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## Physiological studies on the effect of *lepidium sativum* and ursofalk (ursodeoxycholic acid) against the toxicity of carbon tetrachloride on albino rats

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Carbon tetrachloride ( $CCl_4$ ) is considered as one of the environmental pollutants induced toxicity in human and animals. This study, was established five groups (n= 10) of Albino rats, (average body weight, 230-280g), to determine the therapeutic effect of *Lepidium sativum* and ursofalk (ursodeoxycholic acid) against the toxicity of  $CCl_4$  in most organs. The first groups group (1) was received orally NaCl 0.9% and used as a normal group. Group (2) was injected intraperitoneal (i.p.) with  $CCl_4$  (1 ml/kg), 3 times weekly, for 2 weeks (used as a control). Group (3) was given orally Ursofalk (100 mg/kg per body weight), group (4) was given orally *Curcuma longa* (100 mg/kg body weight) and group (5) was given the same doses of Ursofalk plus *Lepidium sativum* for 30 days respectively, post-injected intraperitoneal (i.p.) with  $CCl_4$  (1 ml/kg) 3 times weekly, for 2 weeks. All animals were sacrificed post-treatment. Two blood samples were collected, for hematological and biochemical parameters. Specimens from most visceral organs were collected for histopathological examination. The obtained hematological and biochemical results in control animals group (2) revealed a highly significant decrease in total RBCs, platelets, Hb and PCV, serum uric acid, albumin, glucose, HDL-cholesterol, besides catalase, GSH, SOD activities in liver tissue, while WBCs, serum ALT, AST, ALP,  $\gamma$ -GT, creatinine, urea, cholesterol, triglycerides and LDL-cholesterol levels, besides Malondialdehyde (MDA) and Nitric Oxide (NO) levels in liver tissue showed a highly significant increase. Meanwhile, groups (3, 4 & 5) displayed reverse effect in all parameters and return to normal especially group (5). The histological results displayed inflammation with necrosis and degenerative changes in group (2), while remain groups showed mild changes particularly in group (5). It could be concluded that  $CCl_4$  induced severe destruction in most organs, which showed a clear improvement by using of Ursofalk and *Lepidium sativum* as treatment.

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