ABSTRACT

**Background.** In root canal treatment is often still common pathogenic bacteria in the root canal. Its caused the failure of root canal treatment because the anatomy of primary teeth are so complex that during irrigation or sterilization could not reach the area. Sterilization is an important step in root canal treatment using a material that is antibacterial. One of the antibacterial ingredient is coconut shell liquid smoke. It contains one of the antibacterial ingredient of phenols. **Purpose.** The aim of this study is to know Minimal Inhibitory Concentration (MIC) and Minimum Bactericidal Concentration (MBC) against bacterial mixed non-vital primary teeth. **Method.** An in vitro research with the dilution method to identify the Minimum Inhibitory Concentration (MIC) and Minimum Bactericidal Concentration (MBC) from coconut shell liquid smoke. **Result.** The Minimal Inhibitory Concentration MIC of Liquid smoke coconut shell against bacteria mixed non-vital primary teeth was at 3.125% and Minimal Bactericidal Concentration (MBC) was at 6.25%. **Conclusion.** Liquid smoke coconut shell can inhibit and kill the growth of bacteria mixed non-vital primary teeth.

**Keywords:** Sterilization, coconut shell liquid smoke, bakteria mixed non vital teeth, Minimum Inhibitory Concentration, Minimum Bactericidal Concentration