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GENESIS-II; orbital atherectomy for nodular calcium; the AHEAD score; DK crush vs provisional stenting; 2D speckle tracking echocardiography; PCI mortality and weight; a BMV-induced injury; rotation-overlap method for CTO wiring; aorto-ostial PCI; coronary embolism after TAVI; coil embolisation of a coronary aneurysm; longitudinal plaque migration; aneurysms after DES PCI; imaging for arrhythmogenic RV dysplasia; and more

Upendra Kaul, Editor-in-Chief

AsiaIntervention: 10 years at the forefront of interventional cardiology!

AsiaIntervention Journal (AIJ) is celebrating its 10-year anniversary this year, and it is with great pleasure that we present to you our latest edition. Since its launch, AsiaIntervention, the official journal of the Asian Pacific Society of Interventional Cardiology (APSIC) and Interventional Cardiology Foundation of India (ICFI), has seen significant success in our region as well as recognition worldwide.

The ICFI and its five founding members created the India Live Course in 2010, which quickly became one of the pre-eminent and well-attended Interventional Cardiology Courses offering Live demonstrations on the Indian subcontinent. As for

APSIC, which was officially registered in November 2000 and has roots that stretch back to 1993, it really achieved international prominence in July 2019 when it partnered with PCR to launch the first joint AICT-AsiaPCR course in Singapore.

It quickly became evident to the AICT and ICFI that a journal promoting clinical research focused on the creative and fast-evolving interventional cardiology field in our region was essential, and both organisations came together to create the journal you are reading today, AsiaIntervention. The first issue was published in January 2015 under the direction of four editors, each representing a different country in the region: Runlin Gao (China), Takashi Kimura (Japan), Seung-Jung Park (South Korea) and myself from India. And I had the honour of acting as the common link between APSIC and ICFI as I had been a founding member of both.

Today, AsiaIntervention remains dedicated to the field of cardiovascular interventions, with a particular interest in and emphasis on scientific contributions from the Asia-Pacific region. In 2021, it was decided to create an Editorial Board, with a distinct Editor-in-Chief and five Deputy Editors from different countries, all of whom were known internationally and within their own countries. While at first AsiaIntervention was published twice a year, your enthusiastic response and the increasing number of high-quality submissions have allowed us to publish three issues a year since 2024.

AsiaIntervention is now indexed in PubMed Central and Scopus, and we are being actively considered for our first Impact Factor. The Journal is free, open access for all, and all the past issues are archived and available on our website which we urge you to visit.

In this issue, we start with **Nagendra Boopathy Senguttuvan, Praveen Chandra et al's** report on the preliminary results from the GENESIS-II study, which utilised the latest iteration of the Hydra self-expanding valve for transcatheter aortic valve implantation (TAVI). This valve is the first device equipped with an active release mechanism for tentacle deployment, thereby enhancing precision in valve implantation. The authors report a high rate of device success with low adverse events, confirming its reliability in typical use conditions. The 6-month follow-up data will offer additional insights into long-term outcomes. In their accompanying editorial, **Ramesh Daggubati and Abhishek Chaturvedi** acknowledge the promising results from GENESIS-II but emphasise the need for further investigation before the Hydra transcatheter heart valve can be fully established in routine clinical practice.

Next, we turn to an *in vitro* study on orbital atherectomy (OA), which, with its bidirectional approach and wider ablation zone, has the potential to modify calcium in tortuous vessels. In this communication, **Yutaka Tanaka, Kiyotaka Iwasaki et al** evaluated the effect of OA on eccentric calcium in different stenotic coronary artery models. They found that it was very effective in modifying inner curve calcium in a small bend angle with a large radius of curvature. In an accompanying editorial, **Arsalan Abu-Much and Ajay J. Kirtane** discuss the reasons why different anatomies could be more suitable for calcium modification with OA.

We then turn to the AHEAD score, which was developed for predicting mortality risk in patients experiencing acute heart failure. **Mike Saji, Satoshi Yasuda et al** report that this score can also predict 1-year all-cause mortality in acute myocardial infarction patients across different subgroups, regardless of prior heart failure, in their study on a Japanese cohort of patients.

Then, **Shao-Liang Chen, Kwan Seung Lee et al** compare the long-term clinical outcomes of double-kissing crush (DK crush) versus provisional stenting through a systematic review and individual patient data analysis of randomised trials. The study found that the primary endpoint of target lesion failure at 6 years occurred significantly less often with an upfront two-stent approach, particularly DK crush. The clinical advantage was even more pronounced in patients with a long lesion in the side branch.

The assessment of left (LV) and right ventricular (RV) wall deformation post-atrial septal defect (ASD) closure is critical for optimising patient management and improving clinical outcomes. **Shahnawaz Ali Ansari, Satyendra Tewari et al** used 2D speckle tracking echocardiography (2D-STE) to evaluate acute LV and RV remodelling and functional changes in ASD patients following ASD closure using a device or surgery at 24 hours, 1 month, and 3 months. The observed remodelling and functional changes confirm the importance of closely monitoring ASD patients in the early stages after closure, especially with non-invasive imaging techniques such as 2D-STE, to prognosticate clinical outcomes.

Our last original research article touches on the disputed link between obesity and mortality following percutaneous coronary intervention (PCI). **Mohammad Reza Movahed, Alistair Nathan and Mehrtash Hashemzadeh** explore the controversial “obesity paradox” in a cohort of more than 10 million PCI patients in order to establish whether obesity confers an advantage or disadvantage. Their results indicate that being overweight or obese may indeed result in lower mortality, with the caveat that morbid obesity provided minimal protection against mortality. On the other hand, cachectic patients were more likely to suffer mortality than normal-weight patients. They attribute this paradox to a metabolic reserve that acts as a protective factor in obese patients.

Next, we turn to a large and varied selection of flashlights, beginning with **Kalyan Munde, Jayakrishna Niari et al** who present the case of an antenatal patient who underwent balloon mitral valvotomy. The procedure caused a double-stitch injury with haemopericardium and was successfully managed by using an occluding device and completing the balloon dilatation. They recommend that these devices should be available for emergency use in all cath labs. **Calvin Leung, Alan Ka Chun Chan et al** then explain how they integrated a 3D wiring method into the reverse controlled antegrade and retrograde tracking technique to enhance the penetration force of the wire into the antegrade space. They provide a detailed, step-by-step methodology for their “rotation-overlap” method.

Then, **Andreas Y. Andreou** explains how his team used live intravascular ultrasound guidance to optimise PCI in a right coronary artery aorto-ostial lesion, a high-risk intervention associated with subsequent target lesion revascularisation, thus avoiding the anatomical difficulties, risk of geographical miss, and high contrast use associated with angiographic guidance. **Kenta Ayai, Hidenori Yoshitaka et al** next report details of a rare, but potentially fatal, complication after TAVI leading to coronary obstruction due to the disruption and embolisation of the calcified native leaflets. This was effectively managed with bailout coronary stenting to anchor the embolus.

This is followed by **Yerramareddy Vijayachandra, Aishwarya Mahesh Kumar et al's** description of a patient with a massive coronary aneurysm who was successfully treated with coil embolisation. Next, in a patient in whom optical coherence tomography-guided PCI was hindered by plaque shift and no-reflow, **Esmond Yan Hang Fong, Michael Kang-Yin Lee et al** found it advantageous to combine distal protection, medications, and mechanical circulatory support to manage refractory slow flow. **Prerna Garg, Balram Bhargava et al** then

describe a patient who developed multiple aneurysms in the culprit artery shortly after PCI using a drug-eluting stent. They successfully used overlapping stents to manage the aneurysms, and this led to remarkable clinical improvement.

Finally, **Rajesh Vijayvergiya, Manphool Singhal et al** describe the use of multiple types of cardiac imaging to help diagnose a young patient with arrhythmogenic right ventricular dysplasia and managed it successfully.

I do hope this issue, with an interesting spectrum of research articles and several flashlights of immense teaching value, would not only help you in your interventional skills but would also coax you to submit manuscripts for publication in AIJ.