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Oral Toxicity of Low Doses of Fungicides, Propinebe, Propiconazole and Their Mixtures in the Male Rat

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Abstract : A number of chemical compounds are being used to protect agricultural crops from diseases. Residues of these chemicals lead to environmental pollution and pose some threat to non target organisms, human and animal. The aim of this study is to detect the toxicity of these fungicides and their mixtures in the fertility and biochemical's parameters in the rat. The male of rats (28) were used, they were divided in four groups (7 rats of each group) and one group was used as control. Rats were dosed orally with propiconazole (60 mg/kg body weight/day), propinebe (100 mg/Kg body weight/day) and their mixture (50:50) for 4 weeks. Animals were observed for clinical toxicity. At the end of treatment period, animals of all groups were scarified and samples of different organs were fixed in the formol 10% for histopathological study, and blood was collected for hematological and biochemical's analysis. The results indicated that the fungicide and their mixture of fungicides were toxic in the treated animals. The semen study showed a decrease in the count, mobility and speed of spermatozoa in all treated group especially those dosed with the mixture and Propiconazole, it was also a decrease in the weight of the testis and epidydimis in the treated group as compared with control. Remarquable histological changes were observed in the testis and epidydimis and liver in the group treated with mixture.

Keywords : fungicides, mixture, fertility, hematological, biochemical's parameters
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