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Effect of Different Doses of Vitamin E in Reproductive Efficiency of Adult Male Rats

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ABSTRACT

In this study (36) albino male rats aged 100 days treated for 6 weeks were divided into 4 groups 9 rats for each group. The first group given 0.3 ml distilled water through oral intubations as (control), second group was given a recommended dose of vitamin E (500 mg/kg B.W), the 3rd group was given a high dose of vitamin E (1000 mg/kg B.W), and the 4th group was given a very high dose of vitamin E (2000 mg/kg B.W).

All treatments did not show any significant difference ($P>0.05$) in adult male rats with respect to body weight, but the high and very high dose causes a significant increase in testes weight only. There was no significant difference ($P>0.05$) in epididymal (head ,body and tail) weight with high and very high dose, and caused a significant decrease in number of epididymal sperms count and percentage of live sperms. Treatment with high and very high dose caused significant increase in percentage of dead/abnormal sperm in compared to control and recommended dose, but it caused a significant decrease in prostate/seminal vesicle weight when compared to control and recommended dose.

This study suggests that using a recommended dose of vitamin E was more safe for reproduction of adult male rats, whereas, a high and very high doses showed a negative effects on their reproduction, and may act as a pro-oxidants activity instead of anti-oxidants.