radicular tooth in a 5cmx5cmx30cm container. The circuit was closed by connecting the cardiac pacemaker cable with the opposite end of the container. We monitored the pacemaker baseline in different situations. First, when the ultrasound was switched on, then using 1,2, and 3 power switches, in the case of Kavo ultrasound, and then with all power switches, from 1 to 20, in the Newtron ultrasound case. Each of the activations, in turn, was performed at 30 cm and 2 cm from the pacemaker's sensor.

The positive control was made by touching the alginate with the electrode of the electric scalpel. The negative control was made by touching the adjacent alginate with the tip of the Sonic Activator Endoactivator. The pacemaker's operation was monitored using the Medtronic system.

Results

Ultrasounds altered the functioning of pacemakers and defibrillators in the same way that the electrical scalpel that was used as a positive control. They produced graphics altered by noise and changes in the mode of contraction.

Conclusions

Ultrasonic devices adversely affect the operation of pacemakers and cardiodefibrillators. We believe that its use in patients with pacemakers or cardiodefibrillators should be contraindicated and we think more studies are needed which corroborate these results.

- Oral Presentation 18

TITLE: Endodontic and restorative treatment of two discolored incisors with silver points

AUTHORS: de Pablo OV, Diaz-Sanchez C.

SOURCE: J Clin Exp Dent. 2014 1;6 (Supplement1):S9.

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<http://dx.doi.org/10.4317/jced.17643802>

Introduction

The color change in an anterior tooth is a major cosmetic problem and a challenge for the dentist who should solve it. It is important to identify the cause to establish an appropriate treatment.

Case report

We report a patient who underwent root canals with silver points in several upper teeth. Years later, the patient came with chronic apical periodontitis in two incisors and an unsatisfactory aesthetic result of the staining produced by said filling. After assessing the various

treatment options, we chose to approach the case conservatively. At endodontic level, we remove both silver points and due to wide apical caliber the canals were sealed with MTA and gutta-percha. Once retreatments were finished, we performed a cervical proper sealing glass ionomer and proceeded to perform an internal bleaching. The product used was sodium perborate mixed with distilled water and renewed weekly. Once the teeth had regained its original color, were restored conservatively with direct composite veneers. In subsequent recalls, we see the resolution of the apical periodontitis and the good performance of the restorations.

Conclusions

When performing endodontic treatment of a tooth we have to discard materials that can alter the color of it, avoiding future problems. Internal bleaching with sodium perborate, in this case, has reversed staining produced by silver tips; endodontic retreatment with MTA and gutta percha has succeeded in healing a chronic apical periodontitis; and with the natural color of the teeth, veneers direct composite involves an aesthetic alternative satisfactory for the patient.

- Oral Presentation 19

TITLE: Indirect composite restoration performed through digital workflow

AUTHORS: De Vega Calleja S, Da Silva D, Fuentes MV, Luengo M, Ceballos L.

SOURCE: J Clin Exp Dent. 2014 1;6 (Supplement1):S9.

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Introduction

The application of digital technology to Dentistry brought important changes to the daily practice of clinicians, not only by simplifying procedures, but also by gradually improving the quality of treatments. Besides the simplification process of the clinical steps brought by the digital flux, the development of new CAD-CAM materials endows restorations with improved mechanical behaviour and better accuracy when compared with conventional techniques, improving the marginal adjustment, the anatomy and the contact points

Case report

A patient (65 year old man) requires to be treated in the URJC University Clinic. Following clinical and radiographic studies, the need for endodontic and restorative treatment with an onlay in the 1.6 was detected. After performing the endodontic treatment, tooth preparation

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.
SOURCE: J Clin Exp Dent. 2014 1;6 (Supplement1):S10.

* doi:10.4317/jced.17643804
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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.