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Cardiogenic shock in women; PCSK9 inhibitors and non-culprit lesions; coronary microvascular dysfunction; residual shunt after PFO closure; the SESAME technique; TAVI in pure aortic regurgitation; design of the ALL-RISE trial; 3-year results from BIOMAG-I; scaffold therapy for infrapopliteal disease; carbon footprint of an angiogram; the Cathpax AIR cabin; and more

Davide Capodanno, *Editor-in-Chief*

It's now been five years since I took on the responsibility of leading this Journal; five occasions to experience the unique anticipation that accompanies the announcement of a new Impact Factor. This moment typically arrives towards the end of June, putting an end to weeks of projections and calculations that, as you might imagine, every journal performs using the data available to them. Over time, we've all become more adept at interpreting the trends and estimating our likely score; in fact, our recent forecasts were only off by a few decimal points. This year, however, we had strong reason to expect a milestone – and indeed, it came: an Impact Factor of 9.5, the highest ever recorded in EuroIntervention's 20-year history.

We always say that an Impact Factor is just a number, and this year is still no exception. But what many may not realise is that, in the days that follow the release, there is an intense effort to understand what, exactly, went right. In this case, the increase has been so pronounced that it feels like a genuine leap forward – qualitatively as well as quantitatively – into a new phase of the Journal's development.

And yet, identifying the specific drivers behind this result is not straightforward. The formula is simple, but deceptively so. Ultimately, the rise can be attributed to a marked increase in citations – seen, of course, in the numerator of the equation – combined with careful control of the denominator, the only element truly under editorial control. The citations, however, were the key factor. And when we look more closely at our most-cited content, a clear pattern emerges – that original research articles play the leading role – followed by other formats we value deeply and continue to cultivate.

And when we do an even deeper analysis of citation patterns, no single dominant theme emerges. While innovation is certainly highly cited, no single topic stands above another. This confirms what we have long aimed for: that EuroIntervention is considered a well-rounded journal, capable of engaging a diverse readership with varied interests.

One of the most rewarding effects of a rising Impact Factor is the ability to attract ever more impactful submissions. Remaining just shy of the symbolic threshold of 10 is, in some ways, beneficial – it keeps us grounded and focused on the work still ahead.

The fact that our rising impact is grounded in the original science entrusted to us by the community to be amplified and promoted through our publication is a particular source of pride, and I wanted to share that with all of you: authors, readers, editors, and reviewers alike.

And now, let me show you why this current issue follows closely in the tradition that has allowed EuroIntervention to be where we are today.

We start with a joint expert consensus statement on cardiogenic shock (CS) in women from the Society for Cardiovascular Angiography & Interventions (SCAI), the European Association of Percutaneous Cardiovascular Interventions (EAPCI) and the Association for Acute Cardiovascular Care (ACVC). Current practice guidelines provide no sex-specific guidance to optimise outcomes in women who experience CS, and the in-hospital mortality rates for women due to CS remain close to 50%. Intended as a resource to guide practitioners and to help orient the urgently needed future studies, **Suzanne J. Baron, Alexandra J. Lansky and colleagues** examine how women are currently treated for CS across the spectrum of cardiovascular disease, identify the major evidentiary gaps that remain and provide consensus tips for sex-specific treatment.

Our series of original research articles begins with one from the FITTER trial, conducted by **Frans B. Mensink, Robert-Jan M. van Geuns and colleagues**. The authors investigate the effects of intensive lipid-lowering therapy on the haemodynamics of non-culprit lesions in acute coronary syndrome patients at 12-week follow-up. Patients received either evolocumab or placebo added to a high-dose statin with primary endpoints of changes to fractional flow reserve and lipid core burden index. In an accompanying editorial, **Hector M. Garcia-Garcia** argues that despite the lack of statistically significant differences between the two groups, this study provides important insights on how PCSK9 inhibitors influence coronary plaques.

Next, in original research, **Thabo Mahendiran, Bernard De Bruyne and colleagues** probe the relationship between coronary flow, microvascular resistance and subtended myocardial mass. Using data from patients with angina with non-obstructive coronary arteries who underwent both continuous intracoronary thermodilution and coronary computed tomography angiography, they investigate whether the disturbed resistance and flow patterns seen in coronary microvascular dysfunction (CMD) persisted after indexing by subtended myocardial mass. Their findings support the notion of hyperaemic flow restriction at the tissue level in patients with structural CMD but do not find a clear pathophysiological mechanism for symptoms in functional CMD.

We then turn to an original study on evaluating residual shunt (RS) after patent foramen ovale closure and the safety and feasibility of percutaneous treatment of the shunt. As there is no consensus on an optimal device for this procedure, authors **Kristian Ujka, Giuseppe Santoro and colleagues** identify and classify the mechanisms of RS and perform detailed imaging of the atrial septal anatomy to select the most effective closure approach. Using five different devices, the authors conclude that, regardless of the device chosen, the procedure is safe and effective. In an accompanying editorial, **Eric Horlick and Lusine Abrahamyan** comment on intervening after this type of treatment.

Continuing in original research, **James M. McCabe, G. Burkhard Mackensen and colleagues** evaluate the safety and efficacy of septal scoring along the midline endocardium – the SESAME technique – a novel transcatheter intervention that mimics surgical myotomy. In this single-centre, real-world registry, the authors describe the evolution of their use of SESAME for septal

reduction therapy prior to transcatheter mitral valve replacement to include patients with obstructive hypertrophic cardiomyopathy and subvalvular aortic stenosis. Despite the technical challenges of the procedure, SESAME provides an alternative for high-risk surgical patients; it has demonstrated favourable gains in the left ventricular outflow tract area and improved safety.

The lack of calcified structures in patients with pure aortic regurgitation means there are limited possibilities for anchoring a valve in patients undergoing transcatheter aortic valve implantation. In our final original research article, **Fei-Cheng Yu, Guang-Yuan Song and colleagues** propose a novel anatomical classification system using multidetector computed tomography. Their AURORA classification system incorporates multiplanar assessments of the aortic root and strategic device positioning to yield high device success rates and low permanent pacemaker implantation rates.

Turning to trial design, **Björn Redfors, Martin B. Leon and colleagues** present the design and rationale of the ALL-RISE trial, in which fractional flow reserve angio-guided treatment is compared for non-inferiority to pressure wire-guided treatment in patients with coronary artery disease. The primary endpoint is major adverse cardiovascular events at 1 year, including all-cause death, myocardial infarction (MI), or unplanned clinically driven revascularisation. The secondary endpoints include assessments of procedure time, contrast and resource use, and the procedure's cost-effectiveness. Enrolment was completed in January 2025.

In the first of three research correspondences, **Michael Haude, Ron Waksman and colleagues** present the 3-year clinical outcomes of the BIOMAG-I study. A full two years after complete scaffold resorption of the study device, the DREAMS 3G, there was no cardiac death, no target vessel MI, and no definite, probable or possible scaffold thrombosis reported, along with a low rate of target lesion failure. These favourable results suggest that bioresorbable scaffolds may have a comeback in future therapeutic options.

Next, **Michael K.W. Lichtenberg, Thomas Zeller and colleagues** share the 1-year outcomes of the DEEPER OUS Study in which patients with infrapopliteal disease were treated with retrievable scaffold therapy (RST) prior to drug-coated balloon angioplasty. RST uses a temporary self-expanding stent with microspikes to create arterial wall microchannels for enhanced drug delivery. The 1-year outcomes show RST to be safe and effective, and that, in addition to leaving no permanent implant behind, it may mitigate the negative impact of arterial recoil seen in percutaneous transluminal angioplasty and improve drug delivery.

We then take a look at the healthcare sector's prominent role in global greenhouse gas emissions – the 5th largest emitting entity on the planet – by estimating the overall carbon footprint of a coronary angiography procedure. **Coralie Leiszt, Vassili Panagides and colleagues** document how they estimated this carbon footprint. In addition to calculating an overall footprint, the authors detail the constituent elements of the procedure – medications, disinfection, drapes, building energy, and disposal – and offer some initial ideas on how to make a coronary angiography less impactful on the environment.

In our final research correspondence, **Axelle Merieau, Patrice Guerin and colleagues** report on the radiation protection and ergonomics of the Cathpax AIR cabin, designed to improve operator safety during structural procedures and coronary angiography/angioplasty. The different procedures were randomised and performed with or without the cabin, and the endpoints examined total radiation as well as individual body part exposure with results showing reduced exposure, particularly concerning the skull, eyes and extremities.

This issue also includes a flashlight from authors **Teresa Bastante, David del Val and Fernando Alfonso** on an atypical finding on optical coherence tomography during coronary vasospasm; a letter and reply to the editor; and more, so let's begin.