Introduction

Cervical root resorption (CRR) is an aggressive form of external resorption which begins in the cervical region of the root surface, underneath the epithelial insertion. Clinically, it is a challenge to the dentist, as the symptoms appear late.

Case report

CASE 1: This case presented A 29- year-old male who complained of acute nocturnal pain at the right maxillary central incisor level. His medical history was not contributory with the exception of an episode of renal colic. Intraoral examination revealed a small lesion at the cervical-distal angle of 1.1, and a change in underlying coloration to a pinkish tone. Periapical radiography revealed a rounded radiolucid cervical lesion restricted to the cemento-enamel junction level. Therefore the CRR was diagnosed as Heithersay Class 2. In this case a conservative treatment that included endodontic treatment, realization of periosteal flap surgery and restoration with resin composite was performed. CASE 2: A 22-year-old woman complained of pain at the right maxillary central incisor level. The patient's medical history only indicated a nephrolithiasis episode. In the intraoral inspection of 1.1, a well-defined small lesion was found at cervical area of the palatal surface. The underlying area of the lesion showed pink coloration. Periapical radiography detected an irregular radiolucid lesion that extended from the cemento-enamel junction towards the middle third of the root. To confirm the true extent of the lesion, we used cone-beam computerized tomography (CBCT), which showed severe root resorption corresponding with a Heithersay class 4. In view of the extensive nature of the lesion, the treatment option selected included tooth extraction and placement of an immediate implant with a temporary crown.

Conclusions

As the therapeutics options for CRR can range from relatively simple direct restoration techniques from to complex multidisciplinary approaches, an accurate diagnosis is essential to devise an appropriate treatment plan. In this sense, CBCT constitutes an useful tool.

- Oral Presentation 65

TITLE: Influence of finishing procedures on color and translucency of composite resins

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Objectives

To evaluate the finishing procedures effect on color and translucency of three composites: micro-hybrid, nano-fill and microfilled.

Materials and Methods

Cylindrical specimens of microhybrid, nanofiller (1cm in diameter, 1mm thick) and microfilled (1cm in diameter, 0.5 mm thick) resin composite A3 Renamel (Cosmedent, Chicago, USA) were fabricated. The composite was placed in a micrometer mold (Smile Line, Switzerland) in bulk, pressed with a glass slide and then light-cured through the glass slide with Style Bluephase unit (Ivoclar, Vivodent; 1100 mW/cm²) for 15 seconds.

The surface appearance was assessed under magnification and the sample thickness at three points was checked with a caliper before, and after finishing procedures. For each type of composite 6 samples were obtained, which were randomly assigned to two subgroups (n=3). The specimens of subgroup 1 were finished with aluminum oxide discs (Flexidisc, Cosmedent, Chicago, USA), while in subgroup 2, the resin composite surface was texturized with a diamond bur Periocare (831-524, Dentacare). All samples were polished with diamond (3 and 1 micron) and aluminum oxide pastes.

The spectral radiance of each sample was measured with a spectroradiometer (PR-704 Spectra-Scan, Photo Research Inc., Chatsworth, CA, USA) on white, black and gray standard backgrounds. Measurements were made at basal conditions, and after finishing and polishing steps. Finally, color differences and changes in the translucency parameter were calculated from these measurements.

Results

Color difference (ΔE_{ab}^*) ranged from 0.04 to 2.15 Cielab* units for the microhybrid composite polished with discs and for the nanofill composite finished with diamond bur, respectively.

Conclusions

Composite surface texturization with diamond bur induces perceptible color changes although within the clinical acceptable limits. The above changes are mainly linked to an increase in lightness. Changes in translucency parameter were imperceptible for all composites.

- Oral Presentation 66

TITLE: Antimicrobial activity of alexidine, chlorhexidine and cetrimide against *Streptococcus mutans* biofilm

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