Prof. Giovanni Torsello, MD

The President-Elect of the German Society of Vascular Surgery reflects on the impact of endovascular treatment developments during his career and the importance of proper training for optimal outcomes.

Over the course of your career, what development in endovascular treatment has had the most profound impact on the nature of your practice?

During the 1980s, I was trained in traditional vascular surgery. That was a very exciting time with the development of techniques to treat all types of diseases, including thoracoabdominal aortic aneurysms and peripheral diseases, even using pedal bypass. Very early, I noticed that many vascular patients were elderly and had a high-risk profile. Thus, some of those patients had difficulties recovering after open vascular surgery. Shortly after the introduction of the first endovascular techniques I had a vision: sparing high-risk patients from invasive open procedures using endovascular procedures, with the option to combine these interventions with open surgery if needed.

When it comes to juxtarenal abdominal aortic aneurysm management, what indications do you follow for using parallel stent grafts?

While patients deemed physiologically fit undergo conventional open repair, high-risk patients are usually treated with endovascular techniques. The type of technique is determined by morphological and clinical characteristics of the aneurysms. In detail, symptomatic pararenal abdominal aortic aneurysms or aneurysms with challenging access morphology are treated with the chimney technique. Anatomical preconditions for the use of the technique are the presence of a patent subclavian artery and absence of severe kinking of the descending aorta or of the juxtarenal aortic segment.

In cases of involvement of more than two branches in the aneurysm or suprarenal aneurysmal degeneration, sandwich, fenestrated, or branched technologies are preferred.

You were an early adopter of hybrid operating rooms. How do you see the implementation of hybrid ORs expanding in the future, and how will this affect vascular care?

We performed the first hybrid procedures using a regular C-arm, which necessitates the help of other people during the procedure and requires some time to cool down after long fluoroscopy. Additionally, the imaging quality was not sufficient for complex interventions. In order to provide the highest quality of vascular care, the answer was to bring excellent imaging into the sterile environment. Given the risk profiles and the technological advancements to treat evermore-complex disease, I think that the operating environment must advance with this technological evolution. Evolution of interventional therapy depends not only on the surgeon's skill and creativity—as might have been the case for open surgery—but also relies on complementary advances (eg, the development of new devices, techniques, and operating environments, such as hybrid ORs). During the last 12 years, a large number of complex procedures, including fenestrated and branched endografting, as well as chimney procedures, have been performed at our center. Those techniques were needed to treat complex lesions in locations that are otherwise difficult to reach.

This brought about improvements not only in regard to patient volume and satisfaction but also to clinical research. A high-profile center therefore absolutely necessitates hybrid ORs to keep pushing the limits of endovascular therapy.

What are your thoughts on peer-to-peer education? What educational programs are you currently involved with?

Besides advanced devices and imaging technologies in the OR, the key for successful treatment is the clinical expertise of the staff. Training in vascular and endovascular techniques is indispensable. Endovascular procedures require clinical and technical skills, which differ from those used in open surgery. At our institution, we offer a variety of extracurricular training activities, including workshops on treating carotid and peripheral lesions and endovascular treatment of aortic diseases. We do this because we believe that the more advanced and specialized treatment options become, the more there is a need to systematically review evidence and use expert recommendations on planning and delivering the best available treatment. For many years, our vascular trainees have been able to practice with a simulator before performing procedures in the patient. During the

(Continued on page 121)

(Continued from page 122)
procedure, they are proctored by an experienced physician and must have several cases supervised before taking charge as a primary treating physician. The new generation of vascular surgeons is receiving a continuingly improved medical education. They grow up with advanced technology and may obtain a fantastic job in an adequate environment.

What sort of initiatives is the German Society of Vascular Surgery focusing on?

Clinical excellence through continuous training has, to me, always been one of the keys to optimal patient care. That's why, before becoming President-Elect of the German Society of Vascular Surgery, I focused my work in the Society on physician training. Since 2006, the Private Academy of the German Society of Vascular Surgery and Medicine offers the sub-specializations of endovascular surgeon and/or endovascular specialist, presupposing a certified training and a defined number of endovascular procedures, respectively. Moreover, the Society offers special courses for vascular technicians and endovascular nurses. The objectives are to offer a professional education program in new technologies and to strengthen leadership in professional education.

As a scientific society, we sponsor the CRITISCH registry, the first interdisciplinary German registry to assess the effectiveness of different first-line treatment strategies in patients with critical limb ischemia in a real-world practice model, following the evolution of devices and techniques. The results of the first 1,200 prospectively included patients will be available in the next few months.

Are there any unique challenges that Germany's health care climate presents to your practice? Have reimbursement regulations in Germany impacted your ability to care for your vascular patients in any way?

Although medical device approval in the countries of the European Union is uniform, obtaining reimbursement varies from country to country. In Germany, after the introduction of the G-DRG (German Diagnosis-Related Group) financing mechanism, flat-rate payments are made for performed procedures. In this system, costs for medical devices are included in the case fee catalogue. Therefore, there is a reimbursement time lag when new technologies are used. The German NUB (new diagnostic and treatment methods) regulation represents a gateway for the reimbursement of new medical devices. But it takes years before the NUB is adopted in the DRG system. New procedures must first be accepted as a specific procedure (OPS coding), and specific data of procedure utilization must be collected at the national level. Hospitals applying for the evaluation can separately calculate the costs. It is obvious that integration of innovative devices represents a financial risk for many institutions, with the consequences that most insured patients do not have access to innovative medical devices. As the demand for minimally invasive techniques is increasing and will continue to grow, our ability to care for our vascular patients is limited if extra funding for new technologies is not available.

In your opinion, is vascular device and treatment innovation slowing?

Germany is the largest single medical device market in the European Union. In the past, many devices were introduced and studied very early. For example, the first Endurant stent graft (Medtronic, Inc.) and the first Valiant Captivia (Medtronic, Inc.) were implanted at our institution. During the last few years, regulatory issues are sensitively slowing the process, and manufacturers are oriented to test and introduce new technologies abroad. ■

Giovanni Torsello, MD, is Professor and Chief of the Department of Vascular Surgery, St. Franziskus-Hospital, and Chair and Head of the Center of Vascular and Endovascular Surgery, Münster University Hospital, Münster, Germany. He has disclosed that he has no financial interests related to this article. Dr. Torsello may be reached at giovanni.torsello@ukmuenster.de.