

THESIS ABSTRACT

Evaluation of the Predictive Value of Ghrelin and Adiponectin as Biomarkers in Type 2 Diabetes Mellitus.

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Abstract

Background: Type 2 diabetes mellitus [DM] is the most pervasive diabetic disorder, as the fourth major cause of mortality worldwide and form 80% - 90% of all cases of diabetes mellitus.

Aim: This study aims at evaluating the role of ghrelin and adiponectin level in patients with type 2 diabetes mellitus as biomarkers.

Material and method: A case - control study was conducted and included 65 patients with type 2 diabetes mellitus (18 males and 47 female) and 50 apparently healthy controls (18 male and 32 female). Fasting serum samples were obtained and used for the measurement of serum glucose by enzymatic colorimetric method using Randox diagnostic kits (UK), lipid profile enzymatic colorimetric method using Biolabo diagnostic kits (France). Serum adiponectin and serum ghrelin by using ELISA method of mybiosource, glycated haemoglobin (HbA1c) by Nycocard method.

Result: Fasting serum glucose, HbA1c, total cholesterol, triglyceride, CHO/HDL, LDL/HDL, NHDL/HDL and serum low density lipoprotein showed significant increase ($p < 0.05$) in diabetic patients when compared to control group. High density lipoprotein cholesterol and serum ghrelin levels showed significant decrease in diabetic patients ($p < 0.05$) as compared to control but serum adiponectin decreased in patients in relation to control but statistically no significant.

Conclusion: Serum ghrelin demonstrated significantly lower levels in diabetic patients as compared to control, while slightly difference in serum adiponectin levels in type 2 DM patients as compared to control.

Key words: diabetes, lipid profile, ghrelin, adiponectin, CHO/HDL, LDL/HDL, NHDL/HDL.