A231 Assessment of pendiculation activities in sexually sluggish old male rats after administration of *Eurycoma longifolia* Jack - A comparison study

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Eurycoma longifolia Jack from the Simaroubaceace family, commonly known as Tongkat Ali in Malaysia, is well known among the ethnic groups in Malaysia for treating disease and enhancing health and as such, it is sometimes referred to as "Malaysian ginseng". It has gained reputation as a male aphrodisiac since it is claimed to increase virility and sexual prowess.
Therefore, the objective of this study is to further investigate for pendiculation (act of yawning and stretching) activities in inbred, sexually sluggish and old male rats after dosing them with 200, 400 and 800 mg/kg body weight of *E. longifolia* Jack twice daily for 10 days prior to the test.
Results showed that *E. longifolia* Jack enhanced the pendiculation activities in the treated male rats as compared to the controls, similar to what was previously reported in sexually active male rats (1). However, 800 mg/kg of *E. longifolia* Jack exhibited minor increase in yawning and stretching with 50 and 16.7% respectively in the sexually sluggish old male rats in contrast to 676-719 and 318-336% in the sexually active male rats (1).
Hence, this study continues to support the folk use of this plant as an aphrodisiac.

Reference: 1. Ang, H.H. and Sim, M.K. (1998). Pharm. Biol. 36(2): 144-146.

A232 Dominant lethal study of *Carica papaya* in male mice after long-term treatment

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The contraceptive efficacy of *Carica papaya* seeds has been previously shown in rats, mice and rabbits (1,2). Given the relationship between anti-fertility and dominant lethal effects studies (2), the purpose of this study was to determine whether repeated exposures to seeds of *C. papaya* resulted in germinal mutations. The aqueous extract was given as gavages to groups of 16 CD1 male mice, six weeks old, at doses of 0 (control), 5 or 20 mg/kg of *C. papaya*, respectively, in a long-term treatment (8 consecutive weeks). At the end of the treatment period, mice in each group were divided into 2 sub-groups with 8 animals in each sub-group. The first groups were killed to analyze the sperm (motility, concentration and morphology) and to weight the accessory sexual organs. The animals in the second group were mated with sixteen females of the same age for 2 consecutive weeks, two females each week. Fetuses were evaluated 13-15 day after the mating midpoint. A laparatomy was performed to expose the uterus and ovaries. The number of pregnant females, *corpora lutea*, implantation sites, live embryos, and resorptions and deaths were recorded. Treatment with *C. papaya* did not affect the weight of accessory sexual organs. Fertility rates and the number of related live offspring showed a strong trend to decreasing with both doses. However, sperm motility was significantly reduced and abnormalities increased proportionately. Our conclusion is that although *C. papaya* affects fertility, it failed to induce dominant-lethal mutations during an 8-week sequential mating schedule of male mice.

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References: 1. Udoh, P. and Kehinde, A. (1999) Phytother. Res. 13: 226-228. **2.** Lohiya, N.K. et al. (1999). Reprod. Toxicol. 13: 59-66.