

## Poster Presentation

250mJ/2Hz + FC. After treatment with phosphoric acid etching 15s and adhesive system Excite, inverted conical specimens were prepared with Tetric Ceram composite in 3 increments, photo-cured for 40s each, using or not previously FC Tetric Flow. After storage in distilled water (37 °C-24 h) was performed the tensile test using an universal testing machine Mini Instron 4442. The mean bond strength values MPa were G1-13.54(±2.99); G2-14.67(±2.32); G3-9.49(±3.09); G4-14.60(±2.76); G5-8.97(±3.89); G6-13.02(±2.18). The data obtained were submitted to Kruskal Wallis test (p=0,01). It can be concluded that high-speed drill treated surfaces showed statistically no influence of flowable composite, higher bond values than laser treated surface without flowable composite and similar effectiveness than laser surface with flowable composite; the flowable composite showed significant increase of bond values on surface treated by Er:YAG laser radiation with different energy parameters.

### P68

#### **Influence on the apical marginal permeability after laser irradiation with two wavelengths associated with two Endodontics cements.**

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The in vitro study aims to evaluate, quantitatively and qualitatively, the Nd:YAG and Diode laser irradiations having the EDTA-T irrigation as a reference on the root canal apical sealing when made previously to the root canal filling with two resin cements (AH Plus and Endo REZ). Qualitative and quantitative analyses were based respectively on the blue methylene apical marginal linear infiltration readings and on the morphological aspects readings of the cement adaptation on the apical region walls through SEM images. The apical marginal infiltration reading results after the analysis of variance and Tukey's test showed statistical significant differences among the treatment types of the root canal walls independently from root canal filling cement used. The cements are significant different among themselves regardless the kind of treatment on the root canal walls. When the experimental group interactions were analyzed could be seen that the root canal filling cements did not present statistical significant differences when the root canal walls were treated with EDTA-T. The SEM analysis revealed a better AH Plus cement adaptation for the Nd:YAG laser irradiated root canal walls confirming

the microleakage results. The best results were achieved with the Nd:YAG laser irradiation associated to the AH Plus cement.

### P69

#### **Local Treatment using high and low-power laser on herpes simplex.**

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Herpes simplex (HSV) is commonly encountered in the dentistry practice disappearing after 10 to 14 days. Recently alternative treatments have been introduced, among those laser therapy. The aim of this study is to evaluate the efficacy of laser therapy in patients with perioral herpes simplex infection. A 32 years old female was treated with high-intensity laser therapy (HILT) in vesicle phase using a Nd:YAG laser,  $\lambda = 1064 \text{ nm}$ ,  $P = 1,5 \text{ W}$ ,  $f = 15 \text{ Hz}$  on days 1 and 2 to drainage the vesicles. Low-intensity laser therapy (LILT) was applied on the affected area in the 3 consecutive days with a GaAlAs laser,  $\lambda = 830 \text{ nm}$ ,  $D = 5 \text{ J/cm}^2$ . On the other hand, a 7 years male patient, which presented the vesiculo-ulcerative stage, only LILT ( $\lambda = 660 \text{ nm}$ ,  $D = 4 \text{ J/cm}^2$ ) was carried out. For both cases, it was observed that the course of the infection was quicker than the normal. Seven days after treatment beginning the lesions were healed. These findings suggest that LILT associated or not to HILT is a efficient and promising treatment for HSV. Further larger studies aiming at confirming these data and investigating the LILT mechanisms of action should be performed.

### P70

#### **Effects of the low-intensity red laser radiation on the fluoride uptake in human enamel. A preliminary study.**

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Fluoride has been the most important preventive method on development of the caries. This in vivo study evaluated the effects of low-intensity red laser radiation on the fluoride uptake in enamel. Ten healthy participants were recruited for this study. The two upper central incisors of each volunteer were used and divided into 4 groups: group GC (control), which was untreated; group GF (fluoride), which received topical acidulated phosphate fluoride (APF) 1,23% treatment for 4 minutes; group GLF (laser + fluoride), which was irradiated with a low-intensity diode laser ( $\lambda = 660 \text{ nm}$  and