Alternatives to accelerate orthodontic tooth movement

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The interest in adult patients for orthodontic treatment is increasing day by day. Many of these patients seek esthetic appliances and reduced treatment times. The author will present the new techniques and approaches to accelerate tooth movement, from the mechanical point of view (Damon System, Insignia) and from the biological point of view with special emphasis in Orthodontics facilitated by Wilkodontics, additionally the impact of Piezoincision, and micro pulsations as biological support tools. There is no doubt that the combination of passive self ligation and Insignia with conservative surgical procedures (Piezoincision) and/or Laser and micro pulsations can reduce treatment times up to 50%.

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Comparison of antimicrobial efficacy of triple antibiotic paste, calcium hydroxide, nano calcium hydroxide, mixture of nano calcium hydroxide with triple antibiotic paste and metapex against Entrococcus faecalis: An in vitro study

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Introduction: The purpose of this study was to determine the in vitro antimicrobial efficacy against Entrococcus (E.) faecalis of triple antibiotic paste compared with calcium Hydroxide, nano calcium hydroxide mixture of nano calcium hydroxide with triple antibiotic paste and metapex.

Materials and Methods: An agar well diffusion assay and MIC method were used to determine the efficacy of the experimental medicaments in removing E. faecalis. Medicaments were divided into 5 groups; triple antibiotic paste, calcium Hydroxide, nano calcium hydroxide, metapex and mixture of nano calcium hydroxide with triple antibiotic paste. The diameters of the growth inhibition zones for each group were recorded and compared. The minimum inhibitory concentrations (MIC) of tested medicaments that are required to kill E. faecalis were also determined. The differences between groups were analysed by kruskalwallis and mannwhitney u test.

Results: The largest inhibition zones were observed for the triple antibiotic paste and mixture of nano calcium hydroxide with triple antibiotic paste, and the smallest for Ca(OH)2. Concentration increases produced greater antibacterial effects in all groups. The MIC determination method showed similar results.

Conclusion: The results suggest that the triple antibiotic paste and mixture of nano calcium hydroxide with triple antibiotic paste would be the preferred medicament against Entrococcus Faecalis. The nano calcium hydroxide showed better results than calcium hydroxide and metapex.

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