ABSTRACT

Background. Enterococcus faecalis is the one of microorganism which commonly detected in asymptomatic, persistent endodontic infections. This bacteria was facultative anaerob bacteria that is the cause of the recurrence of a disease post treatment endodontic. Purple leaf are known to contain flavonoid, alkaloid, saponin and tanin that have antimicrobacterial effect. Purpose. The aim of the study was to study the antibacterial potency of purple leaf (Graptophyllum pictum) ekstrak against Enterococcus faecalis by determine the minimum inhibitory concentration and minimum bactericidal concentration. Method. This research was a laboratory experimental study. A serial dilution method was used to determine the minimum inhibitory concentration of purple leaf ekstrak (Graptophyllum pictum) and then to determine minimum bactericidal concentration is done with colony counting bacteriae in blood agar media. Growth of bacterial colonies in blood agar is calculated manually in colony forming unit (cfu). Result. At the concentration of 12.5%, 25% and 50% there are a decrease in the number of Enterococcus faecalis bacterial colonies when compared with positive control group. There are significant differences in each study group (p<0.05). Minimum inhibitory concentration was revealed at 25% concentration from serial dilution test. At the concentration of 50% was not revealed any bacterial growth of Enterococcus faecalis. Conclusion. The Minimum Inhibitory Concentration (MIC) of purple leaf ekstrak against of Enterococcus faecalis was at 25% concentration and the Minimum Bactericidal Concentration (MBC) was at 50% concentration.

Key words: purple leaf (Graptophyllum pictum), Enterococcus faecalis, Minimum Inhibitory Concentration (MIC), Minimum Bactericidal Concentration (MBC).