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## **An ESC/EAPCI consensus statement on renal denervation; a debate on the future of transcatheter mitral valve replacement; a mini focus on interventional pharmacology, from P2Y<sub>12</sub> inhibitors to evolocumab; impact of non-fatal periprocedural major adverse events on ten-year mortality; pathologic responses to abluminal biodegradable versus circumferential durable polymer-coated DES; and more**

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

When I wrote about ChatGPT in a previous editorial, the bot had been born so recently that even the most dystopian prediction was largely superseded by the facts. Maybe those who remember the day the calculator came into the world experienced a similar sensation and thought “it’s the end of the world”, or “our brains will atrophy, and robots will take over human beings”. That said, every day it seems more and more clear to me that this is a revolution destined to improve our lives rather than ruin them forever (but, if you are wondering if journals already have actions for creating anti-bot software, the answer is yes, so don’t worry).

Still, at the present time, the (let’s say) “playful” applications are infinite. For example:

“ChatGPT, write the incipit of an opening editorial for the Journal EuroIntervention”.

“Dear readers,

It is my pleasure to welcome you to the latest edition of the Journal EuroIntervention. As a leading publication in the field of interventional cardiology, our mission is to advance the understanding of cardiovascular disease and provide a forum for the exchange of innovative ideas and cutting-edge research.”

“ChatGPT, this is too serious and formal, can we have something more fun?”

“Greetings, EuroIntervention fans!

We’re thrilled to present the latest edition of our journal, packed with exciting new developments in interventional cardiology. From cutting-edge techniques to expert insights, this issue has it all. So, buckle up, get ready to dive into the world of cardiovascular care, and let’s make some waves in the field of interventional cardiology!”

“Well, ChatGPT, less fun. Write it short but not too formal”.

“Hello interventional cardiology community,

We’re back with a new edition of the Journal EuroIntervention, filled with the latest advancements and insights in our field. From cutting-edge techniques to expert perspectives, this issue has it all. Join us as we explore the exciting world of interventional cardiology and discover the innovative solutions and challenges facing the field today. Let’s dive in and continue to push the boundaries of cardiovascular care.”

“Ok, can you now write a logical transition to the list of articles?”

“And now, without further ado, let’s take a look at the diverse and thought-provoking articles in this edition”.

So let’s begin with a debate between some very human authors on whether transcatheter mitral valve replacement (TMVR) will remain a niche therapy or not. **David J. Cohen and Sebastian Ludwig** present a more limited application of this procedure, arguing that the high numbers of anatomies unsuitable for TMVR, the constraints of transapical access and the success of transcatheter edge-to-edge repair have limited the widespread adoption of TMVR. **Nicolò Piazza** defends TMVR and the value of mitral valve replacement over repair. He offers an overview of the evolution of TMVR devices and an argument that the decision between repair and replacement is multifactorial and should be based on the needs of the individual patient.

We now turn to the new clinical consensus statement from of the European Society of Cardiology (ESC) Council on Hypertension and the European Association of Percutaneous Cardiovascular Interventions (EAPCI) on renal denervation in the management of hypertension in adults by **Emanuele Barbato, Felix Mahfoud and colleagues**. This latest consensus statement confirms the safety and the blood pressure-lowering efficacy of radiofrequency and ultrasound renal denervation and provides an in-depth review of landmark sham-controlled trials since the last consensus statement in 2018. Renal denervation now represents another treatment option for adult patients with uncontrolled resistant hypertension with an expert review concluding that renal denervation may also be used in patients who are intolerant to antihypertensive drugs for the long term.

In coronary interventions, this issue has a mini focus on interventional pharmacology that begins with authors **Anoop N. Koshy, Samin K. Sharma and colleagues** investigating the use of ticagrelor and prasugrel over clopidogrel in patients who have undergone percutaneous coronary intervention (PCI) for chronic coronary syndromes. They conclude that patients with chronic coronary syndromes discharged on ticagrelor or prasugrel post-PCI demonstrated similar 1-year efficacy and safety outcomes when compared with those discharged on clopidogrel. No difference in death or myocardial infarction was noted across the groups or for the secondary outcomes, including bleeding, at 1 year. Future studies are needed to evaluate whether the use of the more potent P2Y<sub>12</sub> agents in patients with a high thrombotic and low bleeding risk offers potential benefits over clopidogrel to chronic coronary syndrome patients who have undergone PCI. This article is accompanied by an editorial by **Gilles Montalescot and Arnaud Ferrante**.

The next article in the mini focus, by **Francesco Franchi, Dominick J. Angiolillo and colleagues**, investigates the effects of evolocumab on platelet reactivity in patients with atherosclerotic cardiovascular disease on clopidogrel and above target low-density lipoprotein (LDL-C) levels despite statin treatment. Patients were stratified according to VerifyNow P2Y<sub>12</sub> platelet reaction units into high or normal platelet reactivity. Evolocumab significantly reduced LDL-C levels. At 14 days, P2Y<sub>12</sub> platelet reaction unit levels were significantly lower with evolocumab compared to placebo in the high platelet reactivity group but not in the normal platelet reactivity cohort. Although P2Y<sub>12</sub> platelet reaction unit levels were lower at 30 days (the primary endpoint), this did not reach statistical significance in either cohort. This article is accompanied by an editorial by **Lorenz Räber and Yasushi Ueki**.

In a research correspondence, **Giuseppe Gargiulo, Giovanni Esposito and colleagues** report on the pharmacodynamic effects of cangrelor in patients with acute or chronic coronary syndrome undergoing PCI. The POMPEII Registry conducted three types of pharmacodynamic assessments on 70 patients undergoing complex PCI with blood samples collected at baseline, 30 minutes, 3 hours and 4-6 hours after cangrelor initiation. Cangrelor was shown to be safe and effective in patients at high thrombotic risk undergoing complex PCI, with a note of caution as to a potential rebound effect before the oral P2Y<sub>12</sub> has taken effect.

Continuing with cangrelor, we finish this mini focus with a research correspondence by **Peter Kordis, Marko Noc and colleagues** who look specifically at comatose survivors of out-of-hospital cardiac arrest undergoing PCI and target temperature management. These patients are at increased risk for stent thrombosis and their study hypothesises that a periprocedural bolus of cangrelor could help to bridge the “P2Y<sub>12</sub> inhibition gap”. Thirty patients were randomised 1:1 to receive either an intravenous bolus of cangrelor followed by a 4-hour infusion or to a control group. Their results show that cangrelor safely induced profound and immediate platelet inhibition without significant drug-drug interaction with ticagrelor.

Writing for the SYNTAX Extended Survival Investigators, **Nozomi Kotoku, Yoshinobu Onuma and colleagues** assess the impact on ten-year mortality of non-fatal periprocedural major adverse events (PMAE) occurring within 30 days of PCI or coronary artery bypass grafting in patients with 3-vessel disease and/or left main disease enrolled in the SYNTAXES study. Non-fatal PMAE occurred less frequently following PCI than coronary artery bypass grafting and was an independent predictor of all-cause mortality in the first year post-procedure, but not at 5 or 10 years, in either treatment modality. Patients with non-fatal PMAE may therefore require more careful follow-up and additional preventive treatment in the first year post-procedure. This article is accompanied by two editorials: the first by **Alexandra Lansky and Yousif Ahmad**, the second by **Mario Gaudino and Arnaldo Dimagli**.

Also, in coronary interventions, **Yasuhito Kawagoe, Satoshi Yasuda and colleagues** offer their translational research in which they investigated endothelial coverage and vessel healing in the first 90 days after the implantation of abluminal biodegradable polymer-coated drug-eluting stents (DES) versus circumferential durable polymer-coated DES. In the first human pathologic study on the biological responses to newer-generation DES, their research shows that these latest-generation biodegradable DES exhibit faster strut coverage with smooth muscle cell infiltration than the older DES and that, while vessel healing is suboptimal at 1 month, it is substantial at 3 months in both types of DES.

“But there’s much more, so let’s turn to the articles themselves” (Now...did I or did ChatGPT write this?).