ABSTRACT

ANTIBACTERIAL ACTIVITIES OF GREEN TEA (*Camellia sinensis*) ETHANOL EXTRACTS ON THE GROWTH OF *Staphylococcus epidermidis*

Alifya Nur Azizah
3720167181440

Staphylococcus epidermidis is a non-pathogenic skin microbiota that can sometimes cause diseases such as opportunistic infections. Infection can be treated using antibiotics, but now some bacteria are starting to be resistant to antibiotics due to their overuse. As an alternative treatment, plants that have antibacterial properties such as green tea. It has tannin, flavonoid, and catechin compounds which are phenol and alkaloid compounds. Ethanol is the most common solvent used to extract compounds in plants. The purpose of this study was to determine the antibacterial activity of ethanol extracts of green tea on the growth of *Staphylococcus epidermidis*. This study was an experiment of 6 treatments, namely negative control (sterile aquades), positive control (chloramphenicol 30 µg), green tea extracted with 60%, 70%, 80% and 90% ethanol solvents. Extraction used maceration method for 6 x 24 hours and antibacterial activity test using the disc diffusion method (Kirby-Bauer). The data obtained were analyzed utilized one way ANOVA with the resulting significance value $p = 0.00$ or $p < 0.05$. The results showed that the ethanol extract of green tea had antibacterial activity against the growth of *Staphylococcus epidermidis*. Ethanol extracts of 60%, 70%, 80% and 90% of green tea had an average inhibitory zone diameter respectively of 18.45 mm; 19.86 mm; 16.68 mm and 13.58 mm. The concentration of ethanol extract of green tea which had the most optimal antibacterial activity was ethanol extract 70% with an inhibition zone diameter of 19.86 mm.

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Keywords: Antibacterial, ethanol extract, green tea, *Staphylococcus epidermidis***.**