Kekuatan Perlekatan Geser Resin-modified Glass Ionomer Cement dan Resin-adhesive Cement (Self Cured) Terhadap Dentin

ABSTRACT

Background. fixed partial denture (FPD) is a prosthetic construction which can replace one or several teeth in an occlusal system and which comprises a pontic element which is adhesively attached to one or more abutment teeth. The primary objective of each cementation procedures is to achieve durable bond and a good marginal adaptation the luting material to the restoration and the tooth. Shear adhesion strength need to be considered since the shear force is one of the factors that would occur into the cement structure when the FPD receives load during mastication in the oral cavity. The latest two types of cement, which is a resin modified glass ionomer cement and adhesive resin cement was evaluated.

Purpose. The aim of this study was to determine the shear bond strength between resin-adhesive cement and resin-modified glass ionomer cement on dentin surface. Method. Four teen samples of human extracted permanent premolar teeth were divided into two groups. Each group consisted of seven samples. Group A was treated with resin-adhesive cement. Group B was treated resin-modified glass ionomer cement and then inserted into a insulin syringes. Data was analyzed by using Independent T-Test and One-Sample Kolmogorov-Smirnov Tes. Result. There are significant differences between the shear bond strength of the Resin-adhesive cement and Resin-modified Glass Ionomer cement based on the results of One-Sample Kolmogorov-Smirnov Test and Independent T-Test with \( p = 0.025 \) (\( p < 0.05 \)). Conclusion. It was conclude that shear bond strength of resin-adhesive cement is higher than resin-modified glass ionomer cement on dentin.

Keywords: Shear Bond Strength, Resin-adhesive Cement, Resin-modified Glass Ionomer Cement