

## Demineralization and infiltration: Cases and cases

**Francesca Zotti**

University of Verona, Italy

**Statement of the Problem:** Fluorosis represents a dental problem affecting both aesthetic and function, often manifesting as enamel demineralization and occurring as white or yellowish non-cavitated lesions. Last research in dental materials led to feasibility of managing these lesions in a non-invasive way, in order to prevent caries development and to satisfy patient requirements. The purpose of this study was to evaluate effectiveness of “resin-infiltration” technique in terms of lesion resolution, stability of results overtime, trend of sensitive teeth and satisfaction of patients.

**Methodology and Theoretical Orientation:** 200 teeth affected by fluorosis were treated with resin infiltration. Dimension of lesions before and after treatment, numbers of etching cycles needed and fluorosis index were measured. Sensitive teeth degree during the treatment and during all the observation period (shiff air index ranged between 0 to 3) was evaluated every three months with a medium follow-up of 12 months. Degree of patient satisfaction of color lesion before and after treatment was also reported as well as the degree of sensitive teeth during the 72 hours following treatment by a satisfaction scale and the VAS scale. Satisfaction of treatment duration and pain during the chair-treatment was assessed by a point scale from 0 to 10.

**Findings:** All 200 lesions treated had an immediate resolution, some case of sensitive teeth was reported during the 72 hours following treatment. Satisfaction of color change was confirmed by patients, even if some lesion did not completely disappear. Etching cycles needed were found to be related to sensitive teeth in following 72 hours and to fluorosis index.

**Conclusion & Significance:** Resin infiltration seems to be an effective technique to solve fluorosis lesions and to achieve patient satisfaction overtime. This represents an important issue for non-invasive and preventive dentistry.



Figure 1: Effects of resin infiltration on clinical features of fluorosis in central incisors and canines.

## Biography

Francesca Zotti is researcher at University of Verona, Italy. She has completed PhD in Experimental Medicine and Therapy at University of Turin, Italy. She is responsible for restorative service at the University Hospital of Verona and professor of Restorative Dentistry at the Dental School of Verona. Her studies are now focused on restorative dentistry, e-learning and dental materials.

francesca.zotti@univr.it