



Comparative Study of Palm Leaves Extract and Glibenclamide in diabetic female rats induced by alloxan

Nabeel M. N. Al-Sharafi*¹ and Nadia K. J. Al-Dawah¹

¹Department of Physiology and Pharmacology/Faculty of Veterinary Medicine/
University of Kufa/ Iraq.

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*Corresponding author:

Email address:

nabeelm.naji@uokufa.edu.iq

Abstract

This study was designed to compare the effect of palm leaves extract and glibenclamide in diabetic female rats induced by alloxan. Twenty four adult female rats were randomly divided into four equal groups (6 rats in each group), three groups were

injected intraperitoneally (i.p.) with single dose alloxan (100 mg kg⁻¹B.W) and acted as G1, G2, and G3 and treated orally with (200mg/kg B.W.) palm leaves extract in G1 and (5mg/kg B.W) glibenclamide in G2 , while G3 and fourth group (C) consider as positive(+ve) and negative(-ve) control respectively. Fasting blood sample were collected at 15 and 30 days of experiment (after diabetes induction) for measuring of plasma glucose concentration, aspartate aminotransferase(AST) and alanine aminotransferase(ALT) activity. These parameters were used as a guide for comparison between palm leaves extract and glibenclamide in ameliorating effects of diabetes. The results revealed that i.p. injection of alloxan caused hyperglycemia and significant increase in activity AST, ALT and serum glucose concentration in G3 treated group. The palm leaves extract exhibited significant anti-hyperglycaemic activity in alloxan induced diabetic rats. A significant correction of the plasma glucose concentration and ALT and AST activity was observed in G1 in compare with the G1 treated group at 30 days and G2 glibenclamide treated group. In conclusion, these studies reveal that the palm leave extract was worked as anti-diabetic in the alloxan induce diabetic rats model for minimize the complication associated with the diabetic and related disorder.

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