

Abstract:

Diabetes mellitus is the most common metabolism disorder, and nowadays is one of important mortality causes in life. Since during several years natural drugs especially herbs have used for treatment and also their raw material applied in pharmacy industry, so according to anti-oxidant properties of *prosopis fracta* (rattles plant) and its effect on treatment of diabetes, in this research the effect of hydraulic extract of this plant on blood glucose and *PFK1* gene have been determined. In this research 45 male rats categorized in to three groups randomly; healthy and normal group, diabetic group and treated group by using *prosopis fracta* extract. After streptozotocin injection (60 mg/ kg) in male rats the first kind of diabetes produced. Treated diabetics group received rattles extract for 30 days. Then in the day before extract injection and 15 and 30 days after injection the glucose in blood determined and expression of *PFK1* liver gene evaluated by using Real- Time PCR method. Results showed that glucose in blood decreases in day 15. But there is no meaningful relation between diabetic group and treated one in day 30. An expression of *PFK1* gene in treated diabetic group wasn't meaningful and there were no increasing. Therefore extract has not any influence on gene expression ($P>0/05$)

Key words: first kind of diabetes, *prosopis fracta*, hydraulic extract, phospho- fructo- kinas- 1



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**The Thesis Submitted for the Degree of M.Sc
(in the field of Genetic)**

**Effect of alcoholic extract of *prosopis farcta* (fruit on gene
expression of phosphofructo kinase -1 in diabetic
rats(type 1).**

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September 2014