Journal of Cardiovascular Disease Research celebrates its anniversary

Jiusheng Deng

Department of Hematology and Oncology, Emory University, 1365B Clifton Road, Clinic B, Atlanta, GA 30322, USA
Address for correspondence: *Dr. Jiusheng Deng, Executive Editor, Journal of Cardiovascular Disease Research School of Medicine, Emory University, Atlanta, GA, USA 30322. E-mail: jdeng2@emory.edu*

One year ago in the same month, *Journal of Cardiovascular Disease Research* (*JCDR*) was launched as an open-access peer-reviewed international scientific journal. In its exciting development, *JCDR* is now indexed by PubMed, with content covering from basic research to clinical practice, and translational studies in the field of cardiovascular medicine.

Cardiovascular diseases are known as the disorders of the heart and the blood vessels, which claim 17.1 million lives a year worldwide (World Health Organization, 2010). In the United States, almost in every 34 s, someone dies from the diseases, and each year there are 6 million hospitalizations accounting for near $300 billion healthcare cost due to the diseases.[1] The major risk factors contributing to cardiovascular diseases include heredity, high blood pressure, diabetes, obesity, and high blood cholesterol level.[2] Although a healthy diet, physical exercise, and avoiding smoking can effectively prevent cardiovascular diseases, combined medications with statin drugs to reduce blood cholesterol and the drugs to lower blood pressure are required to lighten the burden of the diseases.

In this issue, we introduce two cutting-edge reviews on the potential utilization of mesenchymal stromal cells (MSCs) and P2Y receptor agonists for cardiovascular diseases, and present seven original research articles reevaluating the relationship between cardiovascular diseases and diabetes, hypertension, obesity, abnormal lipids, and genetic factors. We also report five cases of patients with recurrent stroke, infective endocarditis, ruptured aneurysum, and heart failure.

Emerging evidences demonstrated that MSCs, a rare cell population in our circulation, have the ability to home and direct positive remodelling of injured tissues such as ischemia myocardium by secreting paracrine factors. In the invited review in this issue, Dr. Copland summarized the biological characters of MSCs, and how those cells promote neovascularization, inhibit cell apopotosis, suppress tissue inflammation, and augment endogenous tissue repair. Furthermore, the review highlighted the potential clinic utilization of MSCs for personal cell therapy for patients with cardiovascular diseases.

Atherosclerosis, the primary cause of cardiovascular diseases, affects the medium and large arteries due to the build-up of fat, cholesterol, and other substances on the inner walls of arteries.[3] The atherosclerotic coronary heart disease causes chest pain, shortness of breath, heart attack, and other symptoms. In their study, Rao *et al.* analyzed the lipid profiles and oxidative stress on 42 patients with coronary artery disease, and identified abnormal lipid parameters and oxidative stress as two independent risk factors for the sterile pathogenic atherosclerosis.

High blood pressure is the leading risk factor for cardiovascular diseases. In this issue, Hassan *et al.* also examined the clinic efficacy of percutaneous transluminal angioplasty in renovascular hypertension in 27 patients with renal artery stenosis. They found that percutaneous renal revasculation with stent placement did not completely cure hypertension, but improved blood pressure.

The diabetic abnormal lipoprotein profile and high level of blood sugars speed up atherosclerosis and raise the risk of heart attack. In a study on 121 prediabetic adult patients, Sliem *et al.* described a strong association of insulin resistance with diabetic myocardial dysfunction, which is independent of blood pressure, ventricular geometry, glucose tolerance status, total plasma lipids, and obesity. In another study on 65 patients with normotensive type

II diabetes, Santra *et al.* showed that body mass index, HbA1c, and diabetic duration are associated with left ventricular hypertrophy. The high prevalence of left ventricular hypertrophy in diabetic patients predicts the clinical beneficence of early echocardiographic screening in the patients.

Beyond heart disease, ischemic stroke is another form of cardiovascular disease, resulting from cerebrovascular blockage by a blood clot or an atherosclerotic fatty deposit. In a case report, Gehoff *et al.* described the successful treatment of a 56-year-old patient with recurrent strokes due to the sticky platelet syndrome in the presence of a patent foramen ovale. The case pinpointed the necessity of the hemostatic system investigation in patients with a thrombotic event.

As we celebrate our journal's first birthday, we would like to take this opportunity to express our appreciation to all the authors, reviewers, and our editors for their outstanding contribution and commitments. We wish this new issue will fulfill your needs, and expect you to submit your next exciting valuable research work to *JCDR*.

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