

Background: Miescher's granulomatous cheilitis (MGC) is a rare chronic inflammatory disease that can be part of the Melkersson-Rosenthal syndrome. It is characterised by a labial swelling, with hard non-tender gummy textured tumefaction. The labial lesions have characteristically an intense chronic inflammatory component, rich of cellular and vascular reactivities. The histopathological confirmation of non flesh-eating granulomas is useful to validate the working diagnosis.

Objective: To verify therapeutic results over time of Low Level Laser Therapy (LLLT) in a female 68-year-old patient with MGC.

Methods: The follow-up included clinical examination performed every 15 days for 6 months. The LLLT treatment had been carried out using a Diode Laser with of 635 nm wavelength and 200 mW power. The patient had been treated 3 times a week, with 12 applications (4 weeks).

Results: After 3 months a new incisional biopsy showed a significant decrease of the cellular inflammatory infiltrate and absence of granulomatous alterations. During the next 6 months of follow-up, no signs of inflammatory relapses were detected based on volumetric comparisons of the affected tissue.

Conclusions: Clinical follow-up confirmed the efficacy and stability of the anti-inflammatory and bio-modulatory therapeutic effects of the treatment.

REMOVAL OF LAMINATES WITH Er,Cr:YSGG LASER FROM DENTAL ENAMEL SUBMITTED TO GAMMA RADIATION

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Background: Modern Dentistry is characterized by the search for aesthetic perfection in the smile. Many efforts are made regarding procedures related to manufacturing, cementing, maintenance and removal of ceramic laminates. The laser removal of laminates has become more frequent when the aesthetic procedures needs to be replaced. On the other hand, the head and neck cancer treatment causes comorbidities in the buccal environment when laminates are in place.

Objective: To evaluate in vitro the removal of ceramic fragments by means of Er,Cr:YSGG laser irradiation, after gamma radiation.

Methods: 20 Lithium disilicate veneers were cemented with Variolink[®] to human dental enamel and then samples were irradiated with 0.07 kGy. After gamma irradiation, the laminates removal with Er,Cr:YSGG laser was performed. The control group was not subjected to gamma radiation. Dental enamel samples were analyzed by Scanning Electron Microscopy (SEM), Fourier Transformed Infrared Spectroscopy (FTIR) and Surface Microhardness Loss (SMH). Results: SEM has shown that less cement was found after removal of the facets in gamma irradiated group when compared to the control. For both groups there was alteration of the SMH possibly due to the use of the adhesive system. When performed intra group analysis, the sample being its own control of baseline in the FTIR analysis, there were no band shifts or formation of new compounds on the surface of human dental enamel.

Conclusions: The Er,Cr:YSGG laser is an effective alternative for laminates removal in human dental enamel even when it is subjected to gamma radiation.

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REMOVAL OF A VOLUMINOUS SUBMANDIBULAR GLAND DUCT STONE THROUGH THE USE OF Nd:YAG LASER

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Background: Sialolithiasis is the most common cause of submandibular gland swelling. Sialolithiasis results in a mechanical obstruction of a salivary duct, possibly causing repetitive swelling during meals. Surgical management is recommended if stones are accessible or when conservative therapies result unsatisfactory. After surgery, the patient might suffer from post-operative complications with permanent injury. An injury to the lingual and hypoglossal nerves is less common, but half of the times can be permanent.

Methods: An 83-year-old woman was evaluated at the Unit of Oral Medicine of the Academic Hospital of Parma(Italy). An asymptomatic swelling zone, at the level of the right submandibular gland, was observed. Duct obstruction was diagnosed due to occlusal projection radiography and for absence of salivary flow even after manual gland stimulation. A surgical access obtained with Nd:YAG laser (1064 wavelength, set at 3.5 Watts, 70 Hertz) allowed the removal of the calculus, and a catheter was inserted inside the salivary duct.

Results: After one-week follow-up visit, no swellings altogether with restored salivary activities were observed. One month after the mucosa was completely healed. The patient undergoes regular follow-up visit to evaluate possible recurrence.

Conclusions: Nd:YAG laser is a useful tool for surgical treatment of salivary occlusion due to sialolithiasis. In the present case, Nd:YAG allowed a good haemostasis, thus giving the operator an excellent view of the area. Such advantage makes it possible to respect important structures. Nd:YAG surgery also reduces post-operative pain and edema.

FLUORESCENCE CONFOCAL LASER MICROSCOPY APPLIED TO MICROSCOPICALLY CONTROLLED SURGERY IN A CASE OF BASAL CELL CARCINOMA OF THE PROLABIUM

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Background: Complex cases of basal cell carcinoma are treated with a surgical procedure which provides "real time" intra-operative pathological examination with the use of frozen sections, in order to save as much as possible tumor free tissue. Ex vivo Fluorescence Confocal Microscopy (FCM) is a novel technology, which provides fast microscopic fluorescence and reflectance tissue imaging with a resolution comparable to that of histopathology.

Objective: We present this new method applied to a case of basal cell carcinoma of the prolabium treated with microscopically controlled surgery.