ABSTRACT

Background. The prevalence of Enterococcus faecalis bacterial infection caused the failure of root canal treatment between 24%-77%. This is due to various factors resistance and virulence of Enterococcus faecalis. This research to find alternative materials that have antibacterial properties and by utilizing natural ingredients that can later be used as a root canal irrigation. Antibacterial activity of the Averrhoa bilimbi linn leaf extract against Enterococcus faecalis bacteria can be determined by Minimum Inhibitory Concentration (MIC) and Minimum Bactericidal Concentration (MBC).

Purpose. The aim of this study was to determine the concentration of Averrhoa bilimbi linn leaf extract that has antibacterial activity against bacteria Enterococcus faecalis.

Method. This research is a laboratory experimental with post test only control group design which use diluted Enterococcus faecalis ATCC 29212 according Mc. Farland standard 1,5 x 10^8 CFU/ml. With treatment Averrhoa bilimbi linn leaf extract on concentration 50%, 45%, 40%, 35%, 30%, and 25% given to each of 0,05 ml Enterococcus faecalis and using Brain Heart Infusion Broth (BHIB) as planting media.

Result. At the concentration 30% of Averrhoa bilimbi linn leaf extract, showed that colony’s growth less than 10%. At the concentration 35% was not revealed any bacterial growth.

Conclusion. The Averrhoa bilimbi linn leaf extract has antibacterial effect on bacteria Enterococcus faecalis. The MIC was at 30% and MBC was at 35%.

Keyword: Averrhoa bilimbi linn leaf extract, Enterococcus faecalis, MIC, MBC.