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IN THIS ISSUE OF EUROINTERVENTION

An ESC/EAPCI consensus paper on percutaneous treatment of acute pulmonary embolisms; catheter-directed thrombolysis vs standard anticoagulation therapy in acute pulmonary embolism; pretreatment with evolocumab to prevent periprocedural microvascular dysfunction after PCI; physician and patient perceptions of antithrombotic strategies for AF-PCI; ACh provocative testing for INOCA and MINOCA; long-term results from the RADIANCE-HTN SOLO trial; and more

Davide Capodanno, *Editor-in-Chief*

The European Society of Cardiology (ESC) Congress, where were we? I can still remember what I felt when it took place three years ago before the pandemic. For me, at that time, it had attained a memorable peak in all the various elements a participant looks for in one of these professional gatherings. Then, the world was unfortunately confronted by an incredible challenge, and the shock waves from this event forced the ESC, given the circumstances, to reorganise itself, creating two online events of

great quality but certainly which had little to do with the vibrations so familiar to those who had attended the “live” event in person many years before.

Yet, here we were finally back again, in a new location (Barcelona), and though the world had changed in the meantime, all the elements dear to fans of the ESC Congress were present: guidelines, late breaking trials, and a series of fascinating settings for lectures and discussion, in addition to the traditional rooms (as always, called by the names of European capitals): the main arena (with its suggestive play of light and the big screen so well-used during the inaugural ceremony), the hubs (open spaces with surprisingly adequate acoustics for contemporary sessions), the central stage (this year renamed “The Zone”, an area furnished with a peculiar style, home to sessions and digital games that made you dream of what congresses in the future will look like), the ResearchGate (an area dedicated to abstract presenters, with visually gratifying, flexible setups).

It was an ESC Congress with a reduced floor plan compared to the Paris edition (an excellent idea for maintaining the same density of people and interactions), but with a tremendous amount of care and innovative ideas that bodes well for a rapid recovery of the field.

Did I like it? Yes, quite a lot. Why? That's something we can speak about in the future, but at present let's simply focus on our Journal and celebrate the presence of EuroIntervention itself at the ESC Congress 2022. On behalf of our Editorial Board, in a session dedicated to the ESC Family of Journals, I had the pleasure of presenting the ranking of the top 15 EuroIntervention articles that are currently contributing most to next year's impact factor. We also had a stand dedicated to our publishing activities and a scientific publication simultaneous with one of the presentations at the congress.

Our Journal is alive and well and, with your help, it is trying to grow. That said, we turn to the usual review of the articles collected in the current issue.

This month we are publishing a joint expert consensus on percutaneous catheter-directed therapies (CDTs) for the treatment of acute pulmonary embolisms (PE) by the ESC Working Group on Pulmonary Circulation and Right Ventricular Function and the European Association of Percutaneous Cardiovascular Interventions (EAPCI). Intended to serve as both a practical guide and a complement to the existing guidelines, authors **Piotr Pruszczyk, Dariusz Dudek and colleagues** discuss the current use of CDTs in cases when thrombolysis is contraindicated or fails. They explore the issues around how CDTs are increasingly considered as a possible strategy in stable patients when treatment failure occurs and examine how the definition of treatment failure is unclear. Also, the authors discuss how to standardise patient selection, describe the different CDT techniques and approaches in PE patients and look at the timing and technique of the procedure itself along with a review of anticoagulation regimens during CDT.

Continuing with peripheral interventions, **Josef Kroupa, Viktor Kocka and colleagues** compare CDTs to standard anticoagulation therapy in a randomised pilot study in patients with intermediate-to-high risk of acute pulmonary embolism. Their results show CDTs to be safe and effective, improving the prognosis for these patients, and thus offering a new strategy for treatment.

In coronary interventions, **Masaharu Ishihara, Shinichiro Suna and colleagues** present results from the EVOCATION trial looking at the use of evolocumab as a pretreatment

for the prevention of periprocedural myocardial infarction (MI) caused by microvascular dysfunction. While statins provide some protection against microvascular dysfunction, evolocumab, with a more potent lipid-lowering effect, could be an effective adjunctive therapy. Patients in this study who had stable coronary artery disease scheduled to undergo PCI and who were pretreated with evolocumab were seen to have a decrease in LDL-C but no change in their inflammatory markers leading the authors to conclude that evolocumab did not seem to prevent periprocedural microvascular dysfunction. This article is accompanied by an editorial by **Lorenz Räber and Yasushi Ueki**.

Jaya Chandrasekhar, Roxana Mehran and colleagues present the AVIATOR 2 international registry, the first digital health study designed to examine the subjective perception of different antithrombotic therapies in physicians and their patients. In this study, where patients had atrial fibrillation and were candidates for percutaneous coronary intervention (PCI), the results showed that the physicians were concerned with safety and bleeding risk while their patients were more worried about eventual stroke, underlining the different concerns that need to be accounted for when discussing treatment options.

Intracoronary provocative testing with acetylcholine (ACh) is understood to be an essential tool in the diagnosis of coronary alterations in patients with suspected myocardial ischaemia, but the question of its safety and overall effectiveness needed further study. In this next article, **Rocco Antonio Montone, Filippo Crea and colleagues** found that ACh provocative testing helps identify patients at higher risk of future clinical events while being safe with a low rate of complications in patients with ischaemia who had either non-obstructive coronary arteries (INOCA) or myocardial infarction with non-obstructive coronary arteries (MINOCA). This article is accompanied by an editorial by **Javier Escaned and Hernán Mejía-Rentería**.

Turning to interventions for hypertension, **Florian Rader, Michael A. Weber and colleagues** present the 3-year follow-up of the RADIANCE-HTN SOLO trial which examined the long-term durability of ultrasound renal denervation (RDN) treatment. In this trial, uRDN showed itself to be safe and efficacious and that the level of hypertensive medicines used in patients after RDN remained stable over time with a consistent lowering of office blood pressure (BP) over the 36-month period. This article is accompanied by an editorial by **Massimo Volpe and Giovanna Gallo**.

Continuing with RDN, **Karl Fengler, Philipp Lurz and colleagues** studied the use of invasive pulse wave velocity (iPWV) and ascending aortic distensibility by magnetic resonance imaging (mAAD) in predicting arterial stiffness. Their goal was to determine whether a non-invasive model based on arterial stiffness could be used to predict blood pressure response to RDN. The authors confirmed the predictive value of iPWV for BP reduction after RDN, which was used to define and confirm the use of mAAD and baseline BP as predictors for RDN response. This method could provide the next step in patient selection for the effective employment of RDN in treating patients with resistant hypertension.

We also have two viewpoints in this issue, the first by **Björn Redfors, Oskar Angerås and Elmir Omerovic** on the introduction of new coronary stents using a clinical trial-based cluster-randomised evaluation as an integral part of the implementation process, and the second by **Lars Sondergaard, Darren Mylotte and myself** on the developing role of cerebral embolic protection in transcatheter aortic valve implantation.

And now read on for your own reactions to this issue as well.