JCDR Editorial

# Preface to the *Journal of Cardiovascular Disease Research*, third issue 2012

We are pleased to introduce the third issue of the Journal of Cardiovascular Disease Research in 2012. This issue comprises seven original research articles and eight clinical case report-based studies. The aim of this editorial preface is to highlight the key findings presented among these papers.

Atherosclerotic vascular disease is a major cause of morbidity and mortality in the developed countries. Although the pathogenesis of atherosclerotic vascular disease involves a complex and multifactorial process, accumulating evidence demonstrates that inflammation and its subsequent endothelial dysfunction play a fundamental role in the initiation and progression of atherosclerosis. In the first original article in this issue, Zeb et al. evaluated the effect of aged garlic extract (AGE) and Coenzyme Q10 (CoQ10) on the biomakers oxidative and inflammatory markers and coronary atherosclerosis progression of participants in a placebo-controlled, double-blinded, and randomized clinical trial. The results showed that combination of AGE and CoQ10 significantly reduced coronary artery calcium, C-reactive protein and the oxidative and inflammatory biomarkers in a 1-year follow-up of Los Angeles fire fighters. Although large clinical trials are needed to testify the findings, the formulation of AGE and CoQ10 could provide an alternative therapy for cardiovascular diseases.

Metabolic syndrome is a collection of symptoms that can lead to an increase in the risk of developing cardiovascular disease and diabetes. Like other developing countries, Nigeria is undergoing rapid epidemiological an epidemiological transition due to rapid urbanization coupled with economic growth. The second original article describes the epidemiology of

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metabolic syndrome between native rural Abuja settlers and genetically related urban dwellers. Adediran O et al. observed that obesity, hypertriglycaeridemia, and hypertension are prevalent in urban than rural dweller, and metabolic syndrome was found to be significantly more frequent in females in age and gender-matched participants. These results suggest that metabolic syndrome is a major health condition among rural and urban Nigerians, and that urbanization as well as lifestyle factors including higher chance of sedentary lifestyle and unhealthy diet can significantly increase the prevalence of metabolic syndrome.

Cardiac syndrome X (CSX) is an angina mediated by a combination of several known cardiovascular risks. Some of CSX patients show endothelial impairment and other cardiac risks. The elevation of the plasma von Willebrand factor (vWF) is associated with endothelial dysfunction. Up to 30% of vWF antigen variations are resulted from genetic factors and increased vWF is related to ABO blood groups. However, the impact of ABO on incidence of CSX has not been investigated. In the third original article in this issue, Kheradmand and colleagues investigated the distribution of ABO-Rh blood groups in 247 CSX patients. Interestingly, the authors reported that no significant correlation is found between CSX and ABO blood phenotypes, suggesting that detecting ABO phenotype might not be a good diagnostic criterion for CSX disease.

The fourth original article in this issue evaluates the hemodynamic effect of atrioventricular and interventricular dyssynchrony in patients with biventricular pacing. Pacemaker syndrome is mainly described as the sequel of atrioventricular (AV) dyssynchrony and the cause of pacemaker syndrome remains unknown. In this study, Mollazadeh *et al.* used different pacing modes to evaluate AV and AV dyssynchrony in patients with biventricular device. The authors showed that the non-AV sequential BiV and LV pacing have no significant benefit compared to RV pacing in terms of systolic blood pressure. However, marked hemodynamic improvement was observed following mode change to AV sequential BiV pacing.

This work may provide new insight into understanding the important role of AV synchrony in preventing the pacemaker syndrome.

In the first case study report in this issue, Zahid et al. described a case of paroxysmal atrioventricular (AV) block of an 83-year-old caucasian female. The patient presented as AV block syncope and was treated effectively using pacemaker implantation. The authors also reviewed the current literature on prevalence and treatment of AV block and further discussed the main diagnostically differentiating points between vagally mediated AV block and paroxysmal atrioventricular AV block. This work will benefit future clinical management and diagnosis of similar cases.

In the second case report, Tirilomis *et al.* described a case of a 16-year-old patient showing uneventful postimplant course, continuous anticoagulation, and a large valve. The authors highlighted the significance of a comprehensive clinical examination and the need for closely monitoring the anticoagulation treatment in patients with large size prostheses after replacement of the aortic valve. The authors further suggested awareness and early diagnosis for the suspected valve thrombosis.

Kawasaki disease is a systemic vasculitis involving medium and small size blood vessels in young patients with frequent implication of coronary artery abnormalities. But its cause remains unknown. In the third case report, Mandal *et al.* reported five patients of Kawasaki disease showing coronary artery complications. The authors further discussed the disease pathogenesis and highlighted the importance of clinical awareness in the management of those patients.

Coronary artery anomalies are frequently found in the major congenital cardiac defects. Double right coronary artery (RCA) is an uncommon coronary anomaly. In the fourth case report, Singh and Pandey reported an interesting rare case of a patient with double RCA and degenerative complete heart block (CHB). The authors extensively discussed the rare situation of double RCA with bifurcation stenosis in association with degenerative CHB.

We would like to express our sincere appreciation to the authors for their contribution and to the editorial staff for their dedication and hard work. We continue to receive a large number of manuscripts that are diverse and novel. We also thank our readers for their continued support and continue to use JCDR as their resource in the field of cardiovascular disease research.

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