ABSTRACT

EFFECTIVENESS OF COMBINATION BETWEEN *Curcuma heyneana* and *Graptophyllum pictum* EXTRACT TO THE GROWTH OF *Staphylococcus aureus*

Infectious disease becomes a serious issue nowadays, as the development of several species which were resistant to the antibiotics of choice. *Staphylococcus aureus* develops fast in the coming of resistant strain to some antibiotics such as Methicillin and Vancomycin. The wisdom to use back natural product in order to combat the resistance is discussing well at this decade. Some natural products such as *Curcuma heyneana* and *Graptophyllum pictum* believed for having the antimicrobial activity against *Staphylococcus aureus*. The aim of this research is to check the effectiveness of combined extract between *Curcuma heyneana* and *Graptophyllum pictum* to inhibit or even kill the *Staphylococcus aureus*.

The method used in this research was tube test dilution using two control tubes and five observed tubes. The highest concentration used was 1000 mg/ml for each components of extract. The replication was doing in five times. The results were obtained from the MIC (Minimal Inhibitory Capacity) and continued to the MBC (Minimal Bactericidal Capacity) after being streaked and incubated in 37 ^{0}C for 24 hours.

From this study, the MIC can't be determined and the MBC was not earned because the bacteria grows at the plate from the highest concentration to the lowest at all of the replication. From then on, it can be conclude that the combination between *Curcuma heyneana* and *Graptophyllum pictum* in the same concentration was not effective to restrict or even kill the *Staphylococcus aureus*.

Keywords: *Curcuma heyneana* extract, *Graptophyllum pictum* extract, *Staphylococcus aureus*, MIC, MBC.