

- Oral Presentation 56

TITLE: Micro-invasive treatment of orthodontic white-spot lesions

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Introduction

Icon® is a resin infiltrant used for micro-invasive treatment of smooth surface and proximal caries lesions. It's used to treat lesions up to first third of dentin (D1). Resin infiltration aims to penetrate lesion using low viscosity resin with high penetration properties, in a single visit, with no drilling. The system consists in Icon-Etch (Hydrochloric acid, pyrogenic silicic acid, surface-active substances), Icon-Dry (99% ethanol), Icon-Infiltrant (Methacrylate-based resin matrix, initiators, additives), Approximal-Tips, Luer-Lock-Tip and dental wedges. The purpose of these cases is to demonstrate the use of this technique in orthodontic white-spots.

Case report

Two female patients were selected from CESEM's University Clinic, Caparica-Portugal. Both presented white-spot lesions due to orthodontic appliance. Case 1- 13 years old, orthodontic removal appointment 14 days before Icon treatment, tooth chosen 11. Case 2- 21 years old, orthodontic removal appointment 7 years ago, tooth chosen 44. The teeth were cleaned, rubber dam placed and Resin infiltrant applied according to manufacturer's instructions. The patient was instructed to floss and brush with fluoridated toothpaste. The lesions were photographed before, immediately after the resin infiltrant application and 2 weeks later. White-spot lesions were filled with resin infiltrant and looked similar to sound enamel, immediately. Porous enamel has lower refraction than sound enamel, but when infiltrated, refraction increases, improving, dramatically, the aesthetic. Other studies refer that infiltration combined with remineralization shows better results.

Conclusions

Clinical management of white spots, with restorations, fluor therapy, microabrasion, is challenging and aesthetic outcome is not always predictable, however in these cases we demonstrated successful use of Icon® for masking orthodontic white-spots. The infiltrant is simple and conservative. Further research is needed to evaluate long-term stability, efficacy and microscopic changes.

- Oral Presentation 57

TITLE: Multidisciplinary treatment of endo-periodontal lesions

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Introduction

The tooth and supporting tissues should not be considered as separate entities but as a biological unit, the result of the close relationship between the two. These structures have many roads that allow two-way exchange of nutrients and harmful substances. This anatomical link explains the simultaneous presence of periodontal and endodontic conditions of nature. Endo-periodontal lesions are described as inflammatory nature of those injuries that simultaneously affect the dental pulp tissue and tooth support. The therapeutic objective of the combined lesions lies in the etiological treatment of these pathological processes.

Case report

The case of a 53-year-old referred to the Master in Clinical Endodontics and Microsurgery Periapical University of Alfonso X El Sabio, presenting grade II mobility on tooth 3.4 is described. The results of the clinical and radiological evidence showed concurrent endo-periodontal lesion in tooth 3.4. Canal treatment of the affected tooth followed by periodontal debridement surgery that allowed the crowded bacterial deposits on the root surface was performed. The multidisciplinary treatment of this tooth was decisive for the survival of the affected tooth and allow tissue repair of the affected tissues.

Conclusions

Endo-periodontal lesions are a challenge for the clinician. It should be emphasized the importance of a correct diagnosis, and the prognosis of these lesions depends on immediate treatment plan.

- Oral Presentation 58

TITLE: Influence of clinical usage of ProTaper S1 instrument in cyclic fatigue resistance

AUTHORS: Pérez-Higueras JJ, Arias A, de la Macorra JC.

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