

Protective Effects of Vitamin E in Some Physiological and Biochemical Parameters Changes in Rabbits Exposed to Cytosar

Abstract:

The objectives of the present study were to examine the side-effects of Cytosar on some physiological and biochemical parameters in rabbits and evaluate the protective effect of Vitamin E in rabbits administered Cytosar. Twenty-seven white New Zealand healthy male adult rabbits weighing 1.5-2.0 kg were randomly divided into 3 experimental groups including (i) control group; treated with 1mL distilled water intra-peritoneal (IP), (ii) Cytosar group; treated with 1 mL Cytosar (50 mg/kg) IP, and (iii) Cytosar-vitamin E group; administered vitamin E orally (800 IU) 4 hours before the Cytosar injection (50 mg/kgIP). All groups were treated daily for 5 days. On day 5, all rabbits were sacrificed, and blood samples were collected. Results showed that the concentrations of GOT, GPT, ALP were significantly increased in Cytosar group compared to control and Cytosar-vitamin E groups. No differences were observed between control and Cytosar-vitamin E groups. Calcium and phosphorus concentrations were not different between study groups. In conclusion, Cytosar has a direct toxic effect of the liver in rabbits; however, administration of vitamin E before Cytosar can have a protective effect.