ABSTRACT

Elisyah Alya Azarina, *Test of the Antibacterial Effectiveness of Binahong Leaf Extract (Anredera cordifolia (Ten.) Steenis) and Green Betel Leaf Extract (Piper betle* L*.) Against Propionibacterium acnes. Guided by* : Elok Widayanti, S.Si., M.Si.

Propionibacterium acnes is an anaerobic bacteria that causes acne by forming inflammatory lesions. Propionibacterium acnes bacteria produce inflammation by breaking down triglycerides into free fatty acids. Free fatty acids cause colonization with Propionibacterium acnes. Medicinal plants that have flavonoid compounds that have the potential to act as antibacterials include green betel leaves (Piper betle L.) and binahong leaves (Anredera cordifolia (Ten.)). The aim of this research was to determine the antibacterial effectiveness of binahong and betel leaf extracts against the growth of P. acnes bacteria. The agar diffusion method uses paper discs with extract concentrations of 20%, 40%, 60%, 80% and 100%. The results of the antibacterial activity tests that were carried out showed that the highest average diameter of the inhibition zone was found in binahong extract with a concentration of 100%, namely 2.83 mm and in betel leaf extract with a concentration of 100%, namely 12.16 mm. This shows that betel leaf extract has better antibacterial activity in inhibiting the growth of P. acnes bacteria compared to binahong leaf extract.

Keywords: Propionibacterium acnes, Binahong Leaf Extract, Green Betel Leaf Extract, Agar Diffusion