ABSTRACT

Urinary tract infection (UTI) is one of the health problems in Indonesia. UTI is generally caused by *Escherichia coli*. Various types of plants in Indonesia have the potential as traditional medicine. *Olea europaea* L. is a medicinal plant that is widely used in the Mediterranean region as a UTI therapy which is now widely cultivated in Indonesia. The content of antibacterial compounds in *Olea europaea* L. plants include oleuropein, hydroxytyrosol, tyrosol, verbascoside and flavonoids.

This study aims to determine the inhibition of ethanol extract of *Olea europaea* L. leaves on the growth of *Escherichia coli* based in vitro. This research is an experimental laboratory, with a Post Test Only Design. The extraction process uses maceration method. The antibacterial activity test with the diffusion method using a cylindrical cup with 4 repetitions.

The results showed that there were no inhibitory zones around the cylindrical cup that had been given ethanol extract of *Olea europaea* L. leaves with various concentrations of 1,100,000 ppm, 800,000 ppm, 500,000 ppm, 250,000 ppm and 62,500 ppm.

The conclusion of the study was the ethanol extract of *Olea europaea* L. leaves did not have any inhibitory effect on the growth of *Escherichia coli*.

Keywords: ethanol extract of *Olea europaea* L. leaves, antibacterial inhibition, *Escherichia coli*, diffusion with cylinder cup, in vitro