Current Trends and Future Directions

It's been almost 20 years since Juan Carlos Parodi, MD, first implanted an endovascular stent graft for the treatment of an abdominal aortic aneurysm in his native Argentina, a successful procedure that would prove to be the first of tens of thousands of life-saving interventions. We dedicate this issue to Dr. Parodi, without whom we would not be where we are today.

After early devices were shown to have design and material deficiencies, endovascular aneurysm repair (EVAR) has seen significant evolution, and today's technologies yield predictable and favorable results in appropriately selected patients. Still, there are many patients with anatomies, such as an unfavorable neck, tortuosity, or difficult access, that preclude them from candidacy or cause them to have subpar results. Device manufacturers continue to work with physicians to refine existing platforms and also conceive of possible next-generation solutions. In this issue of *Endovascular Today*, our invited authors discuss experiences to date with existing platforms, the possible complications that must be understood and anticipated, as well as what industry has in the pipeline to improve outcomes and address those patients who may not currently be EVAR candidates.

Dr. David H. Deaton begins our EVAR coverage with an insightful look at the history of the devices used, delineating the differences between the past and present platforms, as well as a preview of what the next generation will offer. Aravinda Nanjundappa, MD, and colleagues provide a summary of the complications that can be encountered during and after EVAR, an important review for those considering offering this procedure to their practice. Edward Y. Woo, MD, discusses candidacy-limiting access issues, such as narrow or diseased iliac arteries. Lower-profile devices and delivery systems aim to facilitate delivery in these patients, but current technologies are not deliverable in many otherwise suitable candidates without the use of iliac conduits. Dr. Zvonimir Krajcer describes several techniques and technological developments aimed at preventing distal migration of the current generation of endografts. One possible next-generation EVAR technology is the Nellix device, which incorporates the use of a polymer designed to enhance graft stability in the aneurysm sac. Dr. Carlos Donayre provides a first look at this interesting concept and describes the early studies that are underway.

Bart E. Muhs, MD, and his coauthors share perspectives on the state of vascular surgery, including aortic intervention in sub-Saharan Africa, where Dr. Muhs practiced as a Fulbright Scholar in 2006. We close our annual feature on EVAR by interviewing Dr. Parodi, a true pioneer, my hero and a dear friend. Dr. Parodi discusses the progress made in the field and his confidence in its bright future.

This issue of *Endovascular Today* also includes a pair of interesting Techniques articles. Frank R. Arko, MD, et al describe three cases for which they have custom-designed fenestrated endografts by modifying currently available TEVAR and EVAR technologies. Next, Dr. David E. Allie and colleagues present their experiences using the Metricath device to evaluate vessel size and more accurately determine the ideal device selection and confirm the completeness of their procedures.

Finally, we are happy to discuss some of the latest trends and developments in the arena of dialysis access preservation with one of the foremost experts in this field, Dr. Bart Dolmatch. Look for much more on this challenging patient population in our February edition. We hope you find this issue to be a useful resource in your continuing pursuit of timely and interesting information, and we wish you a happy and healthy new year. ■

Takao Ohki, MD, PhD,
Chief Medical Editor