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Effect of a bradykinin potentiating factor isolated from scorpion venom; *Buthus occitanus* on liver injury of albino rats induced by Carbon tetra chloride (CCl4)

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It is well known that, inhalation or injection of carbon tetrachloride (CCl4) cause liver injuries (fibrosis or cirrhosis). Therefore, the main purpose of this study is evaluated the ability of bradykinin potentiating factor (BPF) isolated from scorpion venom (Buthus occitanus) in attenuation of liver injuries by injection of CCl4 in male Albino rats. Male Albino rats (250±30 gm body weigh) were divided into three groups. In the control group; Albino rats were interaperitoneally (i.p) injected with 100 µL saline solution. The second and third groups were i.p. injected with 0.05ml/kg body weight (b. w.) twice weekly of CCl4 for fifteen days, after that only the third group treated by BPF in 100 µL saline solutions (1µg/gm. b. w. per 5days). Every group contains 16 animals and sacrificed at 15 and 30 days post-treatment by BPF (8 animals per each). The results indicated that, CCl4 injection induced a significant decrease in serum catalase, superoxide dismutase, glutathione, total protein, and albumin, within fifteen and thirty days, post-injection of CCl4 as compared to the normal control group. In contrary, CCl4 induced a significant increase in malondialhyde (MDA), aspartate amino transferase (AST), alanine amino transferase (ALT), and alkaline phosphatase (ALP) compared to normal control animals. However, the efficiency of BPF treatment alleviated the effects of CCl4 on these parameters. The improvement of these parameters may be attributed to the induction of growth factors, release cytokines and/or amelioration of the toxic effects of CCl4 on the liver that necessitates future investigations.

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