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Poster Presentation

P 43: The Effect of Carvacrol on Blood Pressure and Some Blood Parameters in Lead-Exposed Rats

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Abstract

Lead intoxication is one of the most health hazards in humans at all ages. Lead impairs oxidant/antioxidant balance that can be partially responsible for the toxic effect of lead in the various organs of body especially cardiovascular sys tem. The main objective of this study was to evaluate the effect of carvacrol as anti-oxidative agent on hypertension and some blood parameters in lead poisoned rats. 40 male wistar rats were used in this study and were randomly divided into 5 groups. The first group was control, the second group was lead acetate (500ppm) orally received, 3 another groups co administrated lead acetate with carvacrol (25, 50 and 100 mg/kg daily for 40 days). The systolic blood pressure was monitored weekly by tail plethysmography coupled to a computer system. Blood samples were obtained for assessment of some hematological parameters (RBC, Hb, Hct, WBC) at the end of experiment. The mean blood pressure in lead exposed group was significantly higher than control group from 21 days. Carvacrol caused a decrease in hypertension in the lead poisoned rats compared with control group. This deceasing was consistent throughout the experiment. Some blood parameters (RBC, Hb, Hct, WBC) were found to be decreased in the lead groups. These changes were prevented in the lead groups that received carvacrol. According to the result of this study, it may be concluded that carvacrol could improve some lead induced changes in the cardio vascular system.

Keywords: Carvacrol, Blood Pressure, Rats, Hematological Parameters

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