The effect of caries detector dyes and a cavity cleansing agent on composite resin bonding to enamel and dentin

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This study was undertaken to evaluate the effect of caries detector dyes and/or cavity cleanser on composite bonding and etching patterns of enamel and dentin. One hundred and eight non-carious premolars were divided into six groups according to the enamel and dentin pretreatment investigated. The different pretreatment were as follows: Group I: teeth with prophylaxis only, Group II: Sable seek caries detector dye, Groups II: chlorhexidine cavity cleanser, Group IV the caries detectors dye followed by prophylaxis, Group V the cavity cleanser followed by the caries detector dye, and Group IV Snoop caries detector dye. The shear bond strength of composite resin bonded to enamel and dentin was evaluated by the Instron Universal testing machine while, the topographic details of enamel and dentin were examined by the SEM following the different pretreatment and acid etching. Results of the shear bond strength showed no statistically significant difference among the six groups, with no substantial differences in SEM results. It is concluded that using the caries detector dyes and/or chlorhexidine cavity cleanser before acid etching does not significantly affect composite bonding to enamel and dentin.

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