TEVAR: Strategizing Success


It may seem obvious that optimal preparation is essential for both procedural and long-term success for any vascular disease treatment. However, being adequately prepared for the various manifestations that may arise for any one case is a distinct challenge, and some of our suboptimal outcomes can still be traced back to things we wish we had known before scrubbing in. With more than 2 decades of mounting experience with thoracic endovascular aortic repair (TEVAR), we can apply the lessons learned from all the successes and failures experienced along the way. This application must be patient-specific as much as it is disease-specific, and today's imaging allows us to assess unique anatomic considerations and chart treatment courses better than ever before. It is with this in mind that we have developed this issue of *Endovascular Today*, which we hope will elucidate that with diligent, informed preparation, there are many ways we can offer the pinnacle of care in TEVAR.

To select a strategy for moving forward, the path that led to this point must be examined and well understood. We begin with Sharif Ellozy, MD, who provides background on the various etiologies of acute and chronic thoracic aortic pathologies and the use of imaging for disease classification for optimal clinical decision making.

Planning appropriate treatment is often affected by the patient's specific aortic anatomy, impacting proper device selection and other procedural factors that must be decided and can greatly influence TEVAR success. Tristan Lane, PhD; Sadie Syed, MD; Richard Gibbs, MD; and Colin Bicknell, MD, evaluate imaging, risk stratification, and system-specific options necessary to minimize TEVAR complications and improve the overall preoperative risk assessment.

Then, Rob Hinchliffe, MD, and Paul Hollering explain the factors that can help determine when intervention is appropriate and the decisions one must face when considering patient-specific factors, such as quality of life, comorbidities, and age. We have impaneled several experts to address a current topic open for debate in the field of TEVAR. In our first Ask the Experts feature Tim Sarac, MD; Dittmar Böckler, MD, and colleagues; and Prof. Loftus explain when and how they survey small thoracic aortic aneurysms.

Once a patient's specific anatomy has been reviewed, proper tool selection is the next step for comprehensive preparation. Michael Barfield, MD, and Thomas Maldonado, MD, provide details on the process of selecting the correct thoracic device based on the patient's aortic diameter, accessible landing zones, aneurysm length, and potential for dissections. Tareq Massimi, MD, and Dr. Woo consider the uncommon anatomic variant of the aberrant vertebral artery and review the steps one can take to preserve perfusion of the vertebral artery when attempting TEVAR using two case examples.

We close our feature coverage with two articles that address patient follow-up after treatment, which is an important factor to consider during the initial preparation phase. Zachary Kostun, MD, and Manish Mehta, MD, provide insight on managing reintervention after TEVAR, specifically to address endoleaks and false lumen perfusion. Then, in our second Ask the Experts feature, we tasked Raj Malik, MD; Tilo Kölbel, MD; Patrick Kelly, MD; and James McKinsey, MD, with offering an overview of their centers' protocols for following patients after treatment with TEVAR.

Finally, Stephen Black, MD, sheds light on his venous stenting protocols, advice for further personalization of venous thromboembolism care, as well as his thoughts on where we go after ATTRACT.

Despite decades of global experience in a variety of pathologies, we still have much to learn. We hope you will gain new insights from this edition and continue to share your own experiences. ■

Edward Y. Woo, MD
Ian M. Loftus, MD, FRCS

Guest Chief Medical Editors