PRESIDENTIAL ADDRESS

From the Society for Vascular Surgery

A live dog is better than a dead lion

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I am honored to stand before you as the 58th president of the Society for Vascular Surgery (SVS). I do so with a sense of gratitude and pride. I wish to thank and acknowledge each of you who worked so hard to energize our society. We have moved to Chicago, and our national headquarters is fully operational. The already obvious efficiencies validate the merger and the move. The seamless, yet rapid, transition is testimony to Becky Maron's effectiveness as our Executive Director.

A GLIMPSE OF REALITY IN 2004

We are a special group, perhaps the ultimate multitaskers. Imagine the skill set of a single individual able to repair a thoracoabdominal aneurysm, recanalize an occluded superficial femoral artery percutaneously, and treat a deep venous thrombosis, all in the same day. All of these skills are reflected in this exciting program in which investigators from all over the world are gathered to exchange information. But something is wrong. The enthusiasm at this meeting is created in a too small number of programs, and we are having trouble selling our message.

The unfilled positions in the vascular match are shown in Fig 1. For the 10 years between 1992 and 2002, somewhere between 0 and 6 positions were unmatched annually. This year 23 positions were unmatched. While the overall number of positions has increased, the applicant pool has decreased in quantity and quality. In 1995 72 positions were offered in 62 programs, and 95 of the 110 applicants were graduates of US medical schools. This last year 110 positions were offered in 90 programs, and 82 of the 112 applicants were graduates of US medical schools (National Resident Matching Program data, available at: www.nrmp.org). The trends are ominous.

When things go poorly there must be villains. Let's not blame other specialties, the length of our training, Generation X, or the high proportion of women in medical school. Let's put the blame where it belongs; blame our content.

My perspective comes from 3 distinct experiences, as an officer of SVS, as a former program director, and as a practicing vascular surgeon. My heritage is the vascular room at Strong Memorial Hospital, with Drs Charles Rob and Jim DeWeese as my mentors. I recently left these comfortable confines, with its deep tradition of vascular surgery excellence, to accept the challenge of building a vascular institute at Lenox Hill Hospital, an institution with an equally deep tradition of cardiology dominance. With that pedigree I believe I can speak credibly about the world we live in.

My theme comes from the book of Ecclesiastes. Attributed to King Solomon, it was directed at the ancient Judeans who were looking to survive in a world dominated by Greek rule. The Judeans had lost their sense of optimism, and Solomon recognized that there were but two options: act in the face of adversity or fade away. Ecclesiastes 2:24, "A live dog is better than a dead lion," has as much relevance for contemporary vascular surgeons as it did for those ancient Judeans.

We must resolve 2 critical problems related to content. The first is our status as a sub-specialty of general surgery, and the second is the anticipated introduction of carotid stenting into clinical practice. Sub-specialty status affects the content of what we teach and therefore our ability to recruit and properly train a workforce capable of providing care at a level consistent with our heritage. The clinical launch of carotid stenting affects the content of what we do, and introduces a treatment option unfamiliar and unavailable to most vascular surgeons in one of our defining areas. Even worse, we face a crisis over our legitimacy as vascular care providers, and, sadly, our ability to effect meaningful change is limited.

The founding members of SVS were the ancient Greeks of surgery, those high political powers with academic, medical, and social influence. They were free to innovate at their own leisurely pace, and the only scrutiny on their activities was self-imposed. They came from New Orleans, Harvard, and Johns Hopkins. It was their preeminence that drew many of us into the field. They succeeded because they were innovative, daring, and good. Norman Hertzer was absolutely correct in his SVS presidential address in

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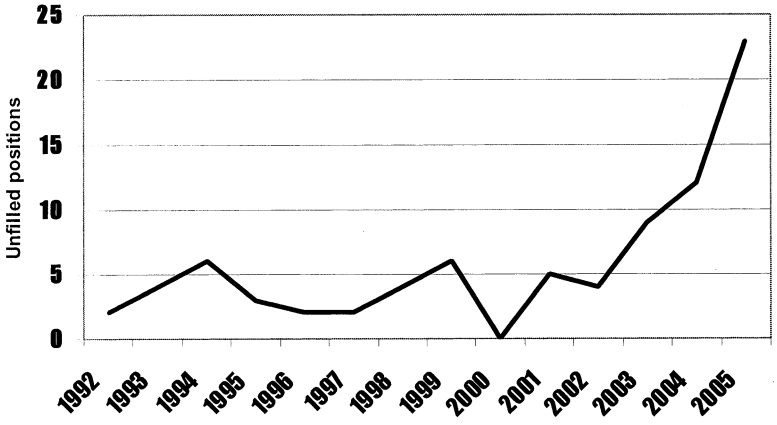

Fig 1. Unfilled positions in the vascular match.

1994: results mean everything.[1] Or so we thought. Now, in a little more than 50 years, despite our good results we have become more like the Judeans than our Greek ancestors, a distinct minority in a world where we were once masters. Recent industry estimates indicate that less than 15% of the 7000 physicians who perform percutaneous vascular interventions in the United States are vascular surgeons.

Minority status is not just a function of numbers, however; it is also a reflection of society, and ours readily accepts new technologies, not because of their superiority, but because something in the balance of risk, cost, and performance meets a social or consumer need. Those of you experiencing minority status for the first time may find it uncomfortable. You are not used to scrutiny from outsiders, and react poorly and defensively when what you do is challenged.

THE CRISIS OF CONTENT: WHAT WE TEACH

My support for an independent board of vascular surgery was always predicated on a need to radically change the way we train our fellows. While I understand that there are other issues, boards are responsible for training and certification. Until now, the only mechanism possible under the American Board of Medical Specialties rules to expand vascular education and reduce the nonessential elements of general surgery was an independent board for vascular surgery. What is the likelihood that a small group such as ours can succeed in this quest? A steel-willed central authority holds the advantage against any uprising.

To preserve its rights it is sometimes necessary for a minority to confront power. Dr Martin Luther King, in response to critics of his tactics, wrote the following from a jail cell in Birmingham, Alabama, in 1963:

> Non-violent direct action seeks to create such a crisis and establish such creative tension that a community that has constantly refused to negotiate is forced to confront the issue. It seeks to dramatize the issue so that it can no longer be ignored. . .we have not made a single gain in civil rights without determined legal and nonviolent pressure. History is a long and tragic story of the fact that privileged groups seldom give up their privileges voluntarily. . . .[2]

Our "creative tension" was orchestrated through the activities of the American Board of Vascular Surgery (ABVS) with the support of this society. Vascular surgery tried to secure its rightful place when in 1996 our leadership decided to establish a Primary Specialty Board of Vascular Surgery. The decision to move in this direction was supported by the vast majority of vascular surgeons in the United States. While a number of positive American Board of Surgery (ABS) actions dealt with symptoms of our past concerns, none addressed the fundamental issues regarding flexibility in our training programs. Serious attempts at resolving these more difficult matters by several of my predecessors, notably, Drs Hobson and Berguer, were rebuffed in less than gracious style. While the arguments for independence were compelling, the outcome was not surprising when viewed in the context of minority group survival.The number 1 priority of the September 2003 SVS Critical Initiatives Retreat was to reopen communications with the ABS to determine whether progress might be made with regard to a radical change in the vascular surgical training paradigms. Although there was reaffirmation of support for the ABVS, there was pessimism that a timely solution could be achieved. Dr Jack Cronenwett and I met with Drs Frank Lewis and Ron Meier during the American College of Surgeons meeting in Chicago last October, along with Drs Frank Logerfo and John Ricotta representing the Vascular Surgery Board. At that meeting we were told that the ABS would consider moving vascular surgery to primary certification status if a change in training was indeed our primary goal. As a consequence, the design and control of vascular surgical training would be at the discretion of vascular surgeons, and general surgical certification would no longer be required for those who limit their practice to vascular surgery. As a sign of good faith, Dr Lewis requested that I ask the ABVS to defer its appeal of the adverse Liaison Committee for Specialty Boards deci-

sion. These issues were taken back to the SVS council, where there was unanimous support for moving forward. In addition, the ABVS agreed to defer its appeal.Later on in the fall an expanded and representative group of vascular educators met in New York City to discuss the initiative. There was consensus for a proposal to make vascular training similar to plastic surgical training, with a variety of options including one with dual certification and one with single certification beginning directly after medical school. A final meeting was held in Philadelphia, with Jim Stanley representing the ABVS and Barbara Bass representing the ABS, in which the outline of the proposal that would be presented to the ABS directors in January was discussed. A subsequent meeting of ABVS directors that evening decided not to support the primary certificate, but the SVS Executive Committee agreed to proceed.The proposal negotiated with the ABS to move vascular surgery to primary certificate designation was unanimously approved by the ABS directors. An application was written jointly by representatives of the ABS and SVS, and was submitted to the American Board of Medical Specialties in March 2004. Approval is anticipated in March 2005. A paragraph from the preamble summarizes the effort:

> [T]o. . .move to a paradigm in which vascular surgery training is independent of general surgical training requires that the vascular surgery certificate move from subspecialty to primary status. This is the purpose of this application. It is anticipated that the transition in training will be gradual, and dual training pathways will be maintained for the foreseeable future, such that existing approved pathways will continue for those seeking certification in both general surgery and vascular surgery while new training pathways for those seeking training only in vascular surgery will be created. A model similar to that currently in place for plastic surgery is envisioned, such that medical school graduates may match directly into vascular surgery residencies, or may choose to complete general surgical training before entering vascular surgery.[3]

The efforts of the ABVS, although sometimes more aggressive than some might like, provided the impetus that in large part moved the ABS, at last, to confront the issue of primary certification for vascular surgery. This did not occur in a vacuum, however, because a group that I referred to in 1997 as "arrogant and out of touch, non-reactive to changing realities,"[4] is younger, more specialized and trying to accommodate change in the entirety of surgery. I have absolutely no reservations about the sincerity of the ABS directors at this time, and their desire to give vascular surgery the independence necessary while remaining a partner in those areas of mutual interest.

We have achieved in the recent negotiations almost everything we asked for. I know that there are unresolved issues, in particular surrounding the construct of the Residency Review Committee, and those will be dealt with as the process evolves. It is now time to accept this victory, to recognize the accomplishments of Drs Ramon Berguer, Bob Hobson, Jim Stanley, Frank Veith, and many others (and that list is in alphabetic order), whose vision and perseverance have brought us to this threshold, and to move quickly to full implementation of our own primary certificate. And I emphasize the word quickly, or an anticipated void will be filled by those specialties able to provide a competent workforce.

To those who say that this is at best a temporary solution, and at worst a classic Faustian bargain, I say, you may be right, but it is a risk we must take. In my opinion, the ABS has gone as far as it can go at this time, and our ultimate relationship will not be determined by further political pressure, but by evolution of our specialty. If we continue to perform intra-abdominal procedures, this solution will work and may actually be preferable to a stand-alone scenario, because we will have assurance that our trainees will get preferential rotations in general surgery. If the balance continues to shift in the direction of the angiography suite, our relationship will be of historic interest only. We have not reached that point, although I believe that we will.

To those who believe this is not what we set out to achieve, I disagree. Internal conflict represents the abyss of any minority condition; at best it is a nuisance, at worst it is fatal. To the extent that we encumber our young with our old battles, we fail. This has become an old battle. A live dog, vascular surgery that designs and controls the content of its training programs, is better than a dying specialty, once king of the jungle but now unable to replenish its food chain.

THE CRISIS OF CONTENT: WHAT WE DO

Our second critical challenge is to involve vascular surgeons in carotid stenting. This is all about the content of what we do. The segue to percutaneous therapy for a condition that once defined our specialty is a painful but necessary one for us if we are to maintain our legitimacy, and there is no better way to claim legitimacy than to demonstrate competence. On the eve of the clinical launch of carotid stenting there are an insufficient number of vascular surgeons who can make that claim.

It became very clear to me several years ago that our participation in carotid stenting programs on a grand scale would be contingent on our public acceptance of the procedure for limited indications. We were appropriately considered hypocritical when some vascular surgeons with percutaneous expertise asked industry for access to devices and our official position remained unsupportive. How could we ask to be trained in private for a procedure we criticized in public? We could not, and have any credibility.

We chose not only to support a Current Procedural Terminology code and a request to remove the national non-coverage policy, but we offered Dr Robert Zwolak, unquestionably one of the most effective physicians in the area of government activity, regardless of specialty, to write the proposals. More recently we spoke on behalf of approval for the Precise Stent/AngioGuard Cerebral Protection System (Cordis Endovascular) at the recent Food and

Essential elements of the carotid stenting procedure*

Element	*Vascular surgeon*	*Endo-competent vascular surgeon*
Clinical evaluation of patient	Yes	Yes
Initial diagnostic angiographic evaluation	Yes	Yes
Benefit/risk assessment	Yes	Yes
Device selection	No	Yes
Accessing common carotid with sheath	No	Yes
Selection of antithrombin therapy	Yes	Yes
Positioning embolic protection device	No	No
Pre-dilatation of lesion	No	Yes
Hemodynamic assessment and management	Yes	Yes
Stent deployment	No	Yes
Post-dilatation	No	Yes
Retrieval of embolic protection device	No	Yes
Final angiographic evaluation	Yes	Yes
Sheath removal (vascular closure device)	No	Yes
Clinical, hemodynamic, and neurologic assessment and management	No	Yes
Post-procedure management, follow-up, and care	Yes	Yes

*An endocompetent vascular surgeon has all the requisite skills, and should only require training in use of the specific embolic filter protection device.

Drug Administration Advisory Panel meeting. While we may not be able to preserve carotid endarterectomy on a pre-2004 scale, we have ensured the opportunity for vascular surgeons with percutaneous expertise to treat carotid bifurcation stenosis. Once again we chose the live dog over the dead lion, but this battle is not over.

Vascular surgeons may well possess the skill, the knowledge, and the patient volume to perform carotid stenting, but they must also have credentials. The elements of carotid stenting are listed in the Table. The endocompetent vascular surgeon has all the requisite skills, and should only require training for using the embolic filter device. It is unfortunate that there is no consensus on the fundamental question as to who is qualified to perform carotid stenting. The ability to provide periprocedural care and knowledge about the risk factors for atherosclerosis are matters of great importance, and should be at the top of the list. I am amazed that anyone is paying serious attention to the totally wrong but well-formulated radiology position that states that the essence of this procedure is experience with a dangerous diagnostic procedure and dismisses any other interventional experience as irrelevant.[5] The radiologists have carefully analyzed the risk factors for cerebral angiography, and without question have shown that this is a dangerous procedure and that practice makes one a better angiographer.[6] We recognized this a long time ago, and have abandoned it as routine before carotid endarterectomy.

At Lenox Hill Hospital, with experience approaching 1000 carotid stenting procedures, we see no need for routine arch and 4-vessel diagnostic angiography, and use duplex scanning, magnetic resonance angiography, and single-vessel angiography. These methods provide sufficient information that the performance of efficacious carotid stenting, with embolic filter devices, may be undertaken without the unnecessary trauma to the aortic arch and its branches from repetitive catheter manipulations. Any attempt to mandate a fixed number of unnecessary and dangerous diagnostic tests to learn a procedure that is intended to reduce the incidence of stroke will have the exact opposite effect, regardless of the specialty of the trainee.

While vascular surgery has been supportive of Food and Drug Administration and Centers for Medicare and Medicaid Services approval of carotid stenting, we have done so with certain provisos.[7] We believe that the inclusion criteria should be divided into anatomic and medical criteria. Anatomic criteria would include patients with significant carotid stenosis and contralateral carotid occlusion, contralateral laryngeal nerve palsy, radiation therapy to the neck, or previous carotid endarterectomy with recurrent stenosis. The medical criteria are more difficult to define, because the degree of risk from carotid endarterectomy is significantly affected by the team performing the operation. Variable institutional results should affect patient selection for stenting. Collaboration between the interventionalist and the surgeon who performs carotid endarterectomy, unless it is the same person, must occur to reach institutional consensus on high risk.

In the attempt to obtain credentials we must never lose sight of the quality of care that we have always been associated with. It is what has distinguished us from others performing vascular procedures, and we cannot let patient safety suffer. This means that we need to consider seriously what credentialing document we put forward. It needs to be responsible, it needs to be realistic, and it may mean, for a time, that some vascular surgeons will not be able to do this procedure.

I believe that the criteria adopted by the Carotid Revascularization and Endarterectomy vs Stent Trial (CREST) Interventional Management Committee are a reasonable starting point for credentialing committees. These criteria have been vetted and corroborated by the excellent results of the CREST lead-in phase.[8] It is interesting that there are no specific diagnostic cerebral angiography requirements (Personal communication [oral], Dr Gary Roubin, Chairman, CREST Interventional Committee, May 17, 2004). Previous percutaneous interventional expertise is required as a starting point, and hospital procedure notes and discharge summaries for 30 consecutive patients undergoing carotid stenting must be submitted. Those eligible would be interventionalists with percutaneous expertise, defined as someone with experience in guiding catheters, self-expandable stents, 0.014-inch wire systems, and rapid exchange devices. The CREST experience demonstrates that cardiologists and vascular surgeons with expertise in percutaneous peripheral interventions can learn carotid stenting and angioplasty, and do it well. This is a set of guidelines that all credentialing bodies should follow, because it is the only one that has been validated with outcomes.

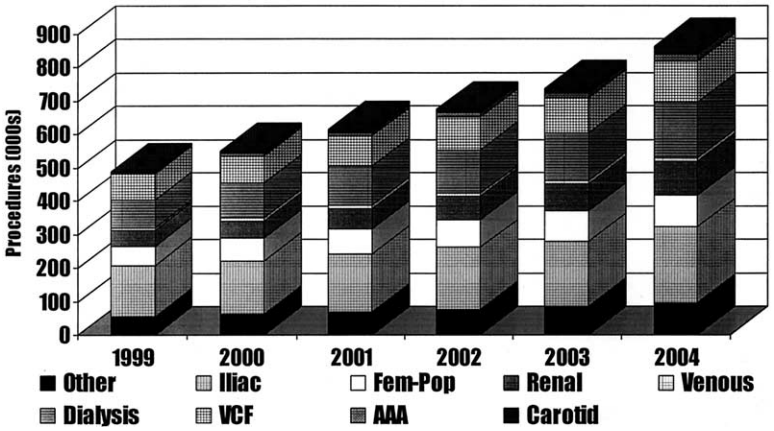

Fig 2. Endovascular procedures in the United States (industry data). Areas of greatest anticipated growth are abdominal aortic aneurysm *(AAA)*, femoropopliteal *(Fem-Pop)*, and carotid interventions. These represent areas in which vascular surgeons have established strong referral networks. *VCF*, Vena cava filters.

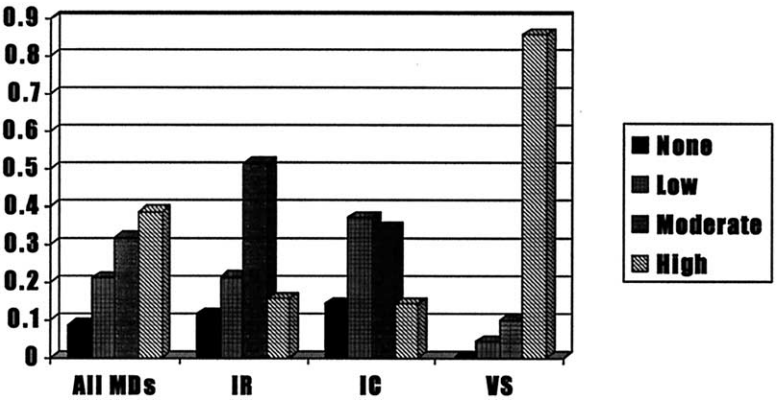

Fig 3. Device industry data reflecting a survey performed in 2003 comparing endovascular experience among vascular surgeons *(VS)*, interventional cardiologists *(IC)*, and interventional radiologists *(IR)*. The chart below is a response to the question about providing follow-up care. Vascular surgeons have a distinct advantage in this area, with more than 80% of those questioned providing a high level of aftercare, compared with 13% for both interventional cardiologists and interventional radiologists.

IS THERE ANY GOOD NEWS?

Vascular surgeons, despite their minority status, perform one third of the endovascular procedures in the United States. If one looks at device industry estimates for 2004 and considers which of the areas represent opportunities for continued growth on the basis of improved technology and increased numbers of capable physicians, the 3 markets in which experts predict the greatest growth are aortic aneurysm treatment, superior femoral artery recanalization, and carotid artery stenting (Fig 2). Internal industry data clearly document that once a vascular surgeon develops comfort and expertise with percutaneous procedures, on average the surgeon's use of peripheral devices exceeds that of both radiologists and cardiologists. How else could fewer than 15% of practitioners perform 35% of procedures?

Why, then, can't we sell our specialty? If endocompetent, we are the only providers who can offer patients a variety of treatment options. We currently have dominant positions in the three areas with the largest growth potential over the next generation. We have established referral networks, and we have credibility as physicians.

In 2003 a device company commissioned a survey to look at endovascular competence in 3 groups of physicians: vascular surgeons, interventional radiologists, and interventional cardiologists. As expected, the range of expertise varied among the groups, but the most striking difference was in the response to the question about patient surveillance after the procedure, where vascular surgeons were clearly superior (Fig 3). If we have any claim for legitimacy it is because of our commitment to the patient before, during, and after an intervention.

MY SUGGESTIONS

We must recognize and accept that we are not the controlling majority of those who treat vascular disease or govern surgery. Rather than pretend otherwise, we must take advantage of our limited resources and opportunities without delay. All we need, with all of our talents, is a chance: a chance to define our own training as we think best, and a chance to continue to care for a segment of patients we understand better than any other group. Let's grab them, because a live dog is indeed better than a dead lion.

Of course, not any dog will do. We cannot assume the couch position and simmer in our ennui, waiting for our master to come home from work. We must assume the feisty attitude of the terrier, not the biggest, not the strongest, but the most determined. We owe nothing less to our patients and our heritage.

As for me, I know that King Solomon did not spend all of his time ruminating about dead lions. As I leave this podium in my penultimate act as president of the SVS and return to New York, I plan on following another edict in Ecclesiastes: "There is nothing better for mortals than to eat and drink and find enjoyment in their work."

Thank you for your support and for the opportunity and honor to serve as your president. Good luck.

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