JULY 2025

VOLUME 21, Issue 13

Robotics in structural heart interventions; debating colchicine recommendations; the AUREA trial; intra- vs supra-annular self-expanding valves in small aortic annuli; Myval durability at 4 years; restenosis patterns after drug-coated balloon PCI; news from the EAPCI; and more

Summer is upon us here in Europe, and we have a few things to challenge and inform you as the days get warmer…

Robotics in structural heart interventions

In this expert review, **Xiang Chen, Maurizio Taramasso and colleagues** bring us up to date on the latest advances in robotics for structural heart interventions. Although still limited in some cases to animal models, many transcatheter and interventional imaging procedures have seen significant developments towards robot-guided or robot-assisted interventions. In addition to a detailed review of these technologies, the authors look at the context of robotics in interventional medicine and how it might be assisted by artificial intelligence, as well as the social, technical, and safety challenges that remain.

See page e727

Re-evaluating colchicine: the debate

Although colchicine is the first anti-inflammatory drug to be recommended by guidelines for the management of acute and chronic coronary syndromes, it has never received a Class I recommendation. **Kevin R. Bainey and Xavier Rossello** discuss whether – given the results of recent randomised controlled trials such as CLEAR SYNERGY – the recommendation for colchicine should be maintained or downgraded.

See page e723

Antithrombotic strategies for microembolisms post-TAVI

In the AUREA trial, **Victor Alfonso Jimenez Diaz, Andres Iñiguez Romo and colleagues** investigate strategies to reduce cerebral embolic lesions after transcatheter aortic valve implantation (TAVI) by comparing outcomes in patients taking dual antiplatelet therapy (DAPT) versus acenocoumarol (a vitamin K antagonist) for 3 months post-procedure. Using diffusion-weighted magnetic resonance imaging at day 6, day 90 and at 1 year, the authors found a lower mean brain lesion volume at 3 months in those treated with DAPT, along with unanticipated findings on silent cerebral microembolisms in aortic stenosis patients. This article is accompanied by an editorial from **George Dangas and Johny Nicolas.**

See page e737

Intra- versus supra-annular SEV in small aortic annuli

Masanori Yamamoto, Kentaro Hayashida and colleagues use data from the OCEAN-TAVI registry to compare clinical outcomes and echocardiographic parameters of the latest-generation intra- versus supra-annular self-expanding valves (SEV) in patients undergoing TAVI for small aortic annuli. Both short-term valve haemodynamics and clinical outcomes were largely similar in the overall cohort and after propensity score matching. **Liesbeth Rosseel, Arif A. Khokhar and Ole De Backer** comment on this retrospective study in an accompanying editorial.

See page e749

4-year Myval durability

In one of the first durability studies to use Valve Academic Research Consortium-3 criteria, **Akash Jain, Ignacio J. Amat-Santos and colleagues** examine the Myval valve at 4 years. With primary endpoints of haemodynamic valve deterioration, bioprosthetic valve failure and patient-prosthesis mismatch, this midterm evaluation shows the Myval device to be comparable to other contemporary devices, with an 81.8% survival rate and favourable haemodynamics without significant aortic regurgitation. **Philippe Pibarot and Eric Van Belle** contribute an accompanying editorial.

See page e758