READER'S FORUM

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Effects of contamination by either blood or a hemostatic agent on the shear bond strength of orthodontic buttons.

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Q1. Could the authors provide the rationale of choosing the two different contaminants, blood and the blood stopper agent used in group I and II, respectively?

Q2. I believe that the damages done on the resin tags during application of blood with a brush have something to do with the result of the group I associated with the lowest shear bonding stress (SBS) values.

Q3. The moisture and temperature in the oral environment have significant influence on bond failure. Therefore, it could have been better if the teeth were treated in the circumstances similar to the actual oral conditions before the SBS test.

Q4. Did any of the teeth require acid etching twice or more before getting the frosty white appearance? If yes, how could the multiple acid etching procedure affect the shear bond strength level?

Questioned by

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We thank author(s) for his interest in our article and for the comments and matters he raised. You can find the answers below.

A1. Contamination by blood and blood stopper agent occurs in different ways during bonding orthodontic buttons on impacted teeth. Blood contamination is mainly caused by a leakage from the close surrounding tissues while blood stopper contamination occurs from its direct application on the teeth as spray or drop. To simulate these conditions we had decided to apply these materials as described.

A2. That is a valid point. However, extra care has been taken so that only gentle non-disruptive manners were used throughout the procedure. Though it is difficult to prove, it can be assured that there should be so little to no damage added on resin tags during the brushing step.

A3. I am agree with this comment. However, I also believe that primary bond strength is equally, if not more, important factor to be considered in bonding on impacted teeth, and as such no heat cycles was necessary in this study.

A4. Fortunately, none of the teeth were in need of repeated acid etching before the chalky white frosty appearance. Obviously, if multiple acid etching steps were used, it could have influenced the shear bond strength in a negative way.

Replied by

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