

The Effect of Hydroalcoholic leaf Extract of Prosopis Farcta on Blood Glucose in Diabetic Rats

Kamali SH¹, Esmaeilzadeh Bahabadi S^{2*}, Miri HR³, Hajinezhad M⁴, Dahmarde F¹

1- MSc, Department of Biology, Faculty of Basic Sciences, University of Zabol, Zabol, Iran.

*2- PhD, Department of Biology, Faculty of Basic Sciences, University of Zabol, Zabol, Iran.

3- PhD, Department of Basic Sciences, Faculty of Veterinary, University of Zabol, Zabol, Iran.

4- PhD, Torbat Heydariyeh University of Medical Sciences, Torbat Heydariyeh, Iran.

corresponding author: Esmaeilzadeh Bahabadi S, Department of Biology, Faculty of Basic Sciences, University of Zabol, Zabol, Iran.

Email: esmaeilzadeh@uoz.ac.ir

Abstract

Background and Aims: Diabetes mellitus is a chronic disease recognized by a reduction in insulin secretion due to the malfunction of β cells in the pancreas or an increase in the cell's resistance to insulin. Today, the trend in the treatment of diabetes by herbal medicines which have fewer side effects than chemical drugs has promoted. The aim of the present study was to evaluate the effect of hydro - alcoholic *Prosopis farcta* leaf extract on the blood glucose in diabetic rats.

Materials & Methods: In this study, 45 male rats were randomly divided into three groups: 15 healthy controls and diabetic controls and diabetic treated by *Prosopis farcta* leaves extract. Type 1 diabetes was induced in rats with 300-150 g weight by injected Streptozotocin at 60 mg / kg dose. Diabetic rats were treated daily with 300 mg / kg hydroalcoholic leaf extract of *P. farcta* for 30 days. Healthy control and diabetic control groups received distilled water during this time. Then the blood glucose was measured at day before and days 15 and 30 after injection of extract.

Results: Based on the results, the weight of rats did not change in healthy controls and diabetic controls and treated diabetic. Blood glucose level in the treated diabetic group decreased compared to the control group at day 15.

Conclusion: The results of this study showed that hydroalcoholic leaf extract of *P. farcta* had anti diabetic effects.

Keywords: Diabetes Mellitus, *Prosopis farcta*, blood glucose