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[Image PDF (249K)] [References]

Effect of light intensity for adhesives on shear bond strength to dentin

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Abstract:

This study evaluated the effect of light intensity on the shear bond strength (SBS) of two self-etch adhesive systems: SI-R20401 (an experimental two-step) and Fluoro Bond Shake One[®] (a commercial one-step bonding system). The adhesive systems were applied to the flat dentin surfaces of extracted human teeth according to manufacturers's instructions. Light intensities used for the adhesive systems were 100, 300, and 500 mW/cm². A resin composite paste was placed and polymerized for 40 seconds with 600 mW/cm² of light intensity after each bonding procedure. Specimens were subjected to SBS test with a 1.0 mm/minute crosshead speed. Data were statistically analyzed using ANOVA, followed by Bonferroni *post hoc* test. Two-way ANOVA showed no significant differences in the effects of the adhesive system, light intensity for applied adhesive, and the interaction between them. Based on the results and limitations of this study, it was concluded that light intensity showed no significant effects on the SBS of the two self-etch adhesive systems.

Key words:

Light intensity, Self-etch adhesive, Shear bond strength

[Image PDF (249K)] [References]

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