Atrium

In this issue, Fernando A. Navarro discusses the conceptual differences between Spanish terms such as *coronariopatía arterioesclerótica, cardiopatía arterioesclerótica, arteriopatía coronaria ateroesclerótica, arterioesclerosis coronaria, enfermedad arterial coronaria, cardiopatía coronaria* and *cardiopatía isquémica* and their English equivalents, which are often used as synonyms but which correspond to distinct entities.

Among the editorials, Sarwar et al. provide a commentary on an original study by Santas et al., also published in this issue, that analyzes recurrent hospitalizations for heart failure after an episode of decompensation. In the original study, 2013 patients, approximately half with reduced ejection fraction and the other half with preserved ejection fraction, were followed up for a mean of 2.36 years. Despite the high mortality rate (half had died at the end of the follow-up period) and readmission rate, there were no differences between the 2 entities in outcome, although mortality due to noncardiovascular causes was more common among patients with preserved ejection fraction. Sarwar et al. highlight the invariable association between heart failure with preserved ejection fraction and numerous comorbidities, which could explain why this entity is so widely heterogeneous, with multiple physiopathological mechanisms, and possibly still poorly understood, to judge from the poor results of clinical trials. As mentioned by Sarwar et al., it is important to highlight the analytical model chosen by the investigators, which allowed quantification of the true rehospitalization rate by taking into account the absolute number of hospitalizations per patient in the multivariable model instead of "time to first-event".

Also in this issue is an article by Avanzas et al., who present the very long-term follow-up (median, 6.1 years) of 108 patients with severe aortic stenosis who underwent implantation of a CoreValve self-expanding prosthesis. Although 65.7% of the patients had died at the end of follow-up, which is unsurprising considering the advanced age and high risk of the series, only 25.3% had died from cardiovascular causes. In the accompanying editorial, Tornos and Ribera highlight that the results are similar to those of other published series and reveal that, although CoreValve implantation is an appropriate procedure and represents a major advance for patients at high surgical risk, there continues to be a need for an exhaustive study for patient selection. An unresolved issue is the optimal timing to expand the indication for this procedure to lower-risk and younger who, importantly, have well-demonstrated excellent short-, mid- and long-term outcomes after surgery.

In the field of epidemiology and risk factors, Calabuig et al. present a cross-sectional study in a sample of 880 patients from the population-based RIVANA study, which found an association between epicardial adipose tissue and metabolic syndrome and its components. Although the hypothesis is not entirely original, the sample size is larger than those in previous studies and the strength of the association confirms what was already known. Future studies will need to elucidate the most perplexing issue: whether epicardial adipose tissue simply constitutes a risk marker for metabolic syndrome or whether there is some type of causal association. Also on the topic of research into cardiovascular risk, Álvarez et al. analyze high-sensitivity troponin levels in 690 patients who were asymptomatic but at very high cardiovascular risk, according to the European Society of Cardiology criteria. High-sensitivity troponin T concentrations were detected in 645 of these patients and were "pathologically" high (> 99th percentile) in 212 (32.9%). These elevations were associated with age, male sex, body max index, a history of heart failure, insulin therapy, and a lower estimated glomerular filtration rate. Although the findings are not original, they strengthen the notion that analytic tests need to be interpreted prudently, within the clinical context, especially in the emergency rooms of large hospitals, which currently have a wide battery of analytical tests, including high-sensitivity troponin T assays.

In another original article, Pérez-Navero et al. aimed to determine the predictive value of several peptides (atrial natriuretic peptide, β-type natriuretic peptide, copeptin, midregional pro-adrenomedullin and cardiac troponin I) as indicators of low cardiac output syndrome in 117 children with congenital heart disease undergoing cardiopulmonary bypass. Of all these peptides, elevated cardiac troponin I levels at 2 hours after surgery and midregional pro-adenomedullin concentrations at 24 hours were independently associated with low cardiac output syndrome, which could be useful in the inevitably complicated treatment of these patients. Although the practical implications of these findings remain to be elucidated, little research has been conducted on the topic, mainly because of the characteristics of the affected population, and consequently the study is especially opportune.

On the topic of arrhythmias, in the final original article in this issue, Martínez-Sande et al. report the finds of a registry of the first 30 patients undergoing Micra leadless pacemaker implantation. The aim was to study the safety and feasibility of this procedure. After slightly more than 5 months' follow-up, good outcomes were found in terms of sensing and pacing parameters and, notably, the only major complication was 1 moderate pericardial effusion without tamponade. Also on the topic of arrhythmias, this issue publishes an editorial by Boveda that discusses the efficacy and potential advantages of cryoablation over radiofrequency ablation in paroxysmal atrial fibrillation and updates the evidence on its use in persistent atrial fibrillation, as well as the potential strengths and weaknesses of this technique.

An article that well deserves to be read is the review by Valverde on 3-dimensional printed cardiac models. The author analyzes the usefulness of these models in health care (congenital and structural heart disease), education, specialist physician training, and patient communication. The article reviews the most important publications on the application of this technology for the planning of cardiac surgery and simulation of percutaneous structural interventions and discusses its limitations and future directions. We take the opportunity to remind readers of the editorial team's policy of inviting experts to write specialized reviews on potentially exciting topics, which we hope will appeal to readers.

As always, don't forget to take a look at this issue's excellent images and read the scientific letters and letters to the Editor, which will undoubtedly stimulate an enriching debate, or take part in our monthly ECG Contest.

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Editor-in-Chief

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