



Research article

Protective effect of curcumin on cadmium induced alteration in serum lipid profile of albino mice

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Abstract

Cadmium exposure can induce acute lethal health related threats in humans since it has exceptional ability to accumulate in the tissues of living organisms and cause toxicological effects. Curcumin on the other hand has a wide variety of biological activities and has protective effects against several ailments and infections. The present study was conducted to determine the cadmium induced toxicity and protective effects of curcumin on lipid profile of mice. Mice were divided into four groups. Group 1 mice were kept as control. Group 2 mice were given 1mg/kg bw of cadmium on alternate days. Group 3 mice were given 1mg/kg bw of cadmium on alternate days and 100mg/kg bw of curcumin daily. Group 4 mice were given 100mg/kg bw of curcumin daily and were kept as positive control. Autopsies were done at the intervals of 15 and 45 days. Blood was collected, serum was separated and lipid profile was estimated. There was observed a significant increase in serum cholesterol, LDL-c, VLDL-c, triglycerides and a significant decrease in HDL-c in cadmium treated groups in comparison to control at both the intervals. But in curcumin treated groups, there levels were found to attain almost normal values as found in control. Therefore, the results suggest that curcumin has ameliorating action as it exhibited the ability to resist the harmful action of cadmium.