ABSTRACT

Background. Enterococcus faecalis is the one of microorganism which commonly detected in asymptomatic, persistent endodontic infections. This bacteria was facultative bacteria that is the cause of the recurrence of a disease post care endodontic. Red betel leaf are known to contain flavonoid and polivenolad that have antimicrobacterial effect. Purpose. The aim of the study was to know the antibacterial potency of red betel leaf (Piper crocatum) infusion against of 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 red betel leaf infusion (Piper crocatum) 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 6.25%, 12.5% and 25% 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 12.5% concentration from serial dilution test. At the concentration of 25% was not revealed any bacterial growth of Enterococcus faecalis. Conclusion. The Minimum Inhibitory Concentration (MIC) of red betel leaf infusion against of Enterococcus faecalis was at 12.5% concentration and the Minimum Bactericidal Concentration (MBC) was at 25% concentration.

Key words: Sirih merah, Piper crocatum, Enterococcus faecalis, Minimum Inhibitory Concentration (MIC), Minimum Bactericidal Concentration (MBC).