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Comparative studies on hepatoprotective agents in rats

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ABSTRACT

This study was designed to investigate the hepatoprotective and antioxidant activities of *omega-3, l-carnitine, vitamin c and* their combination against acetaminophen-induced hepatotoxicity in rats. Rats were pretreated with *omega-3, l-carnitine, vitamin c and* their combination for twenty-one days prior to oral ingestion of acetaminophen. Then rats received a single toxic dose of acetaminophen. The obtained results showed that pretreatment with *omega-3, l-carnitine, vitamin c and* their combination limited the toxic effects of acetaminophen. This study concluded that animals treated with the combination (25 OLV) [25 mg/kg b.wt. p.o. Omega-3 plus 50 mg/kg b.wt. p.o. L-Carnitine plus 100 mg/kg b.wt. p.o. Vitamin-C] showed the highest hepatoprotective activity against experimentally induced hepatotoxicity in rats. That appeared in most performed tests ALT, AST, Cholesterol, HDL-cholesterol, LDL- cholesterol, Il-6, TNF-α, MDA, NO_X, GSH, FTIR, Histopathology and Immunohistochemistry (Caspase-3 and Bax).

Key words: Acetaminophen, Omega-3, L-carnitine, Vitamin c, Liver injury, Interleukin-6, FTIR.

I would to dedicate this achievement to my dear loving parents, my father Adel Mahmoud El-Gendy and my mother Mhassen El-Sayed Mohamed.

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