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### Microtensile Bond Strength of Single Bond and Adper Prompt-L-Pop Adhesives to Dentin

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#### Abstract:

#### Objective:

The aim of this study was to evaluate the microtensile bond strength to sound and caries-affected dentin using Single Bond and Adper Prompt-L-Pop adhesives.

#### Materials and Methods:

Sixteen extracted human molars with carious lesions extended halfway through dentin were ground to expose the caries affected and the surrounding normal dentin. The samples were divided into two groups of eight samples each, including Single Bond (two-step etch and rinse) and Adper Prompt-L-Pop (one step self-etch). Z-100 (3M) was used for composite build-ups. The teeth were then sectioned and prepared for micro tensile bond strength test, at cross head speed of 1.5 mm/min. Data were analyzed by 1- and 2-way ANOVA.

#### Results:

Bond strengths of Single Bond and Adper Prompt-L-Pop adhesives to sound dentin were significantly higher than to the caries-affected one ( $P<0.001$ ), besides, bond strength of Single Bond to dentin was generally found to be higher than Adper Prompt-L-Pop adhesive ( $P<0.001$ ). The interaction effect was not significant ( $P=0.116$ )

#### Conclusion:

Bond strength to caries-affected dentin was compromised when one and two step adhesives were used.

#### Keywords:

Dentin; Dentin-Bonding Agents; 3M Single Bond Dental Adhesive; AdperPrompt Self-Etch

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