

Effects of chlorhexidine gluconate and ozone on bond strength

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Abstrak

ABSTRAK

Objective: To examine the effects of chlorhexidine gluconate (Chx) and ozone on the bond strength of currently used restorative materials to dentin. **Methods:** Ninety third molar teeth were randomly divided into three groups of 30 each. Samples in Groups 1 and 2 were disinfected with Chx and ozone, respectively, whereas those in Group 3 were not disinfected (controls). Subsequently, the samples in all three groups were further divided into three subgroups of 10 teeth each and restored with Filtek Silorane (a), Gradia Direct (b), or Quixfl (c). Shear force was applied to the samples at 1 mm/min until breaking point. Fracture types were determined by examining the broken surfaces under a stereomicroscope. **Results:** No significant differences in bond strengths were noted between the Chx and control groups. However, the bond strengths in the ozone subgroups were found to be significantly lower than that of the control subgroups ($p < 0.05$). Adhesive type fractures were observed in majority of the treatment groups. **Conclusion:** As Chx did not affect the shear bond strength of the restorative materials, it may be considered for use as a cavity disinfectant before restoration; conversely, ozone should be used with caution for cavity disinfection.