



- Current Issue
- Browse Issues
- Search
- About this Journal
- Instruction to Authors
- Online Submission
- Subscription
- Contact Us
- RSS Feed

## Acta Medica Iranica

2009;47(4) : 15-21

### Association of Variable Number of Tandem Repeats in Endothelial Nitric Oxide Synthase Gene with Coronary Artery Disease

S Salimi, M Firoozrai, I Nourmohammadi, M Shabani, A Zavarehee , A Mohebbi

#### Abstract:

Endo-derived nitric oxide (NO) is synthesized from L-arginine by endothelium nitric oxide synthase (eNOS). Since reduced NO synthesis has been implicated in the development of coronary atherosclerosis; we hypothesized that polymorphisms of NOS gene might be associated with increased susceptibility to this disorder and coronary artery disease (CAD). We studied the 27 base pair tandem repeat polymorphism in intron4 of the endothelial nitric oxide synthase (eNOS) gene in 141 unrelated CAD patients with positive coronary angiograms in Shahid Rajaei Heart Hospital and 159 age matched control subjects without a history of symptomatic CAD. The study protocol was approved by the Iran University of Medical Sciences Ethics Committee. The eNOS gene intron4a/b VNTR polymorphism was analyzed by polymerase chain reaction. The plasma lipids levels and other risk factors were also determined. The genotype frequencies for eNOS4b/b, eNOS4a/b and eNOS4a/a were 68.8, 29.1 and 2.1% in CAD subjects, and 81, 18.4 and 0.6 % in control subjects, respectively. The genotype frequencies differed significantly between the two groups ( $\chi^2= 6.38$  P= 0.041). The frequency of the allele was 16.7% in CAD subjects and 9.8% in control subjects and was significantly higher in the patients ( $\chi^2= 6.18$  P= 0.013, odds ratio=1.84). Plasma lipids, except HDL-C were also remarkably increased in CAD group.

#### Keywords:

[Nitric oxide synthase gene](#)

TUMS ID: 2897

Full Text HTML Full Text PDF 184 kB

top ▲

[Home](#) - [About](#) - [Contact Us](#)

TUMS E. Journals 2004-2009  
Central Library & Documents Center  
Tehran University of Medical Sciences

Best view with Internet Explorer 6 or Later at 1024\*768 Resolutions