

Research and Reviews: Journal of Pharmacology & Toxicological Studies

Outlook on Cardiovascular Diseases

R Sai Ram Seshu ^{1*}

Department of Biotechnology, Andhra University, Visakhapatnam.

Commentary Article

Received: 23/06/2015

Accepted: 29/07/2015

Published: 02/08/2015

*For Correspondence

Department of Biotechnology,
Andhra University,
Visakhapatnam, Andhra Pradesh, India.

E-mail: rramseshu@yahoo.co.in

Cardiovascular diseases are also an important factor in increasing mortality rate around the world. According to WHO statistics in 2012 it is estimated that nearly 17.5 million people died with cardiovascular disease. In that 7.4 million was due to coronary heart disease and 6.7 million was due to stroke ^[1]. A group of disorders related to heart and blood are coronary heart disease, cerebrovascular disease, peripheral arterial disease, rheumatic heart disease, congenital heart disease. Cardiovascular risk elements including metabolic disorder, hypertension, cigarette smoking, high blood glucose, physical idleness, and high cholesterol levels are the main sources of death around the world. In Australia atherosclerosis is the major cause of death ^[2]. Control of cholesterol and particularly lessening of low-thickness lipoprotein cholesterol (LDL-C) has been shown to emphatically relate with enhanced cardiovascular hazard in epidemiological studies. Cigarette smoking is a typical and deadly overall propensity, with significant mortality coming from its injurious consequences for heart capacity ^[3]. Governments have now made a move to lessen dietary admission of salt with an end goal to diminish the frequency of hypertension and the related cardiovascular horribleness and mortality ^[4,5]. A study was conducted in a hospital in Qatar between 2009 and 2013. For the purpose of analysis cases were dived in to two groups ST-segment elevation myocardial infarction non-ST-segment elevation myocardial infarction/unstable angina. With this study they conclude that acute coronary syndrome (ACS) in males are more when compared with females ^[6].

Over the previous decade, metabolic disorder has also picked up recognition as a critical contributor to cardiovascular mortality ^[7]. Hypertension, diabetes mellitus, dyslipidemia, obesity and smoking are the 5 important risk factors for Coronary Heart Disease Diabetes type 2 is also considered as the important risk factor associated with CVD ^[8]. Some of the symptoms include hypertension and dyslipidemia and other causes. Compared with non-diabetic patients, diabetic patients are more prone to have cardiovascular disease. Due to the survival rate of the effected person becomes low ^[9]. Individuals of non-European starting point conform to 7% of the aggregate UK populace. A large portion of these are of South Asian (that is, from the Indian subcontinent) or Black African (that is, from the Caribbean and West Africa) plummet. For these vagrants, concerning for all intents and purposes all populace gatherings living in the western world, cardiovascular illness (CVD) is the primary driver of death. In any case, there are striking ethnic contrasts in CVD hazard. Infection presentation may contrast, testing demonstrative aptitudes, and restorative prerequisites and reactions might likewise not be uniform. The investigation of ethnic contrasts in CVD has given significant aetiological pieces of information for ethnic minority aggregates as well as for the dominant part populace.

A case study was conducted among the 2 heart failure patients. This contextual investigation underlines that the open exchange of end-of-life issues is troublesome in most established old patients with advanced heart failures and does not happen frequently particularly if social backing is missing who starts it. Firmly included wellbeing experts, for example, the gang specialist ought to be mindful of patient related obstructions and effectively address end-of-life issues within the the extent of advanced arranging including other professions ^[10,11]. The cold pressor test shows increase in BP and that mental anxiety evoked bigger increments in HR. Also, it is observed that males displayed higher increments in BP in all stressor tests and those male members with family history of cardiovascular ailment were more prone to display hemodynamic hyper reactivity taking into consideration on the proposed hyper reactive criteria.

Evolutionary contemplations of cardiovascular illness give us a thorough perspective to comprehend this sort of complex illness such as atherosclerosis and hypertension. In near future evolutionary medicine will turn into a standard therapeutic science, and set another therapeutic transformation to disentangle the very quintessence of cardiovascular disease ^[12].

The accessibility of clinically helpful biomarkers for the assessment of cardiovascular danger may empower the health care system to become more proactive, moving the focus far from treatment of end-stage sickness and towards early location of infection danger and avoidance of antagonistic results. A few biomarkers have been discovered helpful in finding and management of CVD. Neutrophil gelatinase associated lipocalin (NGAL) is one of the potential biomarker ^[13].

Cardiovascular diseases are a global health issue with no geographic, sex, or financial limits. The need of great importance is not just the enhancements in existing heart cures and

surgical systems at the same time, likewise to develop preventive methods, for example, enhanced way of life, nutritious and sound sustenance, corporate wellbeing assurance activities, wellbeing health projects to full impact to battle CVD ^[14,15]. At the individual level, an adjustment in the dietary and way of life practices which incorporate sound sustenance propensities, standard physical action and techniques for distressing would help in forestalling/postponing the onset of the danger elements connected with cardiovascular health ^[16].

Heart assaults, stroke, and other preventable cardiovascular diseases slaughter or genuinely influence a large portion of the number of inhabitants in Britain. Western eating regimen and way of life have expanded the populace levels of a few of the causal "risk factors," and their joined impacts have made the illnesses basic. Cardiovascular illness can be maintained a strategic distance from or deferred, however the essential changes to Western eating routine and way of life are not practicable in the short term ^[17]. Randomized trials demonstrate that medications to bring down three danger elements low thickness lipoprotein (LDL) cholesterol, blood pressure, and platelet capacity (with aspirin) decrease the rate of ischaemic coronary illness (IHD) occasions and stroke. Proof that bringing down serum homocysteine (with folic corrosive) lessens the danger of these maladies is generally observational yet at the same time compelling ^[18].

Obesity has come to worldwide scourge extents in both grown-ups and youngsters and is connected with various comorbidities, including hypertension (HTN), sort II diabetes mellitus, dyslipidemia, obstructive rest apnea and rest disarranged breathing, certain diseases, and major cardiovascular (CV) infections ^[19]. In light of its maladaptive impacts on different CV danger components and its antagonistic consequences for CV structure and capacity, stoutness has a noteworthy effect on CV maladies, for example, heart disappointment (HF), coronary illness (CHD), sudden cardiovascular passing, and atrial fibrillation, and is connected with diminished general survival. Notwithstanding this unfavorable affiliation, various studies have reported a heftiness Catch 22 in which overweight and hefty individuals with built up CV sickness, including HTN, HF, CHD, and fringe blood vessel infection, have a superior guess contrasted and nonoverweight/nonobese patients ^[20].

As indicated by world indispensable measurements in the 1950s and 1960s, the Japanese were described by the most elevated stroke mortality and by a lower coronary illness (CHD) mortality contrasted and Western populations. In Japan, the stroke death rate began to decay steeply in the 1970s, however the stoppage of this decrease has been accounted for in late years ^[21]. However, imperative insights are not generally precise as to the reason for death recorded on death certificates ^[22]. It is likewise hard to know exact patterns in mellow instances of cardiovascular infection (CVD), and it is impractical to know whether these patterns mirror a changing frequency or a change of case casualty rate. These truths suggest that populace based studies gathering CVD frequency information are expected to explain common pattern.

References

1. Roever L and Resende ES. Risk Factors for Cardiovascular Disease: Evidence from Studies. *J Cardiovasc Dis Diagn.* 2015; 3:e107.
2. Yang D, Liu Z. An Evolutionary Perspective on Cardiovascular Disease. *J Phylogen Evolution Biol.* 2013; 1:e103.
3. Dashwood A, Jayasinghe R. The Newest Frontier in Cholesterol Management; PSCK 9. *Cardiol Pharmacol.* 2015; 4:127.
4. Batuman V. Salt and Hypertension: An Evolutionary Perspective. *J Hypertens.* 2012; 1:e106
5. Barman M and Djamel B. Clinical Spectrum of Acute Coronary Syndromes in Qatar. *J Cardiovasc Dis Diagn.* 2014; 2: 149.
6. Patel NKJ, et al. Metabolic Syndrome and its Impact on Cardiovascular Diseases. *J Metabolic Synd.* 2014; 3:142.
7. Li YW and Aronow WS. Diabetes Mellitus and Cardiovascular Disease. *J Clinic Experiment Cardiol.* 2011; 2:114.
8. Yang D and Liu Z. An Evolutionary Perspective on Cardiovascular Disease. *J Phylogen Evolution Biol.* 2013; 1:e103.
9. Lavie CJ, et al. Physical Fitness-An Often Forgotten Cardiovascular Risk Factor. *J Glycomics Lipidomics.* 2012; 2:e104.
10. Lee YC, et al. A Database of Gene- Environment Interactions Pertaining to Blood Lipid Traits, Cardiovascular Disease and Type 2 Diabetes. *J Data Mining in Genom Proteomics.* 2011; 2:106.
11. Shokeen D and Aeri BT. Risk Factors Associated with the Increasing Cardiovascular Diseases Prevalence in India: A Review. *J Nutr Food Sci.* 2015; 5:331.
12. Gonzalez SI and La Belle JT. The Development of an At-Risk Biosensor for Cardiovascular Disease. *Biosensors Journal.* 2012; 1: 1-5.
13. Inoue T. Heart Rate as a Therapeutic Target for the Prevention of Cardiovascular Disease. *Angiol.* 2013; 1:10.
14. Aronow WS. Association of Lower Extremity Peripheral Arterial Disease with Atherosclerotic Vascular Disease, Cardiovascular Events and Mortality. *J Cardiovasc Dis Diagn.* 2014; 2:e105.
15. Houston MC. New Concepts in the Diagnosis and Non-Surgical Treatment of Cardiovascular Disease. *Intern Med.* 2014; S11: 002.
16. Katharina K, et al. Heart Failure in the Oldest Old: A Qualitative Case Study on Patients` Perception of and Communication about Illness and Prognosis. *J Palliative Care Med.* 2012; 2:13.
17. Chira M, et al. Congenital Heart Defects: Early Surgical Correction and Heart Failure â€“ Brief History. *J Biomol Res Ther.* 2013; 2:108

18. Attia R, et al. Impact of Surgical Ventricular Restoration on Cardiac Function, Ischaemic Mitral Regurgitation and Long-term Survival. *J Cardiovasc Dis Diagn.* 2015; 3:185.
19. Messina G, et al. Orexin System Modulates Resting Energy Expenditure, Autonomic Nervous System and Cardiovascular Disease in Menopause. *J Anesth Clin Res.* 2014; 5:472.
20. Kawase Y, et al. The Achievability of Minimum Contrast Procedures for the Prevention of Contrast Induced Nephropathy in Patients with Chronic Kidney Disease: A Prospective, Multicentre Trial. *J Cardiovasc Dis Diagn.* 2014; 2:183
21. Augusto TTR, et al. Cardiovascular Disease as Cause for Disability Pensions. *Occup Med Health Aff.* 2014; 2:186.
22. Kinney GL, et al. The Protective Effect of Hispanic Ethnicity on Chronic Obstructive Pulmonary Disease Mortality is Mitigated by Smoking Behavior. *J Pulm Respir Med.* 2014; 4:220.