Atrium

As usual, this issue opens with an article by Fernando A. Navarro, who discusses the Spanish terms embolia and embolismo. Although these terms are synonyms, the latter is a calque from the English term embolism.

In the first of the editorials, Boersma discusses an original article by Arias et al., analyzing the acute and long-term results after subcutaneous implantable cardioverter-defibrillator implantation. This single-center, prospective, observational study is probably the broadest contemporary series with this device in Spain. The study included 50 patients with a mean follow-up of 18.1 months. There were no inappropriate shocks or late complications requiring surgical revision. Boersma provides an in-depth review of the indications for this device and the results of international series, highlighting the low infection rate of the series reported by Arias et al., possibly due to the adoption of the 2-incision technique, as well as the need for correct patient selection for this type of device, which, above all, includes not having an indication for pacemaker therapy. This can be difficult to establish years in advance, and there is the added difficulty of defibrillator testing.

In the next editorial, Aranceta-Bartrina and Pérez-Rodrigo discuss an original article by Ortiz-Marrón et al. aiming to analyze the trend in overweight and obesity in a cohort of children followed up from the ages of 4 to 6 years. Data were drawn from the Longitudinal Childhood Obesity Study (ELOIN). This is a population-based cohort in the Community of Madrid involving 2435 children. Weight and height were objectively measured and standardized at 4 years (2012-2013) and 6 years (2014-2015) by 31 purpose-trained pediatricians. Three reference criteria were used. In general, the prevalence of overweight and obesity increased between the ages of 4 and 6 years according to the 3 reference criteria. Thus, 3 out of every 4 children who were obese at the age of 4 years continued to be obese at the age of 6 years, while 20.6% to 29.3% of children who were overweight became obese. Aranceta-Bartrina and Pérez-Rodrigo highlight the need for preventive, educational and social interventions, promoted by all public administrations, due to the economic and social burden of overweight and obesity and also their adverse effects in terms of impaired quality of life, reduced life opportunities, and increase in the individual risk of premature death. According to the authors of the editorial, the 2 essential preventive measures are strict regulation of school menus and an action plan to increase physical activity levels in the school-aged population. The Spanish Society of Cardiology/Spanish Heart Foundation are currently conducting various initiatives to facilitate collaboration between various administrations with these 2 elements as the motors of change: the nutritional quality of school meals and encouragement of physical activity.

The next original article published in this issue, by Vázquez-Oliva et al., explores the association between circulating levels of apoA1, apoB, albumin, and 25-OH-vitamin D and coronary events, and assesses whether these biomarkers improve the predictive capacity of the REGICOR risk function. This case-control study, with 5404 participants, was designed within the follow-up of the REGICOR population cohort study and initially included 5404 participants, from which 105 cases with coronary events and 651 controls were selected. After adjustment for classical risk factors, the only biomarker independently associated with coronary events was plasma albumin concentration (HR, 0.73; P = .002). Moreover, the inclusion of albumin concentration in the risk function correctly reclassified a significant proportion of individuals, especially those in the intermediate risk group (INR = 32.3; P = .048). This open-access article is accompanied by an Editor’s pick video.

Recent animal studies indicate that metformin impairs endothelialization of drug-eluting stents. In the next original article, Cubero-Gallego et al. used optical coherence tomography to assess the effect of this drug on endothelial healing of drug-eluting stents in diabetic patients. This study is a subanalysis of the randomized RESERVOIR trial, which randomized 112 patients with diabetes mellitus to amphilinum– or everolimus-eluting stents. The present study divided the patients in 3 groups according to the glucose-lowering agents received: a) no metformin; b) metformin in noninsulin-treated patients, and c) metformin in insulin-treated patients. At 9 months, optical coherence tomography showed that metformin use did not impair endothelial healing independently of concomitant insulin treatment. Because this was a post hoc analysis, the results should be interpreted with caution. However, the study undoubtedly provides useful information for clinical practice.

Although the relationship between hypertension and left ventricular diastolic dysfunction has been fully demonstrated, this relationship is less well-established in prehypertension (120-139/80-89 mmHg). In the last original article included in this issue, Ladeiras-Lopes et al. report a cross-sectional study of a community-based cohort of 925 individuals aged ≥ 45 years without known cardiovascular disease, who underwent a detailed clinical and echocardiographic examination with the aim of elucidating this question. Prehypertension was found in 30.4% of the sample and hypertension in 51.0%. Moreover, a progressive decrease was found in e’ velocity in both hypertensive and prehypertensive individuals, which was maintained after multivariable adjustment. In summary, prehypertensive adults showed altered cardiac relaxation prior to the onset of hypertension.

This issue also includes 3 special articles. Two are annual reports of the national registries on catheter ablation and heart transplant, which update the most significant data on clinical activity in these specialties. In the third, Pérez de Isla et al. present an important consensus document on the use of cardiac ultrasound, summarizing the concept of cardiac ultrasound, describing the main technical features of this technique and its diagnostic aims, and defining training requisites. The document is endorsed by the Spanish Society of Internal Medicine (SEMI), The Spanish Society of Family and Community Medicine (semFYC), The Spanish Society of Neurology (SEN), and the Spanish Society of Cardiology (SEC). All 3 special articles are open-access.
Last, this issue includes an interesting review article on the role of cardiac magnetic resonance in predicting the risk of sudden cardiac death. Van der Bijl et al. review the role of this technique in estimating ventricular arrhythmias and the risk of sudden cardiac death in coronary artery disease, nonischemic cardiomyopathies, heart transplant, iron-overload cardiomyopathy, and valvular heart disease. 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