

Relationship of Endothelial Nitric Oxide Synthase Gene Polymorphism with Atherosclerotic Coronary and Carotid Arterial Disease in Egyptian Population

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Abstract :

Introduction: Atherosclerosis is partly a heritable disorder. Various genetic polymorphisms have been linked to the atherosclerotic process and its complications. Glu298Asp polymorphism of endothelial nitric oxide synthase gene is one such genetic marker for atherosclerosis. **Aim of the work:** To study the relationship between endothelial nitric oxide synthase gene polymorphism and atherosclerotic coronary and carotid arterial disease in Egyptian population. **Patients and methods:** Our study included 95 Egyptian patients with Egyptian father and mother, classified into two groups: Group 1; 63 patients with ischemic heart disease and Group 2; 32 control subjects and subjected to careful history taking, thorough clinical examination, standard twelve lead surface electrocardiogram, routine laboratory investigations, echo Doppler study, carotid arterial duplex, invasive coronary angiography and analysis of the endothelial NOS3 gene polymorphism using PCR–RFLP for detection of different genotype variants (Glu/Glu (GG), Glu/Asp (GT) and Asp/Asp (TT) genotype). **Conclusion:** Glu298Asp polymorphism in the endothelial nitric oxide synthase gene did not increase the susceptibility to coronary and carotid arteries disease in the studied patients.

Keywords: Atherosclerosis; Nitric oxide synthase; Gene polymorphism

Egyptian Heart Journal 2015; 67, 225–232

DOI 10.1016/j.ehj.2014.01.003