

Aphrodisiac Activity Test Of *n*-Butanol Fraction of Manuran's Root (*Captosapelta tomentosa* Valetton ex K. Heyne) on White Male Mice (*Mus musculus* L)

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Abstract: Manuran's root claims that plant has aphrodisiac activity from local resident in Kotabaru, South Borneo. Research purpose is to prove that aphrodisiac activity in manuran's root, and to know how many dose must given to male mice to showing the aphrodisiac activity. Observation time duration is one hour, and the *n*-butanol fraction manuran's doses are 0.5 g/kgBW and 1 g/kgBW. There are three parameter used in this research. They are *introduction*, *climbing*, and *coitus*. The result are 1 g/kgBW *n*-butanol fraction manuran's root has aphrodisiac activity and for another dose, 0.5 g/kgBW does not have aphrodisiac's effect. Manuran's root dose recommendation for aphrodisiac activity is 1 g/kgBW.

Keywords: Aphrodisiac, Manuran, *Captosapelta tomentosa* Valetton ex K. Heyne

1. Introduction

Aphrodisiac activity can be divided into two groups, first one is herbal medicine, such as Yohimbin. Second one is synthesis medicine, such as androgen (mesterolone). Mesterolone is dihydrometil derivate of testosterone, providing androgen to human so human sexual nature can be maintained. Yohimbin has erectile ability through blockade of central alpha 2-adrenergic receptor producing an increase in sympathetic drive secondary to an increase in norepinephrine release resulting vasodilation on penis.

People of Gedambaan Village, Kotabaru, Kalimantan Selatan, believe that Manuran's root has aphrodisiac activity. Manuran's root usually consumed by the people to increase their will for having sex (libido) and to increase their stamina.

Previous research examined Aphrodisiac Activity on Manuran's root in various doses. It Proved that Manurans root metanol extract has aphrodisiac activity [1]. This research should be contiuned based on how people of Gedambaan Village consumed Manuran's root.

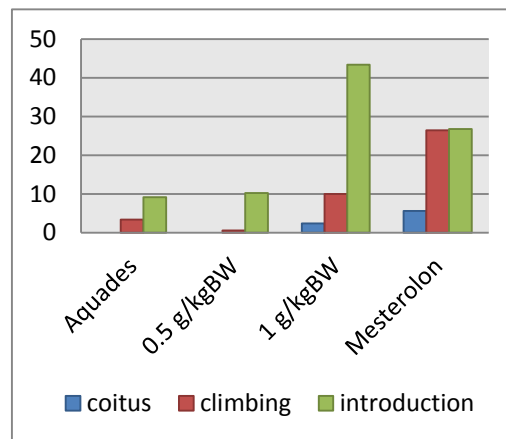
Emphirical data show that people of Gedambaan Village, Kotabaru, Kalimantan Selatan consumed Manuran's root by boiling manuran's root in water, therefore the possibilities of polarity of aphrodisiac material on Manuran is similar with water. Based on how people consumed Manuran's root, this research will be conducted with *n*-buthanol as solvent, by reason of polarity similar with water.

Non hormonal test by observing sexual behavior male mice such as introduction, climbing, and coitus. This method is more appropriate for unknown aphrodisiac activity mechanism of action, especially on traditional medicine [2].

2. Methods

This research was a quantitative experiment on mice, with aphrodisiac activity as an observation parameter. Mice were observed for one hour after Manuran's root administration per oral route, to identify their behavior regarding aphrodisiac activity of Manuran's root. The observation parameters are *introduction*, *climbing*, and *coitus*. Preliminary tests for female mice were held, to make sure there was no rejection from female mice during the period.

3. Result



The result showed that 1g/kgBB Manuran's root has an aphrodisiac level, especially on the *introduction* parameter, and has a higher level than Mesterolone. Even so, for other parameters such as *climbing* and *coitus*, Mesterolone has a better result than Manuran's root. On the other side, 0.5 g/kgBB showed no significant difference compared to aquades.

4. Discussion

Only *introduction* and *climbing* have a better level than aquades, another parameter such as *coitus* has no significant difference compared to aquades. The result should be linear, between *introduction*, *climbing*, and *coitus*. It is possible that the observation time did not match with Manuran's root onset. One g/kgBB Manuran's root has a promising result, and the research should be continued to analyze the therapeutic range dose. Isolate of Manuran's root should be a top priority before another aphrodisiac activity experiment. Isolate can minimize the dose, but the efficacy could be better than fraction or extract of Manuran's root. Modification of method and dosage orientation should be expanded with this research as a ground research.

Both in vitro and in vivo models have been developed in the past years to study aphrodisiac agent. This research refers to observed sexual behavior. Expanding research shall add more observation parameter, such as ejaculation frequency, post-ejaculated interval, couplatory rate, sperm count, hispathology, and other aspect that provide the hypothesis of aphrodisiac activity [3].

Hormone can be another paramter to analyze the aphrodisiac activity on female laboratorium animals. Luteinizing hormone (LH), follicle stimulating hormone (FSH), estradiol and testosterone should be the responsible hormone for aphrodisiac activity observation [4].

5. Conclusion

Polar substance of Manuran's root is suspected has aphrodisiac activity. Manuran's root extract of 1g/kg Body Weight has a introduction level higher than Mesterolol, but has coitus and climbing level lower than Mesterolol.

6. Reference:

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