

Dhian Risnayati, 2007. Change The Number Of Spermatogenic Cells After Gift Java Ginseng And Korean Ginseng Root Extract With Different Durations. This script is under guidance of Dra. Dwi Winarni, M.Si. and Drs. I. B. Rai Pidada, M.Si., Biology Department, Mathematic and Natural Sciences Faculty, Airlangga University, Surabaya.

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### ABSTRACT

Java ginseng (*Talinum paniculatum* Gaertn.) is a traditional medicine plant, which known local area, has similar effect pharmacologist with Korean ginseng (*Panax ginseng* C. A. Meyer), which known global area, as tonicum and aprodisiacs. This research was conducted to compare directly the effect of Java ginseng and Korean ginseng root extract with different durations on change the number of spermatogenic cell and the thick of seminiferous tubules epithel on low testosterone level.

This research used 48 male adult mice (*Mus musculus*, strain BALB-C), aged 9-10 weeks, weighed 25-35 gram were divided into 4 groups. Two groups as control, to consist of positive control with aquades, and negative control with sintetik estrogen 0,5 ml/days equal with *ethynil estradiol* (EE) 2,8 µg/100 g weight/days, and two treatment groups, to consist of Java ginseng root extract 0,25 ml/days equal 9,8 mg/100 g weight/days + estrogen 0,25 ml/days equal with EE 2,8 µg/100 g weight/days, and Korean ginseng root extract 0,25 ml/days equal 9,8 mg/100 g weight/days + estrogen 0,25 ml/days equal with EE 2,8 µg/100 g weight/days. Fourth groups were divided again into 3 groups based on duration of treatment as long as 9, 18 and 27 days. At the last day of treatment, mice testis was collected and fixationed with buffer formalin solution, then sectioned by paraffin method and stained with *Haematoxylime-Eosin*. Observation was conducted on round seminiferous tubules at stages VII of the epithelium cycle with 400x magnification. All data were analyzed by using Two Ways Anava with  $P < 0,005$ .

The result showed that the effect of Java ginseng root extract for spermatogenesis was better than Korean ginseng. Duration of treatment until 27 days, was the best for Java ginseng on the number of spermatogenic cells, and Korean ginseng on the number of spermatosit I cells. But duration of treatment until 18 days was the best for Korean ginseng on the number of spermatid cells. Interaction between Java ginseng treatment and duration of treatment until 27 days was the best for spermatogenesis.

**Keywords** : *Java Ginseng, Korean Ginseng, Estrogen, Duration, Spermatogenesis*