Transcatheter Valve Therapies

This issue highlights the new field of percutaneous valve therapy. The development of catheter-based approaches for aortic valve implantation and mitral valve repair has reached the point of clear proof of concept, and successful outcomes are being reported in increasing numbers of patients. This month, we have a group of reviews that will give you a clear picture of the current status of these exciting devices.

Hasan Jilaihawi, BSc, MB ChB, MRCP, and Raoul Bonan, MD, discuss transcatheter aortic valve implantation with a focus on CoreValve technology. This article includes a detailed overview of appropriate patient selection, the device's latest improvements, and its involvement in clinical series. On the other side of the coin, Uygar C. Yuksel, MD; Samir R. Kapadia, MD; and E. Murat Tuzcu, MD, provide the corresponding patient selection, trials, and sizing and access specifications for the Edwards Sapien valve.

John C. Alexander, MD, and Subhasis Chatterjee, MD, tell us about the transapical approach and why it seems to be a promising option for the future of transcatheter aortic valve implantation.

Michael J. Rinaldi, MD, FACC, FSCAI; Gale Schwarz, RN, CCRC; and Geoffrey Rose, MD, FACC, FASE, examine the early data that show the MitraClip system to be a safer option than traditional surgery to treat degenerative and functional mitral regurgitation. Next, Olaf Franzen, MD; Sven Meyer, MD; Stephan Baldus, MD; Anjelika Costard-Jäckle, MD; and Thomas Meinertz, MD, take a look at the safety and efficacy of the MitraClip device based on their own experience and evidence from the multiphased EVEREST trials.

We continue with Thomas W. Smith, MD; Steven F. Bolling, MD; and Jason H. Rogers, MD, who discuss the next iterations of minimally invasive interventions for mitral and tricuspid valve disease.

Functional mitral regurgitation is an all-too-common secondary process that is still underappreciated, partially due to a lack of therapeutic options. Steven L. Goldberg, MD, discusses several device technologies using coronary sinus access to reduce its occurrence.

Peter C. Block, MD, gives us a preview of a few new aortic valve designs that are currently under development. Implantation of these devices will soon prove to either fall short or become the next big innovation in treating aortic valve disease.

Howard C. Herrmann, MD, then explains why transcatheter mitral valve implantation may be a practical alternative to the previous, more risk-laden methods of treating mitral regurgitation.

To close our focus on percutaneous valve repair, Timothy D. Smith, MD; Clifford J. Kavinsky, MD, PhD, FACC; and Ziyad M. Hijazi, MD, MPH, FSCAI, FACC, provide an overview of pulmonic valve implantation and its applicable benefits.

Srihari S. Naidu, MD; David Choi, DO; and Peter Angelopoulos, MD, present a Challenging Cases article in which they describe the steps of the decision-making process when abrupt vessel closure is required.

This month, Zoltan G. Turi, MD, provides a vascular closure update that details the many concerns that accompany the choice between manual compression and vascular closure. This article is augmented with a comprehensive chart on the associated devices.

In our Today's Practice column, Sumeet Subherwal, MD, and Sunil V. Rao, MD, explain how a transradial approach may lead to better cost-effectiveness through increased results of efficiency and safety.

Our featured interviewee, Issam D. Moussa, MD, discusses some areas in the field of cardiology that he hopes will be addressed in the near future, as well as the importance of meetings in disseminating new and important information to colleagues.

I hope you enjoy this issue. Let us know what you would like to see in future issues! ■

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