SVS | Society for Vascular Surgery

6
Recounting the joys of private, rural practice.

14
Point/Counterpoint: Debating when to take a toe.

2019 VASCULAR ANNUAL MEETING

9 News From SVS
Sharks and giants are getting feature roles at the 2019 Vascular Annual Meeting.

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Vascular Specialist

SVS | Society for Vascular Surgery | Official Publication

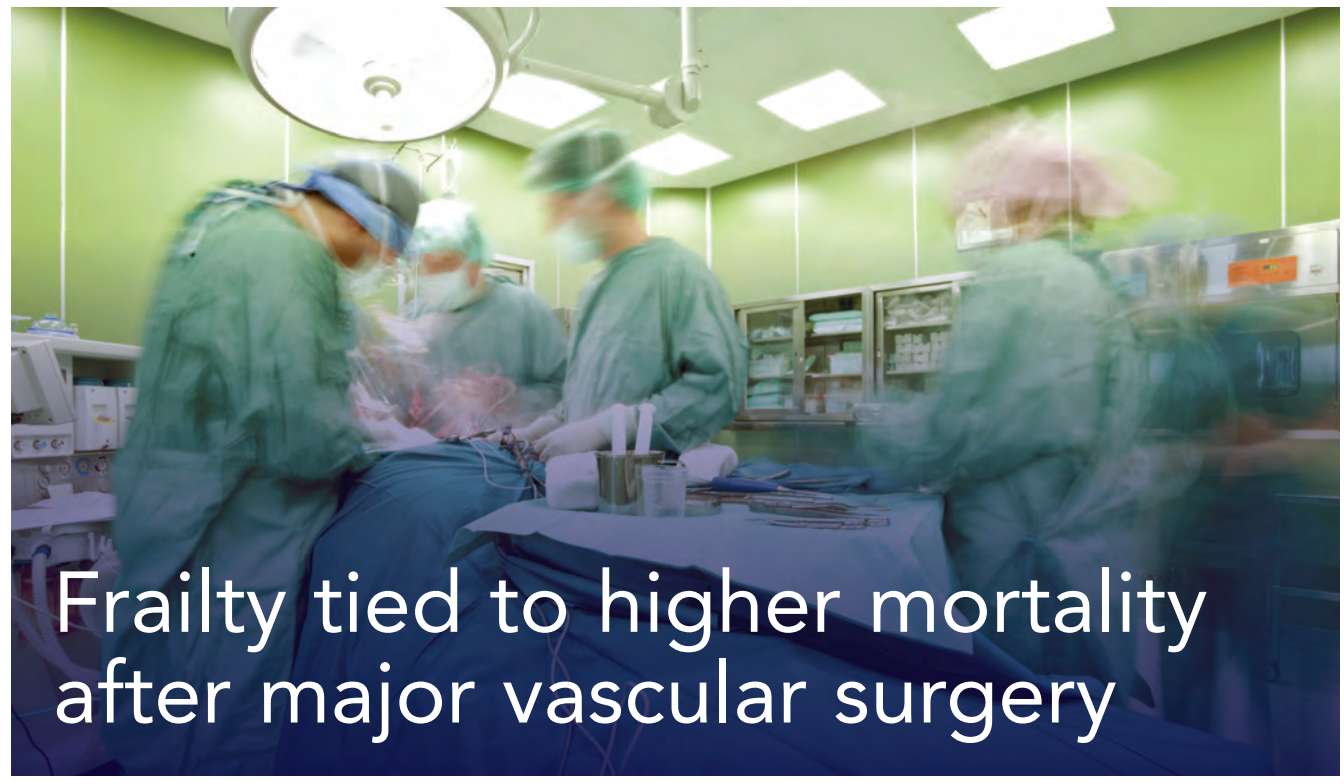
VQI-VVR registry data eyed for developing ethical standards

BY MARK S. LESNEY
MDEDGE NEWS
REPORTING FROM THE 2018 VEITH SYMPOSIUM

NEW YORK – Registry data can be used to craft guidance for determining the appropriateness of procedures at vein centers, based on data presented by Thomas W. Wakefield, MD, at the 2018 Veith Symposium.

The Vascular Quality Initiative Varicose Vein Registry (VQI-VVR), initiated in 2014 by the Society for Vascular Surgery in conjunction with the American Venous Forum, captures procedures that are performed in vein centers, office-based practices, and ambulatory or inpatient settings. The VVR looks at ablation and phle-

See **SVS-VQI** · page 8



Frailty tied to higher mortality after major vascular surgery

VILEVI/THINKSTOCK

BY MARK S. LESNEY
MDEDGE NEWS
FROM EUROPEAN JOURNAL OF VASCULAR AND ENDOVASCULAR SURGERY

Frailty defined as functional dependence is a predictor of mortality risk in elderly patients having major vascular surgery, a meta-analysis of studies has found

"Functional dependency may be recommended for use in rapid screening for frailty in major vascular surgery because of the high quality of associated evidence. Additionally, information on central muscle mass also adds incremental predictive value to long-term survival of elderly patients after major vascular surgery," the study investigaters stated. However, they pointed out that "other newly developed frailty tools require further validation in more studies" before they should be adopted.

The report, published in the European Journal of Vascular and Endovascular Surgery, evaluated the

See **Frailty** · page 8

NEWS Briefs

Pay 2019 Dues by Dec. 31

Membership in the SVS provides a host of benefits, including (depending on category) free or reduced-rate subscriptions to the Journal of Vascular Surgery. Active members also may use our new designation, Fellow of the Society for Vascular Surgery™ (see p. 11).

Column continued on page 7

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GUEST EDITORIAL

Best of both worlds

BY BRIAN SANTIN, MD

Editor's note from Dr. Sheahan: This year I am thankful for the many submissions we have received to Vascular Specialist. I enjoyed them, even if we did not have room to print them all. I saved this commentary for the holiday season because it contained something rare: optimism. Fear not, next month we are back to burnout, coding catastrophes, and tales of EMR incompetence.

Dr. Santin is a vascular surgeon in private practice at Ohio Vein & Vascular, Wilmington.

Within 3 minutes of the car engine rumbling to a roar in the morning air, cruise control is set, freshly ground coffee is in hand, and NPR is playing on WOSU 90.5. I settle in for the morning news on my 45-minute commute to the hospital. Sure, I could've found a hospital closer to shorten my commute, especially since I live in the 14th largest metropolitan city in the country.

If I'd wanted, I could be knocking out carotid endarterectomies at a level 1 trauma center, three blocks away from my front door. But no, that's not what does it for me. What does? It's having the opportunity to be my own boss and care for salt-of-the-earth folks in rural America.

You see, 5 years ago when I finished my vascular surgery fellowship at Good Samaritan Hospital in Cincinnati, I opened my own solo private practice in a rural community: population 30,000. Yep, that's right, you heard it. I hung a shingle and went old school. And now as I reflect over the lessons learned during the first half-decade of my practice at Ohio Vein & Vascular Inc., I can tell you it has been a hell of a ride, and boy have we learned a lot.

The better half of the "we" is my wife, Crystal, who doubles as my practice administrator, with her own solid foundation coming from a doctorate in physical therapy. We have successfully built a small company with four full-time employees, one contract registered vascular technologist, and two therapy dogs who serve more than 3,500 patients to date.

From the first day I opened my doors to this small-town rural community, I realized that it's not what you know, but rather who you know. Well frankly, I didn't know a soul!

Fortunately, my front office manager was born, raised, and still lives in Wilmington and knows everyone's mother, brother, sister, niece, and grandchild in what felt like a 60-mile radius. She gave this young, slick city kid from Columbus instant street cred despite all the fancy credentials behind my name. I ditched the tie and fancy shoes and embraced my new "work" home with open arms.

In a community such as Wilmington, Ohio, it's the little things that count. I wear my own scrubs on days when I operate. Not only do they have my practice logo embroidered on the chest pocket, but they are also adorned with the brown leather symbol for Carhart, a clothing brand. In rural America, Carhart denim clothing – overall bibs, jackets, gloves, etc., are considered king. When my patients see that symbol, there is an instant point of mutual appreciation and it almost always results in some good laughs – who knew Carhart made scrubs?

As a result, I've been offered opportunities to ride combines, go drag racing, and go hunting for the infamous morel mushrooms. Just to be clear, I haven't found a morel yet, so I guess I will stick to my day job as a surgeon.

Having a good laugh, and connecting with my patients, was something I was not accustomed to in my training. I was there to operate, and rarely participated in office days. At times this routine left me feeling unappreciated by my patients and their families. I was just a surgeon delivering bad news. I now find myself fortunate to have the opportunity to get to know my patients and participate in their health care, and I know they appreciate me for it.

A recent malpractice survey cited a finding that the more patients "like" their physicians, the less likely they are to file malpractice lawsuits against them.[1] Other reports have suggested that the relationship a physician has with a patient is a critical factor, more so than any single medical mistake, in determining whether or not a lawsuit is filed.[2,3]

While I feel appreciated and "liked" by my patients, I've learned that I am not necessarily their favorite employee in the office. This honor is most often bestowed upon Claire and Whitney, aka "The Girls" – our two miniature Labradoodles who serve in the capacity of therapy dogs and have perfected the ability to nap in nearly any situation. Try as I may to convince patients that what I am saying is important, they never lose focus on The Girls. They are the first thing patients ask about, I swear they receive more gifts than I do, and they always are on the receiving end of some good "pets"as my patients leave the office. Despite any bad news they may have been told, very rarely do

SVS Society for Vascular Surgery **Vascular Specialist**

FRONTLINE MEDICAL COMMUNICATIONS

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patients leave my office without smiles on their faces. It keeps me humble, as I think most of my patients aren't really here to see me; after all I am just a fancy plumber.

Speaking of plumbing, I could've sworn that the ginormous two-volume Rutherford edition always gave me the impression that vascular disease is composed of 75% venous disease and 25% arterial disease. However, our fellowship training in the United States makes Rutherford seem like he had his numbers flipped – 99.8% was arterial with a splash of venous as an afterthought. Truth be told though, I see roughly 55% venous, 25% dialysis, and 20% arterial. I guess that wasn't made up after all.

If my practice name, Ohio Vein & Vascular, didn't give it away, I admit that I focus marketing efforts toward venous pathology. This has significantly improved my work-life balance. Let's face it, not everything we do as a surgeon is fun and can certainly carry a large amount of stress. I devote an honest amount of time to developing what "type" of practice I desire. I communicate regularly with my referring docs about the types of disease I focus on, write press releases to the local paper, and always have my elevator speech handy when speaking with fellow physicians and potential patients about what I do as a surgical subspecialist.

In such a small community, the more my vascular surgery practice grows, the more likely the podiatrist and his wife (also a podiatrist) across the hall will grow their practice. Same holds true of the cardiologist upstairs and the nephrologist down the hall. It's not rocket science that the more I help their businesses thrive, the more likely they are to do the same for mine. We are all one large family working together with the common goal to stay independent, a rarity these days amongst the conglomerate of hospitals taking over.

Wait, did I mention that I have never run a business before? Well, let me tell the most important lesson I have learned ... some days it is really hard. I remember having to let go my first medical assistant after her 90-day review. All of my medical training never prepared me for a how hard that conversation was going to be, and she wasn't even losing her leg. My wife, a trained physical therapist, jumped right in until we eventually got the gusto to hire another MA. Fortunately, we found a remarkable individual who is worth her weight in gold. The same holds true for our other employees and we aren't about to let them leave so we pay them well, fund 80% of their health insurance premiums, established a 401K with matching funds, and profit share with each employee. We foster an environment that makes our employees want to work hard, although like my patients, sometimes I think they come to work just to see The Girls.

All in all, we treat our staff with respect and provide a significant monetary carrot to each of them at the holidays; this is unmatched in our area. Happy employees are instrumental to my work life and have a direct impact on the success of my practice. All boats rise with the rising tide, and we are sailing smoothly.

Do I work now more than I ever thought I would? Absolutely. But the work isn't simply waking up at all hours to operate or trudge through countless hours in a lab or clinic. No, the work I do is running a successful small business – and even better yet, it is great!

Despite all the challenges and hard work, nothing is better than being your own boss. Nothing. I don't know a single physician whose desire was to trek through grueling medical school and years of residency and fellowship to ultimately become an employee of an overly glorified postgraduate degree holder in health care administration. I cannot recall having had a single conversation with any surgeon or physician who is 100% happy with his or her working situation who isn't self-employed.

Do I work now more than I ever thought I would? Absolutely. But the work isn't simply waking up at all hours to operate or trudge through countless hours in a lab or clinic. No, the work I do is running a successful small business – and even better yet, it is great!

Here I am on a Saturday morning writing a guest editorial for publication in the official newspaper of the Society for Vascular Surgery and I am loving it. Life is short and I'm trying to enjoy every minute that I have on this planet by spending my time working in a manner that I find enjoyable.

Being the fancy plumber in rural America provides me that opportunity. I hope others realize that it is still possible to navigate health care's oftentimes unknown waters as a solo private practitioner and be successful. That they too could be taking the bull by the horns and changing up their work-life balance for the betterment of themselves, the care they provide to patients, and their families.

And in the meantime, I'll jump back in my car and head due north for a 45-minute decompressing drive, chat with family and friends, dictate the last case of the day, and continue to enjoy the best of both worlds living in the big city and working with the most genuine folks in rural America. You should try it.

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1. Medscape Malpractice Report 2015: Why Most Doctors Get Sued, by Carol Peckham, Dec. 9, 2015.
2. Decrease Your Risk of Being Successfully Sued, by Nancy Young, Crozer-Chester Medical Center.
3. To Be Sued Less, Doctors Should Consider Talking to Patients More, by Aaron E. Carroll, New York Times, June 1, 2015.

NEWS Briefs

Upcoming Meetings

CACVS: Controversies and Updates in Vascular Surgery

The meeting is being held at the Marriott Rive Gauche Hotel, Paris, France, Feb. 7-9, 2019. CACVS is an international postgraduate course for vascular surgeons, cardiac surgeons, vascular radiologists, and trainees. The course is devoted to all aspects of vascular diseases and their treatments, with a special focus on the most recent available data from ongoing or recently published trials.

Charing Cross Symposium

The Charing Cross Symposium will be held Apr. 15-18, 2019, in London. The symposium assembles a world-class faculty to address key issues in vascular and endovascular treatment and to challenge the available evidence in order to reach a consensus after discussion with an expert audience.

International Vein Congress

The Congress is being held at the Lowes Miami Beach Hotel,, on Apr. 25-27, 2019. This CME event covers the treatment of superficial and deep venous disease, including topics from sclerotherapy optimization to managing thrombophilias and discussing clot bursting strategies.

INPACT SFA 5-year results: Still safe, durable

BY MARK S. LESNEY
MDEDGE NEWS
FROM VIVA 2018

The INPACT SFA trial demonstrated the long-term safety of the IN.PACT Admiral drug-coated balloon (DCB) through 5 years, with no device-, procedure-, or paclitaxel-related deaths seen, coupled with continued low thrombosis rates throughout 5 years, according to John R. Laird, MD, of the Adventist Heart & Vascular Institute, St. Helena, Calif.

Dr. Laird presented the final, 5-year results of the combined INPACT SFA I and II trials at the 2018 Vascular Interventional Vascular Advances meeting.

The combined studies compared 220 patients treated with DCB and 111 treated with standard percutaneous transluminal angioplasty (PTA) who were followed out to 5 years. The patient population was 65% men, with a mean age of about 68 years, and none of the baseline characteristics followed were statistically significant between the treatment groups. The mean total lesion length treated was 8.9 cm for the DCB group and 8.8 cm for the PTA group, also a nonsignificant difference.

The primary efficacy endpoint for the study was primary patency within 12 months, defined as freedom from clinically driven target-lesion revascularization (CD-TLR) and duplex ultrasound–derived restenosis. The primary safety endpoint was freedom from device- and procedure-related death through 30 days, and freedom from target-limb major amputation and CD-TLR within 12 months.

Although there were no significant differences seen between DCB and placebo for CD-TLR or any TLR, there was a significant difference seen in the time to CD-TLR over 1,800 days: 808 days for DCB versus 475 days for placebo (*P* less than .001).

There were no significant differences seen between the DCB and placebo for any of the safety endpoint components over 5 years.

INPACT SFA was the "first independently adjudicated, blinded, randomized trial to demonstrate superior effectiveness of a drug-coated balloon through 5 years," and the "results support DCB as a first-line strategy for the treatment of femoropopliteal disease," Dr. Laird concluded.

The trial was sponsored by Medtronic Endovascular. Dr. Laird reported that he is a consultant/advisory board member for Abbott Vascular, Bard, Boston Scientific, and Medtronic.

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Vascular outcomes

Frailty from page 1

effect of frailty in major vascular surgery from a search of MEDLINE, Embase, Cochrane Database, and Scopus through May 2018. Data were extracted from the articles related to surgery for abdominal aortic aneurysms (AAA) and lower-extremity artery disease (LEAD), and a modified Newcastle-Ottawa scale was used to assess the quality of the included studies, according to Jiarong Wang, MD, of the department of vascular surgery, Sichuan (China) University, and colleagues. A total of 22 cohort studies and 1 randomized controlled trial was used in the final analysis. The reviewers expressed the impact of frailty on outcomes as odds ratios (OR) or hazard ratios (HR) using a random effects model.

The researchers found that frailty, in terms of functional dependence, was associated with a significantly increased 30-day mortality risk in patients with AAA without heterogeneity (OR, 5.15) and also in LEAD patients (OR, 3.29). Functionally dependent patients also had a significantly increased 30-day mortality risk, compared with independent patients (OR, 4.49), and similar results were observed after stratifying those who underwent AAA repair (OR, 5.14) or lower extremity revascularization (OR, 4.18). Even for patients who underwent endovascular procedures rather than open surgery, functional dependency was also associated with a significantly increased 30-day mortality risk (OR, 4.90). In addition, with regard to 30-day morbidity, frailty was associated with a significantly increased risk in both AAA (OR 2.79) and LEAD (OR, 1.40) patients.

As far as long-term outcomes were concerned, frailty was associated with a significantly increased risk of long-term all-cause mortality in the overall studied population (HR, 2.22), as well as in patients with AAA repair (HR, 2.10) and LEAD revascularization (HR, 2.46). Dr. Wang and colleagues found that central muscle mass was the only tool with moderate quality of evidence predicting long-term survival after major vascular surgery (HR, .48), with other single-domain tools such as nutrition or cognition scoring being of low quality. The modified Frailty Index was the only multi-domain tool with moderate quality in predicting mortality for AAA, while others were scored as low or very low, the authors added.

"Future research is warranted to establish consensus on how to select the optimal frailty tool for certain clinical settings," they concluded.

The authors reported that they had no conflicts of interest and no funding sources for the study.

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SOURCE: Wang J et al. Eur J Vasc Endovasc Surg. 2018;56:591-602.

Guiding ethical standards

SVS-VQI from page 1

bectomy techniques and captures data including patient demographics, history, and procedure data, plus early and late office-based and patient-reported follow-up in order to benchmark and improve outcomes and develop best practices and to help meet vein-center certification requirements. The VVR includes 39 centers and more than 23,000 procedures.

Dr. Wakefield, who heads the VVR, used this registry as a means to illustrate how VQIs could be used to establish whether "the expected health benefit exceeds the expected negative consequences by a sufficiently wide margin that the procedure is worth doing." This can be considered to be "appropriateness, which is part of ethical treatment." Dr. Wakefield is the Stanley Professor of Vascular Surgery at the University of Michigan, Ann Arbor.

Data from the VQI registry (of which the VVR is a component) are now being used to generate appropriateness reports, said Dr. Wakefield.

The VQI represents a large comprehensive database of long-term data to define appropriate care. In addition, the VQI infrastructure is already geared to producing these reports both at a center and at a surgeon level.

Targets for appropriateness include the proportion of patients undergoing ablation C2 or C4 disease or greater, the mean number of ablations per patient, the mean number of ablations per limb, and the proportion of perforated ablations for greater than C4 disease. Plotting out the data for these procedures at the center level can be assessed against current thinking on best practices in the various areas. For example, "the mean number of ablations per patient has been suggested at 1.8 to be about the right number," and he used the graph of the center performance in this area to show that most of the centers were below this objective.

In an even more appropriate example of how this kind of data could be used to determine appropriateness, Dr. Wakefield described how perforated ablations should be performed for greater than C4 disease, but not for C2 disease. He described how, according to the actual data in the registry, there have been 870 total perforated treatments recorded, 38% for C2 disease, and of these 332 procedures, almost half of these were performed at one center only, with two other centers reporting 30 such procedures. "So clearly there are three centers that are doing perforated ablations for patients that are outside the guidelines," Dr. Wakefield pointed out.

In future, payer demand is likely to require that each treating physician provide evidence of the appropriateness of procedures performed, as well as appropriate patient selection, which is part of what a society-based registry such as the VVR can provide.

"I believe the VQI-VVR is well positioned to meet these needs. And if we ask the question 'can VQI be used as a benchmark for setting ethical standards,' I think it can certainly be used to help set appropriate standards, and since appropriateness is one part of ethical standards, I believe it has a role," he concluded.

EDUCATION: Sharks and Giants at VAM, Oh My!

Education Front and Center at Vascular Annual Meeting

Sharks and giants are getting starring roles at the 2019 Vascular Annual Meeting. Both will be part of featured sessions at the meeting, set for June 12-15 near Washington, D.C.

Taking a page from the popular television show, "Shark Tank," a panel of experts will "grill" applicants submitting SVS Foundation Clinical Research Seed Grants applications. "We think this will be pretty popular," said Vik Kashyap, MD, chair of the SVS Postgraduate Education Committee.

The 2019 meeting also will bring back "On the Shoulders of Giants," a very popular session from previous years. "We'll highlight open surgical techniques that were developed by our leaders in the surgical community," said Dr. Kashyap, who will moderate "Giants." Speakers will include many past presidents, all of whom have had a particular influence in certain areas, including cerebrovascular, aortic and visceral disease and lower extremity occlusive diseases. "All of the speakers have had an enormous impact, such as through developing a technique and showing really good long-term results from it," he said.

The 20-member committee Kashyap chairs slates all the invited sessions for the Vascular Annual Meeting. It's essentially all of the educational program except abstract-based sessions: breakfast and concurrent sessions, postgraduate education courses, workshops and "Ask the Experts." The 2018 VAM introduced "Experts," plus "Tips and Tricks," which are being combined for 2019. Both session types were held daily Wednesday through Saturday, and several proved so popular that not everyone who wanted to could attend.

The group is now involved in sorting through all of the proposed topics, hoping to have everything slotted this month.

And though VAM draws a crowd in the thousands, learning in audiences of 15 to 20 will be plentiful.

Scientific sessions at the podium draw audiences of hundreds — and are designed to do just that, said Dr. Kashyap. "But small-group sessions are very conducive to learning and people really gravitate to them," he said.

Recommendations have come from throughout Society membership, many of whom suggested topics applicable to their own careers. While selection is ongoing, a few topics stand out, said Dr. Kashyap, such as physician wellness, including ergonomics and injuries; and helping young vascular surgeons navigate the transition from training to being responsible for patients. Sessions on "my most challenging case" or "worst complication" also are popular, he said.

Dr. Kashyap cited three broad areas of concentration for the committee's educational program:

- Clinical didactic content, focusing on in-depth discussion of experts about a certain topic, such as cerebrovascular, peripheral arterial disease or aortic.
- Technical content
  – The small-group format is particularly well-suited to this category, said Dr. Kashyap. "The clinical didactive content is more of an overview," he said. "The technical sessions will be more specific, such as 'How do you do THIS in a surgical procedure?' or 'How would you approach XYZ?' Many of our workshops, for example, focus on procedures."
- Leadership and professional development topics
  – These topics lend themselves to both large and small audiences, said Dr. Kashyap. One example would be the nuts and bolts of writing a grant, led by an expert. "What are the steps, what are the skills needed?" he said. "There is an audience for this and similar leadership and professional development topics."

Scheduling is as vital a concern as topics, said Dr. Kashyap. "We want people to have the opportunity to get to their areas of interest throughout the meeting. And we want to avoid competing sessions on the same topic. We don't want a leadership session held at the same time as another leadership session." ■

What: The 2019 Vascular Annual Meeting

When: June 12-15, 2019
Scientific Sessions: June 13-15
Exhibits: June 13-14

Where: Gaylord National Resort & Convention Center National Harbor, Md., just outside Washington, D.C.

Abstracts: Accepted through Jan. 16, 2019

For more: vsweb.org/VAM19
Housing and registration will open in early March 2019

'I Give Because SVS Donations Go to Real-World Problems'

For many years, vascular/thoracic surgeon Dr. Paul Brown has contributed to foundations for the societies to which he belongs and to other charitable organizations.

Last year, for the first time, he contributed to the SVS Foundation.

Why? He had begun reconsidering his charitable donations a year ago, pondering, "Where would my money go the farthest? Where would it do the most good?" And the answer was, "The SVS Foundation."

He wanted his contributions to avoid politics. And he wanted to direct donations to particular areas of interest.

As a vascular/thoracic surgeon, he supports the Society of Thoracic Surgeons and the American College of Surgeons and their foundations, he said. "But half my practice is vascular," he said. "I thought, 'I always go to the Vascular Annual Meeting, I should donate to the SVS Foundation as well!' "

It can best use his "precious donatable dollars," he said firmly. "It's doing the most useful things with the money. The Foundation is staying true to the mission; it's staying out of politics and staying with the practice of medicine."

ISTOCK/GETTY IMAGES

His generous donation placed him immediately at the "benefactor" level. Though he himself is a community-based private practitioner, he designated his dollars be split between research grants and the Foundation's general fund.

"I've always thought vascular surgeons, unlike so many other medical researchers, focus on real-world problems that they're trying to solve on a practical, technical basis," Dr. Brown said. "For example, they study, 'if we bring such and such a graft from here to here, will it last as long as if we do it from here to here?' I'd like to know the answer to that. I can use that in my practice." ■

YOUR SVS: Society Looks to Future in Moving to New Building

The Society for Vascular Surgery is moving into the future, both literally and figuratively.

As of March 1, SVS' building address will be 9400 W. Higgins Road, Rosemont, Ill. The new HQ building was built to optimize 21st Century health society management and is minutes from O'Hare International Airport. The building is owned by the American Academy of Orthopaedic Surgeons.

"The new SVS HQ will be built out with members in mind and serve as the home for all of our vascular surgeons across the country and around the world," said SVS President Michel S. Makaroun. "Members traveling through Chicago will have a place to go that is just minutes from the airport. And SVS can host committee meetings in its own space instead of renting meeting space near O'Hare, as we do many times a year now."

Moreover, the new "member-centric" headquarters positions the SVS as moving confidently into the future, said Dr. Makaroun. "In 10 to 20 years, we will be a different organization, because of this space," he said.

The new facilities, at 12,000 square feet, are nearly twice the size of the existing space and offer plenty of room for growth. "The SVS has evolved from contract management, to its first staff of three, to a complex organization with more than 30 staff in multiple locations," noted Kenneth M. Slaw, PhD, SVS executive director.

"Looking to the horizon, there is no slowdown in sight as we continue to expand our programs and services," said Slaw. "We will continue to expand the Vascular Quality Initiative plus other registry and quality projects. We plan more growth in developing clinical practice guidelines, appropriateness of care projects and certification of the workforce as well as a branding initiative to develop referral sources for members."

SVS also is expanding educational programs, including adding an online Learning Management System to deliver educational and training programs, and administer, document and track the programs, he said. "We will be working with industry in a whole new way as well."

Other features of the new headquarters include:

- Configurable conference room facilities that can host up to 40 people
- Accessibility of staff to committee and task force members
- Enough space for staff growth for at least 10 years
- Access to the building's simulation center where surgeons can not only maintain open surgical skills but also hone skills for newer endovascular procedures

"We are a growing and thriving organization," said Dr. Makaroun. "We are extremely proud of this growth, and the leading role our surgeons continue to play in preventing, treating and managing circulatory disease. Our new headquarters will help the Society itself keep pace with the specialty." ■

Highlights From Our Journals

From the Journal of Vascular Surgery: This first study to demonstrate real-world benefits of TCAR compared with transfemoral carotid artery stenting indicates TFCAS patients had significantly more medical comorbidities but similar stroke and death rates. TFCAS patients also had half the risk of in-hospital TIA/stroke/death. Authors cautioned the results need to be confirmed by a clinical trial. The study's aim was to compare in-hospital outcomes as reported in the Vascular Quality Initiative's TCAR Surveillance Project. "This initial evaluation … demonstrates the ability to rapidly monitor new devices and procedures using the VQI," authors concluded. The article will be open-source from Dec. 19 through Feb. 28, 2019. Visit **vsweb.org/TFCAS**.

From JVS: Venous & Lymphatic Disorders: With uncertainty about the continuing role for the Wallstent, researchers reviewed long-term results of cases using the product. Stenting for iliofemoral post-thrombotic or compressive obstruction

Articles continued on following page

Online Community Will Connect SVS Members

The water cooler is about to open for conversation.

SVS' new online water cooler, that is, SVS*Connect*. Our new online community is the place to be for collaboration, engagement and communication, not to mention enhanced services for our members.

On SVS*Connect*, members can find and participate in discussions on a wide variety of topics, such as:

- The new Fellows designation for Active members, FSVS
- General surgery board certification
- Biggest challenges members face
- Proper billing and coding
- Postgraduate training opportunities
- The 2019 Vascular Annual Meeting, including the Gala, set for Friday evening
- Attracting and keeping young surgeons, and much more

"Our members are the lifeblood of SVS. Making it easier and more efficient for members to find each other, communicate, collaborate and engage with the SVS in a safe, private forum, will substantially strengthen the work of the Society," said SVS President Michel Makaroun, MD.

SVS*Connect* is starting with a single forum for all members to start and respond with discussions on anything from case discussions, case complications, surgical procedures, research projects, wellness topics and more, he said. Members can also ask general questions of the Society itself.

SVS will soon develop smaller, private communities where committees, sections and other interest groups can collaborate, store documents and accomplish their work more easily.

More than 60 members were invited to help SVS test the site and start building out content. Their suggestions and feedback, said Dr. Makaroun, will help SVS "make SVS*Connect* an integral part of your day."

Join the conversation at **vsweb.org/SVSConnect**. ■

ADVOCACY: Surgeons, Are You Buried in Paperwork?

Please Complete Short Survey by Dec. 31

Vascular surgeons, along with others in the physician community, have called attention to the time and cost associated with meeting federal regulatory requirements.

In fact, both the United States Congress and the Center for Medicare & Medicaid Services have acknowledged that these requirements are likely contributing to increased costs, decreased productivity and physician dissatisfaction and burnout. These organization want feedback from physicians regarding specific concerns and requests for change.

CMS' "Patients over Paperwork" initiative seeks to work with providers to find opportunities to reduce provider burden and improve program efficiency through regulatory reform.

The Society for Vascular Surgery's advocacy team wants members to spend approximately five minutes to complete a brief survey regarding their own/their practice's experiences. This information is crucially important as the SVS's Health Policy leadership and DC team seek to vigorously and effectively advocate for you. Take the survey at **vsweb.org/RegulatorySurvey**; please complete it by Dec. 31. ■

Articles

continued from previous page

was shown to be safe and effective "through long-term follow-up, with excellent patency rates. The majority of patients exhibited significant clinical improvement." Stenting patients experienced a higher risk of loss of primary patency through late follow-up. Read the article free at **vsweb.org/JVSVL-Wallstents** from Dec. 19 through Feb. 28, 2019. ■

WASHINGTON UPDATE: Advocacy Efforts Give Vascular Surgeons Victories in CMS Rules

SVS actively advocates on behalf of SVS members on issues that affect vascular surgery practices. Sometimes this brings positive outcomes for vascular surgeons, such as last month, when devastating cuts in the pricing for the vascular ultrasound room were avoided.

That and other vascular issues were decided in November, when the Centers for Medicare & Medicaid Services published the 2019 Medicare Physician Fee Schedule (MFS) and the Hospital Outpatient Prospective Payment System (HOPPS) rules.

SVS was pleased with the agency's decision to maintain the current price of the vascular ultrasound room, thus averting the cuts to vascular surgery. SVS partnered with the Society for Vascular Ultrasound, commissioning an independent report on ultrasound costs and cost data gathered by members. Together, representatives presented the concerns in person to CMS officials and the combined presentation proved to help influence the CMS Final Rule in SVS and SVU's favor.

CMS announced it would not move forward in 2019 with the payment collapse of Evaluation & Management codes. A two-year window for implementation of the proposal will give the medical community more time to make recommendations to the agency on how to modernize evaluation and management reporting.

SVS was also pleased that CMS declined moving forward on a proposal to reduce payment for office visits, when performed on the same day as another service.

On the HOPPS side, SVS continues to advocate for appropriate site-of-service payment policies. ■

Your SVS

Pay 2019 Dues by Dec. 31: Graduated Candidates Need to Apply for Membership: Members who want to continue to receive the substantial benefits they currently enjoy should pay their 2019 membership dues by Dec. 31.

Young surgeons currently in their fourth year of Candidate membership — vital members of the Society for Vascular Surgery — need to now apply for active membership. These specific Candidate memberships will expire Dec. 31 and transition to Active Membership is not automatic.

Membership in the SVS provides a host of benefits, including (depending on category) free or reduced-rate subscriptions to the Journal of Vascular Surgery. Active members also may use our new designation, Fellow of the Society for Vascular Surgery™ (FSVS). See all membership benefits at **vsweb.org/MemberBenefits**.

Though the Dec. 1 membership deadline has passed, the first quarterly deadline of 2019 is less than three months away, on March 1, 2019. Visit **vsweb.org/Join**.

Apply for New SVS Award: Applications for the new SVS Excellence in Community Service Award are due Feb. 1, 2019. The recipient will be named at the Vascular Annual Meeting in June.

The award will honor a member who has exhibited outstanding leadership in his/her community as a practicing vascular surgeon, with contributions to patients and the community, plus exemplary professional practice and leadership. To be considered, a surgeon must have a minimum of 20 years as a practicing vascular surgeon and have been an SVS member for at least five years. For more, see **vsweb.org/CommunityService**. ■

New Standing Council to Tackle Quality Issues

To coordinate quality issues throughout the Society for Vascular Surgery, the SVS has created a new standing council: the SVS Quality Council.

Through working together, and with the council acting somewhat as the "clearinghouse," different committees won't be duplicating efforts on quality issues, said Dr. Larry Kraiss, chair of the new council. "We won't be working in silos," he said.

The Board of Directors named members of the new council at its meeting in June.

The first task is a December meeting at which participants will take a look at whether — and how — the SVS should consider making statements on appropriateness. "A statement goes beyond our guidelines," said Dr. Kraiss. "Ideally, these statements would spell out the type of care that is appropriate or inappropriate, depending on the issues and the circumstances."

The issue has been percolating since Peter Lawrence's presidential term; in January 2015 a story in the New York Times ("Medicare Bills Rise for Stents Put into Limbs") highlighted high Medicare billing for procedures to relieve blockages in limbs, raising the question of whether the procedures were clinically appropriate. Top billers included cardiologists and a handful of vascular surgeons and radiologists.

In a letter back to the Times, Dr. Lawrence said, "This article shows how inappropriate care can harm a patient and greatly increase the cost of health care, while grossly enhancing the income of those who overuse procedures."

But, said Dr. Kraiss, SVS didn't "have a lot of hard documentation to fall back on. … we couldn't turn around and point to a process or set of documents that would deem certain behaviors appropriate or inappropriate."

The December meeting largely aims to design a process for determining when an appropriateness statement is needed and then guide the drafting and final approval of the statement. The final statement, said Dr. Kraiss, must be "based on robust evidence and have the backing of the Society and the membership."

The hope is that the process can then be applied to specific clinical questions, which will lead to appropriateness statements. "We cannot contradict another statement, but all statements will be integrated and cohesive. We are designing a process that hopefully will be durable and can be used to generate statements far into the future," said Dr. Kraiss.

The December meeting will include representatives from all the other councils involved in any way with appropriateness. "We want to hear all voices and have a good, balanced discussion of the variety of issues that affect our members," he said.

Dr. Kraiss emphasized the powerful tool available to SVS with its Patient Safety Organization Vascular Quality Initiative. "It's a mechanism readily at hand to measure compliance and adherence and results. It's a wonderful resource that can make our appropriateness process especially meaningful."

The new council's activities will eventually become financially important, Dr. Kraiss added. As appropriateness statements and their drafting mature, and as evidence-based care matures, "it's going to be important to have statements in the public domain about vascular surgery," he said. Third-party payers will begin to reference these statements when making coverage decisions.

"We want to be ahead of the curve a little bit by setting appropriateness standards instead of someone else doing it in place of the practitioners who know best."

Council members include chairs and representatives of other quality-based committees, including Yazan Duwayri, chair of the Alternative Payment Model (APM) Task Force; Brad Johnson, former chair, Quality and Performance Management Committee; Anton Sidawy, chair, Certification Task Force; Jeffrey Siracuse, chair of the new Appropriateness Committee (also created in June); Fred Weaver, chair, SVS PSO Governing Council; and Karen Woo, chair, Quality and Performance Management Committee. SVS President-Elect Kim Hodgson is liaison to the Board of Directors. ■

Leadership: Spotlight on Vikram Kashyap, MD

BY MARK HIRKO, MD, FSVS
ON BEHALF OF THE LEADERSHIP DEVELOPMENT AND DIVERSITY COMMITTEE

"The Truth About Leadership," by Barry Posner and James M. Kouzes, describes 10 critical "truths" about leadership. In this latest column highlighting the evidence-based behaviors and attributes that define great leadership, we focus on "The Best Leaders are the Best Learners."

DR. KASHYAP

Q: What propelled you into choosing vascular surgery as a career? And being a lifelong learner, who provided you with the guidance to move forward with your career trajectory?
VK: I gravitated to medicine early; my godfather is an anesthesiologist and I think that influenced me. Once I was accepted into medical school at Jefferson, I gravitated to surgery. The first operation I saw was an open aortic aneurysm operation performed by a general surgeon at a community hospital in 1986. He was very skilled, and I thought "wow, what an amazing operation; how does one do that?" As I moved on to Massachusetts General Hospital, where I trained in general surgery, I had multiple mentors, including senior residents and faculty, but Rich Cambria was the biggest influence. Rich is larger than life, up close and also on the podium at meetings. He had a huge impact; especially as I moved into the fourth and fifth years of residency where I had the opportunity to scrub on intricate procedures with him. In addition, he shepherded me through writing papers that launched my interest in vascular surgery and an academic career.

Leadership continued on following page

Leadership

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Q: As you progressed, can you describe key educational experiences and how each affected your future career decisions, particularly as they relate to leadership principles?
VK: The environment at UCLA was very supportive during my fellowship. Wes Moore and William Quinones-Baldrich were my role models and had a big impact on me in many areas: my clinical approach to patients, the way I think and write research papers and the way the faculty interacted with trainees. I was at the Cleveland Clinic for eight years at a very interesting time. I was surrounded by a wealth of unbelievable talent and academic prowess: Ken Ouriel, Norm Hertzer, Dan Clair, Roy Greenberg, Sean Lyden, Tim Sarac, Matt Eagleton, along with the rest of the faculty. This was a very formative time for me academically. In addition, I've found that, particularly in large metropolitan areas where there is some competition — and quite frankly I think you want some competition as it makes one try harder and sharpen the saw, if you will – that old quote from Seven Habits (to be true): sharpen the saw to make sure you're really at your top level to take care of patients.

Q: Based on your exposure to various leadership styles, what works for you? Or better stated, do you tend to focus on one leadership attribute compared to blending your approach based on the situation?
VK: Some of the most impressive leadership that I encountered was during my active duty in the Air Force. I'll give you one story: There was an old colonel who ran the hospital. Every day he would walk around the hospital, and if he saw something that wasn't working, such as a light bulb, or if something was missing, such as a chair or cushion, he would stop and fix it. He was beloved. He wasn't an easy guy, but he was completely committed to making the working environment good for everyone, not just for the physicians, or the staff, or the patients, EVERYONE… so that's an example of leading from both the front, and behind the scenes, which I hope that I espouse. I want to make sure that I take call equally with my partners. We joke about how most of us are "loading the trucks," and I want to make sure that I am spending as much time helping "load the trucks" as everybody else, because 90 percent of what we all do, be it in private practice or academics, is taking care of patients. And that's whether you're a junior staff member, or the chair of the department.

I think the other leadership skills I've learned – well, some came from surgeons, but many came from non-surgeons. I took two formal leadership courses including one at the Case Western Weatherhead School. What I learned was I had very little formal training in some areas. The most impactful had to do with emotional intelligence and I think that's something, in general, that physicians, especially surgeons, are poorly equipped with. Most surgeons are "take charge" kind of people, dictating the steps in a patient's care, including conducting complicated procedures. I learned I didn't have great listening skills or situational awareness and understanding of my impact on other people. I want to think I have improved, but it is a continuing, aspirational goal.

Q: How have you addressed this challenge?
VK: I think the hardest challenge, and this is true for most leaders, is to know when there's a problem, and more importantly when to act on that problem. I think almost every day leaders at every level will get emails or phone calls about an issue, and the issue is never "you're doing a great job, just wanted to say hello," it's always: "Dear doctor, we have this issue" or "this patient had this very bad experience" or "such-and-such patient had a poor outcome and we're looking to see if there were problems with standard of care," etc. … The most challenging part of leadership, especially in today's day and age, is to recognize the problem and act. Sometimes those actions are not very pleasant. Many involve repercussions for an individual and may have repercussions even for you as the leader. This is where training needs to be expanded.

Q: Taking this leap into leadership, what has really humbled you as chief of vascular surgery?
VK: The aspect of losing valuable people of your team. That's been the most humbling thing. And you lose people for different reasons. Clearly, fiscal issues are one, either the expectation from the institution or the expectation from the individual. The second issue relates to long-term trajectory of a person's career and whether one has the resources to facilitate this career aspiration and getting that person there. And finally, sometimes expectations and goals just can't match up. Losing people is still hard for me.

Q: How does one lead in today's challenging environment, balancing pressures of clinical productivity with academic proficiency?
VK: I think there's an even bigger balance – people call it work-life balance, but it's really life balance. I'm trying to learn and to get better.

Leadership continued on page 15

PERSPECTIVE by Dr. Mark Hirko

I had the privilege of interviewing Vik Kashyap, MD, FACS, FSVS, DFSVS, chief of the Division of Vascular Surgery and Endovascular Therapy, director of the Vascular Center of the Harrington Heart & Vascular Institute at University Hospitals Cleveland Medical Center in Cleveland, Ohio, and professor of surgery in the Case Western Reserve University of Medicine. Dr. Kashyap received his MD from Jefferson Medical College in Philadelphia, Pa., in a combined six-year program with Penn State. He was inducted into the Alpha Omega Alpha Medical Honor Society and received the William F. Kellow Prize for "exemplifying the attributes of an ideal physician," then went on to complete his internship and residency in surgery at Massachusetts General Hospital in Boston. He completed a surgical research fellowship from the National Heart, Lung and Blood Institute in Bethesda, Md., to study atherogenesis. After finishing his vascular fellowship at the University of California, Los Angeles, he became Chief of Vascular Surgery at Wilford Hall Medical Center at Lackland Air Force Base in Texas as a commissioned officer (lieutenant colonel) in the United States Air Force. There, Dr. Kashyap was affiliated with the White House Medical Unit and provided medical support for overseas trips by President Bill Clinton. Prior to arriving at University Hospitals, he was an attending at Cleveland Clinic.

— Dr. Hirko

Should toe amputation be delayed in diabetic patients with osteomyelitis?

YES

Amputation: Resistance is not futile!

BY ISSAM KOLEILAT, MD

What's in a toe you may ask? Why worry about saving it? Just amputate and move on ...

Not so! I implore you to resist the desire. We vascular surgeons are accustomed to cutting off toes, even feet and legs. But when it comes to diabetic feet please reconsider. Just because there is osteomyelitis, I argue that does not necessitate amputation.

We all agree that ischemic gangrene and black mummified digits are beyond salvage. That's not what my concern is. My focus is nonhealing ulcers with underlying osteomyelitis. Whether ischemic in etiology or neuropathic (or both), give salvage a try.

Why is this so important? My opponent will try to convince you that it's not. He'll try to sell you on how well people walk after amputation and that functional outcomes are great. But think beyond that for a second.

Amputation changes the foot architecture and weight distribution. In a person with neuropathy, this only predisposes them to more ulcers. More ulcers will mean more infection, which will lead to more amputations. This finally culminates in a major amputation.

In one reported study,[1] researchers followed more than 200,000 diabetic patients from 2010 until 2013. While the risk of amputation overall was relatively small (0.36% for major and 0.56% for minor amputations), prior minor amputation increased the risk of major amputation 10-fold and increased the risk of another minor (below-ankle) amputation 20-fold. Of those who had a major amputation, 57% died over the 3 years. This is not insignificant.

This does not also consider the morbidity and impact on lifestyle and quality of life for these patients. Many may not walk. Some will be relegated to nursing homes. Some will suffer from phantom limb pain. Many may never return to work. Even more will have difficulty with their daily lives, not to mention the psychological recovery also required.

The foot seems to be the only place where amputation as first-line therapy for osteomyelitis is accepted. We don't do a hip disarticulation for ischial pressure sores with osteomyelitis. Calvarial osteomyelitis is also treated with antibiotics. I implore you: Don't treat toes like vestigial organs.

Granted, there are subsets of patients who would benefit from amputations. A patient with painful Charcot foot may elect to have a below-knee amputation and move on with life. Another who has lost jobs or significant time because of recurrence of osteomyelitis may progress. A patient with severe sepsis and infection into a joint may need amputation.

But what other treatment options are there? I'm glad you inquired.

I primarily treat diabetic feet by treating the soft tissue envelope. Even if a patient presents with midfoot infection or necrotizing soft tissue infection, I treat it like a good old-fashioned abscess or necrotizing fasciitis:

1) Drain pus
2) Resect the dead stuff
3) Provide supportive care (anti-

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Dr. Koleilat is assistant professor and Associate Program Director, Vascular Surgery Residency and Fellowship, Division of Vascular Surgery, Albert Einstein College of Medicine/Montefiore Medical Center, New York. He had no relevant disclosures.

NO

Amputation: Often it's the best option

BY MARK P. ANDROES, MD

For many years there has been debate about the best management strategy for diabetic foot infection including osteomyelitis. The principles of appropriate antibiotics, surgical debridement, good wound care, and proper offloading will always remain. There are no randomized controlled trials of medical vs. surgical management of diabetic foot ulceration with osteomyelitis.

We now have a number of widely accepted ways to define wounds including Wagner and the SVS-adopted WIFI score. Historical papers are somewhat plagued by heterogeneity in the wounds included. This is even more apparent with any attempted meta-analyses. I think everyone would agree that the superficial toe wound with minimal cellulitis is best managed medically. The issue at hand is the profoundly neuropathic diabetic patient often with underlying anatomic abnormality and osteomyelitis. My esteemed colleague would suggest that we are too quick to pull a trigger and amputate a toe with underlying osteomyelitis.

I think the initial item for debate is the technique of diagnosis of osteomyelitis. We have multiple ways this is reported. Plain x-ray, bone scan, MRI, and "clinical osteomyelitis" are among the alternative ways osteomyelitis is diagnosed. The reliability of the last is the most variable because clinical osteomyelitis ranges from "probes close to bone" to exposed bone visible protruding from the wound bed. Given the variability of diagnostic techniques the literature is an amalgam of clinical scenarios and difficult to navigate in a way to affect treatment decisions.

In addition, the medical treatment for osteomyelitis is highly variable. This commonly involves tunneled catheter insertion and 6 weeks to 3 months of IV antibiotics. In some institutions antibiotics are tailored to "wound culture." Several of our infectious disease specialists prefer bone culture and pathology of bone demonstrating an acute destructive process.

Obviously this often requires surgical debridement to obtain a specimen. Antibiotic duration recommendations may vary from 1 week (if all infected bone is resected) to 90 days if a standalone antibiotic management is selected. Chronic osteomyelitis has a reinfection rate of up to 30%.[1]

Medical management is not without risk. These risks include recurring infection with resistant organisms, wound deterioration, gastrointestinal complications (*Clostridium difficile*), catheter-related complications, and acute kidney injury (AKI). A recent paper found over 30% of patients treated medically for osteomyelitis developed AKI. These patients had more frequent hospitalization, recurring ulceration, and infection.[2] We have all experienced the patient with multiple hospitalizations and episodic AKI that culminates in ESRD requiring hemodialysis.

If the argument is with good follow-up these patients will ultimately experience preservation of the toe, I would take the stance that in our patient population of diabetics presenting with foot ulcer and osteomyelitis

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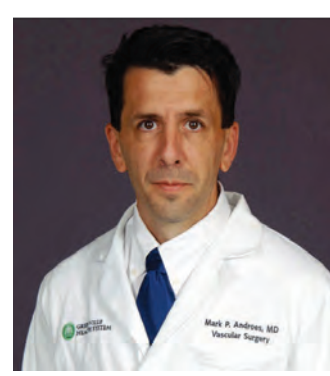

Dr. Mark P. Androes is Division Chief, Vascular Surgery, Greenville (S.C.) Health System. He had no relevant disclosures.

Yes

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biotics, fluids, aggressive wound care, etc.)

I try to leave the bones intact. When bone is exposed I take biopsies for culture and pathology. Any bone destroyed by the infection is focally debrided. I also take a specimen of the "bone margin" that I'm leaving behind, and I send this to pathology looking for residual acute osteomyelitis. These steps are important as they dictate duration and choice of antibiotic therapy. This is in keeping with the consensus recommendations published in 2016.[2]

Even chronic wounds get a similar approach. If there is granulation, let it granulate and see if it will fill the wound. "Just because osteomyelitis is there, it doesn't mean that for the toe we won't care!"

There are exceptions of course. If the soft tissue is severely affected so the phalynx protrudes like something from the movie "Coco," probably that should be amputated. Repeat offenders also may progress to amputation. But otherwise, hold off and give it a chance.

For the inpatient, aggressive irrigation of the wounds using the Veraflo system promotes granulation, even for short hospital stays of 1 week or less. Any ischemic component is worked up and addressed with percutaneous or open revascularization. We treat with prolonged antibiotics, and in questionable cases err on the side of giving long-term courses. These wounds need to be offloaded for tasks of daily living (going to the bathroom, making a sandwich, etc.) but otherwise we instruct patients to be effectively non–weight-bearing on that limb.

We also refer patients for hyperbaric therapy frequently. Now if you're done groaning, I assure you this is not phony medicine. There is growing evidence to support not only improved rates of healing, but also significant cost savings and improved quality of life.[3]

In young patients or those with large defects, we also involve plastic and reconstructive surgery for secondary closure approaches (free flaps, adjacent tissue transfers, local autogenous or prosthetic grafting [Integra, Stravix, Dermacell, etc.] or other advanced techniques). This is particularly important in plantar wounds that will need to bear weight in the future, or in young patients for improved functional and cosmetic outcomes. For smaller wounds, we often use dermal/subdermal graft substitutes ourselves.

Even still, in nonambulatory or chronically debilitated and medically high-risk patients, maybe a different option is palliative wound care with or without antibiotics. A nonoperative approach to allow individuals to live the rest of their remaining days without undergoing a morbid and disfiguring amputation is not unreasonable. Many families are thankful for this option when given it. In the absence of refractory pain or overwhelming sepsis, we just let the wound do what it will do, understanding that someday the plan may change. This allows patients to continue to treat the wound without escalation to surgery or resorting to amputation.

In the end, just like we vascular surgeons tailor our "holistic" approach to the needs and desires of a single particular patient, we should approach wounds with a similar attitude. The presence of osteomyelitis in and of itself should not prompt one to bypass an entire algorithm, go straight to amputation, do not pass "Go" or "collect $200" (although the professional fee for a toe amputation is probably around $200). With a multidisciplinary and multimodal approach, and vested patients, salvage is possible in the majority of cases. ■

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the average hemoglobin A_{1c} is over 9. Although this is not only related to patient compliance, in many instances this is a large piece of the puzzle. It is hard to infer that suddenly with biopsy proven osteomyelitis the patient will become compliant with medical management of the disease process. Certainly in some circumstances this is the case. There are a number of studies with a wide range of findings on HbA_{1c} as it relates to predictive value of wound healing.

There are various studies comparing surgical to medical management for osteomyelitis. Limb salvage is contingent upon location (forefoot, midfoot, hindfoot), extent of infection, and patient comorbidities.

The conclusion of the majority of these studies is that a standalone antibiotic treatment algorithm results in greater limb loss. Patients with peripheral occlusive disease and preadmission antibiotic use have been shown to have decreased wound healing. Minor amputation has been shown to be protective from mortality, risk of major amputation, and unfavorable discharge in patients admitted with a diagnosis of osteomyelitis.[3]

The major limb amputation rate for antibiotics alone is 20%-30% according to two trials with duration of antibiotics of 3 months.[4,5] The available randomized trials tend to exclude patients with severe infection (poorly defined), those with PAD, or those with severe comorbid conditions.

Cost of treatment is even more poorly delineated. Obviously surgical treatment is not without cost to the health care system. Toe amputation especially when including the metatarsal head shifts pressure points and in the neuropathic patient may lead to recurrent ulceration. The average outpatient cost per patient per ulcer is often over $30,000.

The goal of surgical treatment can be defined as trying to maintain the greatest degree of function with the least risk. Removing infected bone (i.e., minor amputation) limits exposure to prolonged antibiotic treatment and hopefully lessens recurring ulceration and hospitalization. This is only one piece of the puzzle, however. A multidisciplinary approach with endocrinology, infectious disease, and orthotics for offloading are keys to decrease future ulceration.

Although I do not advocate for widespread toe carnage as suggested by Dr. Koleilat, I do think liberal application of minor amputation to limit hospital stay, limit antibiotic duration and its inherent risk, and possibly affect readmission is often in the best interest of the patient and the system as a whole.

Obviously based on the variable reports in the literature there cannot be a single approach to these patients and the treatment must be individualized based on extent of infection, compliance of the patient, access to multidisciplinary care, and comorbid conditions. ■

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Leadership

continued from page 13

There are only so many years that your children are at home and that you get quality time with your significant other. You have to really live in the present. In addition, I'm trying to be more aware of and empathetic of others. We're at a tipping point with health care in America, which has become so expensive. It has gotten to the point that at some juncture, something's going to have to give. Thus, managing contraction, at least on a fiscal side, will be a challenge. I think most institutional leaders, whether the president of a hospital or a dean of a university, will look at surgeons as those who deliver targeted surgical care for patients, in a cost-efficient and very high-quality manner. Thus, the challenge is to ensure balance in academics and clinical productivity. I think for vascular surgeons, at least in my group, the focal point is clinical activity, e.g., being productive clinically, having very good outcomes, and being known for a particular area in vascular disease.

We then dovetail that clinical expertise with academic productivity, whether that be retrospective studies or reviews. If one is fortunate to get involved with prospective studies related to that area, individuals can contribute to the literature in that area of expertise. I believe clinical trials will continue to be a very important area for academic surgeons to be involved in and lead.

Q: Final words?

VK: We're seeing vascular surgery progress, meaning we have new innovative technologies that help patients and that are being developed on a routine basis! We're attracting some great, bright, young energetic people, and the 0-5 programs clearly have been an impact. When we look back at 2018, we will say "wow – we were living some good times." I believe it will only get better! ■

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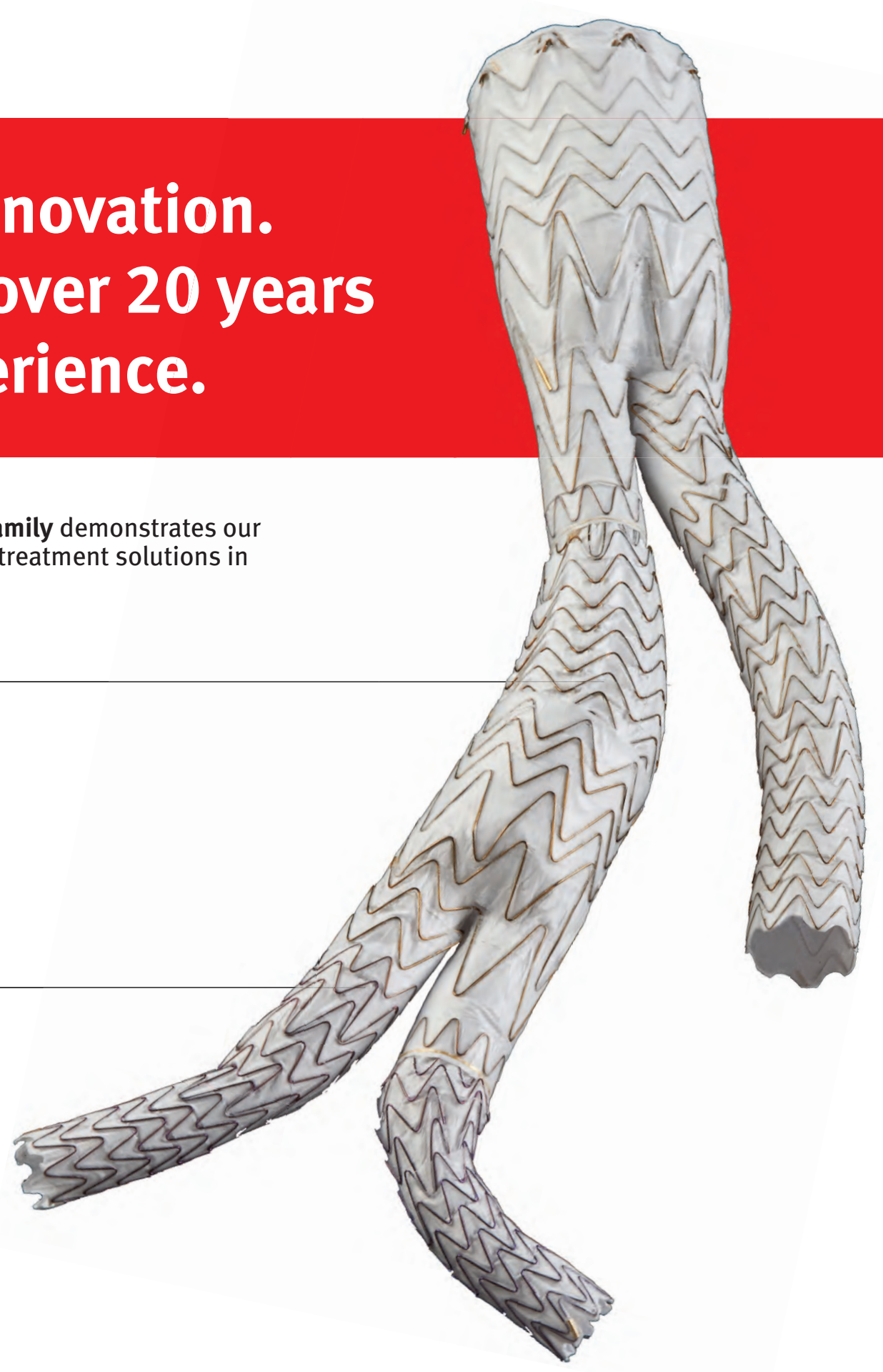

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The only FDA approved, all-in-one iliac branch solution.

GORE® EXCLUDER® Iliac Branch Endoprosthesis

INDICATIONS FOR USE IN THE US: Iliac Branch and Internal Iliac Components. The GORE® EXCLUDER® Iliac Branch Endoprosthesis (IBE) is intended to be used with the GORE® EXCLUDER® AAA Endoprosthesis to isolate the common iliac artery from systemic blood flow and preserve blood flow in the external iliac and internal iliac arteries in patients with a common iliac or aortoiliac aneurysm, who have appropriate anatomy, including: Adequate iliac / femoral access; minimum common iliac diameter of 17 mm at the proximal implantation zone of the IBE; external Iliac artery treatment diameter range of 6.5–25 mm and seal zone length of at least 10 mm; internal iliac artery treatment diameter range of 6.5–13.5 mm and seal zone length of at least 10 mm; adequate length from the lowest major renal artery to the internal iliac artery to accommodate the total endoprosthesis length, calculated by adding the minimum lengths of required components, taking into account appropriate overlaps between components. **GORE® EXCLUDER® AAA Endoprosthesis Components used in conjunction with GORE® EXCLUDER® Iliac Branch Endoprosthesis: Trunk-Ipsilateral Leg Component.** The Trunk-Ipsilateral Leg is intended to provide proximal seal and fixation for the endovascular repair of the aneurysm. **Contralateral Leg Endoprosthesis Component.** The Contralateral Leg Endoprosthesis is intended to bridge the GORE® EXCLUDER® Device Trunk-Ipsilateral Component to the GORE® EXCLUDER® Iliac Branch Endoprosthesis following deployment of the GORE® EXCLUDER® Iliac Branch Endoprosthesis. Additionally, the Contralateral Leg Endoprosthesis is intended to be used for distal extension of the Iliac Branch Component in the external iliac artery. The Iliac Branch Component can treat external iliac artery diameters up to 13.5 mm. This ability to extend the Iliac Branch Component distally with any Contralateral Leg Endoprosthesis expands the external iliac artery treatment range up to 25 mm. **Aortic Extender Endoprosthesis and Iliac Extender Endoprosthesis Components:** The Aortic and Iliac Extender Endoprostheses can be used after deployment of the GORE® EXCLUDER® Iliac Branch Endoprosthesis and GORE® EXCLUDER® AAA Endoprosthesis. These extensions are used when additional length and / or sealing for aneurysmal exclusion is desired. **CONTRAINDICATIONS:** The GORE® EXCLUDER® Iliac Branch Endoprosthesis is contraindicated in: Patients with known sensitivities or allergies to the device materials. All components of the GORE® EXCLUDER® Iliac Branch Endoprosthesis and the GORE® EXCLUDER® AAA Endoprosthesis contain ePTFE, FEP, nitinol (nickel-titanium alloy), and gold. Patients with a systemic infection who may be at increased risk of endovascular graft infection Refer to *Instructions for Use* at goremedical.com for a complete description of all warnings, precautions and adverse events. $\text{R}_{\text{X Only}}$

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Learn more at **goremedical.com/aortic**

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