

Photodynamic antimicrobial therapy on the treatment of oral candidiasis in HIV-infected patients

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The purpose of this work was to evaluate the effectiveness of photodynamic antimicrobial therapy (PAT) on the treatment of oral candidiasis (OC) in HIV-infected patients. Twenty one HIV patients were divided into three groups. The control group (CG) was treated with oral antifungal medication (fluconazole, 100mg/day during 14 days). Laser group (LG) was submitted to low-intensity laser therapy (LILT), wavelength 660nm, output power 30mW and fluence of 7.5J/cm², in contact with the oral mucosa during 10s/point. The PAT group (PATG) was treated with the association of a low power laser in the same conditions of the LG and methylene blue aqueous solution (450 mg/mL) with pre-irradiation time of 1 min. In the LG and PATG groups, the patients were single-irradiated. The patients were evaluated through analysis of cultures before, immediately after, 7, 15 and 30 days following treatment/irradiation. The evaluations were carried out through cultures in Sabouraud agar and antibiotic. The results showed that the conventional medicine used in the treatment of OC was effective; however, it does not avoid the return of the candidiasis in short-term. LILT, by itself, did not show positive results on the reduction of *Candida sp* in any stage of this research. PAT eradicated 100% of the colonies of these fungi and did not show recurrence of the illness up to 30 days of the irradiation. These findings suggest that PAT is a potential approach on the OC treatment in HIV-infected patients.