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Shear bond strength of a novel light cured calcium silicate based-cement to resin composite using different adhesive systems**Ali Rafe Hatshan**

Al-Farabi College for Dentistry and Nursing, KSA

The shear bond strength (SBS) of TheraCal LC to resin composite was evaluated in comparison to mineral trioxide aggregate (ProRoot MTA) and conventional glass ionomer cement (GIC) using two adhesive systems. A hole was prepared in 90 acrylic blocks (6 mm diameter, 2 mm deep) then filled with TheraCal LC, MTA or Fuji IX (n=30/group). Each group was bonded with either etch and rinse or 1-step self-etch adhesive. Filtek Z250 composite was bonded to each capping material. Bond strength was tested in a universal testing machine and data were analyzed using 2-way ANOVA and Duncan's multiple range test ($p < 0.05$). TheraCal LC displayed the highest SBS ($p < 0.001$). MTA bonded with the 1 step self-etch adhesive showed the lowest SBS ($p < 0.001$), while SBS of TheraCal LC and Fuji IX did not differ between either adhesive ($p > 0.05$). TheraCal LC is the preferred choice in pulp capping procedures when using resin composite restorations.

alihatshan@gmail.com