

## Effect of “*Palakalyana Ghrita*” on Sperm Parameters of Male Sprague Dawley Rats

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Palakalyana Ghrita (PKG) is a herbal medicine, traditionally used in Sri Lanka for infertility of both male and female. The aim of this study was to determine the effect of orally administered PKG on the reproductive system of adult male Sprague Dawley rats.

Eighteen Sprague Dawley rats were maintained according to standard laboratory conditions and they were divided into three groups (n=6), first two groups received daily gavages of PKG containing 900, 1800 mg/kg body weight (BW) for thirty days respectively. Third group (control) was administered 0.5 mL distilled water.

At the end of thirty days, blood was collected from each rat by cardiac puncture into plain tubes for hormonal assays and after that the rats were euthanized to separate spermatid cord and testes. Sperm count, mortality, and morphology were determined under light microscopy. The weights of testis and reproductive appendages were measured and tissues processed for histological study.

Significantly increased body weight, and total sperm count were observed both in treated groups when compared with control group. Transverse sections of testis highly exhibited spermatogenesis of rats in 1800 mg/kg treated group. Serum testosterone level was significantly elevated in all treated groups, compared with the controls ( $F_{2,15} = 19.4; p < 0.05$ ) PKG possess effect on fertility on reproductive system in adult male rats.

**Key words;** *Palakalyana Ghrita, Sperm; Spermatogenesis, Testis, Testosterone.*