

Dentistry & Oral Care

April 18-20, 2016 Dubai, UAE

The effect of artificial accelerated aging on the color of ceramic veneer cemented with different resin cements (A comparative *in vitro* study)

ShathaKh Hussain and Inas I Al-Rawi
University of Baghdad, Iraq

Color changes that are detectable to human eye can affect the esthetic appearance of ceramic veneers. The purpose of this study was to evaluate and compare the effect of artificial accelerated aging on the color of ceramic veneers cemented with different resin cements. Sixty discs were prepared with 0.5mm thickness, 30 discs made from IPS e max press(A) high translucent A1 shade (IvoclarVivadent) and 30 discs were made from VITA Enamic (B) high translucent 1M1 shade (VITA Zahnfabrik). Three types of resin cements were used Variolink Veneer medium value 0 shade (IvoclarVivadent), Rely X veneer translucent shade (3M ESPE) and NX3 Nexus clear shade (Kerr Corporation) with 0.1mm thickness. Each group was divided into 3 subgroups (n=10): A1: e max +Variolink Veneer, A2: e max + RelyX veneer, A3: e max +NX3 Nexus, B1: VITA Enamic+ Variolink Veneer, B2: VITA Enamic+ RelyX veneer and B3: VITA Enamic+NX3 Nexus. Easyshade Advance was used to measure the color parameters (Lightness, axis a* and axis b*of chroma) after cementation, after 150 and after 300 hours of aging. Then the specimens were subjected to artificial accelerated aging in Accelerated Weathering Tester. Color change greater than 3.3 was considered unacceptable in this study. One-way ANOVA, paired t tests and Bonferroni adjusted t test were used for statistical analysis (p<0.05). Artificial aging caused highly significant color change in both ceramic types, but there were non-significant difference in color change among the three resin cements used. The highest color change was found in B1 and the least color change was found in A3. The color change of e max discs after aging were within acceptable limit <3.3 whereas VITA Enamic specimens had shown unacceptable color change >3.3 after aging. In conclusion, the majority of color change after aging related to veneering materials. Most of color change of veneering materials developed in the first 150h of aging. IPS e max had shown an acceptable color change after aging, so it is suitable for fabrication of restorations in esthetic zone while VITA Enamic had poor color stability according to the results of this study.

Biography

ShathaKh Hussain is currently a Master Student for Conservative Departments, University of Baghdad.

shathakhader@yahoo.com

Notes: