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EDITOR'S PAGE

# Factors affecting left ventricular function: The new era of the Hellenic Journal of Cardiology in Elsevier group

Since the identification of the left ventricle as the chamber responsible for the systematic circulation, physicians (especially cardiologists) have investigated left ventricle function to diagnose and treat most cardiac abnormalities.[1,2] Over the years, it has become apparent that systolic function is only one aspect of left ventricle performance. The heart compensates to maintain metabolic and tissue requirements when adequate systolic function firmly and appropriately interacts with diastolic function, valvular competence, coronary arteries patency, large artery compliance, and appropriate electrical stimulation of the myocardium.

To this point, the interaction between mitral valve pathology, as defined by imaging techniques, and left ventricle volume, myocardial contractility, and other left ventricle hemodynamics is highlighted and comprehensively explained in an outstanding review article by Boudoulas et al. in this issue of Hellenic Journal of Cardiology.[3] The strength of the inter-dependence is further underscored, as symptoms of severity in these patients cannot only be explained by the amount or percentage of forward and backward stroke volume but also by neuroendocrine dysfunction. Finally, these shared mechanisms result in left atrial/left ventricle dysfunction and in the transmission of left atrial pressure in the pulmonary circulation.

Likewise, the complex interrelationship between the left ventricle function and the diverse components of myocardial performance is emphasized in an original article by Kattel et al. published in this issue of Hellenic Journal of Cardiology.[4] In this article, the authors, motivated by the high prevalence and morbidity of heart failure with preservation of ejection fraction[5] and the limited understanding of its pathophysiological background,[6] studied the impact of left ventricle hypertrophy in the progression of mild to moderate left ventricle diastolic dysfunction. Based on simple echocardiographic techniques and not on advanced modalities, which have not been completely implemented in clinical practice,[7] these researchers documented the strong relationship of left ventricle hypertrophy with a worsened global and diastolic left ventricle function, which is a finding with potential etiological implications.

Nevertheless, the most common and well-understood entity is ischemic myocardial dysfunction which may be caused either by chronic ischemia or after an acute coronary syndrome.[8–10] However, the prognosis and clinical course of ischemic heart failure is determined by a multiplicity of mechanisms and by several comorbidities which are not completely relevant to ischemia per se. From this point of view, Savic L. et al. performed a prospective study in patients with STEMI, and they revealed that the mechanism by which chronic kidney disease interacts with other comorbidities, and the risk factors that determine prognosis in this high risk population is different among men and women.[11] These findings are discussed in an editorial by Lazaros G et al.[12] in which the poor outcome in patients with renal dysfunction and acute coronary events is attributed not only to gender but to a variety of mechanisms, including high prevalence of risk factors, greater risk of contrast induced nephropathy, and higher risk of bleeding.[13]

As the identification of high risk patients after an index event cannot make a substantial contribution to the population level, the interest of the new era of cardiovascular medicine has shifted from the vulnerable plaque hypothesis to the vulnerable patient concept.[14] In this new era, efficient modification of risk factor profile and, especially, of dyslipidemia, can be achieved by Proprotein Convertase Subtilisin/Kexin type 9 (PCSK9) inhibitors, reducing LDL levels substantially and eventually reduce the incidence of cardiovascular events and ischemic left ventricle dysfunction[15,16] in cases where statins are insufficient or

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intolerant. However, as Rallidis et al.[17] indicated in this issue of Hellenic Journal of Cardiology, despite the safety profile of these agents, we must be cautious because the long-term safety profile has not been established to date, and questions have been raised regarding cognitive function and very low LDL cholesterol levels. Despite considerations for the safety profile of PCSK9 inhibitors, this revolutionized class of drugs is here to stay and is likely to expand and to open up new horizons.

To this point and with the intention of expanding and internationalizing the impact of Hellenic Journal of Cardiology, as I promised several months ago, I want to announce the beginning of a new era for the official Journal of Hellenic Cardiological Society. From this issue forward, the Hellenic Journal of Cardiology will be published and hosted by Elsevier, one of the most important publishers in the medical field. This cooperation will most likely serve to increase the impact and readability of the journal in the international audience and may mark a new period for both the Journal and for the Hellenic Scientific Cardiological Society.

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