

Atrium

The September issue opens with a brief article by Fernando A. Navarro on one of the many etymological curiosities in cardiology: the origin of the term stent, which appears to be an eponym named after a XIX century dentist called Stent, who invented a plastic resinous compound to make dental moulds used to produce false teeth.

In the first of the editorials, published as an open-access article, Schneider and Sechtem discuss an original article by Pérez-Castellanos et al. analyzing the characteristics of patients included in the RETAKO registry between 2003 and 2015. This is a multicenter registry of tako-tsubo syndrome with 32 participating Spanish hospitals. Most of the patients included in the registry were women (493 of a total of 562 included patients), and the findings confirm that tako-tsubo syndrome shows wide differences by sex in terms of its incidence, presentation, and outcomes, with worse prognosis in men. The authors of the editorial highlight the “mystery” underlying the extraordinary predilection of this syndrome for women, which has been attributed to physiological factors such as a higher prevalence of microvascular involvement in women and possible underdiagnosis in men, in whom the disease may present more frequently as sudden cardiac death.

This issue also includes two independent editorials. In the first, Kadoglou et al. discuss vaccination in heart failure, currently indicated for the influenza virus and pneumococcus. The authors remind us that, although all the clinical practice guidelines recommend antipneumococcal and anti-influenza vaccination, especially in patients at high risk—in whom the potential impact is greater—, there are no randomized controlled trials demonstrating the efficacy of vaccination in this collective, nor will such trials be conducted for obvious ethical reasons. In the second editorial, Segers and Heidebuchel discuss the evidence and indications for percutaneous closure of the left atrial appendage and analyze the characteristics of the PROTECT AF and PREVALE clinical trials, the only trials to have appraised this technique, and review the most important registries on the topic.

In the next original article, Dallaglio et al. report a study aiming to identify the safety and effectiveness of antitachycardia pacing to treat fast ventricular tachycardias in the ventricular fibrillation zone in patients with an implantable cardioverter-defibrillator in daily clinical practice. The data were drawn from the UMBRELLA trial and 542 episodes were reviewed in 240 patients. The study found that, although antitachycardia pacing during charging is moderately effective for fast ventricular tachycardia, adding a burst before charging before charging increases the overall effectiveness, reduces the need for shocks, and does not prolong episode duration.

Using data from the REGICOR cohort, Vázquez-Oliva et al. analyze acute myocardial infarction incidence and mortality rates and population and in-hospital case-fatality in the population older than 74 years, as well as variability in clinical characteristics and acute myocardial infarction management of hospitalized patients and changes in these parameters in the periods 1996 to 1997 and 2007 to 2008. In addition to the expected exponential increase in the incidence, mortality, and case-fatality of acute myocardial infarction with age, differences were found in the use of invasive procedures and effective drugs between age groups, which could possibly indicate the complexity of therapeutic decision-making in this type of patient.

Also in the field of epidemiology, Galán et al. report the results of an interesting study aiming to assess the impact of two smoking bans enacted in 2006 (partial ban) and 2011 (comprehensive ban) on hospital admissions for cardiovascular disease in the adult Spanish population. The study was conducted in 14 provinces in Spain, with hospital admission records being collected for acute myocardial infarction, ischemic heart disease and cerebrovascular disease in patients aged ≥ 18 years between 2003 and 2012. Curiously, the smoking bans failed to significantly decrease hospitalizations for the above-mentioned diseases in the total population. In the group aged ≥ 65 years, the comprehensive ban resulted in a significant reduction in hospitalizations for these diseases but this effect disappeared at the 1-year assessment. As with all ecological designs, caution must be exercised when interpreting the results of this study, due to the ecological bias or “ecological fallacy”, which is sometimes difficult to avoid. However, if these bans had indeed significantly reduced hospitalizations for these entities, the results found by Galán would have been very unlikely. In my opinion, this study has two important virtues. First, it is one of the few studies that analyzes, using robust methods, the effect of health policies in Spain. Second, its findings highlight the need to continue to combat smoking through active policies but perhaps with a different focus and intensity than those pursued to date and, obviously, through the introduction of complementary measures.

In the field of interventional cardiology, Enríquez-Rodríguez et al. compare the hemodynamic performance of the SAPIEN 3 vs the Medtronic Evolut R valves in 201 patients. To do this, they matched 144 patients according to aortic annulus diameter and aortic valve calcium score. Echocardiographic images at baseline and 6 months were analyzed by independent observers. The Evolut R valve showed a better hemodynamic profile as assessed by peak aortic gradient, mean aortic gradient, and Doppler velocity index, although the rate of moderate-severe paravalvular aortic regurgitation was higher with this Evolut R than with SAPIEN 3. It would be interesting to have long-term data on hemodynamic and clinical parameters.

In the final original article, Hwang et al. aimed to evaluate the effect of aliskiren on aortic stiffness in patients with Marfan syndrome initially treated with atenolol. This randomized study was performed in 28 patients. The main outcome variables were central aortic distensibility and central pulsed wave velocity quantified by magnetic resonance, peripheral pulsed wave velocity, central aortic blood pressure and augmentation index by peripheral tonometry. After 24 weeks of aliskiren treatment, no improvement was found in central distensibility, although central systolic aortic blood pressure tended to be 14 mmHg lower in patients in the aliskiren group than in controls ($P = .09$) and peripheral pulsed wave velocity (brachial-ankle) was significantly reduced in the aliskiren group (-1.6 m/s) compared with the control group ($+0.28$ m/s) ($P = .005$).

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.

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Editor-in-Chief