

ABSTRACT

PREVENTIVE EFFECT OF HYDROETHANOLIC EXTRACT OF AVOCADO (*Persea americana* Mill.) FRUIT RIND ON THE INCREASING BLOOD PRESSURE INDUCED BY INTRAPERITONEAL ADRENALINE INJECTION

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Background: Oral antihypertensive drugs are a milestone in the therapy of essential hypertension but numerous adverse reactions and recurrent cardiovascular events still occur in those who take antihypertensive drugs. Avocado has some active compound that may prevent the rise of blood pressure in some previous research.

Objectives: The objective of this study is knowing blood pressure lowering effect of hydroethanolic extract of Avocado (*Persea americana* Mill.) fruit rind on the increasing blood pressure induced by adrenaline in Wistar rats.

Methods: Twenty five rats are divided into 5 groups, which were negative control group (aquadest), positive control group (Captopril dosage 2.5 mg/kgBW), test group with dosage I, II, III group (hydroethanol extract of Avocado fruit rind at dosage 240, 260, and 280 mg/kgBW respectively). After administration of treatment based on the group, adrenaline injection was given 1.2 µcg/kgBW intraperitoneally. The blood pressure measurement is based on non-invasive method. The blood pressure is measured before intervention and in 5, 30, 60 minutes after adrenaline injection.

Result: There is significant differences between each group which is $p = 0.02$ ($p < 0.05$) in thirtieth minute in result of dosage III (280mg). It has the closest effect to captopril, but not as effective as captopril in preventing of increased blood pressure.

Conclusion: The result suggests that avocado fruit rind extract has preventive effect towards the subject compared to the negative control at dose 280 mg/kgBW.

Keywords: *Persea Americana* fruit rind, High blood pressure, Adrenaline, ACE inhibitors, Flavonoloid, Tannin, Alkaloid.