

## عنوان مقاله:

Health-giving effects of camel milk on diabetes mellitus treatment

## محل انتشار:

همایش بین المللی غذای طیب (سال: 1401)

تعداد صفحات اصل مقاله: 2

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## خلاصه مقاله:

**Introduction-** Diabetes mellitus is a set of metabolic disorders characterized by chronic increase of blood glucose levels and impairment in metabolism of carbohydrates, fats, and proteins. The patients have a trouble in the production of insulin or response to it, or both. It is predicted that the worldwide prevalence of diabetes mellitus in ۲۰۳۰ increased to ۴.۴%, and the total number of people with diabetes will reach ۳۶۶ million. Over the years, the usage of natural remedies along with pharmacological interventions in controls and treatment of diseases, mostly about diabetes, has always been considered. Camel milk contains significant amounts of minerals (Na, K, Fe, Cu, Zn, Ca, P and Mg) and of large value of immunoglobulins (G and A), vitamins (A, B<sub>۲</sub>, C and E), lactoferrin, lactoperoxidase, which can be used as a good nutrient source for humans. Also, it contains less amount of short-chain fatty acid and a high concentration of long chain fatty acids. oral administration of insulin destroys it in the acidic medium of stomach. Therefore, proper treatment of diabetes includes insulin injections as continuously to maintain blood glucose level. Camel milk contains bioactive insulin like proteins (about ۵۲ U/L), that mimic insulin interaction with its receptor which does not form coagulum in the acidic media of stomach. The present study is aimed to evaluate anti-diabetic effects of camel milk on glucose homeostasis.

**Methodology-** The present review article was completed by searching "Pubmed" and "Google scholar" by different combinations of terms from the list of MeSH "diabetes" and "camel milk". We searched databases from ۲۰۱۵ until the end of September ۲۰۲۲.

**Findings-** Camel milk administration can have positive effects on glycemic control, by reducing fasting blood sugar, significant decrease in HbA<sub>1c</sub> levels and improving lipid profiles in diabetes patients. The fatty acid composition of the camel's milk, has a significant amount of Oleic acid, which is a MUFA, and could possibly have a role in reducing insulin resistance in patients with diabetes. The other specific factor is that the camel milk fat has low short chain fatty acids with a number of ۴ to ۱۲ carbons. It has been shown that diet with short chain fatty acids can significantly rise triglyceride, cholesterol, and free fatty acids in the plasma and create a state of insulin resistance throughout the body.

**Conclusion-** Camel milk and some its effective components influence insulin secretion by effect on the pancreatic  $\beta$ -cells and stimulate insulin receptor function in the

... insulin-sensitive tissues without any anti-gene

**کلمات کلیدی:**

Camel, Milk, Diabetes, Insulin

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