



**Faculty of medicine**

**RELATIONSHIP OF ENDOTHELIAL NITRIC  
OXIDE SYNTHASE GENE POLYMORPHISM  
WITH PRESENCE AND SEVERITY OF  
ATHEROSCLEROTIC CORONARY AND  
CAROTID ARTERIAL DISEASE**

**By**

**Gomaa Abdel Razeq Ahmed**

**Fayoum University**

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Thesis

submitted for partial fulfillment of M.D. in cardiovascular medicine

By

**Gomaa Abdel Razek Ahmed**

M.Sc. in cardiovascular medicine – Cairo University

Under supervision of

**Dr. Khaled Ahmed Elkhashab**

Professor of Cardiology - Fayoum University

**Dr. Howyda Ahmed Abdelrasol**

Assistant Professor of Clinical Pathology - Fayoum University

**Dr. Mohammed Saad**

Assistant Professor of Radiology - Fayoum University

Fayoum University

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## **Abstract:**

This study included 90 patients who were attending at the cardiology department at Fayoum university hospital. Those patients were classified into two groups: Group I; Ischemic heart disease (patients with coronary insufficiency evidenced by symptoms of IHD, ECG and echocardiographic evidence of segmental variations in wall motion & coronary angiography) including 63 patients and Group II; control subjects with normal coronary angiography (number=27) History taking, clinical examination, 12-lead ECG, routine laboratory testing, echocardiographic study, Carotid arterial duplex, coronary angiography and analysis of the endothelial NOS $\gamma$  gene polymorphism were subjected to detection of Glu<sup>298</sup> → Asp Endothelial Nitric Oxide Synthase gene polymorphism using PCR-RFLP.

The study concluded that the heterozygous and homozygous *Asp* mutants of the endothelial nitric oxide synthase enzyme gene polymorphism were not associated with occurrence of coronary artery disease or increased carotid intima media thickness in studied population.

**Keywords:** (atherosclerosis – coronary artery disease – carotid intima media thickness – endothelial nitric oxide synthase enzyme gene polymorphism)