

# Preparing for the Endovascular Era

Endovascular procedures are being performed with increasing frequency. A recent study by Patrice Anderson, MD, et al published in the June 2004 issue of the *Journal of Vascular Surgery* used the National Hospital Discharge Survey to analyze the trend in the number of vascular procedures performed in the US from 1980 to 2000. This study showed that the number of vascular procedures, including carotid, AAA, thoracic-subclavian, renal-mesenteric, lower-extremity revascularization, amputation, and catheter-based, nearly doubled from 412,000 cases in 1980 to 801,000 cases in 2000. This dramatic increase was not only due to the increase in overall population, but also due to the increased utilization of vascular procedures, as shown by a 50% increase in the number of procedures performed per capita. During this period, the number of US citizens older than 65 years increased by more than 60%; currently, 13% of US citizens are older than 65 years. This aging population definitely had a positive impact on the utilization of vascular procedures because age is one of the strongest risk factors for peripheral vascular disease. Whereas the rates of AAA, renal-mesenteric bypass, and lower-extremity revascularization were stable during the last 20 years, there was a 1,000% increase in the number of catheter-based procedures, which mainly consist of iliac, SFA, renal, and more recently, carotid angioplasty and stenting. As members of the Baby Boomer generation reach the age of 65 during the years 2011–2030, the percentage of the population older than 65 years will reach 20%. As a result, it is estimated that 2.17 million vascular procedures will be performed in 2030, and much of this increase will be due to increased utilization of endovascular procedures.

There are several other factors that will further contribute to the rising number of endovascular procedures. On April 21, 2004, an FDA panel made a long-awaited recommendation to approve the Cordis Carotid Stenting System. More recently, the Center for Medicare & Medicaid

Services has initiated a survey to revise the current national noncoverage policy for carotid stenting. These events indicate that an FDA-approved carotid stent will be on the US market by Q4 2004, with reimbursement to follow shortly thereafter. The W.L. Gore TAG device for thoracic pathology is expected to be approved by Q2 2005. Market penetration for EVAR continues to increase. There is mounting evidence that nitinol stents work reasonably well for SFA lesions, something that had a bad name for some time. Finally, patient awareness of peripheral vascular disease and preference for a minimally invasive treatment are increasing.

All of these factors will result in significantly greater utilization of endovascular procedures during the next decades. The number of physicians from varying backgrounds that are capable of delivering such treatment also will increase. Therefore, the mission of *Endovascular Today*, which is to foster education of the endovascular specialist and to help bridge the gap that separates the disciplines participating in endovascular therapies, will also become increasingly important.

A single complication is worth a hundred successful cases in terms of learning points. It is true that good judgment comes from bad experience, and bad experience comes from bad judgment; however, we cannot afford for each physician to make bad judgments.

In this issue of *Endovascular Today*, we have asked leading physicians to share their complications so that we can maximize the learning experience gained from the troubling scenarios they have faced. We believe that this type of communication will better prepare all of us for the endovascular era to come. ■



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