AMELIORATIVE EFFECTS OF FLEURYA AESTUANS LEAVES ON MATING BEHAVIOURS AND REPRODUCTIVE HORMONES OF LEAD ACETATE INDUCED OVARIAN TOXICITY

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ABSTRACT

Fleurya aestuans (FA) is one of the most commonly botanic plants with therapeutic values in Nigeria. Nonetheless, there have neither been studies to explain the contribution of *Fleurya aestuans* on mating behaviors and sex hormones-related female ovarian toxicity nor the possible remedial potential of Kaempferol on ovariantoxicity in females exposed to heavy metals. This study investigated the ameliorative property of *Fleurya aestuans* on gonadotoxic effects of lead acetate (LA) in female rats. Fifty five female rats and eleven male rats were assigned into eleven groups of six animals each (female to male ratio, 5:1), such that the rats in groups 1, 2, 3 and 4 received orally 1ml of distilled water, 50mg/kg, 75mg/kg and 200mg/kg of hydroethanolic extract of *Fleurya aestuans* leaves, respectively, while the rats in groups A, B, C, D, E, F and G received orally 1ml of distilled water, 2.25mg/kg of Lead acetate, 50mg/kg of FA plus LA, 75mg/kg of FA plus LA, 200mg/kg of FA plus LA, 100mg/kg of Kaempferol plus LA and 100mg/kg of Kaempferol respectively. The female mating behaviour parameters were monitored on day 30 of the experiment. Luteinizing hormone, follicle stimulating hormone, estradiol, progesterone and prolactin were determined. Hydroethanolic extract of *Fleurya aestuans* leaves significantly ($p<0.05$) increased darting frequency, hopping frequency, lordosis frequency, licking behavior, FSH, LH, estradiol, progesterone and prolactin respectively. However, it caused a decline in the darting, hopping and lordosis latencies significantly ($p<0.05$). All these effects were significantly enhanced ($p<0.05$) when combined with kaempferol. The study revealed that administration of lead acetate decreased sexual behaviour parameters and reproductive hormones which were ameliorated by extract of *Fleurya aestuans* leaves and kaempferol.

Keywords: *Fleurya aestuans*, kaempferol, mating behavior, reproductive hormones.