

TITLE

**Antihyperglycemic
Effect of Camel Milk
in Streptozotocin-
Diabetic Rats**

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Camel milk is different from other ruminant milk; having low cholesterol; low sugar; high minerals especially zinc; high vitamin C; low protein and large concentrations of insulin. In Saudi Arabia, camel milk is traditionally used for many medical approaches. The study was designed to investigate the antihyperglycemic effect of camel milk on streptozotocin (STZ)-diabetic rats. Diabetes was induced in adult male albino rats of the Wistar strain, weighing 180-200 g, by administration of streptozotocin (40 mg/kg of body weight) intraperitoneally. Diabetic rats showed increase of plasma glucose and glycosylated haemoglobin (HbA1c) and a decrease of plasma insulin and haemoglobin (Hb). Activities of gluconeogenic enzymes such as glucose 6-phosphatase, fructose 1, 6- biphosphatase increased and glucokinase, glucose 6-phosphate dehydrogenase decreased in the liver along with glycogen. Oral administration of camel milk 250 ml for 45 days prevented the above changes and improved towards normalcy. These results indicate that camel milk possesses antihyperglycemic effect on long-term treatment and its effect was comparable with glibenclamide.

Biography

Dr. Khalid S. Al-Numair is working as an Associate Professor of Nutrition Science in the College of Applied Medical Sciences, King Saud University. He got his Bachelor degree in Food and Nutrition and Ms in Human Nutrition from the King Saud University, Riyadh, Saudi Arabia. He obtained his PhD in Community and Applied Nutrition, from University of Nebraska, USA April, 2004. In addition he performed many Administrative responsibilities being the Vice-President Assistant for graduate studies and scientific research, 2009-Present; Consultant, Vice President for Knowledge Exchange and Technology Transfer, 2008-Present; and Deputy director of Prince Sultan Bin Abdulaziz International Program for Distinguished Research 2008-2009. Dr. Khalid and along his university career excelled himself as a distinguished fellow for instance he got the Publication Quality Awards, KSU,2009; Prince Bandar Ben Sultan Al-Saud's Academic Excellence Award for doctoral degree, USA, 2004; Outstanding Student, Intensive English Program, University of Nebraska-Lincoln, USA, 1999; The Ideal Student's Award - College of Food Sciences and Agriculture, King Saud University, 1995; and the Social Activities Excellence Award, College of Food Sciences and Agriculture, KSU, 1995. He has published a good number of papers in reputed journals and serving as an editorial board member in various journals.