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5th European Congress on LASER, OPTICS AND PHOTONICS

July 15-16, 2024 | Amsterdam, Netherlands

Oral soft tissue applications of high-power diode lasers

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The use of high-power diode lasers advanced significantly from the year 2000, when the industry began investing in various models due to their compact size and lower cost compared to other types of lasers. High-power lasers are employed in the surgical treatment of tissue growths in the oral cavity, including benign neoplasms, non-neoplastic proliferative processes, mucus retention phenomena, and potentially malignant lesions. They are also used for procedures such as gingivectomies, gingivoplasties, frenotomies, frenectomies, peri-implant soft tissue surgery, melanic depigmentation, sialolith removal, and treatment of canker sores.

The application of these lasers for extensive, leukoplastic, and angiomatous lesions offers benefits over conventional techniques, including reduced operative time, tissue cauterization and sterilization, improved hemostasis, decreased need for local anesthesia, and fewer postoperative complications such as pain, edema, and infection. Consequently, high-power lasers have emerged as a valuable alternative to traditional methods.

Biography

Luciane Hiramatsu Azevedo, Graduated in Dentistry from the Faculty of Dentistry of the University of São Paulo (1996), Master of Science in the area of Nuclear Technology - Materials from the Institute of Energy and Nuclear Research (2002), Ph.D. in Oral Diagnosis from the Faculty of Dentistry of the University of São Paulo (2005), Dentist at the Special Laboratory of Laser in Dentistry at FOUSP, Professor at the Qualification Course for Lasers in Dentistry at the Foundation of the Faculty of Dentistry at FOUSP, Odontopediatrics and Stomatologist.