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IN THIS ISSUE OF EUROINTERVENTION

A state-of-the-art on CTO recanalisation; urine alkalinisation, bicarbonates and contrast-induced acute kidney injury; coronary lithotripsy; timing of coronary angiography in non-ST-elevation acute coronary syndromes; a novel device for cerebral protection during TAVI; an expert consensus on IVUS for peripheral interventions; and more

Davide Capodanno, *Editor-in-Chief*

Some people believe that the job of an Editor-in-Chief essentially consists of reviewing all the papers that are submitted to a publication and then deciding their fate based on editorial instinct or strategic vision. It is as if peer reviews were an ancillary fact, but the truth is that no, it is not that at all, at least not in the weekly meeting where editorial decisions take place.

So, I think it is perfectly useless to ask an Editor-in-Chief what he or she thinks about the publishable nature of an article. For me, for example, it is much easier to define what is not publishable, based on our standards, than to define what is publishable. EuroIntervention has set up a process with several sequential steps to reach a shared decision between several people: this process is explained transparently in our “Author’s Centre”, available online for those who want more information.

In fact, an Editor-in-Chief's job description consists of so many things that I honestly had no idea about or even imagined a few years ago. It would seem that the task is more one of strategy than one might think, because in addition to the scientific component, there is the possibility of making an impact (and, therefore, also of making mistakes) with regard to many aspects that revolve around the publishing of the Journal itself. In particular, there are some managerial tasks, because you have to direct human resources, intercept trends, check statistics, and obviously transform ambitions into actions.

But if I had to say what I like most about “doing” EuroIntervention so far is... “doing” EuroIntervention. Specifically, here I am speaking about the act of choosing the articles that make up the Table of Contents of each Journal issue. You have to look to see how the articles flow, establish their order, select a cover image, pick the top stories, and decide when it's time to go online. An issue of the Journal is more than the set of articles that make it up. It must have an identity and be recognisable as a whole.

Will we succeed this time, or not? It is for you now to establish whether that is true or not by reading this issue. Let's begin.

We start with a EuroIntervention state-of-the-art in which authors **Carlo Di Mario, Gerald S. Werner and colleagues** review the topic of percutaneous recanalisation for coronary chronic total occlusions (CTO). Though it remains a challenging technique, CTO recanalisation can play an important part in treating angina and dyspnoea, which persists despite optimal medical therapy, and thus improve the quality of life of patients. After decades of experience, which has also seen the development of a variety of accompanying devices, percutaneous treatment of CTOs has an almost 90% procedural success rate and yet, the authors note, it remains highly underused. With a substantial percentage of patients undergoing coronary angiography having 1 or more CTOs and with many of these occlusions approachable by percutaneous coronary intervention (PCI), this article underlines the technique as well as the education and training that are essential to promote awareness of CTO PCI, increase the number of competent and experienced operators performing this intervention, and encourage the proper reimbursement by health authorities in each country.

In coronary interventions, **Marco Lombardi, Raffaele De Caterina and colleagues** tested the hypothesis that bicarbonate prevents contrast-induced acute kidney injury (CI-AKI) when alkalinising urine. Following patients with chronic kidney disease undergoing intra-arterial contrast medium administration, the open-label TEATE trial compared results among 3 groups: saline hydration alone; intravenous bicarbonate; and oral bicarbonate. The incidence of CI-AKI was not different among the 3 groups, although patients with a urinary pH >6 before angiography had significantly less CI-AKI compared to the others.

The authors concluded that urinary pH is a marker and not a mediator of CI-AKI and that urinary pH before the administration of a contrast medium appears to be an inverse correlate of CI-AKI incidence. This article is accompanied by an editorial by **Carlo Briguori and Giuseppina Roscigno**.

The CRUNCH registry was designed to see whether the intravascular lithotripsy system could be a safe and effective choice in treating resistant stent underexpansion secondary to heavily calcified coronary lesions. Authors **Maria Natalia Tovar Forero, Joost Daemen and colleagues** discuss this international registry which showed that the intravascular lithotripsy system did increase lumen and stent dimensions in these problematic lesions. This article is accompanied an editorial by **James C. Spratt and John D. Hung**.

Does early invasive assessment of patients with non-ST-elevation acute coronary syndrome (NSTEMI-ACS) have an effect on outcomes? **Kai M. Eggers, Bertil Lindahl and colleagues** performed a retrospective analysis of almost 35,000 patients from the SWEDEHEART registry and found that there was no clear evidence supporting this early invasive strategy in NSTEMI-ACS, especially in high-risk patients. They suggest that the timing for invasive assessment could play an important role here and should allow for more individualised strategies involving a wide spectrum of conditions from symptoms to risk assessment to taking into consideration available resources. This article is accompanied by an editorial by **Vijay Kunadian**.

Turning to valvular disease and heart failure, authors **Dariusz Jagielak, Alexandra J. Lansky and colleagues** present the PROTEMBO C Trial which examined the safety and efficacy of the ProtEmbo Cerebral Protection System in preventing stroke during transcatheter aortic valve implantation (TAVI). In TAVI, complications from embolic cerebral injury and subsequent cognitive dysfunction are possible, and this novel deflection filtration device appears in this early study to be promising. However, further studies are warranted.

Last, but far from least, is an expert consensus on intravascular ultrasound (IVUS) guidance in peripheral interventions. Authors **Eric A. Secemsky, Kenneth Rosenfield and colleagues** offer a detailed description of the use of IVUS in the management and treatment of peripheral and venous diseases. From pre- to post-procedural planning along with treatment optimisation, the authors outline the vast range of experience and techniques available today, discussing the potential use and benefits of IVUS over the more commonly employed angiography. The article also looks to future developments that could make IVUS more attractive and easier for operators to use.

And now, on to the articles...