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Effects of *Eurycoma longifolia* (TAF 273) on Oestrous Cycle and Reproductive Hormones of Normal Rats During 14-days Treatment

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ABSTRACT

Objectives/Research Problem: Eurycoma longifolia is one of the plants used to enhanced male reproductive functions but little is known for its effect on the female reproductive system and functions. Therefore, this work is performed to study the effects of standardized extract of *Eurycoma longifolia*, TAF 273, on oestrous cycle and some reproductive functionality in rats.

Materials and Method: Female Sprague-Dawley rats (7-8 weeks old) weighing between 170-200 g were used in this study. Vaginal smear of each rat was monitored daily for 2-weeks period (cover 3 cycles) in order to select females with normal cycle (4-5 days). Those with regular cycle were randomized into four groups of 6 animals each. Rats in the treatment group received the extract orally at different doses (50, 75 and 100 mg/kg body weight) for 14-days, whereas the control group received an equal volume of distilled water in a similar manner. The oestrous cycle pattern of both control and treatment groups were monitored daily and recorded during the 14-days treatment. The body weight of the females was recorded before and after 14-days treatment. At the end of the experiments, blood samples were collected and the serum were analysed for testosterone, oestradiol, progesterone, luteinizing hormone (LH) and follicle stimulating hormone (FSH) levels. Ovaries were removed, weighed and examined for histomorphological changes.

Results and Discussion: The results showed that the administration of TAF 273 has some changes on the analysed variables.

Conclusion: The data obtained did not indicate that *Eurycoma longifolia* standardized extract exhibited any detrimental effects on the oestrous cycle, ovarian histomorphology and female reproductive hormones.

KEYWORDS: *Eurycoma longifolia*, TAF 273, Oestrous Cycle, Reproductive Hormones, Ovary

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