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Degree : M.Sc

Title of Thesis :
Biochemical study of antioxidant and immunostimulant effect of some plants in acrylamide intoxicated rats

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ABSTRACT

1- The main target of the present study is to investigate the toxic and hazard effects of acrylamide on male *sprague Dawley* rats and to study the protective effects of both white tea and raspberry ketone against AA-intoxicated rats via biochemical , histopathological and immuno-histopathological studies.

2- 100 male *Sprague Dawley* rats were divided into 8 experimental groups with 10 rats/group. Group 1: Untreated control animals. Group 2: animals treated orally with acrylamide (5 mg/Kg b.w./d). Group 3 : animals administrated orally (0.2 mg/70g b.w./d) of RK. Group 4: animals treated orally with (5 mg/Kg b.w./d) of acrylamide along with (0.2 mg/70g b.w./d) of RK. Group 5 : animals treated orally with RK (0.4 mg/70g b.w. /d). Group 6 : animals treated orally with (5 mg/Kg b.w. /d) of acrylamide and (0.4mg/70g b.w./d) of RK. Group 7: animals administrated orally (0.5 mL/100g b.w./d) of WT. Group 8 : animals treated orally with (5 mg/Kg b.w./d) of acrylamide along with (0.5 mL /100g b.w./d) of WT then the animals were sacrified at the end of the experimental period (8 weeks).

3- Our results revealed a significant decrease in body weight, SOD and catalase activity and a significant decrease in cholesterol and triglyceride concentrations and also a significant increase in lipid peroxidation, liver enzymes activity and adiponectin concentration in acrylamide treated group in compared to control group .

4- Our results also showed the protective effect of WT and RK against the hazard effects of AA through increasing antioxidant enzyme activities and decreasing oxidative stress, liver enzymes activity and adiponectin concentrations and also normalized structure of liver tissue and decreased Caspase 3 immunoexpression in compared with acrylamide group.

The summary not more than 500 words