Personalized Medicine-2013
International Conference on
Predictive, Preventive and Personalized Medicine & Molecular Diagnostics
August 5-7, 2013 Holiday Inn Chicago-North Shore, USA

Role of cardiac biomarkers in personalized medicine

KamnaSrivastava

University of Delhi, India

Abstract

Cardiovascular diseases (CVD) will be the largest cause of death and disability in India and worldwide by the year 2020 (World Health Report 2002). A number of environmental and genetic risk factors are attributed to CVD, including essential hypertension and coronary artery diseases.This prompted us to investigate the contribution of variants (exonic, coding, romoter) of endothelial nitric oxide synthase (eNOS), angiotensinogen (AGT), angiotensin converting enzyme (ACE), e-selectin and heat shock protein (HSP70) gene polymorphisms in patients with essential hypertension and coronary artery disease (CAD) patients in the northern Indian population.In addition to thatACE, AGT, AT1R, HSP 70 gene expressionsin whole blood in patients with essential hypertension in Northern Indian populations has been studied in order to investigate as prognostic biomarkers.

Genotyping was carried outin CAD patients and patients with essential hypertension and normal controls by polymerase chain reaction (PCR) and restriction fragment length polymorphism techniques. Gene expression was analysed by Real time PCR.

We have found significant gene disease association with above mentioned genes in patients with essential hypertension and coronary artery diseases. The up regulated level of AT1R, AGT and ACE gene expression could be a key factor for elevated blood pressure and may be future prognostic biomarker for essential hypertension. Association of rare alleles in above said genes could be genetic markers in personalized medicines in CAD and essential hypertension

Biography

Dr. KAMNA SRIVASTAVA did her M. Pharm and Ph.D. from Department of Pharmacology, IT-BHU, INDIA. She has worked at National Institute of Immunology and All India Institute of Medical Sciences, New Delhi. Understanding the molecular mechanism of hypertension and coronary artery diseases. Her are of research are to study the gene disease association in essential hypertension and coronary artery disease; role of circulating micro RNA in the pathogenesis of coronary artery diseases" and to study the toxicity profile of drugs. Dr. Kamna has projects from Department of Science and technology, India and has more than 25 publications to her credit.

kamna_srivastava@hotmail.com