

was carried out and intraoral digital record was performed using the True Definition (3M) scanner for the task. For the incrustation Lava Ultimate (3M ESPE) was the material of choice, a composite purposely made to be processed by CAD-CAM techniques. The onlay was cemented, following manufacturer's instructions, using Scotchbond Universal adhesive and Rely X Ultimate (3M ESPE) resin cement.

Conclusions

Following the restoration applying Lava Ultimate by the use of digital workflow, an excellent marginal adjustment was observed and, despite the fact the incrustation is obtained from a monochromatic block, a good aesthetical integration.

- Oral Presentation 20

TITLE: Non-surgical retreatment, sealed with mta, in incisor with apical radiolucent image

AUTHORS: Domínguez Pérez A, Riádigos Presas J, Rivas Mundiña B, Martín Biedma B, Varela Patiño P.
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Introduction

Usually nonsurgical retreatment in teeth with periapical lesions is the most suitable alternative for being the less invasive treatment. This assuming the tooth is restorable and periodontally healthy.

Case report

13 years old girl presents pain in endodontic tooth 2.1 derived from orthodontics unit. Clinical tests relate: positive palpation and percussion, mobility I, physiological probing and negative vitality. CBCT is done to investigate horizontal fracture, which was discarded. We make the opening of the pulp chamber and remove the unimetric post with ultrasonic tips start x #3. Gutta-percha is removed with rotary files and retreatment is performed with D-protaper rotary files. MTA is placed in the apical third followed by three millimeters of thermoplastic gutta and a fiberglass post. We take impressions for diagnostic wax. The silicone was performed and the tooth was reconstructed using the layered banini's technique. Review is done after 1 month and the tooth remains obscure so we decide to make a composite veneer. Reviews at 3 and 10 months after treatment were performed.

Conclusions

Nonsurgical retreatment was chosen because there is evidence of greater long-term success compared with endodontic surgery.

1. nonsurgical retreatment is chosen in endodontic teeth radiolucency.
2. nonsurgical retreatment has a similar rate to initial endodontic treatments cure.

- Oral Presentation 21

TITLE: Reliability of Kubelka-Munk spectral transmittance for resin composite translucency characterization

AUTHORS: Espinar C, Pulgar R, Roldán C, Ionescu AM, Lucena C.
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Objectives

To determine the reliability of Kubelka-Munk theory for characterization of resin composites translucency. For this purpose, the estimated spectral transmittance and absolute transmittance of resin composites with different chroma and opacity degree were compared.

Materials and Methods

Cylindrical samples (1cm in diameter and 1mm in thickness) of Filtek Supreme XTE (3M ESPE, Spain) resin composite were prepared. The composite resin was placed in a micrometer mold (Smile Line, Switzerland) in bulk, pressed with a glass slide and then light-cured through the glass at 1100 mW/cm² for 15 seconds (Blue-phase Style, Ivoclar, Vivodent). The surface appearance was checked under magnification, and the sample thickness was verified at three points with a digital caliper. Three samples of resin composite for each opacity (enamel, dentin, body) and chroma (A1, A2, A3) were prepared (n=27). The estimated spectral transmittance was calculated according to the Kubelka-Munk theory, by means of a spectroradiometer (PR-704 Spectra-Scan, Photo Research Inc., Chatsworth, CA, USA). The absolute transmittance was obtained from measurements made using an integrating sphere with Argon laser (457, 488 and 514nm) and He-Ne laser (632nm). Finally, Kubelka-Munk spectral transmittance curve and absolute spectral transmittance curve obtained for the different materials were compared.

Results

The Kubelka-Munk transmittance overestimated translucency of all the resin composites tested. Furthermore, the estimated transmittance not adequately characterized differences between composites of different chroma (A1, A2, A3) or opacity degree (enamel, body and dentine).

Conclusions

Reliability and accuracy of Kubelka-Munk spectral transmittance is lower than absolute transmittance for translucency characterization of resin composites.

- Oral Presentation 22

TITLE: All-ceramic oral restoration. one smile, several materials

AUTHORS: Faci Martín B, Faus Matoses V, Faus Matoses I, Alegre Domingo T, Faus Llácer VJ.
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Introduction

According to the composition of ceramic systems, they have different properties and applications. The correct use of ceramic materials depends on several factors, including the clinician's ability to choose restorative materials, restoration manufacturing method, teeth preparation technique, cementing technique and individual patient needs.

In some clinical situations, the use of a single material would be enough, but sometimes it may be necessary to combine several types of materials to obtain the best restorative treatment outcome.

Case report

60-years-old woman presented to our dental practice to improve the aesthetic of her smile.

Clinical and radiographic examinations revealed a root canal treatment on 2.1 with dark discoloration, a root canal treatment failure due to a root fissure on 2.2 and leaked dental fillings on 1.1, 1.2 and 1.3.

The treatment consisted of the extraction of 2.2, root canal retreatment and posts restoration on 2.1 and dental fillings on 1.1, 1.2 and 1.3.

The initial provisionalization was carried out through a temporary ovate pontic fixed partial denture on 2.1 to 2.3 and temporary veneers on 1.1, 1.2 and 1.3. Made of polymethylmethacrylate using CAD/CAM system. A second temporary ovate pontic fixed partial denture was positioned in order to contour the 2.2 surrounding soft tissues.

Six months later, temporary restorations were removed and an alumina based definitive fixed partial denture on 2.1 to 2.3 and feldspathic laminate veneers on 1.1, 1.2 and 1.3 were placed.

Conclusions

The anterior teeth restoration was achieved meeting the functional, aesthetic and biomechanical expectations of both, the patient and the professional, by means of different types of ceramic materials.

- Oral Presentation 23

TITLE: Efficiency and effectiveness of retreatment with Thermafil Plus, Guttacore and vertical condensation

AUTHORS: Fenellós-Aldea L, Alegre-Domingo T, Faus-Matoses V, Faus-Llácer VJ.
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Objectives

The purpose was to evaluate the efficiency and the effectiveness in retreatment depending on the obturation system: Guttacore, Thermafil, and warmed vertical gutta-percha condensation using Calamus, with ProTaper files retreatment.

Materials and Methods

It was executed in one hundred and five extracted teeth with one root canal. The cusp tip was reduced with a disc with working lengths set at 15 mm.

During preparation and between each file, 1 mL of 5.25% sodium hypochlorite was used as an irrigant. The canals were all prepared until F3 ProTaper file, lately, teeth were randomly allocated in three groups depending on the obturation material utilized: Thermafil, Guttacore and warmed vertical condensation. In all groups, the canal was coated with a thin layer of AH Plus root canal sealer.

Every canal was instrumented using ProTaper Retreatment files: D1, D2 and D3. To calculate the efficiency, the total time of all files to reach the working length was scored. The retreatment procedure was considered complete when no obturation material was observed on the last file. The efficacy was evaluated in terms of the remaining amount of the sealing material after the procedure.

Data were analyzed using SPSS (SPSS 15.0 Inc., Chicago, IL) with a p value < 0.05 and it was used ANOVA test and a Chi-square analysis.