

عنوان مقاله:

Evaluation of Marginal Fit of Three Different Interim Restoration Materials - An In-vitro Study

محل انتشار:

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خلاصه مقاله:

Introduction: The aim of this experimental in-vitro study was to evaluate and compare marginal accuracy of interim restorations made with three chemically different interim materials one hour after fabrication and at one week interval. **Methods:** Twenty samples from each group with a total of sixty were fabricated on a customized metal die. The three test groups were as below; Group A - Protemp TM 4 (3M ESPE AG Dental Products, Germany), a bis-acrylic based self-cure temporary material; Group B - Revotek LCTM (GC Dental Products Corp., Japan), a urethane dimethacrylate based light cure temporary material and Group C - Tuff-Temp™ Plus (Pulpdent Corporation, U.S.A), a rubberized-urethane based dual cure temporary material. All samples were stored in artificial saliva and evaluated for marginal discrepancy using a stereomicroscope, one hour and one week after fabrication. Statistical analysis was done using one way ANOVA test and Tukeys Post-hoc tests. **Results:** Statistical significant difference existed between three groups after one hour ($p < 0.001$) and after one week ($p < 0.001$), Tuff-Temp™ Plus showed the least marginal discrepancy (at one hour = $192.3 \pm 0.75 \mu\text{m}$; at one week = $242.69 \pm 5.64 \mu\text{m}$), while Revotek LCTM (at one hour = $232.52 \pm 0.48 \mu\text{m}$; at one week = $293.68 \pm 3.75 \mu\text{m}$) had the highest discrepancy. **Conclusions:** Tuff-Temp™ Plus showed higher marginal accuracy followed Protemp TM 4 and Revotek LCTM at one hour and one week interval.

کلمات کلیدی:

marginal accuracy, provisional restoration, interim crown

