EFFECTIVENESS OF ETHANOL EXTRACT OF LERAK FRUIT (Sapindus Rarak) AS AN ANTIBACTERIAL AGENT AGAINST Escherichia Coli USING THE DISC DIFFUSION METHOD

Qur'ani, Ririn Fitri
Diploma III Study Program in Pharmaceutical and Food Analysis, Poltekkes Kemenkes Malang
Email: ririnquran35@gmail.com

ABSTRACT

Background: *Lerak fruit (Sapindus rarak) is known as a natural cleaning agent with a variety of benefits. One of the benefits of this fruit is that it contains active compounds with antibacterial effects. With the increasing number of diarrhea cases in several developing countries, the active compounds from lerak fruit can be utilized as active ingredients in antiseptic products.* ***Objective:*** *The aim of this study is to identify the inhibitory effect of lerak extract on bacterial growth and to determine the inhibitory effect of lerak extract at each concentration.* ***Methods:*** *This research was conducted using the maceration extraction method with 96% ethanol as the solvent. Antibacterial activity was determined through antibacterial testing using the disc diffusion method at extract concentrations of 20%, 40%, 80%, and 100% against Escherichia coli bacteria.* ***Results:*** *The results showed that lerak fruit extract at concentrations of 20%, 40%, 80%, and 100% had inhibitory effects on Escherichia coli with inhibition zones of 10.6 mm, 10.5 mm, 12.33 mm, and 21.5 mm, respectively. The negative control used distilled water and did not produce any inhibitory effect against Escherichia coli.* ***Conclusion:*** *From these results, it can be concluded that lerak fruit has inhibitory activity against Escherichia coli.*

Keywords: Lerak fruit, Antibacterial, Escherichia coli