

**Objective:** The aim of this study was evaluate the effect of low-level laser therapy (LLLT) in the treatment of burning mouth syndrome (BMS) patients. Background **data:** BMS is a clinical condition characterized by a burning sensation in a morphologically normal oral mucosa, without association with systemic disorders. *Methods:* Ten patients with oral burning sensation were included in the study. After careful evaluation of medical history and oral examination, the diagnosis of BMS was established. All patients were submitted to one weekly session of LLLT for 10 weeks. A continuous wavelength of 660 nm, power 40 mW, 20 J/cm<sup>2</sup>, 0.8 J/point, with each point irradiated for 10 sec. In all sessions the burning intensity was evaluated with a 10-cm visual analogue scale (VAS), with 0 indicating no symptoms and 10 indicating the worst burning possible. The burning intensity evaluation by VAS was performed immediately before (VAS baseline) and immediately after each LLLT session. The nonparametric Wilcoxon test was used for statistical analysis, considering significance of 5%. Results: All patients reported improvement in all sessions, with reduction in VAS scores by up to 58% in the tenth session. When only the VAS baseline of the first session was compared with the other sessions, there was a statistically significant reduction in VAS scores in the fourth (p=0.03), fifth (p=0.03), sixth (p=0.009), seventh (p=0.003), eighth, ninth, and tenth (all p=0.002) sessions. Conclusions: LLLT may be an alternative treatment for the relief of oral burning in patients with BMS.