

## Brazilian Oral Research

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### Abstract

[ROSIN, Celso](#); [ARANA-CHAVEZ, Victor Elias](#); [GARONE NETTO, Narciso](#) and [LUZ, Maria Aparecida Alves de Cerqueira](#). Effects of cleaning agents on bond strength to dentin. *Braz. oral res.* [online]. 2005, vol.19, n.2, pp. 127-133. ISSN 1806-8324. doi: 10.1590/S1806-83242005000200010.

The cleaning of cavity walls aims to improve adhesive restorative procedures and longevity of restorations. This study has compared the effect of three cleaning agents - sodium bicarbonate jet (Profi II, Dabi Atlante, S<sup>o</sup> Paulo, Brazil); pumice paste plus a biologic detergent (Tergestesim, Probem, S<sup>o</sup> Paulo, Brazil); air water spray - on the bond strength between dentin and two different adhesive systems: Clearfil SE Bond (Kuraray, Kioto, Japan) and Scotchbond Multi-Purpose Plus (3M-ESPE, S<sup>o</sup> Paulo, Brazil). Six groups (n:10) of dental fragments obtained from young adult extracted teeth were prepared, and each one received one of the listed surface cleaning techniques. After the adhesive application, a cone-shaped test body was built with AP-X (Kuraray, Kioto, Japan) or Z100 (3M-ESPE, S<sup>o</sup> Paulo, Brazil) composite resins, using a Teflon matrix. The specimens were tested for tensile bond strength after one-week storage in distilled water at 37°C. Two pairs of fractured specimens of each group were randomly chosen and processed for scanning electron microscopy (SEM) analysis. ANOVA test of the bond strength values showed no statistical differences among the cleaning agents and neither between their interactions with the bonding systems. Upon SEM analysis, most surfaces showed mixed fractures of adhesive and cohesive failures in bonding resin to dentin. Based on statistical and SEM analysis, it was concluded that the cleaning agents studied did not interfere with the bond strength of the adhesive systems used to dentin.

Keywords : Dental prophylaxis; Composite resins; Dentin-bonding agents; Dentin.

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