

Comparison of the efficacy of a select defense and fluoride varnish in preventing white-spot lesions as measured with laser fluorescence

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Objective: To evaluate the long term in vivo effects of SeLECT Defense and test the null hypothesis that there is no difference between its application and varnish application.

Methodology: Thirty patients (15 female, 15 male, age 11-18) were selected from Orthodontic department, faculty of Dentistry, Mansoura University, Egypt. Inclusion criteria were that the patients have no buccal caries or any visible demineralization. Written informed consent were then be obtained from each patient.

Metal brackets were bonded using a light cured composite resin and adhesive (Transbond XT) in accordance with the manufacturer's instructions. One week after bracket placement, the dental arches were isolated using cheek retractors, and the buccal surfaces were then carefully be dried. Baseline measurements of the enamel mineralization of each tooth, from second premolar to second premolar in both arches, were made with a laser fluorescence device (DIAGNOdent)¹. The laser device was calibrated for each patient by pointing the beam at an area of apparently healthy enamel (normally the incisal edge, as recommended by the manufacturer) and resetting the digital display to zero.

Conclusion: Compared to fluoride varnishes, SeLECT Defense is a promising material for reducing enamel decalcification.

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