EFFECT OF TAURINE ON LIPID PROFILES AND LIVER ENZYMES ON MERCURY CHLORIDE INDUCED OXIDATIVE STRESS IN WISTAR RATS

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ABSTRACT

The effect of Taurine on mercury chloride-induced oxidative stress in Wistar rats was evaluated. Fifteen Wistar rats of both sexes weighing 90-100g were grouped into three groups of five rats each. Oxidative stress was induced by oral administration 12.5 mg/kg bodyweight Mercury chloride (w/v) for three weeks. Taurine was administered for ten days. At the end of the period of administration the rats were sacrificed and blood was collected from the heart via cardiac puncture technique. The blood samples were collected in Eppendorf tubes and allowed to clot. Thereafter the serum was separated by centrifugation. The serum was used for the determination of lipid profile and liver enzymes. As regard to the lipid profile the results showed a statistically significant decrease (p<0.05) in the serum levels of total cholesterol, triglyceride and low density lipoprotein in groups administered with 100 and 200 mg/kg Taurine compared with the control group. However, there was a significant increase (p<0.05) in the serum level of high density lipoprotein in the groups administered the two doses of Taurine when compared with the control group. In relation to the liver enzymes, there was a significant (p<0.05) decrease in the serum levels of AST, ALT and ALP when compared with the control. In conclusion, Taurine possesses hypolipidemic effect may reduce liver damage in mercury chloride-induced oxidative stress.

Keywords: Mercury chloride, Taurine, lipid profile; liver enzymes

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