

Conclusions

Biodentine is a biocompatible material, creates dentinal bridges, and presents an efficient adhesion and sealing. It has superior mechanical properties than those of other silicate cements including MTA, also improving manageability and the setting time.

- Oral Presentation 71

TITLE: Lithium disilicate-based ceramics: step by step of the adhesive cementation

AUTHORS: Santos Puerta N, Otero Mena I, Souza Andrade J.

SOURCE: J Clin Exp Dent. 2014 1;6 (Supplement1):S34.

* doi:10.4317/jced.17643855

<http://dx.doi.org/10.4317/jced.17643855>

Introduction

Advances in adhesive dentistry have improved the clinical performance of composite resins and dental ceramics. This success is due to the physico-chemical interaction across the interface between the adhesive and the ceramic surface. The cementation process is vital for the clinical success of all-ceramic restorations. Bonding to lithium disilicate -based ceramics is obtained by two simultaneous mechanisms: micromechanical retention provided by acid-etching of the ceramic surface with hydrofluoric acid and chemical bonds between the inorganic phase of the ceramic and the organic phase of the resin cement by the application of a silane.

Case report

A healthy 34-year-old woman was referred to the Master of Endodontics and Operative Dentistry (Rey Juan Carlos University, Alcorcón, Spain) with a deficient composite veneer and root canal treatment in a maxillary left lateral incisor (2.2). The restorative treatment was determined according to the amount of remaining tooth. Then, it was chosen a plan for the treatment based on canal retreatment, core build with composite resin and placement of a fiberglass post, and finally cementation of a lithium disilicate crown.

Conclusions

The clinical success of these ceramic restorations depends on the cementation procedure, therefore it is necessary to follow judiciously all the steps that that this procedure demands this procedure in order to obtain excellent aesthetic, biological and functional results.

- Oral Presentation 72

TITLE: Effects of EDTA on Wave-One files

AUTHORS: Seguí Troth A, Castillo Felipe C, García de Carellán R, Báguena Gómez JC.

SOURCE: J Clin Exp Dent. 2014 1;6 (Supplement1):S34.

* doi:10.4317/jced.17643856

<http://dx.doi.org/10.4317/jced.17643856>

Objectives

To evaluate the action of 15% EDTA as intracanal lubricant on Wave-One files after five root canal preparations.

Materials and Methods

Forty-five root canals were instrumented using Wave-One™ Endodontic Reciprocating System. A total of 9 files were used, divided in 3 groups (n=3 each): (1) Wave-One Small #21, (2) Wave-One Primary #25, (3) Wave-One Large #40 files. All biomechanical preparations were done according to manufacturer instructions until work length (1 mm short of the apical foramen) and all the files were lubricated with EDTA. Wave-One Files were sterilized with glutaraldehyde (60') after each use and were studied under microscope (40x) after first, third, fifth use and without using.

Results

No differences were observed after the first use in comparison with the un-used files. Surface wear was observed in apical and middle area of the file in 100% of Small #21 Files; only apical wear in 100% of Primary files and 33.3% of Large files.

After the fifth use, all Small files broke in apical third (100%). 66.6% of Wave-One Primary #25 files presented corrosion. Blade loss was observed in 100% of Wave-One Small files, 66.6% of Wave-One Primary files and 33.3% of Wave-One Large files.

Conclusions

The use of EDTA seems to limit the number of biomechanical preparations with Wave-One files, particularly of Small #21 files which must be used just once. The files remaining could be used up to 3 times at the most.

- Oral Presentation 73

TITLE: Full upper arch restoration with composite and ceramics

AUTHORS: Sepúlveda Tendillo S, Faus Matoses V, Faus Matoses I, Alegre Domingo T, Faus Llácer VJ.

SOURCE: J Clin Exp Dent. 2014 1;6 (Supplement1):S34.

* doi:10.4317/jced.17643857

<http://dx.doi.org/10.4317/jced.17643857>

Introduction

Dental erosion and attrition involve an aesthetic and functional impairment for the patient, especially in the anterior region. The improvement of the adhesive techniques allows minimally invasive treatments preserving as much tooth structure as possible.

The incorporation of diagnostic tools, such as Digital smile design, enables more predictable outcomes, and the communication with both, patient and dental technician.

Case report

A 65 years old woman presented to the dental practice complaining of hypersensitivity and loss of tooth structure and wishing to improve the esthetics of the anterior region. During clinical examination, wear facets were observed in anterior and posterior regions. Digital Smile Design analysis was carried out in order to predict and plan the final smile design.

After removing the previous fillings and with the help of a diagnostic wax up, a clear silicone splint was prepared and filled with Ceram X duo (Dentsply DeTrey, Konstanz, Germany) microhibrid composite which was used to increase the vertical dimension of the patient. The palatal surface of anterior teeth and occlusal surfaces of posterior teeth were restored with composite. Finally, the buccal surfaces of 1.3 to 2.5 were prepared for feldspathic coreless veneers (Noritake, Japan) and were cemented with light-curing cement calibra and the XP Bond (Dentsply DeTrey, Konstanz, Germany) adhesive. The abutments 1.5 and 1.6 were prepared for the fitting of the partial fixed denture from 1.4 to 1.6.

Conclusions

After the treatment, the dental hypersensitivity subsided, so the functional and aesthetic expectations of both, patient and dentist were met.

- Oral Presentation 74

TITLE: Superficial pulpotomy in Immature Permanent Molars: Calcium Hydroxide, Pro-Root MTA, MTA-Angelus and Bioceramic: Case series

AUTHORS: Sierra Armas L, Soto Pereira E, González Rodríguez M, Peña Alcázar M, Zubizarreta Macho A, Rico Romano C, Mena Álvarez J.

SOURCE: J Clin Exp Dent. 2014 1;6 (Supplement1):S35.

* doi:10.4317/jced.17643858

<http://dx.doi.org/10.4317/jced.17643858>

Introduction

In the pulp exposure in young teeth, numerous materials have been proposed as candidates for treatment in pulpotomy. So much in pulpotomy superficial as cervical, pulp vitality therapeutic proposes maintaining the pulp tissue in order to stimulate the development of root processes and avoid possible subsequent fractures. Calcium hydroxide, with a long history of success in their results has been the material of choice. Currently, the appearance of materials like MTA, allowing tisular regeneration, and bioceramic cements as acting bioactive substitutes of the dentin, allow the survival of the remaining pulp through a hermetic seal.

Case report

We propose four cases of young permanent teeth with pulp exposure for caries referred to the department by the Master in Clinical Endodontics and Microsurgery Periapical of University Alfonso X El Sabio. Pulpotomy partial decay conducted with calcium hydroxide, gray Pro-root MTA, white MTA Angelus, and Retro-MTA (bioceramics) respectively and compared, immediate results, after 45 days and spent six months finding, from the clinical point of view and radiographic, no differences between them.

Conclusions

Pulpotomy (partial and cervical) in young permanent immature teeth is a treatment with a few predictable results as long as it's done in the precise indication, not finding significant differences between the materials used from a clinical point of view.

- Oral Presentation 75

TITLE: Retreatment of a 1.5 with apical root resorption

AUTHORS: Souto Míguez A, Fernández Alonso P, Guerra Caamaño M, Rivas Mundiña B, Varela Patiño P, Martín Biedma B,

SOURCE: J Clin Exp Dent. 2014 1;6 (Supplement1):S35.

* doi:10.4317/jced.17643859

<http://dx.doi.org/10.4317/jced.17643859>

Introduction

The external apical root resorption is a lytic process, which happens in the cement, dentin or both. Some of the possible classical described causes of resorption are: trauma, orthodontic treatment, intracoronal bleaching or a surgical procedure. Another cause of resorption recently mentioned in the literature is in teeth with endodontic treatment in which the bacterial products