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Anti-diabetic and anti-nociceptive potential of selected eastern-Mediterranean medicinal plants

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Diabetes mellitus and its related complications are of the major chronic diseases affecting millions of people worldwide. Recently, there has been an increasing need in the use of medicinal plants to ameliorate and control DM. This is attributed to that most of the pharmaceutical products in the market induce severe complications following long term use. In response, many Eastern-Mediterranean patients use traditional herbs to treat DM. The purpose of using these herbs is the economical value and the fewer side effects of these herbs, compared to the marketed synthetic drugs. Our current work aims at standardization and evaluation of the antidiabetic and antinociceptive potential of two selected Eastern-Mediterranean plants. Bio-guided and RP-HPLC fractionation combined with acute (6 hrs) and subacute (8 days) administration of extracts and their most active fractions were assessed in alloxan diabetic mice (n=7/group). Likewise, the thermal anti-nociceptive effects were investigated chronically (8 weeks) to assess the herbal plants ameliorating effect on alloxan-induced diabetic neuropathy. Our results demonstrated significant experimental anti-diabetic and anti-nociceptive effectiveness. It is strongly recommended to consider the Eastern-Mediterranean medicinal plants to the amelioration of chronic diseases, such as DM and its related complications.

Biography

Karim M Raafat has completed his PhD at the age of 28 years from German University in Cairo, New Cairo, Egypt, under the channel system and joint supervision scheme between The German University in Cairo (GUC) and Johann Wolfgang Goethe-University Frankfurt, Germany and Postdoctoral studies from Beirut Arab University (BAU) and German University in Cairo. He is a visiting Scientist of Johann Wolfgang Goethe-University, Frankfurt, Germany. He is the Head of Phytochemistry Research Team and Junior Research Team, BAU, Lebanon. He has published twenty four peer reviewed journal articles and presentations in scientific conferences. He has been honored with several national and international awards in the scientific field and public service.

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