

**Influence of silanization on tensile strength and  
the retention of glass fiber post in weaken  
endodontic treated teeth reinforced with  
packable composite**

**(IN VITRO STUDY)**

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**By  
Bahaa abd-alrazak  
B.D.S.**

**Supervised by  
Professor Dr. Haitham J. Al-Azzawi  
B.D.S. M.Sc.**

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# *Abstract*

This in vitro study was conducted to evaluate the effect of reinforcement weakened endodontic treated teeth with packable composite on retention of glass fiber post in comparison with weaken endodontic treated teeth that restored with custom cast post without reinforcement with packable composite(Filtek P60™ Packable composite resin ). Evaluate the effect of silanization on retention of glass fiber post (Monobond S™ silane coupling agent) and (FRC postec plus™ post glass fiber post and Rely X™ glass fiber post).

Specimens divided to five groups **A, B, C, D** and **E** in which group **A** represent control group and the other groups represent the experimental groups. Groups **B** and **D** with silanization while groups **C** and **E** without silanization.

Ten samples made from each group giving 50 samples. All samples were stored in deionized distilled water in constant temperature at 37°for 24hr. Retention of post was measured with tensile strength in instron testing machine (ISO TR 11405,2003) with cross head speed of 0.5mm/min.

The samples were pulled-out until dislodgement of post from post hole. Tensile strength was recorded in neutron unit (n) for each sample.

ANOVA One-way test, and student –t test were used to analyze the results and to show the comparison of significant.

Conclusion indicated that increase in retention value when used packable composite to reinforce weakened endodontic treated teeth in compare with control group that used custom cast post without reinforce the canal post with packable composite . There is no effect of silanization on increase retention of glass fiber post