

ANTIHYPERTENSIVEACTIVITY OF “ROVELA”: COMBINATION OF ROSELLE FLOWERS(*Hibiscus sabdariffa*L.), CHAYOTEFRUITS(*Sechiumedule*(Jacq.) Sw.), ANDALOE VERA LEAVES (*Aloe vera*(L.)Burm.F.) EXTRACTS

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ABSTRACT

According to the WHO in 2011, 8 million people in the world each year died because of hypertension, whereas the prevalence in Indonesia was quite high at 29.8% in 2007. Various herbs can be used as an alternative for treat hypertension because it is safer and relatively had no side effect. We examined the antihypertensive activity from 4 combination doses of roselle flowers, chayote fruits, and aloe vera leaves. The antihypertensive activity was tested on white male rats Sprague-dawley strain induced adrenaline 1.2 µg/kg intraperitoneally with Non-Invasive Blood Pressure Volume Pressure Recording methods. The results showed that the activity of systole and diastole blood pressure dose 1, dose 3 and dose 4 has a significant difference to the negative control, and did not have a significant difference to the positive control. Dose of antihypertensive activity that had the best activity was dose 3 with an average percentage activity in decrease systole and diastole blood pressure respectively by 18.31% and 23.19%.

Keywords: Antihypertensive, Roselle, *Sechium edule*, *Aloe vera*, Non-Invasive Blood Pressure Volume Pressure Recording

INTRODUCTION

Hypertension is a serious health problem and requires proper handling, it is given the high prevalence and its complications can lead to death (Darmojo, 2001).

According to the World Health Organization in 2011, one billion people in the world suffer from hypertension and two-thirds of it are in the low-income countries. The prevalence of hypertension is expected to continue to rise, and in 2025 it predicted that 1.56 billion people in the world suffer from hypertension (WHO, 2011). The prevalence of hypertension in Indonesia in

2007, the population aged above 18 years old is 29.8%. Hypertension is also the third leading cause of death in Indonesia at 6.8% after stroke and tuberculosis (Soendoro, 2008).

Treatment of hypertension is done continuously so that patients will become bored using drugs and it can cause side effects. Therefore, a variety of herbs can be used as an alternative because it is safer and give lower side effects (Tabassum et al., 2011).

Several studies have also shown that many plants in Indonesia have effect as an antihypertensive. Some of them are roselle,