

PO34 Adiponectin is Inversely Correlated with Lipoprotein (A) in Type 2 Diabetes Mellitus

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ADIPONECTIN IS INVERSELY CORRELATED WITH LIPOPROTEIN(A) IN TYPE 2 DIABETES MELLITUS

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Background: Diabetes is considered a major health problem with increasing prevalence, and leading cause of morbidity, mortality and vast complications. Cardiovascular disease is the most life-threatening consequences of diabetes mellitus with mortality rates up to two to four times higher for persons with diabetes mellitus. Adiponectin has been identified as the “adipocytokines” that are derived from adipose tissue. Adiponectin plays a crucial role in insulin resistance and type 2 diabetes mellitus (T2DM) especially in obese people. Adiponectin has protective role in the initiation and progression of atherosclerosis through anti-inflammatory and anti-atherogenic effects. Many clinical studies have demonstrated that low plasma adiponectin level (hypoadiponectinaemia) associate closely with obesityrelated diseases, including atherosclerotic cardiovascular diseases, T2DM, hypertension and dyslipidemia. Lipoprotein (a) is composed of a low-density lipoprotein particle and a glycoprotein molecule known as apolipoprotein(a) and is considered a pro-atherogenic, pro-thrombotic risk factor for coronary heart disease. Lipoprotein(a) have been reported to impact arterial endothelial function and have been proposed as independent risk factor for cardiovascular disease in diabetic patients. Aim of this study was to investigate the relationship between adiponectin and lipoprotein (a) in T2DM.

Method: The study was a cross sectional analytical study which has enrolled T2DM patients who were on routine follow up in private out patients diabetic clinic. The study included T2DM patient with age >40 years old. Informed consent was obtained from all patients. Exclusion criteria for the study group were: history of alcohol abuse, history having cardiovascular disease or cerebrovascular disease. Patients with end stage renal disease or on dialysis and with active hepatic disease were again excluded from the study.

Adiponectin and lipoprotein(a) was measured. Statistical analysis was performed using Pearson correlation test.

Result: Enrolled patients were 82 subjects, 50 male (61%) and 32 female (39%); mean of age was 57.17 ± 13.3 years. The laboratory results of mean adiponectin level was 6.79 ± 4.6 mg/mL and mean lipoprotein(a) level was 17.98 ± 9.77 mg/dL. Statistical analysis showed that adiponectin significantly and inversely correlated with lipoprotein(a) ($r = -0.648$, $p = 0.001$)

Conclusion: There was significant inverse correlation between adiponectin and lipoprotein(a) in T2DM

Reference(s)

- [1] Weiss R, Otvos JD, Miserez AR, Flyvbjerg A, Frystyk J, Sinnreich R, Kark JD. Adiponectin and Lipoprotein Particle Size Diabetes Care 32: 1317–1319, 2009.
- [2] Mojtaba E, Anoosh E, Shahram S, Reza I. Adiponectin in relation cardiovascular risk factors in diabetic. Annals of Biological Research, 2011, 2 (6): 349–355.
- [3] Mojtaba E, Doali H, Khorshidi D. Relationship between serum adiponectin with anthropometrical and lipid profile biochemical indexes in obese adult men. 2011 International Conference on Environmental, Biomedical and Biotechnology IPCBEE vol. 16 (2011).

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