

عنوان مقاله:

Evaluation of Tensile Bond Strength between Dentin and Metallic Copings Using Different Resin Cements

محل انتشار:

مجله مواد و تکنیک های دندانپزشکی، دوره 7، شماره 3 (سال: 1397)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

Statement of the Problem: For a successful clinical outcome, luting agents should have a high bond strength. Bond failure is still one of the main reasons of restoration failures. Purpose: The present study was designed to comparatively evaluate the retention of metallic copings using different resin luting cements. Materials and Method: In the present experimental study, 40 intact premolar teeth were included. The teeth were prepared to receive copings with a chamfer bur at high speed, cooled with an air/water spray. The occlusal surface was prepared flat, perpendicular to the long axis of the root at a standardized height of 4 mm from the gingival chamfer finish line with a 20 degree consistent taper of axial walls. The wax patterns were prepared and cast. Teeth with un-cemented casts were randomly divided into 4 groups based on the type of cement used. The tensile load required to dislodge the crowns was measured using Instron universal testing machine with a crosshead speed of 1mm/min. The data were analyzed by SPSS software and Kruskal-wallis test ($\alpha=0.05$). Results: The maximum and minimum amounts of crown retention were in Panavia-F2 and Maxcem cements respectively. Despite this different retention values in cements, Kruskal-wallis disclosed no significant difference between groups in the mean amount of crown retention. (P-Value=0.068) Conclusion: Regarding the results of the study, it was concluded that there are no mentionable differences between all groups.

کلمات کلیدی:

Cementation, Dental Cements, Retention, tensile strength

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