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**THE ANTIMICROBIAL EFFICACY OF ESSENTIAL OILS**

**OF A SATIVUM AND A CEPA AS ROOT CANAL IRRIGANTS**

**IN PRIMARY MOLARS WITH INFECTED PULPS**

ABSTRACT

**Aim:** The aim of this study is to evaluate the antimicrobial effect of essential oils of A sativum and A cepa used as root canal irrigants in primary molars with necrotic pulps. **Materials & Methods:** 30 lower primary molars indicated for pulpectomy were included in this study. Pulpectomy was performed to all molars under aseptic conditions. Before irrigation a microbiological sample was taken from each root canal. Molars were divided into three equal groups according to the irrigant used; Group I: Chlorhexidine Hcl, Group II: A sativum (garlic) essential oil and Group III: A cepa (onion) essential oil. After irrigation molars were temporary sealed and patients were recalled after 48 hrs for the second microbiological samples. Then pulpectomy procedure was completed. ***Results:***A very heavy total bacterial count (> 10,000) was found in all initial samples. After application of irrigants all samples showed no or limited growth of aerobes and anaerobes. In each group, there was statistically significant difference in the mean values of log10 CFU/mm total aerobic and anaerobic counts after irrigation (p-value <0.05), There was no statistically significant difference in mean values of % reductions log10 CFU/mm total aerobic and anaerobic counts between the three groups. **Conclusion:** Essential oils of A sativum and A cepa possess antimicrobial effect against aerobes and anaerobes comparable to that of Chlorhexidine Hcl and could be used successfully as root canal irrigants for infected primary teeth.