

### *In vitro* assessment of endodontic medicaments against *E. faecalis* and *C. albicans*

Bajrami D<sup>1</sup>, Hoxha V<sup>1</sup>, Stavileci M<sup>1</sup> and Omeragiq Sh<sup>2</sup>

<sup>1</sup>University Dentistry Clinical Center of Kosovo, Republic of Kosovo

<sup>2</sup>Directory of Water High Quality, Republic of Kosovo

**Aim:** The aim of this study was to evaluate the antimicrobial effect of calcium hydroxide paste, Ledermix R Paste and Klorhexidine gel.

**Material and Methods:** The antimicrobial efficacy of the tested substances was evaluated using the agar diffusion test, against *Enterococcus faecalis* (ATCC 29212) and *Candida albicans* (ATCCC 10231) with 0.5 McFarland. In the 5.5 mm diameter discs (Liofilchem - blank disc) each medicament was applied and incubated at 37°C/24h. The experiment was done in five replicates for each group. Kruskal-Wallis statistical test was used to evaluate the differences between the susceptibility of individual microbial species to the endodontic irrigants. Significance level was set at 5%.

**Results:** The largest growth inhibition zones were produced when the test bacteria were in contact with 2% chlorhexidine gluconate gel, being significantly different from zones produced by Calcium hydroxide paste and Ledermix. This difference was significant for *E. Faecalis* (KW=6.49, P <0.05) and *C. Albicans* (KW=7.26, P <0.05). The results of this study indicate that, as far as its antimicrobial properties are concerned, chlorhexidine gel has a great potential to be used as an endodontic auxiliary chemical substance.