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Removability of mineral trioxide aggregate and retrievability for root canal for retreatment

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An ideal root canal filling material should be easy to remove. Safe, successful and effective removal of root filling materials is an integral component of non-surgical root canal retreatment. The unique properties of mineral trioxide aggregate (MTA) are in contrast with many of the drawbacks of previously popular pastes/cements. However, since MTA also sets hard, removal may be difficult if not impossible. Although the need to investigate the ability to remove MTA root fillings has been stressed, no such reports have been published yet. The aim of this study was to evaluate the efficiency of specially formulated chemicals for the removal of MTAs *in vitro*. Four types of MTA cements were used: OrthoMTA, ProRoot MTA, MTA-Angelus, and Bioaggregate. Cements were mixed with distilled water according to the manufacturers' instructions. After mixing for 30 seconds, each cement was placed into a polyethylene mold (length=5mm, diameter=2 mm). Each mold containing the MTA cements was soaked in the solution of specially formulated chemicals after one day. The amount of dissolution after 3 minutes for each mold was evaluated. Only OrthoMTA was totally removed by the solution of specially formulated chemicals. OrthoMTA can be completely removed from the root canal system by the solution for retreatment.

Biography

Deog-Gyu Seo has completed his PhD at the age of 34 years from Yonsei University, Seoul, Korea. He is the Associate Professor and Program Director of Department of Conservative dentistry, School of Dentistry, Seoul National University. He has published more than 40 papers in reputed journals and has been serving as an editorial board member of repute.

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