

Clinical Image

Title : Photodynamic Therapy in Periodontal Disease

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Periodontal disease is an infection characterized by the destruction of periodontal tissues directly related to the presence of biofilm and associated with the host immune response. Furthermore, photodynamic therapy (PDT) has been shown to be a promising alternative and viable in reduction of oral microbiota. In this image, PDT was performed with a diode laser with a spot size of 0.04 cm² in combination with metilene blue 0.01%. The photosensitizer (metilene blue 0.01%) was applied by placing the applicator at the bottom of the periodontal pocket and continuously deposited for five minutes in a coronal direction. Then, the laser therapy was used at three equidistant points in each buccal and lingual region of the tooth. The laser treatment was released with a power of 0.1 W at 40 seconds, a fluence rate of 2.5 W/cm², and energy fluence of 100 J/ cm². After the laser application, the pockets were rinsed with a saline solution to completely remove the photosensitizer. Nowadays, PDT could be useful as an adjunctive therapy in periodontal disease, endodontics, oral surgery and oral infection.