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AMELIORATIVE EFFECT OF *SILYBUM MARIANUM* EXTRACT AGAINST AVERMECTIN INDUCED TOXICITY IN ADULT MALE RATS

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ABSTRACT

Objective: The present study was undertaken to evaluate the protective antioxidative effects of *Silybum marianum* extract aganist avermectin induced toxicity of liver, kidney and testes in male rats.
Materials and Methods: Male Sprague-Dawley rats orally received combination of avermectin at 1/10 LD_{50} and ethanol extract of *Silybum marianum* at 200 mg/kg body weight to investigate the protective role of *Silybum marianum* in attenuating the toxicity induced by avermectin on liver, kidney and testes. These effects were studied on various on various parameters in rat plasma, including lipid peroxide (malondialdehyde), ascorbic acid, urea, ALT, total protein, albumin and total cholesterol in addition to histopathological investigation of each of liver,kidney and testes..
Results: Avermectin toxicity resulted in significant increase in plasma lipid peroxide, urea and total cholesterol levels. and insignificant increase in activity of ALT. On the contrary, avermectin intoxication caused significant inhibition in the levels of ascorbic acid, total protein and albumin. The treatment with plant extract was significantly decreased the levels of lipid peroxide urea and total cholesterol. Moreover, treatment resulted in the elevation in the levels of ascorbic acid and total protein and albumin, as well as insignificant decrease in the activity of ALT in comparison to group administered avermectin alone. Histopathological study showed some protective effect of *Silybum marianum* extract on liver and kidney tissues. Testes also showed complete series of spermatogenesis with mature sperms in the lumen in comparison to that of rats ingested avermectin, alone.
Conclusion: plant extract of *Silybum marianum* possesses substantial protective effect and free radical scavenging mechanism against avermectin –induced oxidative damages to vital organs of the body, hence it can be used as a protective drug against toxicity induced by pesticides.

Keywords: *avermectin, Silybum marianum, toxicity, histopathological study.*