Atrium

Do we say *un editorial* or *una editorial* in Spanish? Physicians often have doubts about the grammatical gender of this word, perhaps because the answer is not particularly clear, as shown by Fernando A. Navarro in the commentary that opens this issue.

In the first editorial in this issue, Karavidas and Farmakis discuss an original article by Palau et al. reporting the results of a randomized clinical trial analyzing, in 61 patients with heart failure with preserved ejection fraction, whether inspiratory muscle training, functional electrical stimulation, or a combination of both, can modify exercise capacity, quality of life, diastolic function, and biomarker profile at 12 and 24 weeks. After 12 weeks, the 3 strategies produced a marked improvement in exercise capacity and quality of life compared with usual care. Karavidas and Farmakis stress the need to increase our understanding of the pathophysiology of this entity, which possibly affects a heterogeneous population, and which could partly explain the lack of benefit observed with conventional treatments and the need to investigate additional therapies, such as training with alternative exercise. In fact, Karavidas and Farmakis underline that this is the first randomized trial assessing the combination of the 2 therapies and demonstrating their benefit and consequently Palau et al. deserve to be congratulated on their work. Both the original article and the editorial are published as open-access articles.

Stent thrombosis is a medical emergency that can have devastating consequences. This issue contains an original article by Raposeiras-Roubín et al. that approaches a problem with little evidence: rates of stent thrombosis in patients treated with dual antiplatelet therapy with ticagrelor or prasugrel after acute coronary syndrome. Using data from the RENAMI registry, the researchers analyzed a total of 4123 patients with acute coronary syndrome discharged with dual antiplatelet therapy with ticagrelor or prasugrel from 11 centers in 6 European countries. The cumulative incidence at 1 year after the start of treatment was similar between the ticagrelor-treated group (1.21%) and the prasugrel-treated group (0.90%). Independent predictors of thrombosis were age, ST-segment elevation, previous myocardial infarction, and serum creatinine level. This issue also contains an editorial by Motovska that delves into the intimate mechanisms of stent thrombosis and discusses the most important registries on the topic.

Diagnostic and therapeutic advances in the last few years have allowed a greater number of patients with congenital heart disease to reach adulthood, which significantly increases the risk of chronic heart disease. One of the major advances in the treatment of advanced heart failure in acquired heart disease are ventricular assist devices, which are normally used as left ventricular support. However, patients with congenital heart disease have a higher probability of right-sided heart failure, pulmonary hypertension, and residual shunts, making them less than ideal candidates for these devices. In this issue, Alonso-González provides an excellent editorial providing an overview of essential concepts in the role of heart transplant and ventricular assist devices in this population.

Direct-acting anticoagulants have undoubtedly represented a step forward in the treatment of patients with nonvalvular atrial fibrillation. In the next original article, Escobar et al. present a systematic review and meta-analysis that includes 27 studies conducted in clinical practice on apixaban, rivaroxaban and dabigatran. All 3 drugs were associated with a markedly reduced risk of intracranial bleeding. Rivaroxaban, but not apixaban or dabigatran, was associated with a lower risk of stroke than warfarin. In contrast, apixaban and dabigatran were associated with a lower risk of major bleeding events, but not rivaroxaban. Perhaps the most interesting finding is that the use of low-dose direct-acting oral anticoagulants was associated with a slight improvement in safety profile but with a marked reduction in effectiveness in stroke prevention.

In the next original article, Sanchis et al. explore the relationship between cell-free DNA, which might originate from hyperactivated leukocytes at the coronary lesion, and coronary reperfusion in ST-segment elevation myocardial infarction. The study included 116 patients treated with primary angioplasty using thrombus aspiration. Cell-free DNA was quantified in coronary (during aspiration) and peripheral blood samples, which the authors call the peripheral-coronary cell-free DNA gradient. The authors observed that a small gradient, as an expression of high coronary cell-free DNA burden, was associated with the absence of ST-segment resolution in myocardial infarction and that intracoronary cell-free DNA might reflect neutrophil activation.

In the field of basic research, Nieto-Marín et al. present a detailed study of a family with 2 mutations in 2 genes related to long QT syndrome, as well as a complete functional study in one of them. The authors found that the presence of 2 mutations could "modulate" the long QT phenotype. Although previous studies have reported that some polymorphisms can modify the effect of some mutations and that mutations in the same gene can counteract each other, the fact that Nieto-Marín et al. studied 2 mutations in 2 different genes adds novelty to their results and opens up new lines of research. This is undoubtedly an excellent study.

Dilated cardiomyopathy is inherited in up to 50% of cases and is associated with an increased risk of sudden cardiac death and heart transplant. Risk stratification in these patients continues to pose a challenge. More than 90 genes related to the disease have been identified. These genes have prognostic implications and could influence the therapeutic approach. This issue includes a review by Peña-Peña and Monserrat that provides a detailed discussion of the topic and of current knowledge of the genetics of this condition and its implications.

As always, don't forget to take a look at the excellent images in this issue or read the letters. We also encourage you to take part in our monthly ECG Contest.

Ignacio Ferreira-González
Editor-in-Chief

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