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IN THIS ISSUE OF EUROINTERVENTION

**Best practice in left main intervention, physiology-guided complete revascularisation in STEMI, screening for transcatheter mitral valve replacement, EAPCI guidance and survey on COVID-19, and more**

**Davide Capodanno, *Editor-in-Chief***

This year it went like this – apparently we will have to abandon for a while the principle of education in the classic format of face-to-face conferences (or “in person” as we now say). All the main conferences in our field have been converted into digital events, and it is currently impossible to predict how much of this transformation is destined to remain or to dissolve when the COVID-19 nightmare has passed. At this point, what is certain is that, in order to attract participants online and take them away from the inertia of their daily routine, we will have to be very creative. It is not enough to create an event and provide a link – one must also fill it with content and find the right formula. What is the difference between a physical and a digital participant? What use will digital participants make of the resources available? Will they follow a session from start to finish or will it all be a hit and run affair? And how long will they be willing to tolerate a video, a webcast, a presentation, if it is used on the web? If you think about it, the number of questions and unknowns is impressive. Equally varied are the solutions that begin to appear. There are courses spread over 3 days and courses spread over 10 days, courses that include the weekend to allow more participation and courses that hesitate to include the weekend

for potential competition with everything else. There are courses that broadcast live, courses with pre-recorded segments and hybrid courses with pre-recorded segments and studio-conducted segments. While organisers are struggling to find the right formula (and you may be sure that the “trial and error” principle will apply for a while), journals represent a lighthouse in the fog when it comes to educational formats, since their routine is basically untouched by the circumstances. So, let’s proceed with our usual presentation of the contents to be found in the pages of this June edition, this year coinciding with the PCR e-Course.

The coronary section hosts a minifocus on left main revascularisation, with important novel findings from established research groups in the field. **Andrew Ladwiniec, Evald H. Christiansen and colleagues** report the outcomes of 603 patients undergoing percutaneous coronary intervention in the NOBLE trial, where the rate of intravascular ultrasound (IVUS) use was 72%. The outcomes of patients with and without IVUS are reported at 5 years: a notable improvement was observed in target lesion revascularisation when IVUS was used. So, if intracoronary imaging is useful to optimise the results of left main intervention, the next question is which criteria should be applied to get better clinical outcomes. **José M. de la Torre Hernández, Fernando Alfonso and colleagues** investigated the prognostic value of a protocol with predefined optimisation targets for IVUS-guided revascularisation in 124 prospectively enrolled patients undergoing left main revascularisation. This group was matched with patients undergoing angiography-guided and IVUS-guided revascularisation from a multicentre database. I will let you discover which group had the smaller rate of events and the technical aspects of the IVUS protocol, which promises to set a new standard. These two articles are accompanied by an insightful editorial by **Akiko Maehara** as first author. Another technical aspect of left main intervention that strives for clinical data is final kissing balloon inflation. Whether performing it or not influences the long-term clinical outcomes of distal left main percutaneous coronary intervention was appraised by **Annapoorna S. Kini, Gregg W. Stone and colleagues** using the EXCEL data set. At 4 years, the rates of the composite primary and secondary endpoints were similar with or without final kissing balloon inflation regardless of whether one or more stents were required for treatment. While waiting for a randomised clinical trial, be sure that these findings will further fuel the debate. Meanwhile, please enjoy the editorial by the current President of the European Bifurcation Club and world-renowned bifurcation guru, **Goran Stankovic**.

Another study in the coronary intervention section is the 3-year report of the Compare-Acute trial from **Pieter C. Smits, Elmir Omerovic and colleagues**, which previously reported the superiority of fractional flow reserve (FFR)-guided complete revascularisation over a culprit lesion-only strategy in patients with STEMI and multivessel disease at 1 year. At 3 years, the primary outcome was still reduced by the FFR-based approach, a benefit driven by reduced rates of revascularisation. The study is nicely complemented by a cost analysis performed from the healthcare payer perspective and by an accompanying editorial by PRAMI principal investigator **Anthony Gershlick**.

Can we ignore the impact of COVID-19 on our profession? This issue includes two timely documents from the European Association of Percutaneous Cardiovascular Interventions (EAPCI). The first, from a task force led by **Alaide Chieffo, Dariusz Dudek and Andreas Baumbach**, is the “EAPCI Position Statement on Invasive Management of Acute Coronary Syndromes during the COVID-19 pandemic”, where several practical

aspects are discussed, including clinical scenarios, management algorithms, reorganisation of catheterisation laboratories and, importantly, measures for protection of healthcare workers. The second is a European survey led by **Marco Roffi and colleagues** to shed light on the impact of the COVID-19 pandemic on the management of patients encountered in routine practice, run between 1 April and 15 April 2020. This snapshot suggests that interventional cardiology practice has been disrupted in multiple aspects by COVID-19, including cath lab personnel availability, need for personal protection, management of patients with acute coronary syndromes and a massive reduction in procedural activity.

Let's now move on to the section on valvular interventions. We frequently talk about TAVI (or TAVR, if you follow the reasoning that the native valve is “replaced”, rather than that the bioprosthesis is “implanted”), but how about TMVR (... or TMVI if you prefer)? In other words, where are we with transcatheter mitral valve replacement as a therapeutic approach for high-risk patients with severe mitral valve regurgitation who are ineligible for interventional mitral valve repair? As you know, TMVR is currently being investigated at the trial level, but the screening for a patient being considered for inclusion is strict, and the ratio between screened and enrolled patients is high. At the clinical level, TMVR is offered to very selected candidates - selected both clinically and anatomically. Yet, even when a patient is potentially eligible from a clinical standpoint, anatomic exclusion criteria play an important role and frequently contraindicate the procedure. This tells us something about the limited applicability of these technologies at the current stage. **Sebastian Ludwig, Edith Lubos and colleagues** report on common reasons for screening failure of TMVR candidates, with a focus on anatomical TMVR eligibility criteria. In particular, they present to the readers a 4-step decision tree algorithm using simple computed tomography criteria that aims at simplifying and improving the early identification of potential TMVR candidates and explore its discrimination ability. Essential reasons for screening failure were small left ventricle dimensions, small or large annular size, the potential risk of left ventricular outflow tract obstruction and the presence of mitral annulus calcification.

This month we also host a series of short reports that provide practical information for operators performing TAVI. **Gianmarco Iannopolo, Matteo Montorfano and colleagues** propose a novel supra-annular plane (the so-called “LIRA” plane) to localise the level where TAVI prosthesis anchoring is expected to occur in bicuspid aortic valve disease. Indeed, supra-annular assessment of raphe-type bicuspid aortic valve disease is a concept not reproducibly demonstrated in TAVI, and specific methods to localise a supra-annular plane where prosthesis sizing measurements can be adequately performed are not standardised. Two more articles give insights on the progress of devices for vascular access closure after TAVI. The first report, from **Hendrik Ruge, Rüdiger Lange and colleagues**, describes the early results with the InClosure VCD, a device that seals large-bore arteriotomies covering the puncture site with an intravascular biodegradable membrane supported by a nitinol frame. The second study, from **Andreas Rück, Magnus Settergren and colleagues**, reports quite a high failure rate with the MANTA vascular closure device after transaxillary access.

That's it for this special issue coinciding with the PCR e-Course. In the coming months we will make a first assessment of these digital experiences in education. In the meantime, we hope that the Journal remains your safe haven in these uncertain times.