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week after, when compared to Gr. I (without Nd:YAG) (p<0,05). The results indicated that Nd:YAG irradiation associated to conventional endodontic preparation has better disinfection properties than conventional instrumentation of the canals alone.

OP82

In vitro thermographic measurement in pulpal chamber during diode laser bleaching.

Guimarães, J.G.A.; Miyakawa, W.; Stolf, S.F.; Silva, E.M.; Zezell, D.M.; Eduardo, C.P..

Membro do Núcleo Integrado de Aplicação do Laser em Odontologia da Universidade Federal Fluminense (NIALO-UFF).

Thermographic was employed to determine the temperature rise in lower incisors pulpal chambers during diode laser bleaching. Two methods were used: a thermocouple for 72 teeth and a infrared (IR) thermographic camera for 36. Two bleaching agents, both 35% hydrogen peroxide- Whiteness HP (HP) and Hi Lite (HL) - were applied to the specimens buccal surfaces and irradiated with a diode laser (808 5nm), CW for 30s. Intensities tested were 21.W/cm2, 29.8W/cm2, 35.8W/cm2, 38.2W/cm2, 52.9W/cm2 e 63.7W/cm2. Means of the greatest temperature rises with the HL were statiscally lower than the HP (p<0.01). When HP was irradiated with 50.9W/cm² and 61.1W/cm², the temperature registered was over 5.5°C, considered as the limit to avoid pulp damage. The IR thermacam analysis showed that, when the HP was used, the temperature rise in pulp chamber was similar to the target area on the buccal surface. Evaluation of tooth color was done using a VITA shade guide at baseline and at the end of the bleaching treatment. Both products proved to be efficient, however HP produced statiscally higher shade changes than HL (p<0.01). It can be concluded that the diode laser bleaching associated with the HP was safe when intensities below 50mW/cm2 were employed. Higher parameters can cause damage to pulp vitality of the lower incisors, fact that did not occurred with the HL gel. Both gels were efficacious to the bleaching technique proposed, but the HP showed better results.

OP83

Surgical Treatment of dilantin gingival fibromatosis with the CO2 laser.

Varellis, M.L.Z.; Brugnera Júnior, A.; Zanin,F.;

Pinheiro, A.L.B..

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Periodontal diseases have varied etiology, including the use of some drugs. The use of dilantin and similçar drugs results on severe gingival growth. Previous study has pointed out that the use of the drug alone is not enought to trigger the growth beeing necessary the presence of local irritants such as the dental plaque. Histologic studies have pointed out that on gingival hyperplasia there is a increase on the number of fibroblasts, macrophages and varied levels of inflamation and edema. The treatment os dilantin induced hyperplasia with surgical alsers is effective and presents advantages such as reduced time of the procedure, hemosthasis, less pain and good wound repair. This work presnts a case of dilantin hyperplasia treated with a CO2 laser.

OP84

Cavity Preparation with ER:YAG Laser - Pain Evaluation.

Paiva, P.F.; Paiva, G., Nasr, M.K., Nunes, L.J., Moreira, L.A., Zezell, D.M.

Director of the Centro de Diagnóstico e Tratamento da ATM. This work was approved by the ethics committees in research in human beings of IPEN and of FOUSP, under the opinions # 000753 and # 34/01, respectively.

They were selected for this work clinic patient of the which were selected 15 teeth with decay lesion, being ten teeth with lesion type class I, of these five for the group-control with high conventional rotation, and five for the group laser class I, and five teeth with lesion type class V for the group laser. In the preparations with laser of Er:YAG (Kavo Key Laser 2), any patient do not was anesthetized, even in the deepest cavities, and the maximum degree of pain (that varied from 0 to 10) it was of 4. In the group-control, with mounted tip in high conventional rotation, two patients were anesthetized, and the maximum degree of pain was of 7.

The use of the laser in the dental clinic (restorative dentistry), using the technology laser in the dental preparations, it showed to be a good alternative to the use of the mounted tip in high conventional rotation.