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The potential of standardized quassinoid-rich extract of *Eurycoma longifolia* in the regulation of the oestrous cycle of rats (Article)

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Abstract

Objective To evaluate the effects of *Eurycoma longifolia* (E. *longifolia*) standardized extract on the oestrous cycle, levels of reproductive hormones and histology of the ovaries of Sprague-Dawley rats. **Methods** Female rats were orally treated with E. *longifolia* standardized extract at the dose levels of 2.5, 5.0, 10.0, 25.0, 50.0 and 100.0 mg/kg of body weight over 5 days. Vaginal smears were monitored daily within the duration and after withdrawal of the treatment before being sacrificed. The body weights of the females were recorded before and after the 5 days treatment. At the end of the experiments, blood samples were collected for determination of testosterone, oestradiol and progesterone levels. Ovaries were removed, weighed and examined for histomorphological changes. **Results** The administration of E. *longifolia* standardized extract did not significantly alter the oestrous cycle of the rats during the 5 days treatment and after withdrawal of the treatments. This was supported by normal testosterone, oestradiol and progesterone levels as well as normal morphology of the ovaries. **Conclusions** The data obtained showed that E. *longifolia* standardized extract did not exhibit any toxic effect on reproductive activities of female rats suggesting potential use in the management of infertility. © 2016 Hainan Medical University

Author keywords

Eurycoma longifolia; Oestradiol; Oestrous cycle; Ovaries; Progesterone; Testosterone

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