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17

TOTAL MOUTH PHOTODYNAMIC THERAPY MEDIATED BY RED LED AND PORPHYRIN IN INDIVIDUALS WITH AIDS

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Abstract

INTRODUCTION: Due to the immune changes resulting from HIV/AIDS infection, systemic and local infections throughout the body are common. The use of High Activity Antiretroviral Therapy has been widely used during treatment, which, added to the use of antibiotics, antifungals and the patients' own immunocompromised state, cause important changes in the oral microbiota. The emergence of pathological microorganisms and with high resistance to drug therapies are frequent and cause serious damage to the oral health of these patients. In this sense, Antimicrobial Photodynamic Therapy (aPDT) appears as a promising alternative in the control of these oral infections. PURPOSE: The aim of the study was to test the effectiveness of an therapeutic protocol for total oral aPDT mediated by a 660 nm red LED (Light Emitting Diode) associated with porphyrin in individuals with AIDS. METHODS: Patients were selected by exclusion criteria and randomly distributed into groups to test the effectiveness of antimicrobial aPDT with $50 \,\mu\text{g/ml}$ porphyrin associated with the red LED. Before and after the treatments, saliva samples were collected and processed in duplicate in selective culture media. RESULTS: Colonies were counted and the results obtained in log10 CFU/ml and tested statistically. CONCLUSION: It was concluded that aPDT was effective in reducing oral enterobacteria, in addition to reducing Streptococcus spp. and general count of microorganisms, when considering the numbers of TCD4 and TCD8 lymphocytes.

Key words: Keywords: Photodynamic Therapy; Porphyrin; AIDS; HIV.

Study type: Clinical or experimental protocol