

Stomatitis

[Sheng Wu Yi Xue Gong Cheng Xue Za Zhi](#). 2005 Oct;22(5):926-9.

[Effects of He-Ne laser on gastric mucosa in rat with chronic atrophic gastritis]

[Article in Chinese]

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This study sought to explore the effects of He-Ne laser irradiation on the gastric mucosa of experimental chronic atrophic gastritis (CAG) in rat. Fifty-two male adult Wistar rats were randomly divided into five groups including normal control group, model group and three different doses He-Ne laser groups. The CAG model in rats was made by administering (per gastrogavage) a compositus liquor, including 2% sodium salicylate and 30% alcohol, for 8 weeks to stimulate the rat's gastric mucosa, combined with irregular fasting and compulsive sporting as pathogenic factors. He-Ne laser therapy was used at different doses of He-Ne laser, once a day for twenty days, then the morphological changes and the expression of cyclinD1 were observed. Compared with untreated group, the gastric mucosa of 3.36 J x cm⁻² He-Ne laser group was significantly thicker ($P < 0.01$), the inflammatory cells of gastric mucosa were decreased ($P < 0.05$), the morphology, structure and volume of the cells were restored or nearly normal and the expressions of cyclinD1 were higher ($P < 0.05$). In a word, small dose He-Ne laser (3.36 J x cm⁻²) has a good adjuvant therapeutic effect on rat's CAG.

Effect of Low-Level Laser Therapy on Candida albicans Growth in Patients with Denture Stomatitis.

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Photomed Laser Surg. 2005 Jun;23(3):328-32.

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Objective: The purpose of our report is to present the effect of low-level laser therapy on *Candida albicans* growth and palatal inflammation in two patients with denture stomatitis. Background Data: The most common oral mucosal disorder in denture wearers is denture

stomatitis, a condition that is usually associated with the presence of the yeast *Candida albicans*. Different treatment methods have been suggested to treat this symptom, none of which is proven to be absolutely effective. Methods: Two denture-wearing patients, both with palatal inflammation diagnosed as Newton type II denture stomatitis were treated with low-power semiconductor diode laser (BTL-2000, Prague, Czech Republic) at different wavelengths (685 and 830 nm) for 5 d consecutively. In both patients, palatal mucosa and acrylic denture base were irradiated in noncontact mode (probe distance of 0.5 cm from irradiated area) with different exposure times-5 min (830 nm, 3.0 J/cm²), 60 mW) and 10 min (685 nm, 3.0 J/cm²), 30 mW). The effect of laser light on fungal growth in vivo was evaluated after the final treatment using the swab method and semiquantitative estimation of *Candida albicans* colonies growth on agar plates. The severity of inflammation was evaluated using clinical criteria. Results: After lowlevel laser treatment, the reduction of yeast colonies on the agar plates was observed and palatal inflammation was diminished. Conclusion: LLLT is effective in the treatment of denture stomatitis. Further placebo controlled studies are in progress.

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Usefulness of low-level laser for control of painful stomatitis in patients with hand-foot-and-mouth disease.

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OBJECTIVE: The aim of this study was to evaluate the usefulness of low-level laser therapy (LLLT) for the control of painful stomatitis in patients with hand-foot-and-mouth disease (HFMD). **BACKGROUND DATA:** LLLT has been successfully applied to various painful oral mucosal diseases, although there have been few reports on LLLT for HFMD patients. **MATERIALS AND METHODS:** Through a randomized double-blind placebo controlled trial, the painful period of HFMD stomatitis was compared between the LLLT group (n=11) and the placebo LLLT one (n=9), which had similar clinical backgrounds. The LLLT parameters supplied were as follows: wavelength of 830 nm, power of 30 mW, frequency of 30 Hz, and energy output of 1.1 J/cm². Acceptability and safety of the treatment were also evaluated. **RESULTS:** The painful period was shorter in the LLLT group (4.0 +/- 1.3 days) than in the placebo LLLT one (6.7 +/- 1.6 days) with a statistically significant difference (p<0.005). The treatment was judged acceptable for 90.0% (18 of 20) of patients. No adverse events were observed in any cases. **CONCLUSION:** LLLT is a useful method to control HFMD stomatitis by shortening the painful period, with its high acceptability and lack of adverse events.

Eur J Haematol. 2004 Mar;72(3):222-4.

Successful treatment of oral lesions of chronic lichenoid graft-vs.-host disease by the addition of low-level laser therapy to systemic immunosuppression.

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We report a case of severe oral stomatitis caused by lichenoid chronic graft-vs.-host disease in which low-level laser therapy applied to the oral mucosa, in addition to standard systemic immunosuppressive treatment, resulted in quick healing and symptomatic relief.