ABSTRACT

THE EFFECT OF ETHANOLIC EXTRACT OF KENCANA UNGU LEAF 
(Ruellia tuberosa L.) to TOTAL CHOLESTEROL LEVEL of 
HYPERCHOLESTEROLEMIC MICE (Mus musculus L.)

Ruellia tuberosa L are distributed in Indonesia, Malaysia, Africa, Brazil, and Pakistan. Some of these are used as medical plants. This article is to obtain the efficacy of ethanol extract of Kencana Ungu Leaf (Ruellia tuberosa L.) in reducing the total cholesterol level of hypercholesterolemic mice (Mus musculus L.). Kencana Ungu leaves (Ruellia tuberosa L.) contain flavonoid and saponin. Flavonoid is an anti-oxidant that which have function as a potent inhibitor of LDL-oxidation formation, while saponin is having a potential function to increase cholesterol excretion through feces.

This research used 32 male mice (Mus musculus L.) as in-vivo test. Thirty-two samples were divided into four groups, which are K0 (positive control), K1 (treatment of 7 mg/20 grams of weight), K2 (treatment of 14 mg/20 grams of weight), and K3 (treatment of 28 mg/20 grams of weight). Hypercholesterolemia was induced in normal mice by giving high fat diet for 21 days (three weeks). The extract and high fat diet was given for 14 days (two weeks). The measurement of total cholesterol level was done at the end of this research (5th week) using cholesterol strip-EasyTouch®GCU Meter.

The dosage of ethanolic extract of Kencana Ungu leaf (Ruellia tuberosa L.) of 7 mg/20 grams of weight, 14 mg/20 grams of weight, and 28 mg/20 grams of weight which was given during the treatments significantly affected (p < 0,05). Dosage effective to reduce total cholesterol level is 7 mg/20 grams of weight.

Keywords: Cholesterol, flavonoid, lipid, Ruellia tuberosa.