

Brazilian Oral Research

Print version ISSN 1806-8324

Abstract

[SOUZA, Eliana Barbosa de](#); [AMORIM, Crystiane Venditti Gomes de](#) and [MARQUES, Jos?Luiz Lage](#). Effect of diode laser irradiation on the apical sealing of MTA retrofillings. *Braz. oral res.* [online]. 2006, vol.20, n.3, pp. 231-234. ISSN 1806-8324. doi: 10.1590/S1806-83242006000300009.


Apical sealing is essential for the success of paraendodontic surgery, so any procedure that may favor an adequate sealing of the apical remainder should be performed. The purpose of this study was to evaluate the influence of diode laser irradiation on the apical sealing of root-end cavities with MTA retrofillings. Root canals in twenty extracted human teeth were shaped with K-files and filled with gutta-percha. The apices were cut off and root-end preparations were performed. The roots were divided randomly in 2 groups. Group 1 (ten specimens) was retrofilled with MTA. Group 2 was irradiated with diode laser, with 1 W for 20 seconds, on the apical surface and root end cavity before retrofilling with MTA. The specimens had their external surfaces impermeabilized with cyanoacrylate, except for the apical surface, and were then immersed in 1% rhodamine B dye for 72 h and placed in plaster stone.

After that, the specimens were submitted to longitudinal abrasion until half of the root remained. The linear dye leakage was observed in these mid-roots between the root canal wall and retrofilling. The linear dye leakage was measured with Image Lab software, and the results were statistically analyzed with Student's *t* test. There were no statistically significant differences between the two groups ($p > 0.05$). The diode laser irradiation did not improve the apical sealing of MTA retrofillings under the conditions of this *in vitro* study.

Keywords : Lasers; Endodontics; Retrograde obturation.

[?abstract in portuguese](#) [?text in english](#) [?pdf in english](#)

services

-  custom services
-  Article in pdf format
-  Article in xml format
-  Article references
-  How to cite this article
-  Access statistics
-  Cited by SciELO
-  Similar in SciELO
-  Automatic translation
-  Show semantic highlights
-  Send this article by e-mail



All the content of the journal, except where otherwise noted, is licensed under a [Creative Commons License](#)

Sociedade Brasileira de Pesquisa Odontol^gica

Av. Lineu Prestes, 2227
Caixa Postal 8216
05508-900 S^o Paulo SP - Brazil
Tel./Fax: +55 11 3091-7810



bor@sbpgo.org.br