VASCULAR CONNECTIONS

The Official Newspaper of the Vascular Annual Meeting

WEDNESDAY THURSDAY

SOCIETY FOR VASCULAR SURGERY • VASCULAR AND ENDOVASCULAR SURGERY SOCIETY • JUNE 12-15, 2019 • GAYLORD NATIONAL RESORT & CONVENTION CENTER

RESIDENT RESEARCH AWARD PAPER

Macrophages, Regulation, and Impaired Diabetic Wound Healing

Nonhealing wounds in patients with diabetes are a major cause of morbidity and mortality in the United States and are increasing at an alarming rate. Equally concerning, the current "standard of care" leaves 70% of diabetic wounds unhealed. Given this substantial impact on patient outcomes and health care expenditure, a critical unmet need exists for improved understanding of the pathophysiology of diabetic wounds to develop effective treatments.

This year's SVS Foundation's Resident Research Award is being presented to Frank M. Davis, MD, of the University of Michigan, Ann Arbor, for his research on the epigenetic regulation of the prostaglandin pathway in macrophages during type 2 diabetic wound healing. Dr. Davis, and his mentor Katherine Gallagher, MD, also from the University of Michigan, investigated how impairments in the innate immune system in patients with diabetes promote chronic inflammation and impair wound healing.

Dr. Davis will present his award-winning research in the von Liebig Forum, Thursday, June 13, discussing the role of specific epigenetic enzymes in the dictation of macrophage phenotype in wound tissue. The talk will cover how diabetes alters those enzymes to influence a deleterious phenotype that promotes inflammation and delays wound healing. "Our laboratory specifically looks at the role of monocytes/macrophages in the inflammatory phase of wound healing and how perturbation in the local environment – such as those seen in diabetes – affects monocyte/macrophage phenotype and ultimately wound healing" said Dr. Davis.

DR. DAVIS

DR. GALLAGHER

The talk will specifically cover the cyclo-oxygenase (COX)-2/prostaglandin E_2 (PGE_2) axis. Using both a murine model and human wound samples Dr. Davis demonstrates that PGE_2 is substantially elevated in diabetic wound macrophages. Further, aberrant PGE_2 production

Wounds continued on page 2

JESSE STAFFORD/GETTY IMAGES PLUS

While SVS members are busy with the Vascular Annual Meeting, family members can take in all the attractions that nearby Washington, D.C., has to offer. Here, the statue of Abraham Lincoln greets the dawn. The Lincoln Memorial is just one of dozens of historic sites in the nation's capital.

WEDNESDAY-THURSDAY

Spotlight

There's a lot happening these first 2 days of VAM. Here are just a few you might want to attend (all at the Gaylord National Resort & Convention Center).

Wednesday, June 12

10:15 a.m. to 1:15 p.m. – Learn about ensuring the appropriate venous care during Postgrad Course 3, presented in collaboration with the American Venous Forum (Potomac C).

TICKET REQUIRED

10:30 a.m. to 12:15 p.m. – The International Young Surgeon Competition gets a dedicated time slot this year (Maryland B).

4 to 5 p.m. – Experts will offer input on managing complex IVC filter problems in the first "Ask the Expert" session of 2019 (Potomac 1-2)

5 to 6:30 p.m. – The audience gets to help choose a winner at the Clinical Research Seed Grant Challenge, which will feature three surgeon-scientists presenting their research proposals to a panel of experts (Potomac C).

Thursday, June 13

8 to 8:30 a.m. – The 2019 Vascular Annual Meeting kicks off at the Opening Ceremony (Potomac A/B).

10 a.m. to 6:30 p.m. – Enjoy coffee breaks and lunch, attend Vascular Live presentations, and visit exhibitor booths for the latest in technology and devices (Exhibit Hall B).

10:30 a.m. to 12 p.m. – The question that weighs on the minds of many vascular surgeons: How can we use evidence-based medicine to improve outcomes, reduce costs, and ensure appropriate utilization of resources? Hear the discussion at the E. Stanley Crawford Critical Issues Forum (Potomac A/B).

12 to 1 p.m. – Interest in outpatient and office-based settings for vascular procedures? Attend OBL 101 (the Office Vascular Care Pavilion in Exhibit Hall B).

5 to 6:30 p.m. – Talk to exhibitors, talk to your friends, and enjoy food and beverages at the Opening Reception, which also includes the Interactive Poster Session (Exhibit Hall B). **VC**

TICKET REQUIRED

ACE Inhibitors Help After Endo CLI Therapy

Angiotensin converting enzyme inhibitors (ACEI) have been found to reduce the risk of cardiovascular events in patients with peripheral arterial disease (PAD). However, their effect on limb specific outcomes after revascularization is unclear, according to Sikandar Khan, MD, of the University of Buffalo (N.Y.).

In Wednesday's VESS session, Dr. Khan will discuss a study that he and his colleagues performed to assess the effect of ACEI on limb salvage and survival in patients undergoing endovascular interventions for critical limb ischemia (CLI).

"CLI patients are at the end of the PAD spectrum, and at high risk for cardiovascular events. Optimizing their medical management can improve outcomes."

They used the Vascular Quality Initiative (VQI) registry to identify patients undergoing index endovascular interventions for CLI during April 1, 2010–Jan. 31, 2017. They included 11,331 patients (a total of 12,433 limbs) from the registry who had complete comorbidities and procedural and follow-up limb and survival data. Limb salvage, amputation-free survival, and overall survival were calculated using Kaplan-Meier and Cox proportional-hazards model.

The ACEI-group of patients had a significantly higher prevalence of coronary artery disease (31% vs. 27%), diabetes (67% vs 57%) and hypertension (94% vs 84%) but had a significantly lower incidence of end-stage renal disease (7% vs. 12%). Indication for intervention was tissue loss in 62% of ACEI group versus 65% in the no ACEI group, a significant difference; however. there was no significant difference in terms of level of intervention and lesion TASC classification.

The types of endovascular procedures performed were percutaneous transluminal angioplasty (PTA), PTA + stent, stent-graft with or without PTA + stent, and atherectomy with or without PTA + stent/stent graft, with no significant difference between the groups, according to Dr. Khan.

Dr. Khan will discuss how ACEI was found to be an independent factor associated with significantly improved overall survival (hazard ratio, 0.83) and amputation-free survival (HR, 0.88), but not significantly associated with limb salvage (HR, 0.99).

"Our study showed that ACE inhibitors are independently associated with improved survival and amputation-free survival in patients undergoing endovascular interventions for CLI. However, limb salvage rates remained unaffected. Further research is required to investigate the use of ACE inhibitors in this patient population, especially CLI patients without other indications for ACE therapy," Dr. Khan stated.


DR. KHAN

"CLI patients are at the end of the PAD spectrum, and at high risk for cardiovascular events. Optimizing their medical management can improve their outcomes. Our study looks at the role of ACE inhibitors in treatment of CLI patients, and shows that these drugs are associated with improved amputation-free survival and overall survival," Dr. Khan concluded. VC

Wednesday, June 12
7:30-11:45 a.m.
Gaylord National, Maryland D
V1: VESS Paper Session 1: VESS03

Navigate VAM With Planner, Mobile App

Using the Vascular Annual Meeting 2019 mobile app puts the entire meeting at your fingertips.

The app is integrated, comprehensive, and searchable. Once you sign onto it with your SVS credentials, it will sync with your online VAM Planner (if you have previously signed onto that tool), transferring favorites and your schedule to the app. The app includes all meeting content, including abstracts, and the search feature lets you quickly locate sessions, research abstracts, speakers, and more.

Here are some tips for using the app to simplify VAM:

• Create your schedule: Mark specific sessions as "favorites" on either the Online Planner or the app. Those sessions will then be placed in the "My Schedule" section.


TATSIANAMA/THINKSTOCK

• Claim your educational credits. Take self-assessment exams immediately after applicable sessions through the app, by linking out to the CME website.

• Participate in the Scavenger Hunt. Look in the Exhibit Hall for special QR codes, scan them with your app, then answer the question that pops up for a chance to win big.

• Let all your friends know what you're up to; link to social media or comment via the activity feed.

• Enable push notifications. You'll stay informed on any last-minute announcements.

The app is available free at the Apple Store, or at Google Play. Search for "SVS Events;" click "open" and then access the 2019 Vascular Annual meeting app. Then click on "Click Here to Access the SVS Events Conference Apps." The mobile app also works on tablets. VC

Wounds

continued from page 1

in diabetic macrophages depended on epigenetic alterations to key enzymes in the PGE_2 pathway.

Specifically, MLL1, a histone methyltransferase, increased H3K4 trimethylation resulting in upregulation of PGE_2 in diabetic wound macrophages. Additionally, the authors found that augmentation to miR-29b and DNA methyltransferases in diabetic macrophage result in increased COX-2 expression. Overall, the increased COX-2/PGE_2 production in diabetic macrophages impairs bacterial killing, predisposing diabetic wounds to chronic infection.

"Our research provides insight into the prostaglandin E_2 axis and its role in macrophage inflammation, which has previously been an unrecognized pathway leading to delayed diabetic wound healing" added Dr. Gallagher.

Finally, in his presentation, Dr. Davis will discuss translational therapies as inhibition of the PGE_2 pathway through macrophage targeted nanoparticles decreased diabetic inflammation and improved healing. "Together, our results indicate the COX-2/PGE_2 pathway is a critical regulator of macrophage phenotype and impaired diabetic wound healing. This work identifies therapeutic targets for negating dysregulated inflammation in diabetic wounds and identifies macrophage-targeted local therapy as an effective means of improving wound healing," Dr. Davis concluded. VC

Thursday, June 13
8:30-10:00 a.m.
Gaylord National, Potomac A/B
S1: William J. von Liebig Forum: IS01

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Important Safety Information page 4.

INDICATIONS: The Perclose ProGlide™ SMC System is indicated for the percutaneous delivery of suture for closing the common femoral artery and vein access site of patients who have undergone diagnostic or interventional catheterization procedures.

The Perclose ProGlide™ SMC System is used without or, if required, with adjunctive manual compression. For access sites in the common femoral artery using 5F to 21F sheaths. For access sites in the common femoral vein using 5F to 24F sheaths.

For arterial and venous sheath sizes greater than 8F, at least two devices and the pre-close technique are required.

Abbott

DEB vs. Conventional Angioplasty for BTK-CLI

In Wednesday's International Forum, Ankur Patel, MD, of Singapore General Hospital, will report on the 6-month results of a prospective randomized, controlled trial that he and his colleagues performed to compare the use of drug-eluting balloon (DEB) angioplasty vs. conventional balloon (CB) angioplasty for below the knee (BTK) arteries in patients with critical limb ischemia (CLI).


DR. PATEL

Dr. Patel will discuss the trial structure in which 138 CLI patients (93 men and 45 women) with mean age of 62.6 years were randomized 1:1 to either the DEB group (n = 70) or the CB group (n = 68). The vast majority of the patients (94.2%) had diabetes and 52.9% had end-stage renal failure (ESRF). The primary endpoint of the trial was an angiographic primary patency rate of target lesions at 6 months.

Efficacy analysis was performed using a generalized linear model adjusted for ESRF status in an intention-to-treat population. Missing data for primary endpoint was imputed by multiple imputation, according to Dr. Patel.

Patient demographics were similar between the two groups, and the mean lesion length treated was not statistically significantly different between the DEB group (90.3 mm) and the CB group (81.8 mm).

There was also no statistical difference in the 6-month angiographic patency rates (DEB 41.9% vs CB 37.8%) and the 6-month limb salvage rates (DEB 77.9% vs CB 84.8%).

However, the 12-month amputation-free survival rate (AFS) was significantly worse in the DEB group (DEB 69.6% vs. CB 80.3%; $P = .030$), although the serious adverse event rate at 6 months was similar between the two groups.

"Our data showed no statistically significant differences in 6-month target lesion angiographic patency and limb salvage rate between DEB and CB groups in BTK angioplasty for CLI. However, the 12-month AFS is significantly worse in the DEB group," Dr. Patel concluded. VC

Wednesday, June 12
7:30-10:15 a.m.
Gaylord National, Maryland B
International Forum: IF03

Learning With Industry Part of VAM

In addition to sponsoring exhibits, industry sponsors several programs during the Vascular Annual Meeting. These include Vascular Live presentations (see page 13), plus an evening session and three breakfast sessions.

Wednesday's program is from 6:30 to 8 p.m. in Potomac 4-6:

How ACTIVE CONTROL takes TEVAR to the Next Level: Introducing the GORE® TAG® Conformable Thoracic Stent Graft with ACTIVE CONTROL System; sponsored by Gore, Professor Dittmar Böckler.

Learning also is on the Thursday breakfast menu:

B1: Leading the Future: Treatment Strategies for Complex Venous Disease; sponsored by Boston Scientific, Lowell S. Kabnick, MD (Maryland C).

- Emerging Predictors of Clinical Outcomes with the VICI Venous Stent, Lowell S. Kabnick, MD.
- Options for Diagnosing and Guiding Venous Interventions, Steven D. Abramowitz, MD.
- Challenging Clinical Cases in DVT and Chronic Venous Disease, David J. Dexter II, MD.
- Panel discussion.

B2: A Live Perspective on Strategies for Crossing and Treating Complex Lower Limb Extremity Disease; sponsored by Abbott, Brian G. DeRubertis, MD (Potomac C).

B3: Evidence-Based Approach to Anticoagulation Therapy for CAD/PAD; sponsored by Janssen Pharmaceuticals, Sonya Noor, MD (Potomac 4-6). VC

Legacy Program Donors

The Foundation's Legacy Program includes those who have contributed a total of $10,000 or more to the SVS Foundation during their lifetime. They are honored in perpetuity for their commitment to the specialty.

Founder's Circle ($500,000 – plus)
- American College of Surgeons
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- Society for Clinical Vascular Surgery
- Western Vascular Society

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- Susan Detweiler, MD
- Division of Vascular and Endovascular Surgery, Massachusetts General Hospital
- Eastern Vascular Society
- Nicholas D. Garcia, MD
- Vivienne J. Halpern, MD
- New England Society for Vascular Surgery
- C. Keith Ozaki, MD
- William H. Pearce, MD
- Southern Association for Vascular Surgery
- Daniel B. Walsh, MD and Teri Walsh, RN

Benefactor's Circle ($10,000 – $24,999)
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- Magruder C. Donaldson, MD
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- Rumi Faizer, MD
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- Julie Ann Freischlag, MD
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- Peter Gloviczki, MD
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- Anthony D. Whittemore, MD
- Samuel J. Williams, MD
- James S. T. Yao, MD, PhD
- Robert M. Zwolak, MD, PhD

*If you note any omissions or corrections, please contact Linda Maraba at lmaraba@vascularsociety.org or 312-334-2352. Early contributions to the Lifeline Foundation or the American Vascular Association® may not be reflected.

† - indicates deceased

Predicting Complications After Carotid Endarterectomy in Asymptomatic Patients

Fabrizio Masciello, MD, and his colleagues from the University of Florence (Italy), performed a retrospective study with the goal of creating a predictive score for estimating 30-day stroke and death in patients with asymptomatic internal carotid artery stenosis undergoing carotid endarterectomy (CEA).


DR. MASCIELLO

In Wednesday's International Fast Talk, Dr. Masciello will report on their analysis of 6,436 consecutive CEAs performed in a single academic institution during Janusary 1996–December 2016. The data concerning these interventions were prospectively collected in a dedicated database.

Dr. Masciello will detail their retrospective analysis of this database in order to assess the 4,561 interventions performed in asymptomatic patients that they found.

Univariate and multivariable (forward logistic regression) analyses were used to identify potential significant predictors of stroke and death at 30 days, and then a predictive risk score was constructed. A qualitative assessment of stroke and death rates for each integer score was performed and subgroups of risk were stratified on the basis of the composite primary endpoint of stroke and death.

Overall, the 30-day stroke and death rate was 1.1% (48 cases). Multivariate analysis showed that diabetes, combined cardiac surgery and the need for instrumental rather than clinical intraoperative cerebral monitoring were identified as independent predictors of stroke and death at 30 days. The integer score ranged from 0 to 12, with rates of stroke and death ranging from 0.6% (score 0) to 7.8% (score 12). Univariate comparison of each score group with the others identified two subgroups with significant differences in the primary endpoint: a low-risk subgroup (score 4 or less, with a stroke and death rate of 0.6%) and high-risk subgroup (score greater than 4, stroke and death rate of 3.6%, which was significantly different).

"Our study showed that the indexed score seems to identify a subgroup of asymptomatic patients facing CEA with a perioperative risk higher than that suggested in the international guidelines, thus questioning the indication for surgery in those patients. A prospective validation of such a score is necessary," Dr. Masciello concluded. **vc**

Wednesday, June 12
2:45-4:15 p.m.
Gaylord National, Maryland B
FT: International Fast Talk: IFT14

International Events Featured Wednesday

For many years, the Vascular Annual Meeting's opening day included a number of events designed with our international members in mind. This year's program, on Wednesday, June 12, is shaping up to be one of the strongest to date.

This year, the International Young Surgeons Competition has its own time slot, 10:30 a.m. to 12:15 p.m. Ten international surgeons younger than 35 years old will present abstracts on current vascular research, with awards presented at the conclusion.

CYBRAIN/GETTY IMAGES

Wednesday's other international events include:

The International Forum, 7:30 to 10:15 a.m. Authors will present their research for 6 minutes, followed by 4 minutes of discussion.

During the **International Chapter Forum**, set for 1:15 to 2:45 p.m. in Maryland B, members from several continents will make the following presentations on a number of questions and topics important to vascular surgeons:

- Dr. Leopoldo Alvardo Acosta, Mexico, nutcracker syndrome and pelvic congestion syndrome.
- Dr. Prem C. Gupta, India, the Indian perspective on direct oral anticoagulants and managing deep vein thrombosis.
- Dr. Guillermo Aguilar Peralta, Mexico, intravenous laser treatments.
- Dr. Juan Esteban Paolini, Argentina, managing critical limb ischemia, in the context of Argentina's Wound, Ischemia and Foot Infection (WIfi) classification system.
- Dr. Nobuyoshi Azuma, Japan, distal bypass and current treatments for critical limb-threatening ischemia.
- Dr. Werner Lang, Germany, the important of perfusion measurements during vascular and endovascular procedures.
- Dr. Carlo Setacci, PhD, Italy, reinvigoration of CAS due to better embolic protection and newer mesh-covered stents.
- Dr. Piotr Myrcha, Poland, surgical and endovascular treatment of four extracranial carotid aneurysms.
- Chung-Dann Kan, PhD, Taiwan, TSVS's efforts to rebuild the surgical competence of surgeons in the age of EVAR.
- Dr. Christos Liapis, PhD, Greece, EVAR and long-term outcomes (that are worse than open repair).

International Fast Talk, 2:45 to 4:15 p.m., with 3 minutes of research presentation followed by 2 minutes of discussion. Authors must be from outside the United States and Canada.

The International Poster Competition, 4:30 to 6:15 p.m. Poster authors will present their research in 3 minutes, followed by 2 minutes of discussion.

The International Reception, 6:15 to 7:15 p.m. Tickets are required for the reception and may be obtained at the Registration Counter.

More details on these and all VAM events can be found in the Online Planner; visit **vsweb.org/OnlinePlanner.** VC

Expert Panel Tackles Challenge of TOS

Clinicians looking for top-notch tips on the management of thoracic outlet syndrome (TOS) will be rewarded with advice from the experts in Thursday's session devoted to the topic of TOS.

"Thoracic outlet syndrome remains a challenging disease process for practicing clinicians," session moderator Jeffrey Jim, MD, of Washington University School of Medicine, St. Louis, said in an interview.

"As there is increasing public awareness of this disease process, practicing vascular surgeons will be relied upon to help diagnose and care for TOS patients," Dr. Jim said.

"The accurate diagnosis and efficient treatment for these patients often can be difficult to obtain. Ideally, the addition of this session [at the meeting] will help guide vascular surgeons to the most updated clinical guidelines for diagnosis and treatment for the different forms of TOS," he noted.

"The audience will hear from four of the world's leading experts in the treatment of TOS – no exaggeration," Dr. Jim emphasized. Collectively, these experts have treated thousands of patients, so they have experienced all aspects of TOS. "Having them share their experience with the audience will be invaluable," he said.

Robert Thompson, MD, also of Washington University, leads off the session, and will share his diagnostic criteria and surgical approach to patients with neurogenic TOS. Dr. Thompson serves as director of Washington University's Center for Thoracic Outlet Syndrome. According to the university's website, 85%-95% of all TOS patients are affected in some way by neurogenic TOS.

The recurrence of TOS remains another key issue, and Ying Wei Lum, MD, of Johns Hopkins Hospital in Baltimore, takes it on. Dr. Lum will share his insight on treatment of patients with recurrent TOS after prior treatment and will address the question of when and whether recurrent TOS is true recurrence, persistent or residual symptoms, or incomplete treatment.

The second half of the session focuses on the topics of arterial and venous TOS. Hugh Gelabert, MD, of the University of California, Los Angeles, will discuss arterial options in his talk, "Treatment of Subclavian Artery Aneurysm in Arterial TOS: Bypass vs. Stent Placement." Next, Jason Lee, MD, of Stanford (Calif.) University Medical Center, wraps up the session with his presentation of the "Spectrum of Treatment Options and Outcomes for Venous TOS (Effort Thrombosis). The session concludes with a panel discussion.

"As there are various traditional open and endovascular techniques to treat vascular TOS, this will undoubtedly lead to a lively discussion about optimal treatment options," said Dr. Jim. VC

Thursday, June 13
3:30-4:30 p.m.
Gaylord National, Potomac 1-2
A3: Thoracic Outlet Syndrome

Lifestyle Behavior Correlated With PAD

In Wednesday's VESS session, Elsie Ross, MD, of Stanford (Calif.) University, will report on a study that she and her colleagues did to evaluate lifestyle factors most associated with symptomatic peripheral arterial disease. They assessed data derived from the UK Biobank study, a cohort study of more than 500,000 individuals aged 40-69 years.

DR. ROSS

"We age-matched PAD patients to a random sample of non-PAD patients using a 2:1 matching ratio," said Dr. Ross. "We then performed machine learning analysis to identify lifestyle factors most associated with symptomatic PAD," she added.

The age-matched cohort comprised 13,473 patients and included 4,491 patients with PAD events. Of more than 5,500 variables in the UK Biobank study, the lifestyle variables significantly associated with symptomatic PAD included age stopped smoking (odds ratio, 1.06), number of cigarettes previously smoked (OR, 1.03), maternal smoking around birth (OR, 1.4), number of days a week walked more than 10 minutes (OR, 0.88), days per week engaged in moderate activity (OR, 0.95), and more.

"Our comprehensive evaluation of lifestyle and social factors using Big Data and machine learning reveal that, among similarly aged individuals, smoking behavior and exposure to smoking around birth, as well as physical activity and type of alcohol intake are significantly associated with likelihood of having PAD," Dr. Ross concluded. VC

Wednesday, June 12
7:30-11:45 a.m.
Gaylord National, Maryland D
V1:VESS Paper Session 1: VESS04

Calling All Sleuths

iNUENG/ GETTY IMAGES

Channel your favorite gumshoe – Miss Marple, Sam Spade, Mannix, Nancy Drew, or Carmen Sandiego, everyone is needed – to win big prizes at the VAM 2019 Scavenger Hunt.

Your mission – should you choose to accept it – is to find the special QR codes located in designated sponsor booths in the Exhibit Hall. Then, use your handy-dandy cell phone or other mobile device to scan the code and answer the multiple-choice question that then appears.

When exhibits close late afternoon Friday, three people from among those with the most points will win one of the following prizes:

- 1st Place: American Airlines voucher valued at $3,000.
- 2nd Place: A $1,500 Apple gift card.
- 3rd Place: A $500 Amazon gift card.

Pursuing clues is allowed whenever the Exhibit Hall is open, 10 a.m. to 6:30 p.m. Thursday, and 9:30 a.m. to 5:30 p.m. Friday. Do some searching during coffee breaks, lunches, and receptions, and any other time you're talking to vendors and checking out their displays.

Sponsors – as of May 28 – and their booth numbers are:

Sponsor	Booth Number
BD	#509
BTG	#603
Boston Scientific Corporation	#309
Getinge	#709
KCI, an Acelity Company	#817
Medistim	#835
Medtronic	#315
Office Vascular Care Pavilion	#339
Silk Road Medical	#301
SVS	#331
TeDan Surgical Innovations	#200

Booth numbers also will be listed onsite and in the VAM 2019 Program Book. So get out your magnifying glass and let the detecting begin! Winners' names will be listed at the registration area Saturday morning. VC

Focus on Office-Based Care

This year's VAM features an exhibit pavilion, special Vascular Live presentations, and a breakfast session geared specifically to clinicians who work in office and outpatient settings.

The Office Vascular Care Pavilion is in Exhibit Hall B, on the lower level of the Gaylord National Resort & Convention Center, across from the SVS Booth. Office Vascular Care Live presentations (not eligible for CME credit) include:

Thursday, June 13

12:30 to 1 p.m. OBL 101; *Krishna M. Jain, MD*

3 to 3:30 p.m. OBL Chatter, industry presentations by *Cordis®, A Cardinal Health company*, *Philips and Vein Care iGuide*

Sessions include: Coming to a town near you! Life Cycle of an OBL, Factors Influencing Behavior of an OBL, and Industry Partnership, *sponsored by Cordis®, A Cardinal Health company*

Keys to Success and Methods of Failure in Today's OBL, David Baker, *sponsored by Philips*

Friday, June 14

12:30 to 1 p.m. OBL Tips and Tools; *R. Clement Darling III, MD.*

3 to 3:30 p.m. OBL Quality and Safety; *Robert G. Molnar, MD.*

8:30 to 9:30 a.m. The SVS also has a new member section focused on the move to outpatient and office-based settings, the **Section on Outpatient and Office Vascular Care (SOOVC),** which will hold its first meeting Friday in National Harbor 3. Tickets are available at Registration. Prospective members are welcome.

Saturday, June 15

6:30 to 8 a.m. **Breakfast Session 9** will cover "Complications in Office-Based Procedures: Their Prevention and Management." It is being presented in collaboration with the Outpatient Endovascular and Interventional Society. VC

2019 Vascular Annual Meeting Exhibitors

Company	Booth
Abbott	**517**
Advent Health	201
Alliance for Physician Certification and Advancement (APCA)	829
American College of Radiology	Table 6
American Vein and Lymphatic Society	Table 8
Amerx Health Care	326
Amgen	801
Amputee Associates, LLC	504
AngioAdvancements	325
APACVS	Table 9
Artegraft, Inc.	304
Avenu Medical	816
BD/Bard	**509**
BFW, Inc.	204
BLOXR Solutions	823
BMS/Pfizer	227
Boston Scientific	309
BTG	603
Centra Medical Group	226
CHI Franciscan	812
Consensus Medical Systems, Inc.	701
Cook Medical	423
Cordis® A Cardinal Health Company	501
CryoLife, Inc.	500
Cydar Limited	827
Datt Mediproducts Pvt. Ltd.	813
DaYu Enterprise Co. Ltd.	716
Designs For Vision, Inc.	400
Doctor.com	404
Dr. Linda Harris/Womens Vascular Summit	Table 14
The Eastern Vascular Society	Table 2

EXHIBIT HALL HOURS

THURSDAY: 10 A.M. TO 6:30 P.M.
FRIDAY: 9:30 A.M. TO 5:30 P.M.

ADVERTISERS IN YELLOW

Exhibit Hall: The Place to Be for Food, Fun, Education

The Exhibit Hall is an integral part of the Vascular Annual Meeting. All members of the vascular team, as well as other attendees, will be able to see a wide-ranging array of products of interest to vascular surgeons and their teams from dozens of vendors.

The VAM website (**vsweb.org/VAM19**) and mobile app offer a listing of exhibitors. A real-time floor plan (**vsweb.org/FloorMap**) helps attendees navigate the Exhibit Hall to find the products they most want to see.

Input a keyword – such as "stents," for example – and the website provides a listing of exhibitors who manufacture stents. Input "endovascular" and not only are companies listed but so are the Vascular and Endovascular Surgery Society and Vascular News/Charing Cross Symposium. Searches are possible for a specific vendor, as well, and can be refined.

MARTIN ALLRED

VAM attendees found much to entertain and educate them in last year's Exhibit Hall.

This year's Exhibit Hall also will include the Office Vascular Care Pavilion, of interest particularly for those clinicians who perform procedures in outpatient and office-based settings. Five vendors currently plan to exhibit at the pavilion, and four presentations for office-based providers are scheduled. See story on page 7.

The Exhibit Hall on the lower level also hosts fun and games – literally. It's the site for the Opening and Closing receptions, on Thursday and Friday evenings, respectively and the Scavenger Hunt. And attendees can also take advantage of non-CME learning opportunities, giveaways, training opportunities and networking potential.

The Opening Reception takes place from 5 to 6:30 p.m., coinciding with the Interactive Poster Session. The Closing Reception is from 4:30 to 5:30 p.m. Friday. It's a great time to browse the exhibits, talk with vendors, meet up with friends and colleagues, sip on a beverage, and enjoy the food.

Participate in Scavenger Hunt

Games? That would be the Vascular Annual Meeting **Scavenger Hunt**, sure to be a hit with those with even a bit of a competitive streak. It's simple and it's fun. Just download the Mobile App to scan the QR codes found in sponsors' booths throughout the Exhibit Hall. When a multiple-choice question appears on the display, answer it. Correct answers earn 10 points. (See more in story on page 7.)

Vascular Live hosts innovative sessions about the latest products and development related to vascular surgery, in a theater-in-the-round setting during Thursday and Friday's coffee breaks and lunch hours. These frequently are standing-room only, so be sure to arrive early for a good seat. (See page 13, the VAM Planner and the mobile app.)

The Exhibit Hall also is the place to be for **coffee breaks**, 10 a.m. and 3 p.m. Thursday and 9:30 a.m. and 3 p.m. Friday as well as **lunch**, at 12 p.m. Thursday and 12:15 p.m. Friday. Food stations offer box lunches – free to attendees, though tickets are required. And there are plenty of tables to permit sitting down and chatting with colleagues for a bit.

Industry participation in the VAM exhibits underwrites a significant portion of VAM, thereby allowing us to keep registration fees at a much lower rate than other industry meetings. Please support our industry partners. A complete list of exhibitors and their booth locations are found in the Connections on-site publication and in the Mobile App, VAM Planner and VAM website (**vsweb.org/VAM19**). VC

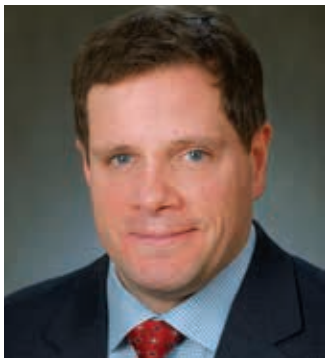
Find the Perfect Match for AAAs in Each Patient

Clinicians eager to review best practices for specific techniques and better identify which patients benefit most from the various options will find a wealth of information at Wednesday's session, "Endovascular and Open Options for AAAs: the Right Repair for the Right Patient." "Aortic aneurysm repair is one of the core procedures of vascular surgeons, and the detection and management of AAAs is best performed by vascular surgeons," so a course featuring AAA repair makes sense, session co-moderator Benjamin Jackson, MD, of the University of Pennsylvania, Philadelphia, said in an interview.

In addition, "we now have more options than ever for the repair of AAAs (both infrarenal and complex) but we are far from consensus on what type of repair is best in various situations," said William Robinson, MD, session co-moderator, of the University of Virginia in Charlottesville. "Now that EVAR has been routinely performed for more than 20 years and endovascular options have grown rapidly, there is significant controversy."

"As we use more and more devices for the endovascular repair of AAA's (EVAR devices), use them more frequently, and have longer clinical follow-up of patients having undergone EVAR, our knowledge of long-term outcomes might influence which device we use in what patient, or what type of repair is best in a particular patient," said Dr. Jackson. "Examples might include favoring open repair, especially of complex aneurysms, in younger patients, or using advanced endovascular devices (fenestrated EVAR devices or similar) in patients with short or otherwise compromised aortic necks," he said.

Speakers will also relate advice and "gems" regarding performing open and endovascular AAA repair that attendees will be able to take with them, said Dr. Robinson.



DR. JACKSON

The session is punctuated by three panel discussions, so attendees will have opportunities to discuss the latest issues and hot topics with the presenters.

The ongoing controversy regarding the selection of EVAR vs. open repair for AAA's may provoke some lively discussion for session attendees, Dr. Jackson said.

"For instance, the UK's National Institute for Health and Care Excellence (NICE) draft guidelines recently recommended that patients with unruptured AAA's who can tolerate open repair should not be offered EVAR. That said, the current standard of care treatment of those patients in the U.S. includes – and often favors – endovascular therapy," he said.

William Jordan Jr., MD, of the University of Alabama, Birmingham, will raise this topic in his talk, "EVAR vs. Open in 2019: What Should We Be Doing, and For Whom?"

"How modern (2nd and 3rd generation) EVAR devices, or the more aggressive use of fenestrated grafts, might influence the long-term aneurysm-related survival after aortic repair, is also a topic of some interest and possible controversy," Dr. Jackson noted.

The session kicks off on a practical note with a presentation by Sean Lyden, MD, of the Cleveland Clinic, on "Anterior Open Approach: When I Do It, and Tips for Success," followed by Marc Schermerhorn, MD, of Beth Israel Deaconess Medical Center, Boston, on "RP Open Approach: When I Do It, and Tips for Success."

The practical aspect of the session continues with discussions of two aspects of complex open techniques: Choosing Clamping Strategy, by William Quinones-Baldrich, MD, of the University of California, Los Angeles, and Techniques for Reconstructing Visceral Vessels, by Audra Duncan, MD, of London Health Sciences Center, Ontario.

The message Dr. Jackson hopes attendees will take from the session is the importance of understanding the full range of AAA options. "A one-size-fits-all approach to AAA repair is not appropriate in 2019," he said. "Some patients should be offered open repair, some straightforward EVAR, and some complex endovascular repair," he said. Organizers hope the session will help attendees choose the "Right Repair for the Right Patient" and learn how to better execute these repairs and treat patients with AAA, said Dr. Robinson. **VC**

Wednesday, June 12
10:15 a.m.-1:15 p.m.
P4: Gaylord National, Potomac C

Medical Therapy of Severe Asymptomatic Carotid Disease

A lack of contemporary natural-history evidence in patients receiving medical management for asymptomatic carotid stenosis has led to equipoise regarding the role of procedural intervention in this population, according to Robert Chang, MD, a vascular surgeon in Kaiser Permanente's South San Francisco Medical Center, and colleagues. Previous trial data has shown an absolute stroke risk reduction over five years from 11%-12% with medical therapy, compared with 5%-6% with surgery.

DR. CHANG

In Thursday's von Liebig session, Dr. Chang will report on a study that he and his colleagues performed to assess stroke outcomes among patients with asymptomatic severe carotid stenosis in an integrated health care system.

All patients in the large health care system with at least one severely stenosed (70%-99%) carotid artery and without prior intervention, prior ipsilateral stroke or TIA within 6 months of the index imaging study during 2008-2012 were followed through 2017 for the primary outcome of ipsilateral carotid-related ischemic stroke, as confirmed by chart review. Secondary outcomes included other-etiology and other-territory strokes. Statin usage was assessed, with active use defined as sufficient medication fills to provide greater than 80% coverage over the follow-up period, according to Dr. Chang.

Dr. Chang will present data on 94,822 patients with a qualifying imaging study from which 5,283 arteries in 4,663 patients were identified with severe stenosis. These included 4,355 (81%) arteries in 3,855 patients in the final study cohort. The mean patient age was 73.7 years; 57% of the patients were men, and 73% were white. Statin prescriptions were filled for 73.3% of the patients in the year prior to the initial study, increasing to 85.6% during follow-up, with 32.7% active usage during this year (increasing to 65.7% over the follow-up period). Nearly 72% of the patients had at least one baseline blood pressure less than 140/90.

During the study period, 1,624 (42.1%) patients underwent 1,732 carotid interventions and were censored at the time of surgery; postintervention outcomes were excluded from further analysis.

Of the 2,623 severe arteries (60.2%) in the 2,393 patients who did not undergo intervention, the mean follow-up was 4.6 years. In the overall cohort, prior to any intervention, there were 135 strokes attributable to the ipsilateral carotid artery with an average annual ipsilateral stroke rate of 1.0%. The Kaplan-Meier 5-year freedom from ipsilateral carotid stroke estimate was 95.2%, according to Dr. Chang.

During follow-up, there were 119 noncarotid related (16 other etiology, 103 other territory) strokes prior to any intervention with an average annual rate of 0.9%.

"In this large community-based cohort of severe asymptomatic carotid stenosis under medical management, the observed stroke rates are lower than historical estimates and are comparable to reported surgical outcomes. Further studies are needed to evaluate contemporary management of asymptomatic carotid disease and the optimal roles of medical therapy and intervention," Dr. Chang concluded. **VC**

Thursday, June 13
1:30-3:00 p.m.
Gaylord National, Potomac A/B
S2: Scientific Session 2: SS04

Look for the Labels

Four flags are used throughout the VAM Program Book to denote sessions of interest to particular audiences.

These curated sessions were identified with the help of the Young Surgeons Committee, the Community Practice Committee and the Society for Vascular Nursing.

CP: Of interest to surgeons in community practice

YS: Of interest to young surgeons

YS/CP: Of interest to both of the above groups

SVN: Of interest to vascular nurses

Other symbols indicate whether sessions include the opportunity to claim Continuing Medical Education or Maintenance of Certification Self-Assessment credits, and whether a ticket is required. (Tickets are available at the registration counter.) **VC**

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(as of May 28)

Plenty of Time for Fun at VAM

Education is front and center of most people's minds at the Vascular Annual Meeting.

But right behind it is "fun," as in meeting and greeting colleagues and catching up with old friends.

Fortunately, the Vascular Annual Meeting offers plenty of chances outside the education presentations to do just that, with open receptions at the Exhibit Hall, specialty receptions, and alumni receptions.

The Opening Reception is from 5 to 6:30 p.m. Thursday in the Exhibit Hall B, on the lower level of the Gaylord National Resort & Convention Center. Partygoers can enjoy beverages and appetizers while visiting vendor booths, mingling, and also while talking with poster authors about their research in the Interactive Poster Session, which coincides with the reception.

The Closing Reception is set for 4:30 to 5:30 p.m. Friday, also in the Exhibit Hall. During both receptions, don't forget to be looking for the clues for the Scavenger Hunt. Collect QR codes and answer questions for the chance to win one of three great prizes. (See story on page 7.)

Industry support is vital to the Vascular Annual Meeting, as it offsets costs and allows the Society for Vascular Surgery to keep registration fees lower. Please go to the Exhbit Hall and visit our vendors.

Representatives of a great many institutions opted to purchase tables at Friday's Vascular Spectacular Gala, benefiting the SVS Foundation. But a number of alumni receptions are still in the plans.

All take place at the Gaylord National Resort & Convention Center and none conflict with the Gala (which is sold out). VC

Alumni Receptions

Wednesday

- **South Asian American Vascular Surgeons Meeting**

5:30 to 11:30 p.m., National Harbor 3 (Level 3)

Thursday

(All are from 6:30 to 8:30 p.m.)

- **Henry Ford Hospital Szilagyi**
  Chesapeake 5 (Ballroom Level)
- **Mayo Clinic**
  Chesapeake 3 (Ballroom Level)
- **University of Maryland**
  Chesapeake 2 (Ballroom Level)

Calculating Safer Contrast Thresholds

Postcontrast nephropathy (PCN) is a severe complication of peripheral vascular interventions (PVIs) that depends on the contrast volume used as well as a patient's baseline kidney function. However, there is currently no guidance on the volume of contrast considered safe, especially for patients with advanced chronic kidney disease (CKD), according to Cassius Iyad Ochoa Chaar, MD, and his colleagues at Yale University, New Haven, Conn.

In Wednesday's VESS session, Dr. Chaar will report on their review of the Vascular Quality Initiative files for PVI (2010-2018) from which they derived the incidence and relation of PCN with contrast volume at each stage of CKD. Dr. Chaar will discuss the 53,780 procedures included in their study. They defined a safe threshold for contrast volume as the volume at which the cumulative incidence of PCN was 0.5% or less.

They found that the overall incidence of PCN was 0.9% and increased with each stage of CKD (CKD1, 0.39%; CKD2, 0.45%; CKD3, 1.5%; CKD4, 4.3%, and CKD5, 7.5%). They determined that the safe thresholds for contrast volume for advanced CKD were 50 mL, 20 mL, and 9 mL for CKD3, CKD4, and CKD5, respectively.

White race (odds ratio, 0.67) and elective surgery (OR, 0.77) were associated with decreased risk of PCN, while inpatient status (OR, 13.9), diabetes (OR, 1.30), advanced CKD (vs. CKD1): CKD3 (OR, 3.65); CKD4 (OR, 6.99); and CKD5 (OR, 8.79), treatment for critical limb ischemia (OR, 1.54), and acute limb ischemia (OR, 2.42) were all significantly associated with increased risk of PCN.

In addition, high contrast volumes also were significant risk factors for PCN. They found that patients who developed PCN had increased in-hospital mortality (16.1% vs. 0.45%; $P < .01$), and decreased long-term survival (log-rank $P < .01$) compared with patients without PCN.

"Our study shows that PVIs are associated with a low risk of postcontrast nephropathy, but one that significantly increases when patients with advanced CKD undergo high acuity cases. Given the strong association with short- and long-term mortality, risk of PCN should be minimized by using safe thresholds of contrast," Dr. Chaar concluded. VC

Wednesday, June 13
12:30-4:15 p.m.
Gaylord National, Maryland D
V2: VESS Paper Session 2: VESS26

VASCULAR CONNECTIONS

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How to Earn Your CME, MOC Credits at VAM

Physician registrants can get a big boost in collecting required Continuing Medical Education (CME) and Maintenance of Certification (MOC) Self-Assessment credits at the Vascular Annual Meeting.

The Society for Vascular Surgery is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. SVS has designated the 2019 Vascular Annual Meeting for a maximum of 30 AMA PRA Category 1 Credits™.

Physicians should claim only the credits commensurate with the extent of their participation in the activity. Full credit is not available for attendance at two sessions occurring simultaneously.

Sessions Offering CME, MOC Credits

THE FOLLOWING SESSIONS offer CME credits:

- Postgraduate courses (**CME+MOC -- MOC, 1-5 only**)
- International Forum
- International Fast Talk
- VESS sessions 1 and 2
- Ask the Experts sessions 1-7
- Breakfast Sessions 4-9 (**CME+MOC – MOC, 6, 7, 9 only**)
- Concurrent Sessions 2-7
- von Liebig Forum (S1)
- E. Stanley Crawford Critical Issues Forum
- Scientific Sessions 2-10
- John Homans Lecture
- Roy Greenberg Distinguished Lecture
- "How I Do It" Video Session
- "Top 10" Papers
- Aortic Summit
- RPVI Review Course (**CME+MOC**)

A number of sessions also permit earning of MOC credits. See the adjacent list for credit availability.

Participants may claim credits beginning Wednesday, June 12. Credits must be claimed by Dec. 31, 2019. VC

PAs Can Also Earn Credits

PHYSICIAN ASSISTANTS: The Vascular Annual Meeting is designated for 30 AAPA Category 1 CME credits. Thursday includes 3½ hours of programming specifically developed for PAs and the vascular team.

Nurses: Vascular nurses who attend the Society for Vascular Nursing Annual Conference can earn up to 13 contact hours.

Vascular Live

Come see exhibitors present new ideas, showcase new technologies, and discuss the latest trends in vascular surgery. All Vascular Live events will take place at the Vascular Live stage in the Auditorium, on the lower level of the convention center.

Thursday, June 13

12:15 – 12:45 p.m.
Sponsored by Gore
Case Examples from the EU of the New GORE® TAG® Conformable Thoracic Stent Graft with ACTIVE CONTROL® System
Speaker: Prof. Dittmar Böckler

12:45 – 1:15 p.m.
Sponsored by Gore
Lower Limb Stent Grafting: Complex Cases and Techniques in SFA and Aortoiliac Disease
Speaker: Krishna Mannava, MD

3 – 3:30 p.m.
Sponsored by Silk Road Medical
Latest (Breaking) Clinical Evidence Strongly Supports Developing a TCAR Program – Why and How from a Vascular Surgery Perspective
Speakers: Sumaira Macdonald, MD; Jeffrey Jim, MD; Marc L. Schermerhorn, MD; and Michael C. Stoner, MD

5:30 – 6 p.m.
Sponsored by Thompson Surgical
Technological Advances and the Evolution of the 'Mini-Open' Anterior Spine Exposure Technique
Speaker: Jonathan E. Schoeff, MD

6 – 6:30 p.m.
Sponsored by Amgen
Criticality of LDC-C Lowering in Patients with PAD
Speaker: Marc P. Bonaca, MD

Friday, June 14

9:30 – 10 a.m.
Sponsored by Abbott
Access & Closure Techniques for Complex Aortic Cases
Speaker: Jason T. Lee, MD

12:30 – 1 p.m.
Sponsored by Abbott
A Clinical Review of the WavelineQ 4F EndoAVF System
Speakers: Todd Berland, MD; Paul B. Kreienberg, MD; and Eric K. Peden, MD

1 – 1:30 p.m.
Sponsored by Abbott
EPDs in the Lower Limb: Why and When to Use Them
Speaker: April Estelle Nedeau, MD

3 – 3:30 p.m.
Sponsored by Medtronic
Clinical Significance of Sac Regression with Case Examples
Speaker: TBD

Vascular Live presentations are not eligible for CME credit. VC

Stay Connected During VAM

Vascular Annual Meeting attendees will be able to stay connected – to their offices, patients, and families – throughout the meeting. BD, formerly Bard Peripheral Vascular, is providing free WiFi throughout the convention center, including the exhibit halls.

Attendees won't even need to disconnect from their guest room WiFi every time they enter the convention center space. They only need to log in once; the system will automatically disconnect people when they leave an area and automatically reconnect them when they reenter.

Network name: VAM19
Password: VAM2019!

After logging in, open a browser to access the Internet. VC

TCAR Poised to Change Vascular Surgery

On Thursday, June 13, at 10:15 a.m., vascular surgeons will come together for a workshop entitled "TransCarotid Artery Revascularization (TCAR)." The hour-long workshop is designed to give participants an introduction and hands-on experience using TCAR, said moderator Raghu Motaganahalli, MD, who is with Indiana University, Indianapolis.

Jeffrey Jim. MD, of the Washington University in St. Louis described TCAR as "an innovative hybrid approach that allows transcarotid stent delivery while offering cerebral protection with reversal of flow." TCAR has been adopted by vascular surgeons across the nation since early clinical trial data was first released demonstrating the lowest reported stroke rate (1.4%) for any prospective, multicenter trial of carotid stenting. In fact, the most updated data continue to show excellent patient outcomes, even in novel users, he explained.

DR. JIM

DR. MOTAGANAHALLI

DR. KOKKOSIS

"While this workshop does not substitute for official TCAR training, the attendees will be exposed to important aspects of the procedure, including available evidence, best practices for patient selection and procedural technique, how to build a TCAR program, as well as reimbursement for this procedure. The highlight of the hour will, no doubt, be the opportunity to work closely in small groups with expert faculty getting training on the device," Dr. Jim added.

What makes this session and the technology itself so important is that TCAR is being adopted rapidly by the vascular surgery community, noted Dr. Motaganahalli. "Helping clinicians understand how the technology will fit in their clinical practice will be a key focus of our discussion. And for physicians who already use TCAR, we will be able to offer more technical tips for dealing with complex cases."

Angela Kokkosis, MD, of Stony Brook (N.Y.) University Medical Center described the workshop as "an abbreviated version of the training course that vascular surgeons participate in prior to adapting TCAR into their practice." In retrospect, she considers herself extremely fortunate to have been introduced to TCAR immediately following Food and Drug Administration approval: "Having performed these procedures for almost 3 years ... I have seen how TCAR benefits patients who were not the best candidates for CEA or TF-CAS."

"It's crucial for any surgeon who performs carotid revascularization in their practice to have the opportunity to take a closer look at TCAR, because this technology bears a strong resemblance to EVAR (Endovascular Aortic Aneurysm Repair), said Dr. Kokkosis. In its advent, EVAR was met with much criticism and skepticism, but it has become a standard of care for the treatment of aortic aneurysms, she added.

Dr. Motaganahalli noted: "This technology has shown consistent results that are comparable to those obtained by carotid endarterectomy, besides carrying the benefits of limiting cranial nerve dysfunction. As the technology gains more acceptance, it likely has potential to be an alternative to transfemoral carotid stenting and will be a game-changing treatment option," he added.

Nikhil Kansal, MD, of the University of California, Los Angeles, Harbor Medical Center and Andres Fajardo, MD, of Indiana University, Bloomington, also will be on hand for the workshop. **VC**

Thursday, June 13
10:15 a.m. – 11:15 p.m.
Gaylord National, Chesapeake 5
W1: TransCarotid Artery Revascularization

Gender Disparity and Sexual Harassment in Vascular Surgery Practices

Sexual harassment is known to be more pervasive in male-dominated workplaces and flourishes in a climate of tolerance and culture of silence, according to Bernadette Aulivola, MD, of Loyola University Medical Center, Maywood, Ill.

DR. AULIVOLA

"We sought to examine the prevalence of sexual harassment in academic vascular surgery practices, identify factors associated with occurrence, determine reporting barriers, and identify any gender bias that exists," said Dr. Aulivola.

In Wednesday's VESS session, Dr. Aulivola will present the results of an anonymous survey that she and Matthew R. Smeds, MD, of Saint Louis University, conducted to examine the issue. The survey was emailed to 346 vascular surgery faculty members at 52 training sites in the United States.

"This research stemmed from a similar project done in vascular surgery trainees (residents and trainees) that identified a significant amount of harassment occurring at this level with a concomitant fear of reporting and lack of knowledge of institutional reporting mechanisms. We thought an analysis of harassment at the attending physician level may be relevant. There is significant gender bias in medicine in general and a not insignificant rate of harassment that occurs," Dr. Smeds said in an interview.

Of the invitations sent, 149 (43%) completed the survey. Among these, 48/149 (32%) thought harassment occurred more commonly in surgical specialties with historical male dominance. In addition, ignoring the behavior, and hierarchy/power dynamics were the most common reasons given for its occurrence. Overall, 61/149 (41%) reported experiencing workplace harassment. Being told unwanted sexually explicit comments/questions/jokes, being called a sexist slur/nickname, or being paid unwanted flirtation were the most commonly described behaviors.

Those harassed were significantly more likely to be female (37% vs. 13%), and on average had experienced 2.6 (of 10) types of harassment. Despite 84% of respondents acknowledging institutional reporting mechanisms, only 7.2% of the harassing behaviors were reported.

The most common reasons for not reporting including feeling the behavior was "harmless" (67%) or "nothing positive would come of it" (28%), although 30% of respondents feared repercussions or felt uncomfortable identifying as a target of sexual harassment and only 59% of respondents reported that they would feel comfortable discussing the issue with departmental/divisional leadership.

"A significant number of vascular surgeons in academic practice have experienced workplace sexual harassment," Dr. Aulivola said. "While most are aware of institutional reporting mechanisms, very few events are reported and less than 60% of respondents feel comfortable reporting to departmental/divisional leadership. Female vascular surgeons believe gender influences hiring, promotion, compensation, and attainment of life goals. Further work is necessary to identify methods of reducing workplace sexual harassment and optimize gender disparity in academic vascular surgery practice," she concluded. **VC**

Wednesday, June 12
12:30-4:15 p.m.
Gaylord National, Maryland D
V2: VESS Paper Session 2: VESS18

Burnout Among Vascular Surgeons – A Report From the SVS Wellness Committee

Physician burnout has been linked to medical errors, decreased patient satisfaction, and reduced career longevity. In light of the increasing prevalence of cardiovascular disease, vascular surgeon burnout presents a legitimate public health concern because of the impact on the adequacy of the vascular surgery workforce. Dawn Coleman, MD, and her colleagues, performed a study on behalf of the Society for Vascular Surgery (SVS) Wellness Task Force to define the prevalence of burnout among practicing vascular surgeons, and to identify the risk factors for burnout. Such information will be used to facilitate future SVS initiatives to avert this crisis.

In Thursday's von Liebig Forum, Dr. Coleman, of the University of Michigan, Ann Arbor, will present the results of their 2018 anonymous survey of active SVS members. The survey used a validated burnout assessment, Maslach Burnout Index (MBI), embedded in a questionnaire that also captured demographic and practice-related characteristics.

The survey was personalized for the specialty and did allow for free text. according to Dr. Coleman, and "we specifically analyzed emotional exhaustion, one dimension of burnout."

The accepted threshold of a score of 27 or greater on the MBI Emotional Exhaustion module was used to identify surgeons suffering from burnout. Risk factors for such were identified using bivariate analyses (Chi-square, Kruskal-Wallis), and multivariate logistic regression models were developed to identify independent risk factors for burnout, she added.

DR. COLEMAN

Dr. Coleman will present the results from the 960 out of 2,905 active SVS members who responded to the survey (33%). After excluding retired surgeons and incomplete submissions, responses from 872 practicing vascular surgeons were finally analyzed. The mean respondent age was 49.7 years; and the majority of respondents (81%) were men. The primary practice settings were academic (40%), community practice (41%), Veterans Administration hospital (3.3%), active military practice (1.5%), or "other." Mean years in practice was 15.7.

Overall, 30% of the respondents met criteria for burnout, 37% screened positive for symptoms of depression in the past month and 8% supported thoughts of taking their own life during the last 12 months.

By unadjusted analysis, factors significantly associated with burnout included clinical work hours, on-call frequency, electronic medical record/documentation requirements, perceived conflict between work and personal responsibilities, and physical pain. Multivariate analysis revealed age, work-related physical pain, and conflict between work and personal responsibilities as independent risk factors for burnout, said Dr. Coleman.

"Approximately one-third of practicing vascular surgeons self-report burnout and depression, according to our survey. Advancing age, physical pain, and work-life conflict are each independent predictors for burnout among vascular surgeons. These findings will facilitate SVS efforts to improve vascular surgeon well-being, in an effort to mitigate the personal, economic, and social impact of vascular surgeon burnout," Dr. Coleman concluded.

See more on the work of the SVS Wellness Task Force in the June issue of Vascular Specialist. VC

Thursday, June 13
8:30-10:00 a.m.
Gaylord National, Potomac A/B
S1: William J. von Liebig Forum: SS02

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[1] Laird JR. IN.PACT SFA 5-year Results. Presented at VIVA 2018; Las Vegas, NV.

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