

عنوان مقاله:

Effect of Tannic Acid Application on Durability of Bond of Etch and Rinse Adhesive Resins

محل انتشار:

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نویسندگان:

Alireza Boruziniat - *Dental Research Center, School of Dentistry, Mashhad University of Medical Sciences, Mashhad, Iran*

Mostafa Babazadeh - *General dentist*

Mahshid Gifani - *Post-graduate student, Department of Pediatric Dentistry, School of Dentistry, Mashhad University of Medical Sciences, Mashhad, Iran*

Monavar Nasirzadeh - *Post-graduate student, Department of Operative Dentistry, School of Dentistry, Mashhad University of Medical Sciences, Mashhad, Iran*

خلاصه مقاله:

Aim: To determine the effect of different concentrations and application times of tannic acid on bond strength to dentin. **Materials and Methods:** Occlusal surfaces of 180 human molars were randomly divided into two groups of immediate shear bond strength evaluation and evaluation after 2 months of storage in collagenase solution. Each group was divided into 10 subgroups according to the solutions applied: no additional treatment (control), chlorhexidine 2% (Positive control), tannic acid 20% (30s, 1 min, 3min, 5min) and Tannic acid 30% (30s, 1 min, 3 min, 5 min). Failure mode were assessed using a stereo-microscope. The data were statistically analyzed by One-way ANOVA and Tukey's post hoc test. **Results:** There was no significant difference in immediate bond strength among experimental groups. However, after 2 months storage in collagenase solution, a significant difference was found among the groups. Bond strengths of CHX and 20% TA applied for 3 minute were significantly higher than the control group. **Conclusion:** Use of tannic acid and chlorhexidine has no negative effect on immediate shear bond strength. However, their application significantly prevents compromised bond strength caused by storage in collagenase solution.

کلمات کلیدی:

Bond durability, tannic acid, Chlorhexidine, matrix metalloproteinases

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