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, flour 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.