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Influence of casein phosphopeptideamorphous calcium phosphate application, smear layer removal, and storage time on resin-dentin bonding

Key words: Tooth Mousse, <u>Ethylenediaminetetraacetic acid (EDTA)</u>, Casein phosphopeptide amorphous calcium phosphate, Smear layer, Bond strength

Research Summary

 The aim of this study is to evaluate the influence of Tooth Mousse (TM) application, smear layer removal, and storage time on resin-dentin microtensile bond strength (µTBS).

Innovation points

- Examine the influence of three factors on resindentin bond strength.
- 1.Casein phosphopeptideamorphous calcium phosphate application.
- 2. Smear layer removal.
- 3. Storage time.





Fig. 1 Flow chart from tooth to specimen showing the design of specimens with the circumferential enamel present and removed.

Innovation points

 Based on the usefulness of CPP-ACP as a desensitizer and in the absence of data on bond strength after long-term storage, the aim of this study was to evaluate the influence of CPP-ACP on microtensile bond strength (μTBS) in a two-step self-etching/priming adhesive, an all-in-one adhesive, and a totaletch adhesive to dentin in combination with or without smear layer removal.