

Atrium

As usual, this issue kicks off with a commentary by Fernando A. Navarro, who reminds us that medical terms are influenced not only by English but also by French, as reflected by innumerable words such as catheter and *torsade de pointes*.

In the first of the editorials, Mazzanti and Priori discuss an original article by Muñoz-Espaza et al. analyzing the value of the “stand-up” test in the diagnosis of long QT syndrome and evaluation of treatment response to beta-blockers. To do this, Muñoz-Espaza et al. took a first electrocardiogram with the patient in the supine position immediately followed by a second one with the patient in the standing position in 36 long QT syndrome patients and 41 controls. The corrected QT interval was measured in both positions. They also repeated the test in 26 patients receiving beta-blocker therapy. The authors observed that the baseline QT interval with the patient in the supine position was obviously higher in patients than in controls, with no differences between type I and type II long QT syndrome, and that the corrected QT change from baseline, which was much higher in patients than in controls, had high diagnostic value. In addition to confirming the usefulness of this maneuver, previously described in other protocols but performed by Muñoz-Espaza et al. in a much simpler way, Mazzanti and Priori highlight an important novelty, namely, that beta-blocker administration in a subgroup of their patients with long QT syndrome attenuated the abnormal response to standing, which could have obvious implications in explaining the benefit of beta-blockers in this condition and could help to select the optimal dose.

The second editorial, by Rosenkranz and Dumitrescu, discusses a study by Quezada Loaiza et al., who report their 30-year experience in a single referral hospital in the treatment of pulmonary hypertension. Specifically, they studied 379 consecutive patients diagnosed with this disease and analyzed them by the period of diagnosis: < 2004, 2004 to 2009, and 2010 to 2014. Over time, the most complex etiologies became more prevalent, (such as pulmonary veno-occlusive disease and portopulmonary hypertension), while there was a significant increase in the use of upfront combination therapy; survival free from death or transplant for the 1st, 3rd, and 5th year was 92.2%, 80.6%, and 68.5% respectively. Rosenkranz and Dumitrescu make an interesting comment on the changes occurring in the last few years in relation to this disease and that affect both the phenotype and the moment of diagnosis, the therapeutic strategies employed, and, obviously, survival. They also highlight the unique characteristic of this series, since it includes patients who contracted pulmonary hypertension in the context of what is sadly known in Spain as “toxic rapeseed oil syndrome”. Both the original article and the editorial are published as open access articles, and the original article is discussed in this month's Editor's video.

In the last of the editorials in this issue, Stamatelopoulos and Stellos highlight several findings of an original study by Bayes-Genis et al. The original article examined the relationship between bloodstream amyloid-beta (1-40) peptide, cognition, and outcomes in heart failure in 939 consecutive patients with heart failure followed up in a heart failure clinic for > 5 years. There were no differences in amyloid-beta (1-40) concentrations in patients with and without cognitive impairment at baseline but its presence was associated with a higher risk of all-cause and cardiovascular mortality, which may improve prognostic stratification in these patients. Stamatelopoulos and Stellos

mention that this observation, which confirms the findings of other studies, raises the hypothesis of a possible causal relationship between this molecule and the development of heart failure with poor clinical outcome, which would warrant the design of future therapeutic strategies. This is of the utmost importance, given that in the study by Bayes-Genis et al., the association with poor outcome was also noted in patients with heart failure with preserved ejection fraction. Nevertheless, the causal relationship remains speculative at this time, and must be confirmed or refuted in experimental studies.

Quantification of the risk of malignant ventricular arrhythmias in patients with hypertrophic cardiomyopathy, the main cause of death in these patients, has always been a topic of major interest. In the next original article, Mirelis et al. analyzed whether the volume of myocardial extracellular volume quantified by computed tomography, a surrogate of diffuse myocardial fibrosis, was associated with ventricular arrhythmias. To do this, they conducted a case-control study in 78 patients with hypertrophic cardiomyopathy who had undergone implantable cardioverter-defibrillator implantation. Unfortunately, they found no association between extracellular volume and the development of malignant ventricular arrhythmias. This was, however, a relatively small, retrospective study with a case-control design, and consequently it is possible to overestimate the associations between exposure and the disease, which indicates that it is unlikely that, in reality, this hypothesized association exists, or, if it does, that it is clinically relevant.

In the next original article, Calvo-Bonacho et al. describe a curious study in which, in a prospective cohort of 179 186 participants, cardiovascular risk was estimated by standardized methods at baseline and 1 year later. The authors report a clear relationship between a change in cardiovascular risk and the length and cost of sickness absence, so that participants with a cardiovascular risk reduction in the second examination had a lower count of sickness absence days than those who showed a worsening cardiovascular risk and those who remained stable.

The final original article, by Almendro-Delia et al. describes a multicenter retrospective study that included 2906 patients admitted to coronary units due to acute coronary syndrome between 2013 and 2015 and analyzed the profile of use of the new antiplatelet agents and their association with outcome. These authors observed that the new agents were used much more frequently in younger patients with less comorbidity, and that this use was associated with a lower rate of major cardiovascular events without increasing bleeding events compared with clopidogrel. Although this association was significant, even after propensity score matching, it is very difficult to avoid a confounding by indication in this type of study, and consequently the results should be interpreted with caution.

This issue also includes 3 special articles. Two of them are annual reports on the national registries of ablation and implantable cardioverter-defibrillators, which report the most significant data on the clinical activity in these specialties. In the third article, Serratos-Fernández et al. summarize, discuss and highlight the most important features of the consensus document on the new international criteria for electrocardiogram interpretation in elite sportspersons. In addition to updating the criteria for electrocardiogram interpretation, the document includes international recommendations on the standard of

care and clinical attention of sportspersons with abnormal findings. We believe that this document will strongly interest our readers since sudden cardiac arrest is the main cause of death during sports practice and also has a strong social impact and in the media.

Amyloidosis, an infiltrative disease due to protein accumulation in the extracellular space, frequently involves the heart, with the most frequently involved protein being transthyretin. Given the recent advances in the field of cardiac imaging and the diagnostic strategy for this condition, as well as the development of drugs that could modify

its natural history, we believed that the time was ripe to publish a review and update on the topic by González-López et al.

As always, don't forget to take a look at the excellent images in this issue or read the letters, which will undoubtedly stimulate a rich and thought-provoking debate, or to take part in our monthly ECG Contest.

Ignacio Ferreira-González
Editor-in-Chief