Objectives

To compare the 6-month clinical performance of a “universal” adhesive in non-carious Class V lesions using four different adhesive strategies.

Materials and Methods

21 patients participated in this study, in which 70 Class V restorations were placed. The restorations were randomly assigned into four experimental groups according to different adhesive strategies of Scotchbond Universal Adhesive (SBU, 3M ESPE): A. 3-step etch-and-rinse: 34% phosphoric acid (PA, Scotchbond Universal Etchant, 3M ESPE) and application of SBU followed by one coat of the non-solvated bonding resin Scotchbond Multi-Purpose Adhesive (SBMPA, 3M ESPE); B. 2-step etch-and-rinse: 34% PA followed by SBU; C. 2-step self-etch: SBU followed by one coat of SBMPA; D. 1-step self-etch: SBU alone. All restorations were evaluated at baseline and after 6 months by two blind observers using the USPHS criteria. Statistical analysis was performed with the non-parametrical tests Kruskal-Wallis, Mann Whitney U and Wilcoxon ($p < 0.05$).

Results

Only one restoration from the group 1-step/SBU was lost at six months. Marginal adaptation was the only criterion for which statistically worse scores were measured after 6 months ($p < 0.01$). Significantly more bravo scores were detected when SBU was used following a self-etch strategy. The restorations performed with SBU as 1-step self-etch adhesive exhibited a significantly deterioration of the marginal adaptation after 6 months.

Conclusions

Restorations performed with SBU under a self-etch strategy showed worse marginal adaptation after 6 months of clinical use compared to those with SBU under an etch-and-rinse strategy. The addition of a non-solvated hydrophobic coating (SBMPA) did not influence the clinical performance.

- Oral Presentation 31

TITLE: Endodontic treatment for avoiding an inferior alveolar nerve paresthesia

AUTHORS: Gómez Álvarez G, Gómez Martín C, Del Valle Aleixandre B, Zorita García M, Mena Álvarez J.

SOURCE: J Clin Exp Dent. 2014 1;6 (Supplement1):S15.

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Introduction

In some cases, the proximity of the inferior alveolar nerve to the lower molars roots causes that when we face chronic apical periodontitis with pulpal origin, it might exist an inferior alveolar nerve affectation because of the invasion of the mandibular canal by the injury. An accurate diagnostic of the situation of that injury will be the key in the plan of treatment we should make.

Case report

A 69 year old male patient comes to consulting room asking for a routine consultation. With a first visualization of his ortopantomography, we can see the tooth number 4.7 affected of a chronic apical periodontitis which overlaps with the canal of the alveolar inferior nerve. This overlapping is then better appreciated using a periapical radiography. The patient is completely asymptomatic.

It is decided to do a Cone Beam Computed Tomography (CBCT) to see the injury's location; it is localized in a lingual position of the mandibular canal, starting to invade it and breaking the lingual plate.

Then we proceed to remove the metal crown the patient is wearing in that tooth, and after an evaluation of the remaining tooth under the metal crown, we proceed with the root canal treatment.

When we face these kind of injuries that are overlapping the alveolar inferior nerve canal, we should be careful and make an appropriate diagnostic, with the aim of getting success of the treatment; a quick action in these casual findings will avoid major injuries, being very important the following in the future of these kind of injuries.

Conclusions

The use of Cone Beam Computed Tomography (CBCT) is essential when we find this kind of overlappings, allowing three dimensional visualization. Root canal treatment is able to avoid higher pathologies, such as paresthesias, obtaining bone regeneration in the area and thus improving patient's health.

- Oral Presentation 32

TITLE: Application of Bioinformatics in the Mount/Hume classificacition of caries and his relationship with Orthopantomography

AUTHORS: Hernando Dumaraog B, De Paz JF, Corchado JM, García E, Aliaga I, Campo L, Vera V.

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