ABSTRACT

Calophyllum inophyllum or more commonly known as “Tamanu” in French Polynesia or “Nyamplung” in Indonesia, is one of the traditional medicine used in treating skin diseases as well as other cosmetic uses, with one of the most common diseases to be treated being atopic dermatitis. Exacerbations of the disease is generally caused by the attachment and growth of biofilm of *Staphylococcus aureus*. This study tried to determine whether the extracts obtained from tamanu seeds are capable of affecting the growth of *S. aureus* biofilm. This process was done by subjecting the bacteria to sub-minimum inhibitory concentrations of the extracts (ethanol extract, methanol fraction and hexane fraction) and observing the incubation results of the differences in biomass production when subjected to different treatments in different concentrations. Trials were unsuccessful due to the lifting of biofilm that occurs during the washing phase of the assay which causes the loss of biomass, rendering the data invalid. Different incubation times were used but results remained the same. Changing the type of well-plate (tissue culture treated to non-tissue culture treated well plates) increases the retention of the biofilm. Absorbance results of all the trials showed a positive trend of methanol and hexane fractions on biofilm growth which was backed by the Student’s T-Test on the final trial which stated that methanol and hexane fractions were actually statistically significant ($p<0.01$).

Key Words: Tamanu extracts, *Staphylococcus aureus*, Biofilm growth, Antimicrobial