عنوان مقاله:

CYP2C19 Genetic Polymorphism in the East of Iran: Its Association with the Severity and Pattern of Coronary Artery Disease

محل انتشار:

مجله پزشکی قلب و قفسه سینه, دوره 7, شماره 1 (سال: 1398)

تعداد صفحات اصل مقاله: 5

نویسندگان:

Mahdi Zahedi - *Interventional Cardiologist, Ischemic Disorders Research Center, Golestan University of Medical Sciences, Gorgan, Iran.*

Mahmoud Shabestari - *Interventional Cardiologist, Atherosclerosis Prevention Research Center, Mashhad University of Medical Sciences, Mashhad, Iran*

Hossein Ayatollahi - *Hematopathologist, Department of pathology, Mashhad University of Medical Sciences, Mashhad, Iran*

Arash Gholoobi - *Interventional Cardiologist, Atherosclerosis Prevention Research Center, Mashhad University of Medical Sciences, Mashhad, Iran*

خلاصه مقاله:

Introduction: Since there has been a dearth of research on the assessment of CYP2C19 polymorphism in the east of Iran (Khorasan provinces), this study aimed to detect, CYP2C19*2 and CYP2C19*3 allele frequencies among patients with coronary artery disease. The participants were selected among those referring to Emam Reza Hospital, Mashhad, Iran. Furthermore, the current research was motivated to elucidate the association of CYP2C19 polymorphism with the severity and pattern of coronary artery disease. Material and Methods: This study was conducted on 84 patients who were subjected selective coronary angiography. The participants of the present study were from Khorasan, Iran. The Genotyping of extracted crude DNA for CYP2C19*2 (rs4244285) and CYP2C19*3 (rs4986893) alleles was performed through PCR-RFLP method. Results: The obtained results of the current study revealed three different allelic band patterns. Out of the 84 individuals, 71 were homozygous for the wild type allele in both exon 5 and exon 4 (wt/wt; 84.5%), 15 were homozygous for the CYP2C19*2 polymorphism (*2/*2;14.3%), and 1 subject was homozygous for the CYP2C19*3 (*3/*3; 1.2%). No subjects were heterozygous for the CYP2C19*2 (wt/*2; 0.0%) or CYP2C19*3 (wt/*3; 0.0%) or heterozygous for the CYP2C19*2 and the CYP2C19*3 mutations (*2/*3; 0.0%). Conclusion: The findings of the current study confirmed the existence of CYP2C19 polymorphism among people of Khorasan.

کلمات کلیدی:

Clopidogrel, Coronary Artery Disease, CYP2C19 polymorphism