Before orthodontic treatment, the endodontist must diagnose and treat endodontic pathology if it's present. Should also assess the suitability of previous endodontic treatments.

- Oral Presentation 39

TITLE: Endodontic surgery in teeth with apical radiolucent lesion

AUTHORS: Guerra Caamaño M, González Bahillo J, Fernández Pazos G, Varela Patiño P, Martín Biedma B.

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Introduction

The endodontic surgery is an alternative of treatment when endodontic therapy has failed. It includes the surgical removal of pathological periapical tissue. Root-end resections of 3 mm are usually done to eliminate possible canal ramifications, and it is done, properly, the sealing of the root canal. Seeks, in this way, create optimum health, tissue regeneration and formation of a new support system for tooth.

Case report

A female, 48 years old, comes to the clinic of the Master of endodontic for a re-endodontic therapy in 1.2. Present, radiographically, an apical radiolucent lesion. Has been done the endodontic retreatment (February 2013). The apicals 6 mm have been sealed with MTA, and the rest of the root canal with thermoplastic guttapercha. In January 2014, it is verified that the apical lesion has not diminished after endodontic retreatment. Therefore, it was decided to perform endodontic surgery, in the following way: incision with surgical knife number 11 and 15; retraction of the flap Luebke-Ochsenbein; osteotomy; root-end resection (3 mm); curettage of periapical cyst; insertion of heterologous bone mixed with tetracycline and serum; placing the membrane for regeneration of vestibular tissue; and, finally, the suture, which is removed the following week. In subsequent revisions, the favorable evolution of the patient was found.

Conclusions

Endodontic surgery is effective. With his embodiment, the periapical lesion was removed, which, in this case, it is independent of the tooth.

In many cases periapical lesions will require surgery in addition to endodontic treatment.

When healing do not occurs with endodontic therapy, we must proceed to surgical treatment of the tooth with apical radiolucent lesion.

- Oral Presentation 40

TITLE: Immediate adhesive properties to dentine of two multi-mode adhesives with different adhesion strategies

AUTHORS: Hurtado Fernández A, Cura M, Elvira Gómez P, Fuentes MV, Ceballos L.

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Objectives

“Universal” or “multi-mode” adhesives can be applied either with the etch-and-rinse or the self-etch technique. Objectives: The purpose of this study was to determine the bond strength and nanoleakage of two universal bonding agents using different bonding techniques on human coronal dentine in comparison with a self-etch adhesive.

Materials and Methods

30 extracted caries-free human molars were assigned to five groups: 1- A two-step self-etch adhesive (control), Clearfil SE Bond (Kuraray); the “universal” adhesive Xeno Select-SE (Dentsply), a 2-step self-etch adhesive; 2- Xeno Select-SE (Dentsply), applied as a one-step self-etch adhesive; 3- Xeno Select (Dentsply) applied as a 2-step etch-and-rinse adhesive; 4- the “universal” adhesive Scotchbond Universal Adhesive (3M ESPE), applied as a one-step self-etch adhesive; 5 - Scotchbond Universal Adhesive (3M ESPE) applied as a 2-step etch-and-rinse adhesive. Adhesives were applied following manufacturer's instructions. Crowns were constructed applying three increments of Filtek Z250 resin composite. Specimens were stored in sodium azide (24h, 37°C) and subsequently prepared for μ TBS and nanoleakage testing. Data were analyzed by one-way ANOVA and SNK tests ($p < 0.05$).

Results

μ TBS mean values in MPa (standard deviation, sd) are shown in the table. Clearfil SE Bond resulted in significantly higher mean μ TBS (60,37 MPa), followed by Scotchbond Universal Adhesive applied as a 2-step

Group	Bond Strength (sd) MPa
G1.Clearfil SE Bond	60,37(36,1) 1
G2.Xeno Select- Self-Etch	12,8 (12,7) 4
G3.Xeno Select- Etch-and- Rinse	22,86 (22,6) 3
G4.Schotchbond Universal -Self-Etch	42,1 (31,8) 2
G5.Schotchbond Universal - Etch-and- Rinse	54,57 (31,5) 1

etch-and-rinse adhesive. The lowest mean μ TBS were obtained with Xeno Select.

Conclusions

Clearfil SE and Scotchbond Universal applied as a 2-step etch-and-rinse adhesive had greater bond strength to dentin than Scotchbond Universal applied as a one-step self-etch adhesive and Xeno Select. The new universal adhesive Xeno Select, had lower bond strength, particularly applied as a one-step self-etch adhesive.

- Oral Presentation 41

TITLE: Biofilm influence in endodontic therapy

AUTHORS: García Álvarez M, Zubizarreta Macho A, Rico Romano C, Sierra Armas L, Mena Álvarez J.

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Objectives

One of the most frequently ways that provoke the failure of the endodontic therapy is the secondary infection from the bacterial biofilm.

The objective of this study is to compare the action of the different irrigations agents using several activation technologies.

Materials and Methods

Two microbiological samples were gathered for the roots, 18 single-rooted teeth, that need root canal treatment. The first sample was taken immediately after realizing the opening of the Crown, the second sample after the root canal treatment, after the dried and the activation of the corresponding irrigations agent. Attending to the different irrigations agents and technologies of activation selected, the following groups of study decided: Group 1: sodium hypochlorite 5,25% and sonic activation. Group 2: chlorhexidine digluconate 0,2% and sonic activation. Group 3: sodium hypochlorite 5,25% and ultrasonic activation (IRRIS tips). Group 4: chlorhexidine digluconate 0,2% and ultrasonic activation (IRRIS tips). It is important to note that the sodium hypochlorite 5,25% became inactive with sodium thiosulfate, and the chlorhexidine digluconate with Lecithin and Tween 80. It was followed by sows of samples on blood agar and bile esculin. The statistical evidence of U Mann-Whitney was used, because the variable don't follows the normal distribution.

Results

Once the relative reductions table has been made of each one of the samples with the combination of the irrigations agents and the desactivation techniques, we conclude that there is no statistically significant differences between irrigations agents and irrigation technologies.

Conclusions

The use of sodium hypochlorite 5,25% is recommended, vibrated with sonic or ultrasonic activation, given the potential to remove the organic or inorganic tissue.

- Oral Presentation 42

TITLE: Separated file fragment. Case report

AUTHORS: García Bravo M, Conde Pais J, Amorós Carazo C, Ortega Molina A, González Villafranca P, Armenteros Pérez A, González López S.

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Introduction

Intracanal endodontic instruments fracture may hinder or prevent the cleaning and shaping of root canals, with a negative influence in the treatment success.

In this poster we show a separated instrument case report, in which we accomplish root canals cleaning and filling and the final reconstruction.

Case report

A 21 year-old male with no relevant medical history, who was referred to the Master for the treatment of a molar with a fractured instrument in the middle third of the canal, while the buccal mesial canal treatment was in process. The file fragment was removed by using a rotary file system and ultrasonic tips.

Conclusions

Currently, a performance protocol for managing this kind of cases is not available. Therefore, it is necessary to consider the following aspects regarding adequate outcomes: 1) Root morphology, 2) Canal root preparation phase, 3) Clinician experience, 4) Available instrumental, 5) Tooth strategic value and 6) Periapical pathology.