Hepatoprotective potentials of some plant extract against insecticides induced oxidative stress and liver damage in mice

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The liver plays an essential role in metabolism and detoxification of xenobiotics including pesticides. Due to these functions, hepatotoxicity continues to be among the main threats to public health. Therefore, the present study was designed to evaluate the antioxidant and hepatoprotective effects of Cedrelopsis grevei (C. grevei) leaves against cypermethrin induced oxidative stress in male mice. For hepatoprotective evaluation, male mice were daily exposed to Cyp and/or C. grevei by gavages for 28 days. Hepatoprotective effects were demonstrated by significant alterations in serum liver dysfunction biomarker enzymes, liver lipid peroxidation and antioxidant enzymes. In view of the data of the present study, it can deduce that cypermethrin caused oxidative damage and liver dysfunction in male mice. However, supplementation of C. grevei extract has attenuated the insults of those biochemical parameters. Results indicated that administration of C. grevei is useful, easy, and economical to protect humans against pesticide toxicity. The results presented here can be considered as the leading information on the hepatoprotective and antioxidant properties of C. grevei extracts.

Biography

Tarek Heikal is a Professor of Poisons and Drugs at National Research Centre. He has completed his PhD at Cairo University and Post-doctoral studies at National Research Centre, Cairo, Egypt. He participated in many local and international projects, and in many international conferences and workshops. He has published more than 30 papers in reputed journals and has been serving as an Editorial Board Member of reputable journals. His scientific interest is in “Evaluating toxicities on liver, kidney, brain, and reproductive organs, as well as searching for different natural remedies of pharmaceutical potentials”.

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