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A state-of-the-art on coronary computed tomographic angiography in coronary artery disease; perspectives on the role of aspirin in PCI; the ISAR score; the robotic R-One system; angiographic- vs thermodilution-derived index of coronary microcirculatory resistance; the FAVOR III JAPAN EUROPE trial design; rotational atherectomy vs modified balloons; ARC-HBR criteria in peripheral artery disease; peripheral endovascular interventions in atherectomy; and more

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In search of inspiration for the introduction to the latest issue of the Journal, I came across a tweet from a reader who responded to a post publicising the European Association of Percutaneous Cardiovascular Interventions (EAPCI) consensus document on renal denervation. The anonymous comment read, "It didn't work for me, I don't trust them." This statement triggered a thought-provoking reflection, as it contains many implications that extend beyond its intended meaning.

The reader, whether a doctor or patient, appears to challenge the effectiveness of renal denervation based on their negative personal experience. They use their experience as a starting point for a sweeping generalisation of the procedure's efficacy without acknowledging the possibility that it could work for others.

While I can empathise with their frustration, it's essential to note that practical recommendations can't be based solely on individual clinical cases. This would make navigating the plethora of treatment options in medicine a daunting task. Additionally, the reader expressed scepticism towards the consensus document itself, a document which is cautious and balanced in its assessment of which patients may benefit and which ones may not.

This statement raises a crucial point – not all therapies work for all patients. Applying the results of a study in clinical practice is akin to applying the "average effects of a treatment on average patients of a study," which is always an approximation. The reality is far more complex.

As healthcare providers, how do we approach what we learn from scientific literature when we lack the time to fully review the data behind a treatment? Do we automatically trust experts who provide advice based on scientific data, or are we sceptical when it doesn't align with our clinical judgement? This boils down to whether we're more comfortable with eminence-based or evidence-based medicine.

While I don't have a clear answer, I invite you to ponder this question as we move on to reviewing the articles published in this issue of the Journal.

In a sense, reinforcing these questions, we begin with perspectives on the role of aspirin after percutaneous coronary intervention (PCI). We asked four experts to weigh in on the question of aspirin-free strategies, past, present and future. **Paul A. Gurbel and Udaya S. Tantry** discuss the emerging clinical and pharmacodynamic data on the interactions between aspirin and $P2Y_{12}$ inhibitors, the impact of thin-strut drug-eluting stents (DES) and how the role of secondary prevention strategies is influencing thinking on aspirin. **Pedro A. Lemos and Patricia O. Guimarães** look at the relationship between the decrease in PCI thrombogenicity and aspirin, and then discuss $P2Y_{12}$ inhibitor monotherapy versus dual antiplatelet therapy (DAPT) de-escalation to single antiplatelet therapy, as well as current studies on aspirin withdrawal.

We then turn to **Patrick W. Serruys, Yoshinobu Onuma and colleagues** who offer a state-of-the-art on the evolving role of coronary computed tomographic angiography (CCTA) in coronary artery disease (CAD). Decision-making between PCI, coronary artery bypass grafting and pharmacological treatment has moved towards non-invasive imaging with increased interest in the potential of CCTA, with functional assessment by computed tomography-derived fractional flow reserve (FFR_{CT}) as a cost-effective first-line pathway for CAD diagnosis. The authors offer us a wide-ranging, comprehensive study on the applications and tools encompassing and emerging around CCTA. Starting with data reporting systems, ultra-high resolution vs conventional computed tomography, troponin-guided CCTA, myocardial perfusion imaging, static stress and dynamic computed tomography perfusion, and silent coronary atherosclerosis through to novel semiautomated plaque quantification technologies and the emerging field of radiomics.

In coronary interventions, **J.J. Coughlan, Salvatore Cassese and colleagues** present the ISAR score, developed to help predict the risk for repeat PCI for recurrent DES in-stent restenosis (ISR). Using four independent predictors of increased risk of repeat PCI for DES-ISR, the ISAR score can be quickly calculated using clinical and angiographic patient data. The scoring system has modest discriminatory power but is stronger than previous systems. This article is accompanied by an editorial by **Fernando Alfonso**.

Will robotic-PCI redefine the standard of care? **Eric Durand, Jean Fajadet and colleagues** present the results of the R-EVOLUTION study which evaluated the safety and efficacy of the R-One system for robotic PCI. Clinical and technical success were achieved, as well as a substantial reduction in operator radiation exposure in patients receiving radial

access PCI. The accuracy of guidewire and device navigation was improved as were the ergonomic and orthopaedic positions required of the operators. Further studies with more complex lesions are needed. This article is accompanied by an editorial by **Nico Bruining**.

Hernán Mejía-Rentería, Javier Escaned and colleagues investigate the feasibility and diagnostic value of an angiography-derived index of coronary microcirculatory resistance (IMR) in patients with myocardial ischaemia with non-obstructive coronary artery syndrome compared to a thermodilution-derived IMR. Derived from resting contrast-flow angiograms, the coronary angiography-derived IMR showed good correlation agreement, discriminatory power and accuracy compared to thermolution-derived IMR and may help bypass the need for invasive wires and hyperaemic drugs. This article is accompanied by an editorial by **Yolande Appelman and Jorge Dahdal.**

Additionally, could quantitative flow ratio (QFR) emerge as a wire- and adenosine-free alternative to fractional flow reserve (FFR)? If so, the functional evaluation of intermediate coronary stenosis could be less invasive and more cost-effective. **Birgitte Krogsgaard Andersen, Niels Ramsing Holm and colleagues** describe the rationale and design of the FAVOR III Europe Japan randomised trial which is investigating if a QFR-based diagnostic strategy yields a non-inferior 12-month clinical outcome compared with a standard FFR-guided strategy in patients with intermediate coronary stenosis. The primary endpoint of major adverse cardiovascular events is a composite of all-cause mortality, any myocardial infarction, and any unplanned coronary revascularisation at 12 months. The study began enrolling patients randomised to a QFR- or FFR-based diagnostic strategy in 2018, with results expected in 2024.

Finally, in coronary interventions, **Abdelhakim Allali, Mohamed Abdel-Wahab and colleagues** present the two-year clinical results of the PREPARE-CALC trial, comparing the long-term outcomes of patients whose complex calcified lesions were prepared with either rotational atherectomy or modified balloons prior to sirolimus-eluting stent implantation. Although the rates of major adverse cardiac events at two years were not significantly different between the two approaches, their analysis suggests that rotational atherectomy may be more effective in reducing target vessel failure in long lesions, while modified balloons may be more effective in short lesions. The long-term outcomes for both treatments were promising, with low repeat revascularisation rates.

Moving to peripheral interventions, **Yusuke Tomoi, Kenji Ando and colleagues** examine whether the Academic Research Consortium for High Bleeding Risk (ARC-HBR) criteria could apply to peripheral artery disease patients undergoing endovascular therapy. In their retrospective study in patients who underwent endovascular therapy with drug-coated devices for femoropopliteal artery lesions, 80.3% met the ARC-HBR criteria. The cumulative five-year incidence of major bleeding events was significantly higher in the HBR group than in the non-HBR group, and the major bleeding events were associated with a 5.4-fold increased risk of mortality. Given these findings, the ARC-HBR criteria might be helpful for the risk stratification of this patient population.

Despite its increased use, data on the safety and effectiveness of atherectomy during peripheral endovascular interventions are both insufficient and conflictual. **Anna K. Krawisz, Eric A. Secemsky and colleagues** report their findings on the safety of atherectomy during peripheral endovascular interventions in a large-scale analysis of a cohort of US Medicare patients. They found that atherectomy was not associated with long-term adverse safety outcomes, including amputation, death and major adverse limb events. Additionally, their findings were consistent in high-risk subgroups, including the elderly and patients with chronic kidney disease. Further studies that address the clinical effectiveness of atherectomy during peripheral endovascular interventions are warranted.

Now it's your turn to question the articles yourself.