

## **EFFECT OF ETHANOL EXTRACT OF *PAKETTU* (*Ficus superba* Miq) BARK ON THE FOLLICULOGENESIS IN MICE (*Mus musculus*) OVARY**

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### **ABSTRACT**

*Pakettu* (*Ficus superba* Miq) is a traditional medicinal plant used by the community in Terattae village, District of Bone, South Sulawesi. The use of the plant is empirically able to prevent pregnancy, so that it may be utilized as an antifertility material. The plant contains saponin steroid. Activity of substances contained in *Ficus superba* Miq may affect FSH secretion that produces disorder in follicular maturation process or folliculogenesis.

The objective of this study was to disclose the effect of *Ficus superba* Miq extract on the development of primary, secondary, and tertiary follicle as well as de Graaf follicle in mice ovary. This study used 48 female fertile mice, which were divided into one pretest group and 5 treatment groups, in which each group was repeated 8 times. The treatment groups were group with CMC suspension 0.5% (P0), extract suspension with concentrations of 10% (P1), 15% (P2), and 20% (P3), and group with ethynil estradiol suspension (P4). Doses given to the experimental animals were 30 ml/kg of bodyweight. Vaginal smear was undertaken before treatment, and treatment was commenced at diestrus phase. All treatments were given per oral every day for 12 days. Thereafter, the experimental animals were sacrificed and incised to remove the ovary to make histological preparations. This study used separate pretest posttest control group design. Data were analyzed using one-way variance analysis and LSD test with significance level of 5%.

Results showed that there was a decrease in total number of secondary follicle, tertiary follicle, and de Graaf follicle. Extract in concentration of 10% could reduce the number of secondary and de Graaf follicles, while concentration of 15% and 20% could reduce secondary, tertiary, and de Graaf follicles.

It can be concluded that *Ficus superba* Miq may have antifertility effects. Further studies should isolate and make more identification to saponin steroid hormone contained in *Ficus superba* Miq, and to examine the use of the substance as contraceptive material.

**Keywords:** *Ficus superba* Miq, *antifertility*, *saponin steroid*