

Atrium

Our Spanish readers will undoubtedly have wondered about the grammatical gender of the term “enzyme”: is it masculine or feminine? The answer can be found in this month’s article by Fernando A. Navarro.

In the first editorial in this issue, Merino discusses 2 original articles on ablation procedures. In the first, Ballesteros et al. report the first results in Spain of the Rhythmia system, a new nonfluoroscopic navigation system used for atrial fibrillation ablation, in 62 patients. The authors demonstrate the efficacy of the system for this indication, with similar procedure times and safety profile to those of other systems. Nevertheless, Merino is somewhat skeptical about the potential added value of the new system and asks whether, at a time of limited resources, a cost-effectiveness analysis should be a priority before the new system is adopted. In the second original article, based on a sample of 247 patients from various centers, Álvarez et al. demonstrate the feasibility of zero-fluoroscopic ablation of right-cardiac cavity substrates. Ablation was successful in slightly more than 95% of the patients, with a complication rate similar to previously published standardized rates. As mentioned by Merino, one of the merits of this study is that it reports the use of this technique in Spain and, although some might argue that the fluoroscopy time is short and the apparatus is increasingly safe, the study indicates that, in future, fluoroscopy could possibly be avoided in most ablation procedures, with obvious benefits. Nevertheless, one of the limitations of the series is that it did not include left ventricular substrates, which will have to be specifically analyzed in future research.

On another topic, Perrin et al. report a prospective, observational study analyzing the safety and effectiveness of the new-generation Evolut R, a self-expanding, recapturable and repositionable valve, for TAVI. Implantation was successful in 90.1% of the patients, with an adequate mean reduction in transvalvular aortic gradient (from 42.5 to 7.7 mmHg), although repositioning was required in 26.8% of the patients and new pacemaker implantation was needed in 23.9%. This is the first published series of the use of this model in real-world clinical practice, that is, without patient selection, making the information particularly welcome. This is highlighted by Manoharan in his accompanying editorial, which also mentions that a possible limitation of the study is that prosthetic valve mismatch was evaluated with transthoracic rather than transesophageal echocardiography. In another original article published in this issue, Fernández Gassó et al. analyze trends in hospitalization rates for heart failure in the region of Murcia between 2003 and 2013, and report that the standardized rate increased from 1.06% to 1.77%, particularly in patients aged 75 years or older, showing a 2-fold increase, while no significant change was observed in patients younger than 75 years old. Although the study is of undoubted value in analyzing tendencies, the authors themselves mention that, due to the use of the combined minimum data set, there is a risk of infra- and overclassification that is difficult to overcome.

In another original article, Gómez Bueno et al. retrospectively analyzed a series of 26 patients from their center who underwent implantation of a paracorporeal pulsatile-flow ventricular assist device as a bridge to transplant. Although 80% of the patients were successfully bridged to heart transplant after a median of almost 4 months, there

was a high rate of infectious complications (52%) and neurological events (32%), of which half were fatal. However, the most important benefit of this pulsatile-flow device is that up to 25% of the patients could receive biventricular assistance, which would not have been possible with intracorporeal continuous-flow devices. Although this is a single-center study conducted in a small sample, it deserves to be read because of the complexity of the population and the disease (admittedly somewhat heterogeneous), and because it is the largest series published in Spain and one of only a few reported worldwide.

Readers will probably have wondered about the prognosis of patients who undergo exercise echocardiogram testing without ischemia, and specifically, about the value of cardiovascular risk prediction scales in this population. The last original article in this issue, by Velasco del Castillo et al., attempts to answer this question. The authors studied 1640 patients who underwent exercise echocardiogram testing, of whom 434 had known coronary artery disease. There were 2 main findings: that prognosis is favorable and that the European SCORE scale has good predictive capacity. Specifically, patients with SCORE < 10 had a favorable prognosis that persisted throughout follow-up, while those with SCORE ≥ 10 or diabetes showed a higher risk of events that increased with the time elapsed since the exercise echocardiogram test and was similar to that of patients with known coronary artery disease.

Last, this issue includes the series “Focus on cardiovascular genetics”. The series opens with an excellent article by Corella and Ordovas that describes basic concepts in molecular biology related to genetics and epigenetics and, moreover, also includes a glossary of key terms that will be extremely useful to our readers. The authors also provide examples of polymorphisms and genetic risk scales related to cardiovascular risk. Finally, they summarize the mechanism of certain epigenetic regulators and discuss the complex mechanisms of interaction between genes and the environment. This concept is essential for the second, no less excellent article in the series by Elosua and Sayols-Baixeras, which provides a narrative review of current knowledge of the genetics of ischemic heart disease and its clinical implications: the identification of therapeutic targets, study of the causal relationship between biomarkers and disease, improved risk prediction and the identification of responders and nonresponders to specific drug therapies. Finally, Gonzalo-Calvo et al. aim to summarize the complex topic of micro RNA, which, as our readers know, are molecular species regulating cell function that are used as potential biomarkers of disease. The series ends with a terrific editorial by Aslibekyan and Ruiz-Narváez, who provide a prudent and balanced discussion of current knowledge on these topics and what can realistically be expected in the future.

As always, don’t forget to consult the excellent images in this issue and read the letters, which will undoubtedly stimulate an enriching debate, or participate in our monthly ECG contest.

Ignacio Ferreira-González
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