

**THE EFFECT OF *Zingiber officinale roscoe var. rubrum* RHIZOME EXTRACT
TREATMENT ON THE SPERMATOZOA MOTILITY AND
CONCENTRATION IN MALE RAT (*Rattus norvegicus*)**

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ABSTRACT

The aim of this research is to find out the effect of *Zingiber officinale roscoe var. rubrum* rhizome extract treatment by means of gastric tube on the spermatozoa motility and concentration in male rat. 25 male rats aged 18 months weighted 300 grams are being used in this research. Completely Randomized Design or Fully Randomized Design method is being used with 5 treatment group and 5 frequencies. The analysis of result data was done by Varians Analysis continued with Duncan and Kruskall-Wallis. Those 5 group treatments are : aquadest with 1 ml of dose as the control treatment group (P0), *Zingiber officinale roscoe var. rubrum* rhizome extract with 200 body weight of concentration as the first treatment group (P1), *Zingiber officinale roscoe var. rubrum* rhizome extract with 400 body weight of concentration as the second treatment group (P2), *Zingiber officinale roscoe var. rubrum* rhizome extract with 600 body weight of concentration as the third treatment group (P3), *Zingiber officinale roscoe var. rubrum* rhizome extract with 800 body weight of concentration as the fourth treatment group (P4). The result shows that the *Zingiber officinale roscoe var. rubrum* rhizome extract on male rat has a significant effect, and it can be noticed from the increase of spermatozoa concentration and motility percentage ($p<0,005$). The difference of spermatozoa's concentration between first treatment group (P1) and the control treatment group is not very significant, while the opposite result happened between the second treatment group (P2) and the control treatment group (P0) and also happened between the second treatment group (P2), and the first treatment group (P1). A big difference occurs in the percentage of motility sperm between the second (P2) and the first treatment group (P1), the same thing happened between the second treatment group (P2) and the control treatment group (P0) and the between the fourth treatment group (P4) and the third treatment group (P3).

Keywords: *Zingiber officinale roscoe var.rubrum* spermatozoa, male rat.