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THE ASSOCIATION OF ADIPOQ GENE POLYMORPHISMS DIABETIC RETINOPATHY IN GREEK PATIENTS.

Poster

Gouliopoulos N.^[1], Bouratzis N.*^[2], Siasos G.^[3], Oikonomou E.^[3], Kollia C.^[3], Konsola T.^[3], Oikonomou D.^[1], Rouvas A.^[1], Kassi E.^[4], Tousoulis D.^[3], Moschos M.^[5]

^[1]2nd Department of Ophthalmology, University of Athens Medical School, Attikon Hospital, Athens, Greece ~ Athens ~ Greece, ^[2]Specialized Eye Hospital Ophthalmiatreion Athinon ~ Athens ~ Greece, ^[3]1st Department of Cardiology, University of Athens Medical School, Hippokration Hospital, Athens, Greece ~ Athens ~ Greece, ^[4]1st Department of Propaedeutic and Internal Medicine, Division of Diabetes, University of Athens Medical School, Laiko Hospital, Athens, Greece ~ Athens ~ Greece, ^[5]1st Department of Ophthalmology, University of Athens Medical School, G. Gennimatas Hospital, Athens, Greece ~ Athens ~ Greece

Purpose:

To examine whether ADIPOQ rs1501299 and rs2241766 gene polymorphisms are associated with diabetic retinopathy (DR) in a cohort of Greek diabetic patients

Methods:

In our study 218 patients with type-2 diabetes mellitus (T2DM) were included. A complete ophthalmological examination was performed to every participant in the study; 109 were identified as DR patients and 109 as non-DR. Clinical and demographic data were also assessed, while the patients were genotyped for G276T (rs1501299) and T45G (rs2241766) single nucleotide polymorphisms of ADIPOQ gene.

Results:

No significant differences were detected regarding the demographic and clinical data between the studied groups, except for HbA1c levels and frequency of insulin treatment (higher in DR patients). The frequency of rs1501299 GT genotype was significantly higher in DR patients (53% vs. 34%, $p=0.004$) and was associated with a higher risk for developing retinopathy (OR 2.31, 95% CI 1.30-4.11). Furthermore, the rs1501299 GT genotype was significantly and independently associated with increased odds for DR development in diabetic patients (OR 2.68, 95% CI 1.38–5.21, $p = 0.004$), regardless of the impact of other known risk factors.

Conclusions:

We identified rs1501299 GT genotype as a potent and independent risk factor of retinopathy in T2DM Greek patients, while no role for rs2241766 polymorphism was recognized.