COMMENTARY

EFFECT OF SALIVA CONTAMINATION AND CLEANSING SOLUTIONS ON THE BOND STRENGTHS OF SELF-ETCH ADHESIVES TO DENTIN

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The relevance and subsequent importance of any scientific article is its impact on clinical practice. With the exponential rise in scientific articles available today, many clinicians may read only an article's abstract and conclusion. Unfortunately, this may lead to erroneous interpretations on the part of the reader. If one reads only the abstract of this article, one could assume that the saliva contamination occurred during the bonding process. The reader may further assume that adequate moisture control is not critical when using self-etch adhesives. Both assumptions are grievously incorrect, and the reader may erroneously assume validation for using less than ideal moisture control measures, such as the rubber dam, with self-etch adhesives. When the present study is read closely in its entirety, it is surprising to find that the saliva contamination tested occurred only prior to the bonding process.

The authors' conclusion, "neither saliva nor the cleansing solutions adversely affected bond strengths of the self-etch adhesive systems," and the clinical significance, "saliva contamination of dentin does not seem to adversely affect bonding with self-etch adhesive systems," is based solely on a specific instance of saliva contamination occurring prior to any bonding procedures. Because most, if not all, clinicians clean the preparation before initiating the bonding process, little new knowledge or change in clinical practice is substantiated by this study. However, it is reassuring to know if undetected salivary contamination should occur after the preparation is cleaned but prior to initiation of the bonding process that self-etch adhesives' bond strength should not be adversely affected.

Other studies exploring saliva contamination on bond strengths of self-etch adhesives concentrate on salivary contamination occurring after bonding procedures have been initiated[1–3] both prior to light-curing and after light-curing the adhesive system. These studies also sought to determine the effect of the reapplication of the bonding system after contamination. The consistent findings of these studies are that saliva contamination during the bonding process, especially if the bonding agent has been polymerized, significantly reduces bond strength. Furthermore, if the dentin surface is cleaned and the bonding agent is reapplied, bond strengths return to uncontaminated levels.

The authors are to be commended on a tightly controlled study and well-substantiated methods and materials. Their review of the literature is excellent and the discussion section is thorough and thought provoking. Limitations of the study are rightfully addressed in the discussion, and the main body text conclusions are carefully limited to the strict parameters of the study.

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