ABTRACT

Background. *The endodontic pathogens are obligate anaerobic gram positive bacteria, conspicuously dominating in primary infections is Enterococcus faecalis, which can form biofilm in root canal. To remove biofilm, the first step is the degradation of EPS by oxidating agent such as chlorin, surfactant, or enzymes. Cacao bean pod husk (Theobroma cacao) is one of potential herbal plant that contains bioactive antimicrobial substances such as flavanoid which has surfactant-like character.* ***Purpose.*** *The aim of this study is to find of antibiofilm activity of cacao bean pod husk extract against E. faecalis biofilm.* ***Method.*** *This research is a laboratory experimental with the post test only control group design. E. faecalis cells were grown in microtiter plates for a desired period of time, and then the wells were washed to remove planktonic bacteria. Cells remaining adhered to the wells were subsequently stained with crystal violet to verify the biofilm formation. Cocoa bean pod husk extract was put into the suitable labeled-well. After 24 hours of incubation, the optical density (OD) of each well were measured.* ***Results.*** *Cocoa bean pod husk extract showed a decrease of OD value from control in 100%, 50%, 25%, 12,5%, 6,25%, 3,12% concentrations higher OD value than 1,56%, 0,78%, 0,39%, 0,19% concentration and control.* ***Conclusion.*** *Minimum Biofilm Inhibitory Concentration (MBIC) cocoa bean pod husk extract was 3,12% concentration.*

Keyword: *E. faecalis biofilm, cocoa bean pod husk extract, Minimum Biofilm Inhibitory Concentration (MBIC)*