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Abstract

[BRITO-JUNIOR, Manoel](#) et al. Comparison of the time required for removal of intraradicular cast posts using two Brazilian ultrasound devices. *Braz. oral res.* [online]. 2009, vol.23, n.1, pp. 17-22. ISSN . doi: 10.1590/S1806-83242009000100004.

The aim of this *in vitro* study was to compare the time required for removal of intraradicular cast posts cemented with zinc phosphate (ZF) or glass ionomer cement (GIC), using two Brazilian ultrasound devices (BUD). Seventy two human inferior premolars with single root canals were sectioned transversally at the cemento-enamel junction. In each specimen, the root canal was endodontically treated, the post space was prepared to a depth of 9 mm and the canal was molded to obtain a post impression. After the casting procedures, the posts were randomly distributed into 2 groups (n = 36) according to the luting material used: G1 - ZF and G2 - GIC. The tooth and luted post set was then embedded in an acrylic resin block. The groups were then divided into 3 subgroups (n = 12) according to the ultrasound device used: A - Enac (Osada Electric, Japan), used as a control group; B - Profi II Ceramic (Dabi Atlante, Brazil) and C - Jet Sonic Satelec (Gnatus, Brazil). The posts were submitted to the vibration process with maximum power set on all surrounding surfaces. Time of application was recorded with a chronometer until complete post dislodgment, and the data were analyzed by the ANOVA test ($p < 0.05$). The averages required for post removal in G1 and G2 were respectively 41.42 and 92.03 seconds, with significant statistical difference ($p = 0.001$). No statistical difference was observed among the three ultrasound devices ($p = 0.088$), and the BUD presented a performance similar to that of the international gold standard device (Enac). Moreover, the type of luting agent had a greater influence on the time required for post removal than the origin of the ultrasonic unit.

Keywords : Post and core technique; Endodontics; Ultrasonics.

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