

Takao Ohki, MD, PhD

Our Chief Editor for vascular surgery explains what brought him to the US and discusses several of today's critical issues.



What made you decide to move from Japan to practice medicine in the US? When I first read Juan Parodi's 1991 article that described the first human use of an endovascular graft to treat an aortic aneurysm, I was very intrigued by this paper, and I felt that this is the future of vascular surgery. Dr. Parodi came to Japan to give a lecture in 1993, and I had the pleasure of speaking to him directly. I requested that I be allowed to go to Buenos Aires to study the endovascular repair of aneurysms, and Dr. Parodi welcomed me at the drop of a hat, so I started preparing to make this move. At that time I had a fiancée, and when I told her father about taking her to Buenos Aires, he said, "No way are you going to take my daughter to a third world country."

So I gave up the idea and called Dr. Parodi, who recommended that I go to Montefiore Medical Center, where he had performed the first endograft procedure in the US. When I went back to my father-in-law and told him that I was planning on going to New York, he was quite relieved. What he didn't know was that the Bronx was not Manhattan; I chose not to disclose that fact. Having been to Buenos Aires and lived in the Bronx, I clearly believe that Buenos Aires was a much safer selection for my wife.

What are some of the notable differences in endovascular care between these countries? Despite the fact that the Japanese population has the highest rate of smoking among industrialized countries, Japan has the greatest longevity in life in the world and also has very low prevalence of vascular disease. This is probably due to the fact that the Japanese eat a lot of fish, but it may also speak to the possible benign nature of smoking. Because of the low prevalence of atherosclerotic disease in general, endovascular technology is still in its development phase in Japan. For example, the Smart stent, which is widely used around the world and has

become the number one stent for peripheral use, is still not available in Japan for peripheral vascular use. Also, Japan is the only industrialized country that does not have an approved endograft on the market. So, because of the low prevalence of peripheral vascular disease and the lack of access to modern endovascular devices, the clinical activities, at least in the endovascular field, are still quite limited.

The majority of physicians would agree that smoking significantly contributes to coronary and peripheral vascular disease. What are your thoughts on the impact of smoking? In my mind, the most dreadful way for any individual to die is of Alzheimer's disease. There is sound scientific evidence that supports the preventative effect smoking has on Alzheimer's. So I will be happy to trade coronary disease if I can prevent the dreadful onset of Alzheimer's. Also, when we talk about eliminating risk factors, we have to think about the overall risks to which one is regularly exposed. It is silly to focus on one risk factor when not taking care of other, more significant risk factors. For example, I live in the Bronx, and I think that poses a much more life-threatening risk than continuing to smoke. Therefore, as long as I am living in the Bronx, it does not make too much sense for me to quit smoking. Finally, I do not believe that living as long as possible is always a good thing. If one wants to live as long as possible, I believe smoking is harmful, but this desire to live a long life under any circumstances is not a shared feeling among everyone, and I certainly do not share this desire.

Montefiore Medical Center is well known as a pioneer in the field of treating ruptured aneurysms. How did you and your team come to develop this program? Early on, there were anecdotal cases in which patients presented with stable, contained ruptured aneurysms, which were rather straightforward to treat. The real value of utilizing endovascular repair is in treating those who present with hemodynamic instability, and these patients are the ones who do not do well with surgery. For example, the patients who are stable enough to be transferred from another institution after the diagnosis of contained rupture has been made are relatively straightforward to treat and were not my target. The target population that really needed a better option than open surgery were those patients who would come to the emergency room without any notice, and also those who were hemodynamically unstable.

In order to tackle these situations, we had two ideas. One was to utilize a graft that can be customized intraoperative-

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ly, thereby alleviating the need for preoperative imaging such as a CT scan, which might be time consuming. The second was to utilize a percutaneously deployed aortic occlusion balloon to stabilize the patient while performing the femoral cutdown. In addition, because a dedicated team needed to develop this program in its early stages, I asked all of the surgical residents to call me when a ruptured aneurysm came in, even when I was not on call. I continued this around-the-clock, on-call system for more than 2 years until we were able to develop some decent initial results.

How do you anticipate the approval of carotid artery stenting will affect the role of the vascular surgeon in the endovascular arena? Fortunately for many vascular surgeons, the approval of carotid artery stenting was delayed 2 to 3 years from the initially anticipated time. This delay has allowed many vascular surgeons to play catch-up. If carotid stenting were approved 2 or 3 years earlier, I believe that vascular surgeons would have had very little role, if any. Because of this delay, many vascular surgeons have been able to learn this technology, and many are in a good position to offer carotid stenting to their patients.

Also, I believe that vascular surgeons possess much of the necessary clinical expertise, including judgment and the opportunity to provide surgical options as well as the referrals. Therefore, I think that vascular surgeons will continue to play a major role in the treatment of carotid stenosis, although many still need to acquire endovascular expertise and go through a rigorous carotid stenting training program. As Nick Hopkins said, "Carotid intervention is a nickel operation with a million dollar complication." The complication of stroke is very devastating, not only for the patient, but also for the physician, and this complication will inevitably happen if one performs enough stenting cases. Although many cardiologists and interventionists are showing strong interest in joining this field, I'm not quite sure how many of the cardiologists and interventionists are truly willing to make a serious commitment in order to carry this procedure, including the care of such a devastating complication.

If you had it all over to do again, would you still choose to be a vascular surgeon, or have any other specialties become attractive to you? Over the last 5 to 7 years, my personal practice has heavily shifted toward endovascular therapy, and the percentage of standard surgical repair has constantly decreased. When one is blowing up a balloon and deploying stents most of the time, I sometimes wonder if 5 years of general surgery and 2 years of vascular surgical training is worthwhile. In this regard, I do believe that the current 5 plus 2 years of vascular surgical training scheme

needs to be changed to reflect more of the modern vascular surgeon's practice. On the other hand, I do enjoy the privilege of being able to offer both surgical and catheter-based treatment options to my patients, and providing both options in a less biased manner. Even though the incidence of open surgery is decreasing, I still think that this ability is priceless.

Vascular surgery is one of the few specialties in which one can provide all of the treatment options, including medical, interventional, and surgical options. This is equivalent to a cardiologist, an interventional cardiologist, and a cardiac surgeon all combined into one specialty, and I enjoy this aspect a lot. In short, I am attracted to becoming a sexy cardiologist, but I am happy and honored to be a bloody vascular surgeon.

You became Chief of Vascular Surgery at Montefiore in 2002. How has this affected your life as a physician? At Montefiore, we have six vascular surgeons and approximately 30 employees under the division of Vascular Surgery. In addition to their salary expenses, we are also responsible for the rent, as well as the malpractice insurance. As Chief of the division, balancing this budget has become a major headache, primarily due to the decreasing reimbursement and increasing costs, including the malpractice insurance fees. Also, over the years I have seen the value of the academic research work decline and the importance of generating money through practice and clinical trials increase, at least in the eyes of the hospital administrators. It is said that the US spends \$1.4 trillion annually on health care, yet according to the World Health Report, the US ranked 37th in health care efficiency and 24th in life expectancy. This is partially due to the fact that 30% of the entire health care cost is used for administrative fee, and that the money raised is not necessarily being used for patient care.

Payers and lawyers have created a lot of paperwork for the physicians, but they have also been responsible for the increase of the overall expense. Having someone with financial incentive run insurance is a bad idea. To illustrate, in the US, the insurance industry uses the term *medical loss* for the money spent on patient care. As far as malpractice is concerned, there are 50 times more lawyers in the US than there are in Japan. Having too many lawyers may be a bad thing for society. All of these complex issues have affected my life as the Chief of the division. It is nice to be in charge, but I am also quite sad that I cannot spend as much time on academic work as I used to. ■

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