

ABSTRACT

Stamina-Enhancing Activity Test of Oil Fraction Syrup From Kencur Rhizome (*Kaempferia galanga* L.) Using Swimming Test Method

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This study aims to determine the stamina enhancing effect of kencur rhizome (*Kaempferia galanga* L.) oil fraction syrup. This study used swimming test as a method to observe the swimming endurance of animal samples. Duration of struggling and elevated levels of lactic acid in the blood were used as parameters of fatigue due to physical activity. This study was an in vivo experimental study that uses sample of 24 healthy male Wistar rats. The sample were randomized into 4 groups. Three groups receiving 1%, 2% and 3% dosage from oil fraction of kencur rhizome (*Kaempferia galanga* L.) and one negative control group. The syrup test material was given orally to each rat as much as 0.81 ml / 200g BW. Swimming test was referring to the duration of struggling in second. Blood lactic acid concentration was measured twice, before and after the swimming test. The result showed that there was a significant difference ($p < 0,05$) in struggling duration only between group III, with 3% dosage from oil fraction of kencur rhizome (*Kaempferia galanga* L.), and the negative control group. The increase in the duration of struggling in group III was also accompanied by significant changes ($p < 0.05$) in blood lactic acid levels of the rats before and after treatment. From the results, it can be concluded that the administration of kencur rhizome oil fraction syrup (*Kaempferia galanga* L.) with a dose of 3% has stamina-enhancing activity.

Keywords: Stamina-enhancing, *Kaempferia galanga* L, Swimming test, Syrup