

عنوان مقاله:

Evaluation of the Effects of Diazinon Toxin on Some Reproductive Parameters in Male Rats

محل انتشار:

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خلاصه مقاله:

The reproductive system is affected negatively by the organophosphate insecticide diazinon (DZN). Numerous adverse effects on the reproductive system are brought on by it, including testicles degeneration, sex hormone disruption, decreased spermatogenesis, poor sperm quality, and fertility issues. The goal of the current study was to look at how diazinon affected the sperm parameter, sperm viability, and levels of sex hormones in adult male rats. The mature male rat was divided into five groups for this experiment: control (did not receive any substance), Placebo group (only 0.9 percent saline solution was consumed), and the other three groups received DZN (diazinon was administered at doses of 5, 10, and 20 mg / kg for 30 days). Within 30 days after the most recent doses, animals were killed. Radioimmunoassay was used to evaluate the amounts of serum testosterone, LH, and FSH. Sperm parameters such as motility and count were measured by CASA system. Sperm viability was also calculated by eosin-nigrosin staining. Following the injection of DZN, a substantial decrease in testicular weight and sperm concentration was seen. Additionally, DZN caused a significant decrease in serum testosterone concentration as well as sperm viability. Comparing DZN groups to the control and sham groups, LH and FSH levels were higher in the DZN groups. DZN is harmful to the reproductive organs and spermatogenic cells of mammals. Application of DZN should indeed be .restricted to a specific framework

کلمات کلیدی:

Organophosphates, Diazinon, Sperm parameters, Oxidative stress

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