Original Article

Effects of Ramadan Fasting on Blood Levels of Glucose, Triglyceride and Cholesterol among Type II Diabetic Patients

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Abstract

Background: *Ramadan is the Holy month of the Muslims where they are required to fast from dawn to sunset, with liberal access to food and fluids in the evening. Our study was conducted in Ramadan (October-November 2004) to investigate the effect of Ramadan fasting on glucose and lipid profiles among type II diabetic patients.*

Methods: *Our study population was 55 adult diabetic patients (38 female, 17 male) of a mean age of 55.82±16 years. Three samples of blood were taken at three intervals (Before, during and after Ramadan). The Glucose, Triglyceride, Total cholesterol and lipoproteins were determined and the results were compared using student t- test.*

Results: *There was an increase in the glucose level during Ramadan compared to pre Ramadan value (10.36±3.30 versus 9.25±2.91 mmol/L). After Ramadan there was statistically significant decrease of glucose level (8.93±3.3; $p<0.05$). The triglyceride levels showed a slight increase and decrease during and after Ramadan, respectively (1.45±0.65 versus 1.41±0.58 mmol/L). As well, the level of total cholesterol showed a slight increase and decrease during and after Ramadan respectively (5.73±0.67 versus 5.43±1.05 mmol/L). The levels of LDL-C and HDL-C showed similar changes.*

Conclusion: *Our study showed slight increase in the levels of glucose, triglyceride and cholesterol during Ramadan fasting, but with a return to the pre-fasting levels after the end of Ramadan.*

Keywords*: Fasting, glucose, triglyceride, cholesterol, Diabetes mellitus*