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Editor Note

Cardiology is a branch of medicine that deals with heart associated disorders. This field includes the medical diagnosis and treatment of congenital heart diseases, coronary artery diseases, heart failure, etc. The journal of Clinical and Experimental cardiology aims to disseminate information on current problems in the clinical cardiology and also the latest and advancements that took place in treating all these cases. In the present issue, (Volume 7, Issue 12), informative and rational work on various aspects of cardiology have been presented with four research articles, two review articles, four case reports and one perspective article. Throughout the issue, authors have documented relevant information on the risk factors hypertension. Moreover, documentation on cardiotoxin-ceramide and possible treatment approaches are also included in the present issue.

Hypertension is a major cause for cardiovascular events and "World health organisation" has identified hypertension, as a leading cause of total mortality worldwide. Rahman et al. [1], documented the recommendations made by the latest Hypertension Guidelines across the major hypertension societies in North America, Europe, and the Asia pacific regions. The information collected, is then compared with major clinical outcome studies, investigating the phenotype of patients with hypertension and CAD. In this article, they reported that, treatment depends mainly on the clinical circumstances. Finally, they concluded that, doctors should treat patients with hypertension and CAD with evidenced based combination therapy, even patient with wrong perception on BP control are also should take into consideration.

Any substance travelled from elsewhere in the body through the bloodstream blocks the artery in the lungs and that situation is termed as pulmonary embolism. The symptoms include chest pain, coughing up blood, shortness of breath, and symptoms like blood clot in the leg. In severe cases, it may lead to abnormal low blood pressure, and sudden death. Khoury et al. [2], remarked a case report of 46-year-old male patient who was suffering from chest pain and dyspnea. The patient was diagnosed with sub-massive pulmonary embolism and with intra-cardiac biatrial thrombus. This patient was treated with 100 mg tissue activator and the echocardiography clinical reports reported improvement in the ventricular function. Thus, finally they deduced that, thrombolytic treatment can manage, sub-massive PE with intra cellular bi-arterial thrombus successfully without any side effects.

Hypertension is the major risk factor associated with the development of coronary heart disease, renal failure stroke, etc., Regular check-up of blood pressure is essential to assess the risk associated with hypertension. Segman et al. [3], presented a new device termed as Tensor Tip™ that computes hemodynamic blood pressure noninvasively and its efficiency was calculated in two medical centres. The results of this clinical study reported that, this device is found to perform well at standard blood pressure measurements and in addition it also monitored patients who suffered from alterations of blood pressure that occurred due to cardiac disorders.

Ceramide is the major risk factor for the development of atherosclerosis. Sphinganine is the main precursor of ceramide, ceramide is deacylated by ceramidase to sphingosine. Sphinganine and sphingosine are phosphorylated to sphinganine-1-phoaphate and sphingosine-1-phosphate. This sphingosine-1-phosphate is having anti- atherogenic properties. Knapp et al. [4], conducted a study to evaluate the level of ceramide, sphinganine-1-phosphate, sphingosine-1-phosphate in plasma, erythrocytes and platelets of patient suffering with multi-vessel coronary artery disease. This study indicated that, changes are associated in the metabolism of certain bioactive sphingolipids and platelets in patients with multi-vessel coronary artery disease, when compared to control group.

The fraction of blood ejected from a ventricle of the heart associated with each heart beat is termed as ejection fraction. It is measured by an echocardiogram, which is a general measure for person's cardiac function. Previously meta-analysis ejection fraction was greater in heart failure and preserved ejection fraction (HEPEF), when compared to healthy controls (HC). Dori et al. [5], tried to study the difference between indices of end-systolic (ESVi) and diastolic (EDVi) volumes in HFPEF, and the obtained data was compared to healthy control (HC). The changes in the (ESVi and EDVi) provide the information to understand the process of left ventricular remodelling. The results of this study asseverated that, the comparing the values of EDVi, ESVi and EF in HFPEF with those in HC by employing meta-analysis failed to provide an explanation for the finding that EFHFPEF is on average higher than EFHC. Finally, they deduced that, further studies are required to validate these observations.

Systemic hypertension is the major risk factor to cause hypertensive heart disease. Chronic systemic pressure overloaded results in Left ventricular hypertrophy, and it causes different changes in radial, longitudinal, and circumferential mechanics in hypertensive patients. Left atrial dilation is common in hypertensive patients. Sibel [6], reported about the echocardiography and its role in hypertension. Previous finding stated that, initiation or monitoring the response to antihypertensive response is based on clinical parameters. However, periodic evaluation of cardiac function and morphology of the progressive characteristics of hypertensive cardiomyopathy was performed by echocardiography. Thus, echocardiography is not considered as first line method in all hypertensive patients.

Tropomyosin is dimeric protein, and is a component of thin filaments that constitute myofibrils, which is a contractile apparatus of striated muscles. In vertebrates, except for fish there are four known

TPM genes each of which are capable to generate several TPM isoforms through alternative splicing or by using alternate promoters. Dube e al. [7], reported about the molecular work of cloning and sequencing of the sarcomeric isoforms of the TPM4 gene designated as TPM4α. However, much information regarding the role of TPM4α in human muscle contraction, and TPM4 gene in human disease is yet to be elucidated. New information emerging in this regard, is TPM4 isoforms TPM4 γ has been reported as a non-invasive biomarker in prenatal diagnosis off congenital heart defects; mutation in TPM4 have been implicated in macrothrombocytopaenia in humans; differential expression of two TPM4β and TPM4γ in human breast cancer cells. However, the role of TPM4-ALK oncogenes in inflammatory myofibroblastic tumors in humans is well documented.

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