

Is adhesive cementation of endodontic posts necessary?

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Recently, the appropriate, durable bond of adhesive systems and composite resin cements to retain endodontic posts was challenged. The question arises whether it would be possible to place glass fiber posts in a less technique sensitive conventional nonadhesive approach. The influence of nonadhesive, self-adhesive, and etch-and-rinse systems on load capability of postendodontic restorations was studied. Human maxillary central incisors were divided into 4 groups (n = 10). Teeth were endodontically treated and restored by using glass fiber posts luted with different cements/composite resin combinations: (1) RelyX Unicem (3M ESPE, Seefeld, Germany)/Clearfil Core (Kuraray Europe, Duesseldorf, Germany), (2) RelyX Unicem/LuxaCore, (3) zinc phosphate cement/Clearfil, and (4) LuxaCore (DMG, Hamburg, Germany)/Clearfil. A 2 mm-ferrule preparation was performed. All specimens received adhesively luted all-ceramic crowns and were exposed to thermal cycling and mechanical loading before subsequent static loading. Significant differences between the experimental groups regarding load capability and fracture patterns were observed. The conventional non-adhesive post cementation is less reliable to withstand simulated functional forces compared to adhesive approaches.

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