

SPEAKER PRESENTATION

Open Access

Pharmacogenomics of cardiovascular drugs

C Adithan

From International Conference on Human Genetics and 39th Annual Meeting of the Indian Society of Human Genetics (ISHG)

Ahmadabad, India. 23-25 January 2013

Cardiovascular diseases account for the second largest number of non-communicable disease after mental illnesses. Coronary heart diseases, hypertension, atherosclerosis, congestive heart failure, arrhythmias are important cardiovascular diseases. Beta blockers, statins, antiplatelet drugs, anticoagulants, drugs modifying renin angiotensin systems and many others are being used for treating these ailments. Still, satisfactory treatment of these diseases is still elusive. Drug response is influenced by many environmental factors besides host factor. Besides the above, genetic factor is also important in modifying response to cardiovascular drugs. Now there is reasonable amount of evidence exists that Indian population is genetically distinct from other major ethnic groups. The allele and genotype frequencies of genes encoding important drug metabolizing enzymes, drug transporters and receptors of Indian population are different from Caucasians and Orientals. Studies done in our laboratory and other Indian laboratories suggested that pharmacogenomics of clopidogrel, warfarin, acenocoumarol, beta blockers etc. may have clinical significance in treating cardiovascular diseases of Indian population. There is a need for multi-institutional and multi-disciplinary approach for large scale implementation of pharmacogenomics and personalized medicines in cardiovascular diseases.

Published: 21 January 2014

doi:10.1186/1755-8166-7-S1-I53

Cite this article as: Adithan: Pharmacogenomics of cardiovascular drugs. *Molecular Cytogenetics* 2014 **7**(Suppl 1):I53.

Submit your next manuscript to BioMed Central and take full advantage of:

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

Submit your manuscript at
www.biomedcentral.com/submit



Correspondence: adithan@yahoo.com
Department of Clinical Pharmacology, JIPMER, Pondicherry, India



© 2014 Adithan; licensee BioMed Central Ltd. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated.