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Abstract

[WAHL, Carlos](#) et al. Assessment of the tensile strength of hexagonal abutments using different cementing agents. *Braz. oral res.* [online]. 2008, vol.22, n.4, pp. 299-304. ISSN . doi: 10.1590/S1806-83242008000400003.

The aim of this study was to assess the uniaxial tensile strength after thermal cycling in replicas of CeraOne[®] abutments (abutment and coping sets), using four types of cements (n = 10). A zinc phosphate cement (Fosfato de Zinco[®] SSW), a resin-modified glass ionomer cement (RelyX[®] luting / 3M-ESPE), a zinc oxide-eugenol cement (ZOE[®] SSW) and a zinc oxide cement without eugenol (TempBond

NE[®] KERR) were used. After cementation, the samples were submitted to thermal

cycles (1,000 cycles, 5[°]C to 55[°]C for thirty seconds in each bath. Next, the samples

were submitted to the tensile test in a universal test machine (0.5 mm/min). The data were submitted to ANOVA and the Tukey-

Kramer test (p < 0.05), and statistically significant difference was found among the cements. The highest tensile strength mean

value found was for zinc phosphate cement (33.6 kgf) followed by the resin-modified glass ionomer cement (20.5 kgf), zinc oxide-

eugenol cement (8.4 kgf) and the temporary cement (3.1 kgf). Therefore, it was found that the permanent cements presented

higher tensile strength, and the temporary cement could be used in situations requiring reversibility and the removal of cemented

dental implant-supported prostheses.

Keywords : Dental implants; Zinc oxide-eugenol cement; Zinc phosphate cement; Glass ionomer cements.

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