

ABSTRACT

Wedana, I Putu Gede Arya. 2012. Antimicrobial effect of ethanol extract of ciplukan leaves (*Physalis minima*) against *Escherichia coli* in vitro. Final assignment, medical program, Faculty of Medicine Brawijaya University, Supervisor: (1) dr. Roekistiningsih, Sp.MK, MS., (2) dr. NurulHidayati, M.Sc.

Diarrhea caused by *Escherichia coli* is still common in developing countries. People who do not understand the correct usage of antibiotics will continue to use antibiotics in discriminately to treat diarrhea. Therefore, alternative medicines are necessary. One of them is ciplukan leaves containing flavonoid and saponin. This research aims to prove the ethanol extract of ciplukan leaves as antimicrobial against *Escherichia coli* in vitro. The design study used is laboratory experiment post test control group design only. The method used are tube dilution intended to determine levels of Minimum Inhibitory Concentration (MIC) and NAP medium to determine levels of Minimum Bactericidal Concentration (MBC). Ciplukan leaves extract is made from a method of maceration. The concentrations of extract used are 14%, 13%, 12%, 11%, and 10% with MIC and MBC of 12% and 14%. Through a correlation analytical study test, there is a relationship between the concentration of extract and the number of colony (of the correlation, $R = -0.957$; $p < 0.05$). Based on the research results, it can be concluded that ethanol extract of ciplukan leaves have the effect of antimicrobial against *Escherichia coli* in vitro.

Keywords: antimicrobial, *Escherichia coli*, ciplukan leaves