39th IACDE
National Conference

MTA RETRIEVAL-AN ENIGMA

PHYSICAL METHODS

- AIM: The aim of this study was to evaluate ex vivo the efficiency of ultrasonics and rotary instrumentation for the removal of MTA root canal filling material.
- METHOD: 46 teeth were examined divided into 2 group

SUBGROUP 1

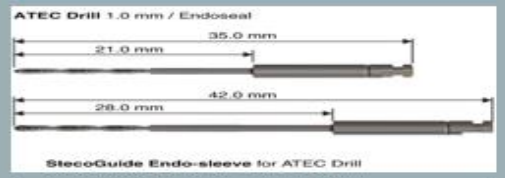
Filling materials were removed by using a spreader like tip long enough to reach working length in all specimens on a portable ultrasonic device.

SUBGROUP 2

Filling materials were removed by using GT rotary instruments size 40, .04 and .06 taper operated on an X-SMART electric motor with constant speed (250 rpm) and torque (1 N/cm) control.

- CONCLUSION: MTA cannot be completely removed from the root canal system by any of the methods examined in this study.

ALTERNATIVES FOR MTA RETRIEVAL



MODIFIED GG DRILL

MULLER BUR

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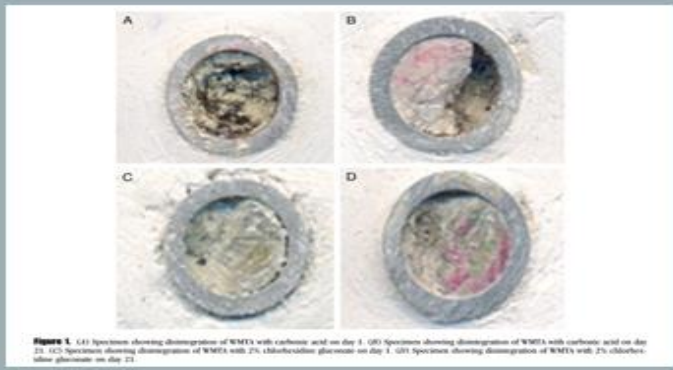
CHEMICAL METHODS

- AIM: The aim of this study was to assess the dissolving ability of carbonic acid, 2% chlorhexidine gluconate, 17% EDTA, and saline on set WMTA.
- METHOD: Stainless steel molds were prepared and filled with WMTA that was exposed to carbonic acid, 2% chlorhexidine gluconate solution, 17% ethylenediaminetetraacetic acid (EDTA) solution, and saline on days 1 and 21. The surface hardness was measured before and after 5-, 10-, 15-, and 20-minute intervals after exposure to chemicals. The samples were probed with a #16 endodontic explorer after 20 minutes of chemical exposure and hardness testing.



- CONCLUSION: Carbonic acid can be effectively used as an adjunct to dissolve set WMTA, even after 21 days.

REFERENCES:
1. Christos , Giovana N, Theodor L, Ex Vivo Study of the Efficiency of Two Techniques for the Removal of Mineral Trioxide Aggregate Used as a Root Canal Filling Material, JOE — Volume 34, Number 10, October 2008
2. Suresh Nandini, Velmurugan N, Sushmita S, Effect of Various Chemicals as Solvents on the Dissolution of Set White Mineral Trioxide Aggregate: An In Vitro Study, JOE — Volume 36, Number 1, January 2010