

LOLOH CEMCEM AS ANTI INSOMNIA DRINK

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1. Introduction

Sleep is part of biological body rhythm for restore energy. Bad sleep quality can cause an insomnia disease. Insomnia has many negative impact, such as that can make a body susceptible to disease, until can make someone die. Generally, someone consume a chemical medicine to prevent insomnia. But, chemical medicine has negative impact, like headache until interference with memory. Because of that, it's need a natural compounds that can prevent insomnia. Chemical compounds that can prevent an insomnia disease such as alkaloid, steroid, saponin, flavonoid, potassium and sodium. The compounds can be found Loloh Cemcem. Loloh Cemcem is a traditional drink from Bangli that consist of Cemcem leaf (*Spondias piñata* KURZ), Dadap Serep leaf (*Erythroma subumbrans*), Palm Sugar (*Arenga pinnata*), and coconut water (*Coconus nutifera* L). Therefore, Loloh Cemcem allegedly potential as an anti insomnia drink. But, there is no scientific research that proves that Loloh Cemcem can used as an anti insomnia drink. The purpose of the research is to know the potency of Loloh Cemcem as an anti insomnia drink.

2. Methods

The experiment conducted with Completely Randomized Design (CRD), with 5 treatments, and 5 repeats. The first treatment (P-0) is aquadest as control, second (P-1) coconut water and palm sugar, third (P-2) cemcem leaves decoction, coconut water, and palm sugar, fourth (P-3) dadap serep leaves decoction, coconut water, and palm sugar, and fifth (P-4) Loloh Cemcem (combination of cemcem leaves, dadap serep leaves, coconut water, and palm sugar). First, prepare five 3-4 months old mice. Then, give mice the decoctions according to the treatments. Observation can do by looking at the time loss until reappear righting-reflex (in minutes) of the mice, after being given the decoction. The loss of righting-reflex is a state in which the mice is stationary with supine or tilted position. Testing is done during the day, because mice are nocturnal animal.

3. Result

Table 4.1 Mice sleeping time length (minute).

Treatment	Repeat					Total	Mean
	I	II	III	IV	V		
P-0	134,5	237,8	297,29	154,17	191,63	1015,39	203,08
P-1	193,42	263,15	461,5	173,17	200,92	1292,16	258,43
P-2	220,33	255,12	331,6	177,92	209,77	1194,74	238,95
P-3	134,57	255,17	337,47	149,05	210,63	1086,89	217,38
P-4	147,2	255,13	464,92	180,95	213,8	1262	252,40

Based on the table 4.1., it is shown that there is a significant difference between control and treatment. The control can mantaning sleep time for 203,08 minutes, while P-1 treatment can increase sleeping time mice to 258,43 minute.

4. Conclusion

Loloh Cemcem potentially as an anti insomnia drink. Flavonoid content on cemcem leaf can cause sedation effect, it's can decrease activity, tension, and shooting. Alkaloid content on dadap leaf can cause tranquillizer effect. Potassium and Sodium content on coconut water can pressing the central nervous system. Thiamien on palm sugar can stimulated production of melatonin hormone that has function in sleep cycle regulation. Combination of Coconut water (*Coconus nutifera* L), Palm sugar (*Arenga pinnata*), and Loloh Cemcem (Combination of Cemcem leaves (*Spondias piñata* KURZ), Dadap serep leaves (*Erythroma subumbrans*), Coconut water (*Coconus nutifera* L), Palm sugar (*Arenga pinnata*)) is the most effective treatment to increase sleeping time, that is on 258,43 minutes and 252,40 minutes.

References

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