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Microbial reduction in periodontal pockets under exposition of a medium power diode laser: an experimental study in rats.

Fontana CR, Kurachi C, Mendonça CR, Bagnato VS.

Departamento de Física e Ciência dos Materiais, Instituto de Física de São Carlos, Universidade de São Paulo, Caixa Postal 369, 13560-970 São Carlos, Sao Paulo, Brazil. cfontana@if.sc.usp.br

Abstract

BACKGROUND AND OBJECTIVE: This work evaluates the application of a 810 nm diode laser operating in the range of 400-1,200 mW for bacterial reduction at periodontal treatment. The aim of this study is to examine the immediate effect of the diode medium power laser in reducing the bacterial concentration at periodontal pockets induced in Wistar rats.

STUDY DESIGN/MATERIALS AND METHODS: Two bacterial collections were performed on each animal. Microbiological samples were collected before and immediately after laser irradiation. In each group of laser power, eight animals were used, totaling 40 animals.

RESULTS: The initial and the final bacterial count revealed that laser irradiation induces considerable bacterial elimination, especially for *Prevotella* sp, *Streptococcus* beta-hemolitico, *Fusobacterium* sp, *Pseudomonas* sp.

CONCLUSIONS: Our results indicate that this laser can constitute an alternative device to traditional infrared systems for bacterial reduction, with some advantage when economical and practical standpoints are considered.

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MeSH Terms

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