

plaque and gingivitis reduction was observed using Livionex gel ($p < 0.05$).

Conclusion: Improved periodontal health resulting from better oral hygiene can be mapped efficiently using OCT.

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ASSOCIATION OF FLUORIDE AND Er,Cr:YSGG LASER IRRADIATION PROVIDES ENAMEL RESISTANCE TO LOW pH ENVIRONMENT

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Background: Lasers have been widely used in Dentistry in procedures such as caries prevention, caries removal, cavity preparation, and periodontics. The use of lasers has been an available alternative for caries prevention because it promotes dental hard tissues structural changes, making enamel less soluble when submitted to a low pH environment. The objective of the present study is to evaluate the association Er,Cr:YSGG laser irradiation with acidulated phosphate fluoride on bovine enamel, by qualitative morphological analysis, microhardness as well as CaF_2 quantitative analysis.

Study: Enamel blocks (136) from bovine teeth were randomly divided into 4 groups (control, only Er,Cr:YSGG laser irradiation ($? = 2.78 \mu\text{m}$, 20 Hz, 8.5 J/cm^2), FFA 4% followed by Er,Cr:YSGG irradiation and Er,Cr:YSGG irradiation followed by FFA). After treatments, SEM, EDS-SEM, AFM, microhardness evaluation and a qualitative analysis to verify CaF_2 formation and retention were performed. Ion specific electrode was used for the quantitative analysis.

Results: EDS under SEM confirmed that the globules formed on the surface were from CaF_2 . The results obtained from SEM analysis showed that the control group (no treatment) differ from another groups, in the sense that laser irradiated groups presented micro-ablated regions on the surface with no significant material removal. These results were confirmed using the AFM analysis. The quantitative analysis verified that the highest concentration of fluoride on the enamel is FFA followed by Er,Cr:YSGG laser irradiation while the lowest concentration was on the control group, as expected (Anova/Tukey 5%). Mean of enamel Knoop micro-hardness until $40 \mu\text{m}$ deepness was highest for FFA followed by Er,Cr:YSGG irradiation group.

Conclusion: The present study reveals that FFA 4% application on enamel followed by Er,Cr:YSGG irradiation (8.5 J/cm^2) is a choice for increasing the incorporation of fluoride on the enamel, as well as increase the microhardness of the surface, increasing the overall resistance of the samples to a low pH environment.

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HOW WE DO IT: SHARED FOLLOW UP FOR A REGIONAL ONCOLOGICAL TRANSORAL LASER RESECTION PROGRAMME FOR LARYNGEAL CANCER

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Background: The Department of Health (September 2000) NHS Cancer plan advocated surgery in tertiary cancer centres with smaller units diagnosing cancer and referring for definitive surgery. Leeds Cancer Centre (situated at St James University Hospital, Leeds) serves a catchment area of 2.5 million people. For ENT purposes it serves 2 trusts – Leeds Teaching Hospitals with a catchment area of 800,000 people and Mid Yorkshire Trust (MYT) which is 13 miles away and serves 550 000 people.

Study: Cancer surgeons from both trusts attend Leeds Cancer Centre for a weekly combined Head & Neck Cancer Multidisciplinary Team meeting (MDT). They are joined by radiologists, oncologists, pathologists, speech and language therapists and cancer nurse specialists. All new patients with early laryngeal cancer T1/T2 are seen at the MDT and if appropriate offered a choice between Transoral Laser resection with frozen section or Radiotherapy. On average 16 patients per annum opt for surgery. Roughly 50% are from MYT. Transoral Laser resection is only performed by the senior author in Leeds and those patients from Leeds are followed up solely by him. Patients from Mid Yorkshire are followed up jointly by him and the MYT surgeon. The McMillan Laryngectomy & Tracheostomy specialist nurse aids in the support of these patients and facilitates their post-op care with the local Speech & language therapists.

Results: Post operatively all patients are followed up in Leeds at the following intervals: 4–6 weekly in first year; 2 monthly in 2nd year; 3 monthly in 3rd year; 6 monthly in 4th & 5th years. In order to minimize travel times yet be seen by their laser surgeon, MYT patients alternate their appointments between Leeds and MYT.

Conclusion: Our positive patient satisfaction scores (2012 National cancer patient survey) suggest our follow up is practical and effective for both patients and clinicians.

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PULSE DYE LASER: LARYNGEAL MICROSURGICAL PROCEDURE BY NON-INVASIVE LASER SURGERY ON OUTPATIENTS ABOUT 57 CASES

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Background: Since 3 years the office laser surgery improved a lot. The PDL is a very impressive technique. It is guided through a fiberscope. As the CO_2 Laser Guide, The Thulium, the PDL proceed on awake patients. The effect of the PDL is working at $585 \mu\text{m}$. It destroys the vessels and creates an anoxia of the lesions.

Study: The study was performed on 57 cases as followed: 21 Papilloma, 8 microvarices, 3 reinke'space oedema- 9 dysplasia, 6 scar, 10 post radiotherapy-oedema. We used a KayPentax video laryngeal fiberscope with an operating channel. The patient is awake or a very low neuro-analgesic (Propofol).

Results: The pathologies and the results that we have proceed on the larynx are - 21 Papilloma, 16 satisfactory and 5 failures results- 8 microvarices, 7 excellent 1 satisfactory results- 3 reinke'space oedema, 2 excellent and 1 satisfactory results- 9 dysplasia, 7 excellent and 2 failures results- 6 scar, 4 satisfactory and 2 failures results- 10 oedema after radiotherapy. 8 excellent and 2 satisfactory results.

Conclusion: This technique, after 3 years of follow up looks an complementary technique of the CO_2 Laser on Laryngeal