NOVEMBER 2024

VOLUME 20, Issue 22

EuroIntervention PCR London Valves Issue with: 2024 Core Curriculum on Percutaneous Valvular and Structural Heart Disease Interventions; a mini focus on redo-TAVI; outcomes of low-flow, low-gradient aortic stenosis after TAVI; worsening LVEF after M-TEER; the MitraCut procedure; referral trends in T-TEER; debating PCI for bystander CAD; news from the EAPCI; and more

Davide Capodanno, *Editor-in-Chief*

One thing I believe I've understood in publishing is that to simplify something is often harder than to make it more complicated. This issue coincides with the PCR London Valves Course, where, once again, there will be a strong focus on a minimalist approach to transcatheter valve disease treatment and, in keeping with the theme of simplification and minimalism, I'm pleased to announce that we've launched a new streamlined article submission process for our Journal.

Every author knows the frustration of dealing with complex submission systems, multiple forms to fill out, and formatting requirements for articles, tables, and figures. All that is now in the past for EuroIntervention. The submission system has been thoroughly revised to allow authors to complete the process in just a few minutes. We've removed unnecessary steps and questions and papers can essentially be submitted in the format of your choice. It's your paper – own the process.

Minimalism, however, does not mean oversimplification. Should your manuscript advance through to later stages, our editorial office will then request strict adherence to the Journal's submission guidelines. This seems like a fair compromise, focusing formatting efforts on only those manuscripts with the greatest chance of acceptance.

And, in keeping with this new and streamlined philosophy, we have redesigned the review submission process too, removing unnecessary steps to make life easier for our reviewers.

We hope all these changes will be well received by authors and reviewers alike, the people who are at the very core of EuroIntervention. These modifications came from your suggestions, and after some strategic planning, we've finally implemented them.

Let us know your thoughts. Meanwhile, let's focus on this special issue, aligned with the PCR London Valves tradition of special attention to valvular and structural topics.

And what better way to begin than with what we trust will lay the groundwork for future generations of interventionalists focused on treating structural, valvular, and non-valvular heart disease. **Rui Campante Teles, Dariusz Dudek and colleagues** present the 2024 Core Curriculum on Percutaneous Valvular and Structural Heart Disease Interventions, which represents the work of not only the European Association of Percutaneous Cardiovascular Interventions (EAPCI), but the European Association of Cardiovascular Imaging (EACVI) and the Cardiovascular Surgery Working Group (WG CVS) of the European Society of Cardiology (ESC) as well. This article provides an overview of the objectives, requirements and modules included in the EAPCI Structural Heart Disease Training and Certification, with full training in all competencies taking about 18 months. The Core Curriculum offers newly trained interventional cardiologists in ESC countries the chance to increase their knowledge and competence in structural heart disease interventions.

Turning next to original research, **Francesco Cardaioli, Giuseppe Tarantini and colleagues** probe whether the worse outcomes often associated with low-gradient aortic stenosis (AS) after transcatheter aortic valve implantation (TAVI) are due to the low-flow status alone, or if there are baseline characteristics that influence clinical outcomes. Using up to 10 years of follow-up data from three patient groups, classical low-flow, low-gradient AS, paradoxical low-flow, low-gradient AS, and high-gradient AS, they find that the higher mortality of the classical group seems to be associated more with the patient's risk profile than the low-flow status. This article is accompanied by an editorial from **John Webb and Sophie Offen**.

In this issue, we also have a mini focus on redo-TAVI, which, despite having emerged as a viable therapeutic option for many patients, remains fraught with complexities and knowledge gaps. **David Meier, Stephanie L. Sellers and colleagues** used *ex vivo* hydrodynamic testing to observe redo-TAVI using a SAPIEN 3 in failed calcified CoreValve/Evolut valves, evaluating the neoskirt height, leaflet overhang, frame expansion and the hydrodynamic performance of the SAPIEN 3 at three different implantation depths. Favourable haemodynamics were found with the SAPIEN 3 outflow positioned at node 5 of the degenerated valve, and the authors offer insights into patient selection and procedural planning.

Next in the mini focus, **Gintautas Bieliauskas, Ole De Backer and colleagues** look at the use of a SAPIEN 3 in a degenerated index ACURATE *neo2*, concluding that this is feasible in many patients, finding that a low implant position was associated with a lower risk for coronary flow compromise and coronary inaccessibility. A sinotubular

junction-to-aortic annulus mean diameter ratio <1.15 was a strong predictor that redo-TAVI was not feasible. The authors underline that meticulous preprocedural planning is imperative to determine the correct size and implant depth for an optimal result.

Wrapping up our redo-TAVI mini focus, **Ketina Arslani, Ole De Backer and colleagues** provide a research correspondence examining the coronary accessibility and feasibility of redo-TAVI with an Evolut valve in patients with bicuspid aortic stenosis. Using computed tomography data, they evaluate three different positions of a virtual SAPIEN 3 in an Evolut valve, finding that higher implantations were associated with an increased risk of coronary flow compromise and coronary inaccessibility.

To prevent left ventricular outflow tract (LVOT) obstruction in transapical transcatheter mitral valve replacement (TA-TMVR) patients, the MitraCut procedure uses beating heart transapical cannulation and standard endoscopic scissors to divide the anterior mitral leaflet. **Martin Andreas, Andrea Colli and colleagues** report on their multicentre experience using this procedure which they found to be effective, with low complication rates and having the advantage of not requiring specialised equipment.

Sachiyo Ono, Kentaro Hayashida and colleagues explore the predictors and clinical effects of left ventricular ejection fraction (LVEF) worsening after successful mitral transcatheter edge-to-edge repair (TEER). In a large-scale registry including both primary and secondary mitral regurgitation patients, nearly 30% of TEER patients had a worsened LVEF, found to be caused mainly by an increased left ventricular end-systolic volume. Predictors include patient-specific factors and baseline left ventricular volumes and the worsened LVEF was found to be temporary with no long-term clinical outcomes.

Have referral trends in tricuspid transcatheter edge-to-edge repair influenced outcomes? In this research correspondence, **Karl-Patrik Kresoja, Philipp Lurz and colleagues** investigate the baseline characteristics of patients referred for tricuspid transcatheter edge-to-edge repair (T-TEER) for tricuspid regurgitation (TR) from 2016 to 2022 and find a shift in patient profiles from ventricular TR phenotypes with a high systemic disease burden to atrial TR phenotypes with less systemic burden but earlier disease stages. These changes could impact the statistical power needed in clinical trials and merit consideration in future trial design.

Finally, we include a debate on the discrepancies between two randomised trials which have left us questioning whether TAVI patients with bystander coronary artery disease (CAD) should receive percutaneous coronary intervention (PCI). To begin to find an answer to this conundrum, we turn to four distinguished professionals. For **Josep Rodés-Cabau and Marisa Avvedimento**, revascularisation of bystander CAD in carefully selected patients can improve quality of life and prognosis, while **Tiffany Patterson and Benedict McDonaugh** ask which endpoint is the most important to the patient and the prognosis, favouring relief of aortic stenosis.

And now that you see what's at stake and what subjects you can choose from within this issue, to further simplify, we invite you to delve in and choose what interests you the most.