

March 26-28, 2018
Vienna, AustriaEman H EL-Adawy et al., Int J Anesth Pain Med 2018, Volume 4
DOI: 10.21767/2471-982X-C1-003

ASSOCIATION OF IGF-1 GENE POLYMORPHISM WITH DIABETIC NEPHROPATHY IN EGYPTIANS WITH TYPE 2 DIABETES

Eman H EL-Adawy¹ Mohamed A Hegazi³, Amal Seleem², and Mahmoud E Abdelhamid⁴¹Specialized Medical Hospital - Mansoura University, Egypt²Mansoura University Hospital, Egypt³Tanta Univeresity, Egypt

Background: Genetic susceptibility has been proposed in development and progression of diabetic nephropathy (DN) which accounts for the majority of chronic renal failure on hemodialysis among Egyptians. IGF-1 gene polymorphism has been studied in DN in type 1 diabetes but not yet in type2.

Aim: The aim of this study is to investigate the association of IGF-1 gene polymorphism with DN in Egyptians with T2DM.

Methods: A case control study of 52 T2DM were divided into 26 without DN and 26 with DN, of average age 52.7±6.1. Twenty five age and sex matched healthy control were selected. We genotyped two tagging single nucleotide polymorphisms (SNPs) in IGF-1; rs6214 and rs10860860. Genotypic distribution was tested for Hardy-Weinberg equilibrium and was evaluated by using the χ^2 tests. Participants were assessed clinically and laboratory for FBS, HBA1c, serum creatinine, urine albumin, uric acid and lipid profile.

Results: The genotype frequency GG of IGF-1 gene SNP rs6214 was associated with the risk of DN (AA: OR=0.98, 95% CI: 0.25 – 3.84, p = 0.97; AG: OR=0.21, 95% CI: 0.05 – 0.79, p = 0.002; GG: OR= 20.57, 95% CI: 2.25 – 74, p = 0.001). The AA variant genotype of rs10860860 also associated with the risk of DN (AA: OR=7.37, 95% CI: 1.87 – 30.07, p = 0.001; AT: OR=0.20, 95% CI: 0.05 – 0.78, p = 0.007; TT: OR= 0.29, 95% CI: 0.01 – 3.59, p = 0.28).

Conclusion: The variants of rs6214 and rs10860860 in IGF-1 gene entail the risk of DN in Egyptians with T2DM.

Biography

Eman H EL-Adawy has completed Her MD from Mansoura University. She is a Associate Professor of Internal Medicine and Endocrinology Department in Spesialized Medical Hospital, Faculty of Medicine, Mansoura City, Egypt. She published more than 10 papers in reputed journals.

emaneladawy@yahoo.com