

Atrium

The last issue of the year opens with a comment by Fernando A. Navarro on technical medical terms in Spanish that differ according to whether they are based on their French or English equivalents.

In the first of the editorials, Mori and Finn discuss an original article by Cuesta et al., a prospective study that included 40 patients with stent thrombosis who underwent reintervention with optical coherence tomography imaging. In that study, the authors report that the predominant mechanism in early stent thrombosis was stent malapposition, while there was a high frequency of uncovered struts, especially in drug-eluting stents, in patients with late stent thrombosis. Mori and Finn mention that, although a control group would have been desirable, most of the findings lend support to previous hypotheses or findings. They were surprised, however, by the finding that the development of neoatherosclerosis caused stent thrombosis in an equal number of bare-metal stents and drug-eluting stents. The article by Cuesta et al. is also discussed in this month's Editor's video.

The second editorial is a comment on the recent ESC clinical practice guidelines on the treatment of STEMI, the Spanish version of which is also included in this issue. As usual, the working group of the SEC, the expert reviewers and the Clinical Guidelines Committee of the SEC highlight the most salient and controversial aspects of these guidelines, as well as those without robust evidence.

As the last editorial in this issue, we are pleased to publish a comment by Pappone and Brugada on the latest advances in ventricular arrhythmia ablation in Brugada syndrome. The authors highlight the use of ajmaline to reveal the electrocardiographic characteristics of the syndrome, as well as the potential benefit of epicardial ablation, its possible complications, and the immediate future in this field. The images accompanying the article are of particular interest.

The second original article, by Pérez de Prado et al., analyzes the safety and efficacy of new biodegradable polymer-based drug-eluting stents compared with conventional stents (bare-metal and drug-eluting). This clinical trial randomly implanted 101 stents (bare-metal and biodegradable polymer-based sirolimus-eluting stents) in 34 domestic pigs; angiographic and histomorphometric studies were performed at 1 and 3 months. In brief, biodegradable polymer-based drug-eluting stents showed a lower restenosis rate than conventional stents, with no differences in safety and efficacy compared with commercially available drug-eluting stents.

Unusually for this journal, this issue includes in the original articles section a clinical trial design aiming to analyze the usefulness of CA125 antigen to tailor diuretic therapy in patients with acute heart failure and cardiorenal syndrome type 1. This population shows renal hypoperfusion and venous congestion and the optimal treatment has not been defined. To do this, the multicenter, open-label, parallel clinical trial was designed and will include patients with acute heart failure and serum creatinine ≥ 1.4 mg/dL on admission. The patients will be randomized to: a) standard strategy: titration based on routine clinical and biochemical assessment, or b) CA125-based strategy: high-dose diuretics if CA125 > 35 U/mL and low-dose therapy if CA125 < 35 U/mL. As described in the article by García-Blas et al., the main endpoint will be the change in renal function at 24 and 72 hours after treatment initiation.

The last original article, by Díaz et al., is a cohort study of patients who had undergone implantation of a Mitroflow prosthesis. The patients were followed up clinically and ecocardiographically to estimate the rate of structural valve degeneration, which was 4.22% (95%CI, 2.96-5.81) at 5 years and 15.77% (95% CI, 12.46-19.43) at 8 years. Patient-prosthesis mismatch was associated with structural valve degeneration if severe, but not when moderate. Likewise structural degeneration was associated with an increased risk of mortality. In addition to the translation into Spanish of the ESC guidelines on the treatment of STEMI, this issue includes 3 special articles, which correspond to the annual reports of the national registries on pacemakers, heart transplant, and cardiac catheterization and coronary intervention, and which update the most important data on healthcare activity in these specialties.

Last, de la Torre Hernández and Edelman provide an excellent general review of challenges and opportunities in medical research. The authors provide a rigorous and accessible discussion of the distinct types of study design that can be used to answer a research question and the innumerable barriers in the world of research, which is increasingly complex from an administrative-regulatory point of view, expensive, and with difficulties for integration in clinical practice.

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, and take part in our monthly ECG Contest.

Ignacio Ferreira-González
Editor-in-Chief