



An Elsevier Indexed Journal

ISSN-2230-7346

Journal of Global Trends in Pharmaceutical Sciences



21 Oktober 2019

Dear Sir/ madam,

We are very happy to inform you that your article "**ANTIHYPERTENSIVE ACTIVITY OF SEPAT LEAF ETHANOL EXTRACT (*Mitragyna speciosa* Korth.) ON WHITE RAT**" This article was accepted for our upcoming Volume - 10, Issue- 4 (October - December 2019) in Journal of Global Trends in Pharmaceutical Sciences (Elsevier covered Products - Source ID-316509899) and UGC Approved (Journal no: 46113). So please pay nominal charges - deposit slip scanned copy to this mail as early as possible.

The payment of Rs. 2000 (for authors from India) and USD 75 (for overseas author) for article processing fee can be done online through credit card, internet banking or by cash deposit through the bank counter in the account of **State Bank of India** (from any branch) **IFSC Code: SBIN0000905**, **Account holder: DWARAKANADHA REDDY PERAM, SBI Bank Account Number = 31580696810**, Rajampet, Andhra Pradesh, INDIA. Kindly include/add (in the author-side fee) Rs. 50 for authors from India and USD 2 for overseas authors as bank transaction charges. Payment of article processing fee through DD/cheque is not accepted.

Kindly send the confirmation mail/bank slip of deposition of fees through e-mail as proof. Once the payment is received at our end, the manuscript would be processed further. Kindly send the "copyright agreement form" from the website and send us back after getting signature from the corresponding author and co-authors within stipulated period (submit by e-mail only). *This article can be downloaded to ANDROID OS based mobile. Scan QR Code using Code/Bar Scanner from your mobile. (Scanners are available on Google Play store)*

With warm personal regards,

Yours sincerely,

Editor-in-Chief

Journal of Global Trends in Pharmaceutical Sciences (Elsevier Covered Products)

E-mail: editorjgtps@gmail.com



ANTIHYPERTENSIVE ACTIVITY OF SEPAT LEAF ETHANOL EXTRACT
(*MITRAGYNA SPECIOSA* KORTH.) ON WHITE RAT

Elis Susilawati^{1*}, Muhamad Reza Pahlevi¹, I Ketut Adnyana²

¹Pharmacology Research Group, Faculty of Pharmacy, Bhakti Kencana University, Bandung, West Java, 40161, Indonesia.

²Pharmacy School, Bandung Institute of Technology, Jalan Ganesha 10 Bandung, West Java, 40132, Indonesia.

*Corresponding author E-mail: elis.susilawati@stfb.ac.id

ARTICLE INFO

ABSTRACT

Key Words

Antihypertensive, Sepat Leaf, *Mitragyna speciosa* Korth., CODA[®], Diuretic



Empirically, sepat leaf is used to reduce blood pressure. Therefore research will be scientifically tested by in vivo method. The purpose of this research is to prove that sepat leaf ethanol extract has an effect to reduce blood pressure. In this research using 2 methods namely diuretic method and blood pressure measurement using CODA[®]. In the diuretic method using 25 rats grouped into 5 groups, each group was given 0.9% NaCl and each of them were given Na CMC 0.5%, furosemide 3.6 mg/KgBW, sepat leaf extract doses of 25, 50 and 100 mg/KgBW. Parameters which were seen was urine volume for 8 hours and 24 hours. In the CODA[®] method, 30 rats were grouped into 6 groups which was given concurrent between therapy and 25% fructose induction in drinks for 21 days. The therapy was given captopril 2.5 mg/KgBW, sepat leaf ethanol extract with doses of 25, 50 and 100 mg/KgBW. The parameters those measured were systolic and diastolic blood pressure. The results of the sepat leaf extract study dose of 50 mg/KgBW can increase urine volume and can reduce blood pressure by the CODA[®] method. The conclusion from this research is that sepat leaf ethanol extract has antihypertensive activity.

INTRODUCTION

Hypertension is a disease known by almost all people and become a heart disease that can cause death (Michael *et al.*, 2014). More apprehensive, hypertension is now called "silent killer", because it was a deadly disease without early symptoms, and if the symptoms are felt as intended, it is often considered a normal disorder, this certainly causes sufferers to be too late to realize the presence of hypertension. Hypertension has a high prevalence rate in the world, which is around 1.3 billion suffer from hypertension and that number is increasing every year. It is predicted, that in 2025 there will be 1.5 billion people affected

by hypertension (WHO, 2015). The highest prevalence of hypertension in Indonesia are in Bangka Belitung (30.9%), South Kalimantan (30.8%), East Kalimantan (29.6%) and West Java (29.4%) (Risksdas, 2013). The high rate of hypertension in Indonesia has been a trigger for researchers to find new breakthroughs on antihypertensive drugs by utilizing natural resources in Indonesia. One of the islands in Indonesia that rich in natural ingredients is in the Borneo island. One of the plants that popularly used by the surrounding community is sepat or kratom which has the Latin name *Mitragyna speciosa* Korth.. The plant grows a lot in Kalimantan and it is believed by the surrounding community to