Effect of Organochlorine Insecticide (Endosulfan) on Albino Rat at the Rate of Blood Uric Acid Level

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Abstract: Endosulfan is known to be one of the highly toxic agricultural pesticides commonly used in our societies. With the widespread use of Endosulfan in agriculture, human beings are most likely to be exposed to it, either orally by eating Endosulfan-contaminated foods or by nose and whole body inhalation in the farms during its application. The present study was conducted to observe the changes in the serum uric acid level of the Swiss albino rats due to the administration of Endosulfan. 3.0 mg Endosulfan/kg body weight was daily administered orally to albino rats for 28 days period. Alterations in their K.F.T. parameters were recorded at a regular interval of 7 days within this 28 days period and were compared with those of control rats. All rats were monitored for any observable toxic symptoms throughout the experimental period and they also were weighted weekly to monitor body weight gain. Alteration recorded in K.F.T. parameters within the groups were due to Endosulfan exposure and serum uric acid level was significantly elevated in the 3mg/kg dose group. Pathological changes of rats treated with Endosulfan were observed with typical signs of toxicity. Uric acid is a heterocyclic compound formed as an end product of metabolism of purine nucleotides. It forms ions and salts known as urate and acid urate which are harmful to our health. Uric acid clearance is one of the numerous important functions of the kidney. Defects in this process resulted in Gout, kidney stone or Kidney failure.

Keywords : KFT parameters, blood uric acid level, endosulfan, eat

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