



2
Dr. Michael Conte takes on EVAR.



4
New score predicts PAD outcomes, says Dr. Yae Matsuo.



12 News From SVS

Consider a career helping veterans by working for the Veterans Administration.

VOL. 15 • NO. 12 • DECEMBER 2019

Vascular Specialist

SVS | Society for Vascular Surgery | Official Publication

Telehealth Consults Reimbursed On Par With Office

BY TED BOSWORTH
MDEdge NEWS
REPORTING FROM THE VEITHSYMPOSIUM

NEW YORK – Telehealth should be embraced by vascular surgeons for their own self-interest independent of the evidence that it is well accepted and more convenient for patients, according to an update on an evolution that is already underway.

“One of the great advantages of telehealth is the efficacy of time for the clinician,” John W. Hallett, MD, professor of vascular surgery at the Medical University of South Carolina, Charleston, said at a symposium on vascular and endovascular issues sponsored by the Cleveland Clinic Foundation.

See **Telehealth** · page 4



Dr. Joern Dopheide

BY KARI OAKES
MDEdge NEWS
REPORTING FROM THE ESC CONGRESS 2019

PARIS – For patients with peripheral artery disease, statin therapy is a literal lifeline, nearly halving mortality risk, according to new research presented at the annual congress of the European Society of Cardiology.

Patients with peripheral manifestations of cardiovascular disease “are a population with an extremely high risk to suffer a heart attack or a stroke,” said Joern Dopheide, MD, during a press conference at the meeting.

In PAD, Dropping Statins Ups Death Risk To 43%

Despite the known benefits of statins, including the reduction of all-cause and cardiovascular death and the reduction of morbidity, adherence to guideline-directed statin therapy is far from optimal, said Dr. Dopheide of Bern (Switzerland) University Hospital.

Patients with peripheral artery disease (PAD) not taking statins had a mortality rate of 34%, more than three times that of patients adherent to an intensified statin regimen. More surprisingly, patients who had been on a statin and then stopped the medication also had a mortality rate of 33%, indistinguishable from those who had

See **Statins** · page 3



News From SVS

It is the “giving” time of year. The SVS Foundation asks that your giving plans include the Foundation, to fund not only things – research awards, patient education fliers, community awareness projects – but also people. See page 10.

COMMENTARY Rising Concerns About Long-Term Durability of EVAR: Time To Rebalance With Open Repair?

BY MICHAEL S. CONTE, MD

Successful exclusion of an abdominal aortic aneurysm (AAA) by endovascular placement of a stent graft (EVAR) has been one of the seminal advances in vascular surgery in my lifetime. Randomized clinical trials (RCT) and registry studies have consistently demonstrated reduced perioperative mortality, reduced morbidity, and faster recovery for EVAR in comparison to open surgical repair (OSR).

As a result, nearly 80% of AAA repairs in the United States employ EVAR, but durable clinical effectiveness of EVAR has remained an ongoing and important question. Despite an early mortality advantage essentially all of the RCT and large cohort studies have demonstrated a catch-up in mortality within 5 years, such that long-term survival in patients treated by EVAR or OSR is similar. Moreover, rates of aortic re-intervention and late rupture are significantly greater after EVAR and continue to accumulate over time.

Recent real-world data and conflicting practice guidelines shed new light on this subject and raise important concerns about the current state of AAA repair in the United States.

In 2011, Schanzer and colleagues analyzed a large imaging database to examine changes in AAA sac dimensions following EVAR.¹ They reported an alarming 41% rate of AAA sac enlargement (5 mm or more) over 5 years. Baseline anatomic factors (e.g., large, conical, angulated neck or anatomy outside of the contemporary instructions-for-use specifications) and the presence of a postoperative endoleak were major risk factors for sac enlargement.

In 2015, Schermerhorn et al. analyzed data



Dr. Conte is chief, Division of Vascular & Endovascular Surgery; the Edwin J. Wylie, MD, Chair in Vascular Surgery; and co-director of the UCSF Heart and Vascular Center and the UCSF Center for Limb Preservation, San Francisco.

Recent real-world data and conflicting practice guidelines shed new light on this subject and raise important concerns about the current state of AAA repair in the United States.

from the Medicare population for the period of 2001-2008 and used propensity-matching to compare outcomes between EVAR and OSR.² Over 8 years of follow-up, late rupture (5.4% vs. 1.4%) and aneurysm-related reintervention (18.8% vs. 3.7%) were significantly greater in the EVAR group.

In 2018, the U.K. NICE group conducted a detailed evidence review concluding that EVAR was not cost-effective for the elective treatment of AAA, in large part because of the high rate of downstream re-interventions.³

While NICE has yet to publish their final set of recommendations, this preliminary draft set off a firestorm of concern across the vascular community. Long-term, high-quality, real-world data on the clinical effectiveness of EVAR and OSR are thus of critical interest.

Recent U.S. data leveraging the Vascular Quality Initiative (VQI) has added important and sobering observations on EVAR outcomes. O'Donnell and colleagues examined all patients who underwent EVAR within the VQI from 2003-2017 who also had an imaging study reported at one year postoperatively.⁴ Notably only 49% (n = 14,817) of patients had 1-year imaging data available and, among these, 40% of sacs had regressed, 35% were stable, and 25% expanded by at least 5 mm.

Lack of AAA sac regression at 1 year was significantly associated with increased long-term mortality after propensity matching. Columbo et al. recently reported an analysis of EVAR outcomes employing a powerful approach of linking VQI subjects (n = 12,911) to their longitudinal Medicare data to more fully capture downstream events.⁵ The cumulative rate of aortic re-intervention post EVAR was 15% at 3 years and 33% at 10 years (see figure next page).

This rate appeared steady with no evidence of a plateau effect over time. Confirming the prior report from Schermerhorn et al., they observed a 5% rate of late rupture after EVAR. Patients who underwent aortic reintervention post EVAR experienced reduced survival, with a late rupture rate of 20% compared with 1% for those who did not require reintervention.

Collectively these data raise important ques-

EVAR continued on next page

SVS | Society for Vascular Surgery

Vascular Specialist

VASCULAR SPECIALIST Medical Editor Malachi Sheahan III, MD
Associate Medical Editors Bernadette Aulivola, MD, O. William Brown, MD, Elliot L. Chaikof, MD, PhD, Carlo Dall'Omo, MD, Alan M. Dietzek, MD, RPVI, FACS, Professor Hans-Henning Eckstein, MD, John F. Eidt, MD, Robert Fitridge, MD, Dennis R. Gable, MD, Linda Harris, MD, Krishna Jain, MD, Larry Kraiss, MD, Joann Lohr, MD, James McKinsey, MD, Joseph Mills, MD, Erica L. Mitchell, MD, MEd, FACS, Leila Mureebe, MD, Frank Pomposelli, MD, David Rigberg, MD, Clifford Sales, MD, Bhagwan Satiani, MD, Larry Scher, MD, Marc Schermerhorn, MD, Murray L. Shames, MD, Niten Singh, MD, Frank J. Veith, MD, Robert Eugene Zierler, MD
Resident/Fellow Editor Laura Drudi, MD.
Executive Director SVS Kenneth M. Slaw, PhD.
Interim Director of Membership, Marketing and Communications Angela Taylor
Managing Editor SVS Beth Bales

Vascular Specialist is the official newspaper of the Society for Vascular Surgery and provides the vascular specialist with timely and relevant news and commentary about clinical developments and about the impact of health care policy. Content for Vascular Specialist is provided by Frontline Medical Communications Inc. Content for the News From the Society is provided by the Society for Vascular Surgery.

The ideas and opinions expressed in Vascular Specialist do not necessarily reflect those of the Society or the Publisher. The Society for Vascular Surgery and Frontline Medical Communications Inc. will not assume responsibility for damages, loss, or claims of any kind arising from or related to the information contained in this publication, including any claims related to the products, drugs, or services mentioned herein.

POSTMASTER Send changes of address (with old mailing label) to Vascular Specialist, Subscription Services, 10255 W. Higgins Road, Suite 280, Rosemont, IL 60018-9914.

RECIPIENT: To change your address, contact Subscription Services at 1-800-430-5450. For paid subscriptions, single issue purchases, and missing issue claims, call Customer Service at 1-833-836-2705 or e-mail custsvc.vasc@fulcoinc.com.

The Society for Vascular Surgery headquarters is located at 9400 W. Higgins Road, Suite 315, Rosemont, IL 60018. Vascular Specialist (ISSN 1558-0148) is published monthly for the Society for Vascular Surgery by Frontline Medical Communications Inc., 7 Century Drive, Suite 302, Parsippany, NJ 07054-4609. Phone 973-206-3434, fax 973-206-9378. Subscription price is \$230.00 per year.

National Account Manager Valerie Bednarz, 973-206-8954, cell 973-907-0230, vbednarz@mdedge.com

Digital Account Manager Amanda Smith, (973) 206-2321, asmith@mdedge.com

Classified Sales Representative Drew Endy, 215-657-2319, cell 267-481-0133, dendy@mdedge.com

Senior Director of Classified Sales Tim LePella, 484-921-5001, cell 610-506-3474, tlapella@mdedge.com

Advertising Offices 7 Century Drive, Suite 302, Parsippany, NJ 07054-4609 973-206-3434, fax 973-206-9378

©Copyright 2019, by the Society for Vascular Surgery



Scan this QR Code to visit vascularspecialistonline.com

FRONTLINE
MEDICAL COMMUNICATIONS.

FRONTLINE MEDICAL COMMUNICATIONS SOCIETY PARTNERS

Director, FMC Society Partners Mark Branca
Executive Editors Denise Fulton, Kathy Scarbeck
Managing Editor Mark S. Lesney
Creative Director Louise A. Koenig
Director, Production/Manufacturing Rebecca Slebodnik

Letters to the Editor: VascularSpecialist@vascularsociety.org
Editorial Offices: 2275 Research Blvd, Suite 400, Rockville, MD 20850, 240-221-2400, fax 240-221-2548

FRONTLINE MEDICAL COMMUNICATIONS

Corporate
SVP, Finance Steven J. Resnick
VP, Operations Jim Chicca
VP, Sales Mike Guire
VP, Society Partners Mark Branca
VP, Editorial Director, Clinical Content Karen Clements
VP, Digital Content & Strategy Amy Pfeiffer
President, Custom Solutions JoAnn Wahl
VP, Custom Solutions Wendy Raupers

VP, Human Resources & Facility Operations Carolyn Caccavelli
Data Management Director Mike Fritz
Circulation Director Jared Sonners
Corporate Director, Research & Comms. Lori Raskin
Director, Custom Programs Patrick Finnegan
In affiliation with Global Academy for Medical Education, LLC
President David J. Small, MBA

Morality Risk

Statins from page 1

never been treated with a statin.

Although statin adherence is low in general, it's especially low in patients with PAD, said Dr. Dopheide. Still, he said, "few systematic data exist on the prognostic value of statin adherence and the correlation between adherence and cardiovascular outcome in PAD patients."

Accordingly, Dr. Dopheide and his coinvestigators sought to determine the association between statin adherence and survival in PAD patients. The researchers obtained baseline and follow-up data for a cohort of 691 symptomatic PAD patients seen at a single site, looking at statin dosage, LDL cholesterol levels, and survival.

The patients were followed for a period of 50 months. Dr. Dopheide said that "Over the time course, we were able to increase the statin adherence from about 73% to about 81%, and parallel to that, we were able to reduce the LDL cholesterol levels from about 97 to 83 mg/dL, and we

were able to increase the intensity of patients on statin therapy."

Dr. Dopheide said that he and his colleagues saw a dose-response effect, so that the biggest drop in cholesterol was seen in patients on high statin doses, on more potent statins, or both.

Intensity was increased in some cases by upping statin dose – the mean statin dose climbed from 50 to 58 mg daily during the study period. An alternative strategy was to switch to a more potent statin such as atorvastatin or rosuvastatin; sometimes both intensity and dose were boosted.

"We were able to see that patients who were always on their statin therapy had a pretty low mortality rate of about 20%," a figure that was halved for patients on more intensive statin therapy, who had a mortality rate of 10% across the study period, said Dr. Dopheide. "Patients in whom we started a statin therapy still profited from it, and had only a 15%

mortality," he added.

Some of the most surprising – and disturbing – study findings involved those who reduced their statin dose: "When patients discontinued their usual dose and decreased it, they suffered an even higher mortality rate, of nearly 43%. So that was kind of surprising and shocking to us."

least keep the patient on the statin dosage they have," or initiate statins if needed.

Further, warned Dr. Dopheide, "One should never discontinue statin or decrease the dosage," adding that PAD patients should be informed that they are at "very high risk for myocardial infarction or stroke."

"One should never discontinue statin or decrease the dosage." PAD patients should be informed that they are at "very high risk for myocardial infarction or stroke."

Identifying these high-risk patients and keeping them adherent is a substantial clinical challenge, but an important goal, said Dr. Dopheide. "We know that patients with peripheral arterial disease are a little more underrepresented in daily practice; it's hard to identify them, especially when they are asymptomatic," he acknowledged. However, once a PAD patient is identified, "One should at

These patients "should regard their statin therapy as one of the most important and lifesaving medications they can take," he said.

Dr. Dopheide reported no outside sources of funding and no conflicts of interest.

koakes@mdedge.com

SOURCE: Dopheide J et al. ESC Congress 2019, Abstract P5363.

EVAR

continued from previous page

tions about the durability of AAA exclusion following EVAR and its long-term serious consequences. It would not be a stretch to say that similar evidence of late failure (one in three patients) for a mechanical heart valve would likely constitute a front-page story in the national media. Yet the vascular community's response is largely muted.

Both the Society for Vascular Surgery and the European Society for Vascular Surgery have recently published AAA practice guidelines,^{6,7} with some notable differences. The SVS guideline promotes shared decision making and a discussion of the trade-offs between EVAR and OSR in individual patients. It recommends use of the VQI risk score to estimate perioperative mortality but offers no predictive model for long-term events.

It provides no specific recommendations on when OSR might be favored over EVAR, including adverse anatomic factors for EVAR, off-label use, and/or longer life-expectancy.

In contrast, the ESVS guideline states that "in patients with long life expectancy, open AAA repair should be considered as the preferred treatment modality." The definition of "long" and the relative weight of anatomic factors are left nebulous. But at least it's a start in re-balancing the approaches for AAA repair.

Recently I did an open conversion in a 47 year-old patient who had undergone EVAR 3 years earlier and had two subsequent endovascular re-interventions, including one for rupture. He

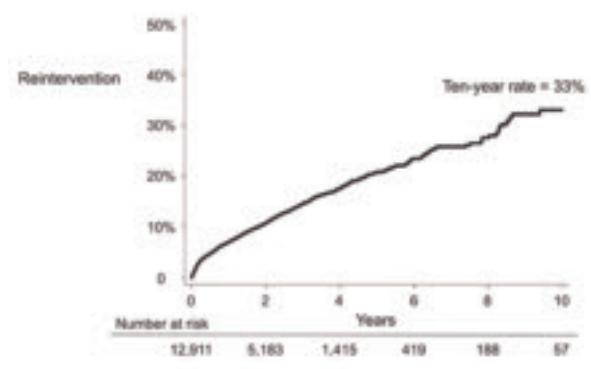


Figure. Rate of aortic reintervention post EVAR (reprinted with permission) Ann Surg 2019. Jul 8. doi: 10.1097/SLA.0000000000003446. [Epub ahead of print]

presented with a new contained rupture, had type III and type 1B endoleaks, and a short angulated proximal neck. It was a challenging operation, but fortunately he did well. I wondered what both the patient and the AAA looked like when he presented at age 44! Cases like this are increasing in tertiary centers and are higher risk than primary OSR.

Persistent endoleaks, enlarging sacs, late interventions/clinical events, and limited compliance with surveillance imaging are major issues with EVAR in contemporary practice. Yet meetings and journals are full of reports of off-label use and how to treat the "challenging neck" with EVAR employing a range of adjuncts of unproven long-term effectiveness.

Trainees are getting less exposure and competence with OSR. Disturbingly, there is a growing notion that creative endovascular solutions in

poor anatomic settings are acceptable as long as there is no type 1 endoleak at the conclusion of the case. It is time to condemn such practices in younger, fit patients with an intact AAA. There are now abundant data that demonstrate EVAR is a safer, yet notably less effective intervention than OSR for the long-term management of AAA.

The gap between technical success and clinical effectiveness of EVAR is real, grows with time, and is largely modifiable by patient selection. Using EVAR appropriately – where it is most likely to be efficacious – means respecting its anatomic limitations and considering the trade-offs more critically in fit patients.

The ESVS guideline is a step in the right direction but should go further to discourage off-label use. The SVS guideline largely defers and is thus lacking.

Vascular surgeons must advocate for safe, durable results in our AAA patients, while we also continue to innovate (and critically evaluate) in an ethical and responsible fashion.

References

1. Circulation 2011;123:2848-55.
2. New Engl J Med 2015; 373(4):328-38.
3. NICE Guideline Draft for Consultation. Abdominal aortic aneurysm: diagnosis and management. <https://www.nice.org.uk/guidance/gid-cgwave0769/documents/short-version-of-draft-guideline>
4. J Vasc Surg 2019; 69:414-22.
5. Ann Surg 2019. Jul 8. doi: 10.1097/SLA.0000000000003446. [Epub ahead of print]
6. J Vasc Surg 2018; 67(1): 2-77.
7. Eur J Vasc Endovasc Surg 2019; 57(1): 8-93.

Geriatric Nutritional Risk Index Predicts Long-Term Outcomes in PAD

BY BRUCE JANCIN
MDEDGE NEWS
REPORTING FROM THE
ESC CONGRESS 2019

PARIS – The Geriatric Nutritional Risk Index proved to be an independent predictor of 5-year overall survival as well as the composite of major adverse cardiovascular and limb events in a prospective cohort study of 1,219 patients with peripheral artery disease, Yae Matsuo, MD, reported at the annual congress of the European Society of Cardiology.

The Geriatric Nutritional Risk Index (GNRI) is a score calculated with a formula based upon a patient's height, serum albumin, and the ratio between ideal and actual body weight (Am J Clin Nutr. 2005 Oct;82(4):777-83). The GNRI tool has been shown to be an accurate prognosticator for clinical outcomes in patients on hemodialysis and those with heart failure. However, its predictive accuracy hasn't been evaluated in patients with



Dr. Yae Matsuo: "The Geriatric Nutritional Risk Index is simple to calculate – so easy – and I think it's a better predictor than BMI."

PAD, according to Dr. Matsuo, a cardiologist at Kitakanto Cardiovascular Hospital in Shibukawa, Japan.

"The Geriatric Nutritional Risk Index is simple to calculate – so easy – and I think it's a better predictor than

BMI," she said.

Fifty-six percent of the PAD patients had a GNRI score greater than 98, indicative of no increased risk of malnutrition and nutritional deficiencies. Their 5-year overall survival

rate was 81%, compared with 62% in patients with a score of 92-98, 40% in those with a score of 82-91, and 23% with a score of less than 82. Other independent predictors of overall survival in multivariate analysis were age, estimated glomerular filtration rate, ankle brachial index, and C-reactive protein level.

A GNRI score above 98 was also predictive of significantly lower 5-year risk of both major adverse cardiovascular events and the composite of major adverse cardiovascular and limb events than in patients with a score of 98 or less.

The key remaining unanswered question is whether providing timely nutritional support to PAD patients with a low GNRI score will result in improved overall and limb survival and other outcomes.

Dr. Matsuo reported having no financial conflicts.

bjancin@mdedge.com

SOURCE: Matsuo Y. ESC Congress 2019, Abstract P1956.

Reimbursement

Telehealth from page 1

This efficiency is purchased with no loss of revenue, he added. He said that many clinicians are unaware of the opportunity this affords.

"Almost every payer reimburses telehealth visit at the same rate as that of an office visit," Dr. Hallett explained. The only additional step is adding a "GT" modifier when billing Medicare or a "95" modifier when billing private payers.

Telemedicine is not a new concept. Published studies date back decades, but this interaction is increasingly understood to be the future. Along with an increasing array of sensors employing smartphone technology to allow physicians remote access to vital signs and other clinical data, patient attitudes have changed.

"Patients like telemedicine. It is convenient for them," said Dr. Hallett, who noted that many providers are recognizing telemedicine as a potential marketing tool.

"On my way in from the airport yesterday, there was an advertisement for telemedicine from NYU on the television in the cab," said Dr. Hallett, referring to the New York University health system.

The data supporting the benefits of telemedicine even include studies undertaken in vascular surgery patients. In one recent retrospective study cited by Dr. Hallett, substantial time and travel

costs were saved for every vascular surgery consult conducted by telemedicine rather than in an office visit (Ann Vasc Surg. 2019;59:167-172).

"There was no difference in the rate of complications, and 94% of the patients considered the telehealth consultation adequate," Dr. Hallett said.

With the number of individuals over the age of 65 growing by thousands in the United States every day, there will be increasing pressure on vascular surgeons to use telemedicine.

He said there is urgency for vascular surgeons to pursue telemedicine. With the number of individuals over the age of 65 growing by thousands in the United States every day, there will be increasing pressure on the relatively fixed pool of vascular surgeons to improve their efficiency.

In addition, telemedicine is coming whether vascular surgeons like it or not.

"Patients are becoming more interested in looking at an app on their smartphone than coming

to the office," said Tony S. Das, MD, an interventional cardiologist who practices in Dallas. Dr. Das also spoke about the value of telemedicine for the vascular and cardiovascular surgeon at the VEITHsymposium.

In his overview, Dr. Das spoke about telehealth in the context of the estimated \$12 billion dollars that will be spent on digital health in vascular medicine by 2021.

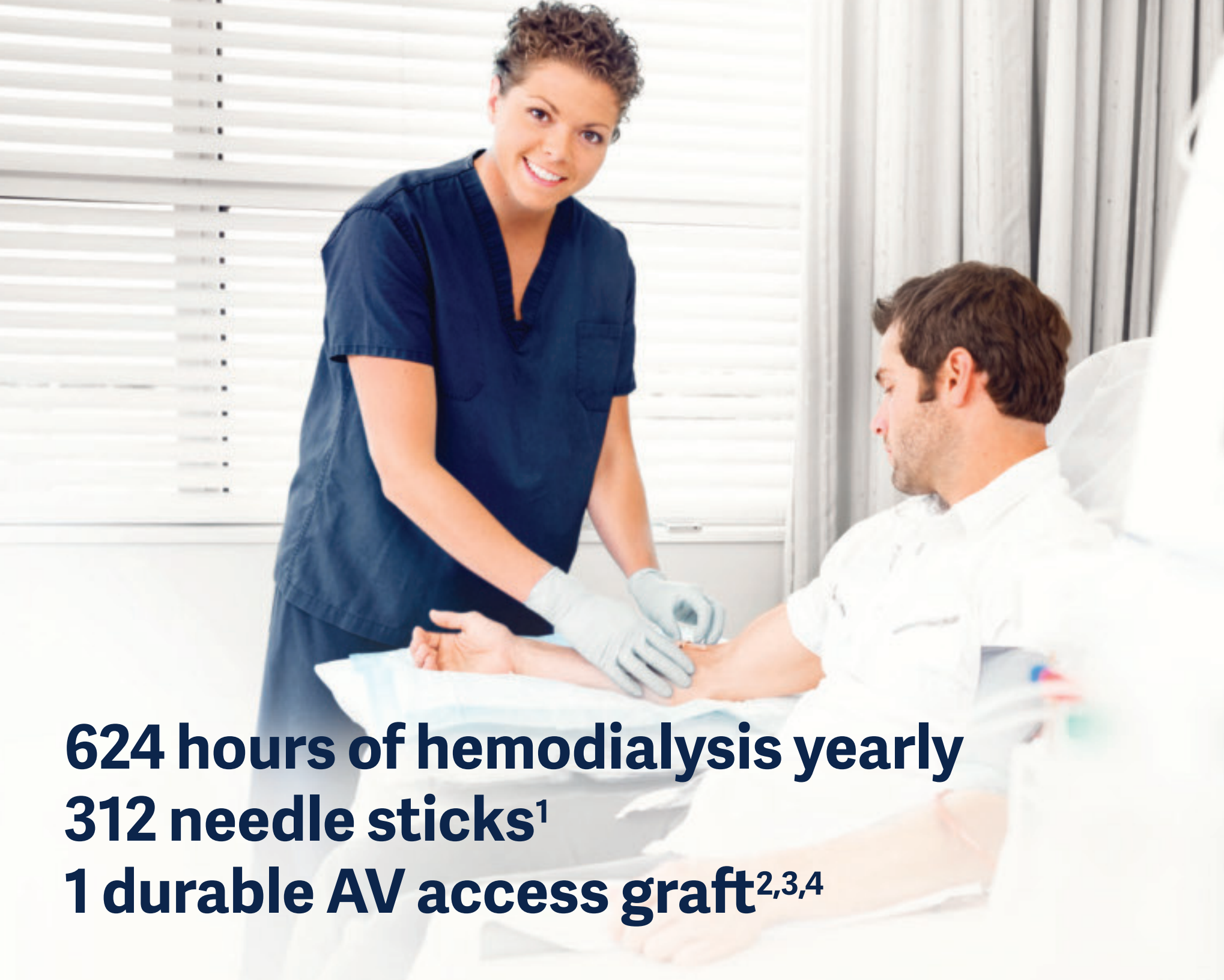
The growth in digital health in vascular medicine is a reflection of a global change in clinical care. According to Dr. Das, there were more than 600 vendors of wearable sensors to monitor disease and health at a recent consumer electronics convention.

"This technology is here to stay," said Dr. Das, who, appropriately, was not present at the symposium but delivered his presentation remotely.

Both the Centers for Medicare & Medicaid Services and the Food and Drug Administration have digital health action plans, according to Dr. Das. The CMS has already developed reimbursement codes to pay for remote monitoring services and more are expected.

Calling this type of telehealth "untethered vascular care," Dr. Das agreed with Dr. Hallett that an evolution is coming whether vascular surgeons choose to get on board now or are forced to take action later.

SOURCE: VEITHsymposium.



624 hours of hemodialysis yearly
312 needle sticks¹
1 durable AV access graft^{2,3,4}

Flixene AV access graft: Premium performance for dialysis access



Flixene's unique 3-layer ePTFE construction is specifically designed to handle the rigors of multiple needle cannulations related to dialysis care. It has been demonstrated in multiple independent, peer-reviewed journals to be a safe and effective option for early cannulation within 24 to 72 hours.^{5, 6, 7}

1. National Kidney Foundation, *How long will each hemodialysis treatment last?* Retrieved 5/2019 www.kidney.org/atoz/content/hemodialysis 2. Chiang N, Hulme KR, Haggart PC, et al *J Vasc Access*. 2014 Mar-Apr;15(2):116-22. 3. Lioupis C, Mistry H, Rix T, et al. *J Vasc Access*. 2011 Jan-Mar;12(1):36-44. 4. Berard X, Ottaviani N, Brizzi V, et al. *J Vasc Surg*. 2015 Jul;62(1):128-34 5. Data on file. 6. Schild AF, Schuman ES, Noicely K, et al. *J Vasc Access*. 2011 Jul-Sep;12(3):248-52. 7. Schild AF, Baltodano NM, Alfieri K, et al. *J Vasc Access*. 2004 Jan-Mar;5(1):19-24.



getinge.com/Flixene

GETINGE 

Imaging Reveals Different Clinico-Pathologic Patterns in Takayasu's, Giant Cell Arteritis

BY MICHELE G. SULLIVAN
MDEDGE NEWS
FROM ANNALS OF THE
RHEUMATIC DISEASES

While the symptoms of Takayasu's and giant cell arteritis do not differ greatly, they are associated with different imaging findings of vascular inflammation and luminal damage, a retrospective cohort study has found.

"Clinical symptoms were not sensitive markers of underlying vascular pathology but were specific when present," Despina Michailidou, MD, PhD, and colleagues wrote. "Vascular imaging should be considered in the management of these patients since reliance on the presence of clinical symptoms may not be sensitive to detect vascular pathology within an acceptable window to prevent or minimize damage."

Dr. Michailidou and coauthors examined the relationships between clinical presentation and imaging findings in 110 patients involved in an ongoing observational cohort study at the National Institutes of Health, including 56 with Takayasu's arteritis (TAK) and 54 with giant cell arteritis (GCA). The study included data from 270 visits. Dr. Michailidou conducted the study while she was a research fellow at NIAMS, and she is now a rheumatology fellow at the University of Washington, Seattle.

The team looked at 11 symptoms (lightheadedness, positional lighthead-

edness, carotidynia, arm claudication, vertigo, frontotemporal and posterior headache, posterior neck pain, blurred vision, vision loss, and major CNS events, including stroke, transient ischemic attack, or syncope). These were related to findings on MR angiography (MRA) and 18F-fluorodeoxyglucose PET (FDG-PET).

There were no significant between-group differences in six of the symptoms. However, those with TAK had significantly higher rates of carotidynia (21% vs. 0%), lightheadedness (30% vs. 9%), positional lightheadedness (29% vs. 5%), major CNS events (25% vs. 9%), and arm claudication (52% vs. 28%). Arm claudication was the most common symptom with TAK (52%), and blurred vision the most common in patients with GCA (37%).

On the day of evaluation, 8% of patients with TAK reported carotidynia; none of the GCA patients reported this. On FDG-PET, carotidynia was more strongly associated with inflammation of the carotid artery than with damage of the carotid artery on MRA.

The sensitivity of this association was low, which indicates "that an absence of carotidynia could still be associated with imaging abnormalities in the carotid artery, particularly on MRA compared with FDG-PET," the authors wrote. But specificity was high for both FDG-PET and MRA, suggesting that carotidynia was strongly associated with corresponding carotid artery abnormalities on both FDG-PET and MRA.

More of those with GCA than those with TAK reported posterior neck pain (18% vs. 7%). It was significantly associated with vertebral artery inflammation in those with GCA, but not in those with TAK. There was no significant association with vertebral artery damage in either group.

While sensitivity was low for posterior neck pain and imaging abnormalities, specificity was very high in both groups, which indicates "the presence of posterior neck pain was strongly associated with corresponding vertebral artery abnormalities on both FDG-PET and MRA."

Posterior headache was present in 5% of GCA patients and was significantly associated with vertebral artery damage, but it was not associated with such damage in patients with TAK.

"While posterior headaches in the occipital region are uncommon in patients with GCA, this study emphasizes that presence of a posterior headache should alert the clinician to the likelihood of associated vascular inflammation and damage in the corresponding vertebral artery," the researchers wrote.

About 6% of patients with TAK and 10% of those with GCA reported frontotemporal headache. The headache was not associated with carotid PET activity or damage in either group of patients. "While frontotemporal headaches frequently occur in patients with TAK, and are a cardinal feature of GCA, headaches in this region may reflect inflammation in smaller branches

of cranial arteries, rather than the corresponding larger arteries of the neck," the investigators wrote.

Arm claudication was the most commonly reported symptom overall, present in 52% of those with TAK and 28% of those with GCA. It was more strongly associated with subclavian artery damage on MRA than with inflammation on FDG-PET.

Patients with large-vessel vasculitis and an increased number of damaged neck arteries on MRA were significantly more likely to experience lightheadedness (odds ratio, 2.61), positional lightheadedness (OR, 3.51), or a major CNS event (OR, 3.23). But those with large-vessel vasculitis and inflamed neck arteries on FDG-PET were more likely to experience posterior headache (OR, 2.84).

"These findings may help clinicians predict imaging pathology in specific vascular territories based on patient-reported symptoms and may inform which type of imaging modality would be the most useful to obtain in certain clinical scenarios, recognizing that additional sequences to detect wall morphology may augment the ability of MR-based assessments to detect vascular inflammation in addition to luminal damage."

The authors had no financial disclosures.

msullivan@mdedge.com

SOURCE: Michailidou D et al. *Ann Rheum Dis*. 2019 Oct 24. doi: 10.1136/annrheumdis-2019-216145.

DVT AND PULMONARY EMBOLISM

Rivaroxaban Okayed To Prevent VTE in Hospitalized, Acutely Ill

BY LUCAS FRANKI
MDEDGE NEWS

The Food and Drug Administration has approved rivaroxaban (Xarelto) for the prevention of venous thromboembolism (VTE) in hospitalized, acutely ill patients at risk for thromboembolic complications who do not have a high bleeding risk, according to a release from Janssen.

FDA approval for the new indication is based on results from the phase 3 MAGELLAN and MARINER trials, which included more than 20,000 hospitalized, acutely ill patients. In MAGELLAN, rivaroxaban demonstrated noninferiority to enoxaparin, a

low-molecular-weight heparin, in short-term usage, and it was superior in the long term to short-term enoxaparin followed by placebo.

While VTE and VTE-related deaths were not reduced in MARINER, compared with placebo, patients who received rivaroxaban did see a significant reduction in symptomatic VTE with a favorable safety profile.

According to the indication, rivaroxaban can be administered to patients during hospitalization and can be continued after discharge for 31-39 days. The safety profile in MAGELLAN and MARINER was consistent with that already seen, with the most common adverse event being bleeding.

The new indication is the eighth for rivaroxaban, the most of any direct oral anticoagulant; six of these are specifically for the treatment, prevention, and reduction in the risk of VTE recurrence.

"With this new approval, Xarelto as an oral-only option now has the potential to change how acutely ill medical patients are managed for the prevention of blood clots, both in the hospital and for an extended period after discharge," said Alex C. Spyropoulos, MD, of Northwell Health at Lenox Hill Hospital, New York, and a member of the steering committee of the MAGELLAN trial.

Find the full press release on the Janssen website.

lfranki@mdedge.com

Study Questions Preemptive TEVAR for Extended Type A Dissections

BY RICHARD MARK KIRKNER
MEDGE NEWS
REPORTING FROM MIDWESTERN
VASCULAR 2019

CHICAGO – The need for additional intervention after repair of the ascending aorta in extended type A aortic dissection has been thought to follow the practice for type B dissection and favor preemptive thoracic endovascular aortic repair. However, preemptive TEVAR may, at least in the midterm, provide no benefit in patients with extended type A dissections, according to results reported at the annual meeting of the Midwestern Vascular Surgery Society.

“TEVAR does not appear to be indicated in patients with extended type A dissections after acute aortic repair,” said Amy B. Reed, MD, of the University of Minnesota.

The study’s hypothesis was that growth rates of dissection and the need for additional intervention in the descending thoracic aorta are

similar between extended type A (ExTA) and type B aortic dissection after initial repair of the ascending aorta. Dr. Reed noted that investigators from the INSTEAD-XL trial reported that preemptive TEVAR improved outcomes in patients with type B dissections (Circ Cardiovasc Interv. 2013;6:407-16). “The thinking has been that patients with uncomplicated ExTA would also benefit from early TEVAR,” Dr. Reed said.

The study evaluated 87 consecutive patients from 2011 to 2018, 43 with ExTA and 44 with type B dissections. Characteristics of both groups were similar, except the type B group had a significantly higher rate of coronary artery disease, 16% vs. 0% ($P = .01$). The distal extent of the dissection was beyond the aortic bifurcation in 75% of the ExTA patients and 52% of the type B group, “so we felt that these groups were really well matched,” Dr. Reed said.

Of the 43 ExTA patients, 5 had repair and 38 had no intervention. At

an average follow-up of 33 months, 23 of the no-intervention patients showed no growth of their dissection, Dr. Reed said. In the type B group, 15 had no repair, and of those 9 showed no growth (1 patient died early and 5 did show growth).

“When we look at intervention-free survival, there’s a significant difference between our ExTA patients vs. our type B patients over time, with significantly more type B patients requiring intervention,” she said. At 28 months, 88% of ExTA were intervention free, whereas at 9 months 35% of type B patients were.

“We feel that, following the repair of ascending acute aortic dissection, in those patients with ExTA dissections, there does appear to be a slow progression of distal aortic disease,” Dr. Reed said. “Rarely do these patients develop complications such as dissection needing intervention either in the acute hospital period or delayed.”

Because the findings are based on



medium-term follow-up, she said, “We certainly need further follow-up to confirm these midterm findings.”

Dr. Reed had no relevant financial relationships to disclose.

Vascular Specialist

SVS | Society for Vascular Surgery | Official Publication

Your continued Vascular Specialist subscription with a new publisher

From January 2020, BIBA Medical Ltd, a trusted, global publisher of medical newspapers and conference organizer, will be the new publisher for Vascular Specialist

We want to make sure you continue receiving Vascular Specialist

Please visit www.bibapublishing.com/vs to confirm your free subscription details

Isolated Iliac Disease a Marker for Better Health

BY RICHARD MARK KIRKNER

MDEDGE NEWS

REPORTING FROM MIDWESTERN VASCULAR 2019

CHICAGO – Surgery and endovascular treatment for peripheral artery disease (PAD) among patients with claudication improves health status more in the setting of isolated iliac disease and multilevel disease than in other forms of PAD, which suggests that vascular specialists should give pause before pursuing interventions on superficial femoral and infrapopliteal artery lesions, a researcher of the PORTRAIT registry reported at the annual meeting of the Midwestern Vascular Surgery Society.

“Our analysis demonstrated that interventions for aortoiliac disease and multilevel disease appeared to improve overall health status more over time compared to femoral-popliteal disease and infrapopliteal disease,” said Todd R. Vogel, MD, of the University of Missouri Health System in Columbia.

The study evaluated improvement in Peripheral Artery Questionnaire (PAQ) scores from baseline to post intervention in 623 patients in the PORTRAIT (Patient-Centered Outcomes Related to Treatment Practices in Peripheral Arterial Disease: Investigating Trajectories) registry. The patients were selected and combined with anatomic data on the nature of their claudication. Aortoiliac-only (AI) disease represented 20.4% (n = 127) of the study group, femoral-popliteal-only (FP) 35.5% (n = 221), infrapopliteal/distal (IP) 6.3% (n = 39), and multilevel disease (ML) 37.9% (n = 236).

In terms of demographics, patients in the AI group tended to be younger (average age of 61.2



Dr. Todd R. Vogel

COURTESY DR. TODD R. VOGEL

years vs. 66.6 years for the study overall; *P* less than .001) and had a higher rate of smokers (96.1% former and current smokers vs. 90.7% overall; *P* less than .001). Otherwise, Dr. Vogel noted, demographics, smoking status, and severity of claudication were similar across the disease groups.

Rates of medical intervention were similar in the AI and ML disease groups, which were primarily

endovascular procedures: 26% and 27%, respectively. The AI group had the highest rates of endovascular interventions, at 24%, with the FP group at 15%, IP at 11%, and ML at 21%. Those who did not have surgery or EVAR were treated medically.

“The AI group did significantly better at 3 months than the other groups,” Dr. Vogel pointed out, noting that at 12 months those patients had an average PAQ score of around 78 versus scores of around 75 for FP, 74 for IP, and 70 for ML.

“In the AI group, there’s also an immediate increase in quality of life that is sustained over time,” he said. At 3 months, PAQ scores in AI patients who had EVAR increased 41 points over baseline, leveling off to a 38.8-point gain at 12 months, the highest gains across all disease groups and all treatment categories.

“However,” Dr. Vogel added, “the group with ML disease probably was the most improved over time on the PAQ scores,” he said, explaining that across the board, this group had lower baseline PAQ scores than all the other groups.

“No significant benefits were found with intervention versus medical management for FP and IP,” he said. “This suggests that intervention should be considered after medical management has been exhausted.”

Dr. Vogel also said the findings support aggressive treatment of AI and ML for symptomatic claudication. “This anatomic region represents the greatest potential benefit for improving overall health status in patients with symptomatic PAD,” he said.

Dr. Vogel had no relevant financial relationships to disclose.

Retinal Artery Blockage Doesn’t Necessarily Portend Stroke

BY RICHARD MARK KIRKNER

MDEDGE NEWS

REPORTING FROM MIDWESTERN VASCULAR 2019

CHICAGO – Occlusion of the retinal artery has been thought to be a predictor of stroke, but an analysis of patients with diagnosed retinal artery occlusion at Cleveland Clinic has found that their risk of stroke is about the same as the general population, a researcher reported at the annual meeting of the Midwestern Vascular Surgery Society.

“Subsequent hemispheric stroke is rare with or following retinal artery occlusion [RAO],” said David Laczynski, MD, a vascular surgeon at the Cleveland Clinic. “We do caution that large database studies may be overestimating the risk of stroke after RAO.” Studies have reported a stroke rate of up to 20% at 1 year, he said

(*Am J Ophthalmol.* 2012;154:645-52).

ROA is a thromboembolic disorder of the vessels that provide blood to the back of the eye. American Academy of Ophthalmology preferred practice patterns recommend that patients with central RAO should be referred to the emergency department or a stroke center.

“As the vascular surgeon who’s on the receiving end of these consults, we have little data to provide to our patients as far as what their prognosis is,” Dr. Laczynski said. He noted the pathogenesis varies and that the diagnosis is difficult to arrive at. Fluorescein angiography imaging of the retina is essential to confirm diagnosis of ROA, but Dr. Laczynski said that many institutions do not have access to this level of imaging.

The study evaluated 221 patients whose RAO was confirmed with fluorescein angiography from 2004

to 2018 at the Cleveland Clinic Cole Eye Institute. The impetus of the study was to use the eye center to evaluate the institution’s experience with RAO, Dr. Laczynski said. “We were specifically concerned with looking at confirmed, symptomatic RAO with the risk of subsequent stroke,” he said. The study’s hypothesis was that RAO is not associated with an increased risk of stroke. The study population is the largest series in ROA ever reported, Dr. Laczynski said.

The average age of patients was 66 years. With a median follow-up of 2.2 years, the stroke rate was 2.3% (n = 5), with four of the strokes occurring at the time of RAO and one at 1.2 years later. Only one stroke patient had greater than 50% stenosis of the carotid artery. The rate of stroke, death, or MI was 10% (n = 22), Dr. Laczynski said. When con-

current ischemic events were excluded, the stroke rate was less than 1%.

“Sixty-three percent of patients (n = 141) had carotid imaging, but only 14.2% (n = 20) had more than 50% stenosis of the carotid artery,” Dr. Laczynski said. “Ten patients had carotid intervention.”

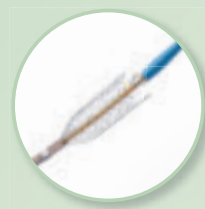
Among study limitations Dr. Laczynski pointed out were its single-center, retrospective nature and that not all patients had carotid artery imaging. “We cannot make any conclusion in regard to RAO and carotid artery disease,” Dr. Laczynski said.

This study was also published in the *Journal of Vascular Surgery* (2019 Sep;70[3]:e59-60).

Dr. Laczynski has no financial relationships to disclose.

SOURCE: Laczynski DJ et al. *Midwestern Vascular* 2019. *J Vasc Surg.* 2019 Sep;70[3]:e59-60.

THIS CHANGES EVERYTHING



Introducing
R2PTM Misago[®]
RX Self-expanding Peripheral Stent

From the leaders in radial access...
discover what's next in peripheral intervention.

Ask your TERUMO representative about R2PTM today.

FIND OUT MORE  Phone: 800.862.4143  terumo.com/r2p

PUSHING BOUNDARIES


TERUMO
INTERVENTIONAL
SYSTEMS

Help the SVS Foundation Help Patients; Please Give Today

It is the “giving” time of year. The SVS Foundation asks that your giving plans include the Foundation, to fund not only *things* – research awards, patient education fliers, community awareness projects – but also *people*.

People: as in the patients who have been and will continue to be the ultimate focus of everything the Foundation does.

In the 2019 SVS Foundation Annual Report (vsweb.org/FoundationReport19), Misty Humphries reports how her Foundation grants have impacted her patients:

“The SVS (Clinical Research) Seed Grant allowed me to treat rural patients through telemedicine. One of the best times of my day is doing a consult with one of my TOS patients. Most recently we had a wonderful patient who plays pickle ball. She had an exceptional result after her surgery, even though she had been debilitated for several years. It was hard for her to drive the 2.5 hours to our clinic, so telemedicine was a great opportunity. Our whole clinic staff could see her on the screen, smiling, raising her arms up and just ecstatic. That really means a lot.

The greatest thing about my SVS Foundation funding is that the work I do touches patients every day. These are patients that have become my family. Several years ago, I did the first bypass on a lovely woman from the South. She knew that I was from Texas and that I rarely got really good Southern food in Northern California. When she



CATLANE, E+ / GETTY IMAGES PLUS

came to see me, she would always bring me various types of Southern delicacies. That was always a special time. This year, she came in with a very severe case of arterial thrombosis and it ended up in her demise. Her family and I had a long hug and talked a lot about what a wonderful woman she was.

I think for her, and for her family, knowing that they were working with a physician who was part of the SVS and doing SVS research really comforted them. They felt they were work-

ing with somebody who was on the cutting edge of vascular surgery. My grants have helped me investigate ways to improve mortality for these patients.”

Each SVS member has similar stories to tell, of longtime patients who become friends and family. We ask that you think of them when contributing to the SVS Foundation this year and remember the SVS Foundation mission: to optimize the vascular health and well-being of patients and the public through support of research that leads to discovery of knowledge and innovative strategies, as well as education and programs, to prevent and treat circulatory disease.

Please give at vsweb.org/GIVE.

Add ‘Smile’ to Holiday Shopping List

It is easy for SVS members to donate to the SVS Foundation, all while shopping online.

For those who purchase items online at Amazon, please remember to start your shopping at smile.amazon.com, with the SVS Foundation your designated charity. The Foundation will receive 0.5 percent of the cost of eligible purchases.

If it’s your first visit, you will need to select the SVS Foundation as your charitable organization. The website will remember your selection and, if you start your shopping on the “smile” site, will result in the Foundation receiving donations from your holiday purchases.

Vascular Annual Meeting 2020 Program Taking Shape

The program for the 2020 Vascular Annual Meeting is taking shape, from the educational programming to the more practical offerings under consideration for the new Practice Pavilion. (See story on page 12)

Topics have been selected and content is being fleshed out for most of the postgraduate courses and breakfast, concurrent and “ask the expert” sessions. The SVS Postgraduate Education Committee, which oversees these sessions, sought diversity in creating the lineup, said Vikram Kashyap, MD, committee chair. “The committee’s objective is to provide timely, compelling and original educational content to all SVS members,” he said.

“We aimed for diversity: diversity of topics, of constituencies, of presenters, of educational models, including didactic sessions, debates and small groups,” he said.

It’s important that sessions address

members in all practice settings, he said. “Ninety percent of what vascular surgeons do is very similar, whether it’s a surgeon in a university practice, vs. a surgeon in a community practice,” he said.

This year’s postgraduate sessions include one on emergency vascular care, from the viewpoint of a community practice surgeon and/or when resources are limited. “We feel a lot of people will be able to identify with that scenario and benefit from this session,” said Dr. Kashyap.

Another postgraduate course will focus on pediatric vascular care, a topic not addressed in possibly five or more years, he said.

As in the past several years, the committee sought programming ideas from throughout the SVS membership. “We got lots of responses and many compelling submissions,” with many topics reflected in the final lineup, he said. “We want constit-



uencies to feel like we are listening to them and providing content that’s relevant to them.”

The desire for so-called “non-clinical” topics continues, he said, with calls for sessions on leadership, how to get into policy and advocacy and how to promote wellness. There also are sessions directed at common issues: hemodialysis, venous care and outpatient-based labs. And every session tries to cover care from that provided at a primary site all the way to tertiary facilities, said Dr. Kashyap.

“The committee members are really engaged and really enthusiastic

about the programming,” he said. “They’re doing the heavy lifting and we would not have a successful VAM without their hard work. I thank them.”

Besides Dr. Kashyap, committee members are: Drs. John Adams, Donald Baril, John Carson, Jayer Chung, Mark Conrad, Anahita Dua, Audra Duncan, Mark Farber, Eric Hager, Benjamin Jackson, Jeffrey Jim, Linda Le, Raghu Motaganahalli, Patrick Muck, Bala Ramanan, William Robinson, Matthew Smeds, Christopher Smolock, Benjamin Starnes and Timothy Wu.

The 2020 Vascular Annual Meeting will be June 17 to 20 at the Metro Toronto Convention Centre in Toronto, Ontario, Canada. Scientific sessions will be June 18 to 20 and exhibits will be open June 18 to 19. Registration and housing will open in early March. Visit vsweb.org/VAM for more information.



Carotid artery disease with COPD

MADE FOR **TCAR**

Patients with COPD often present with added surgical complexities. With a less invasive approach than CEA that favors local anesthesia, the TCAR Procedure may be a safer and simpler way to treat these challenging patients. **With over 10,000 real world patients treated, TCAR is a less invasive, safe and clinically effective alternative to CEA.**

SILKROAD
MEDICAL®

Other patients who could benefit from carotid revascularization through robust reverse flow include:*

- AGE ≥ 75
- CONGESTIVE HEART FAILURE
- ≥ 2 DISEASED CORONARIES WITH $\geq 70\%$ STENOSIS
- SEVERE PULMONARY DISEASE
- SURGICALLY INACCESSIBLE LESION
- PRIOR HEAD/NECK SURGERY
- RESTENOSIS POST CEA
- IRRADIATED NECK
- CONTRALATERAL OCCLUSION
- BILATERAL STENOSIS REQUIRING TREATMENT
- SEVERE TANDEM LESIONS

*Reimbursement eligible criteria for the TCAR Procedure per the Medicare National Coverage Determination (20.7) on PTA including CAS

Please visit SilkRoadMed.com for instructions for use and to learn more about TCAR

AP279 - A

Visit the Practice Pavilion at VAM 2020

A major “something new” – a Practice Pavilion – is coming to the Exhibit Hall at the 2020 Vascular Annual Meeting.

It will be the hub for a wide range of practical sessions and opportunities for vascular surgeons, nurses and physician assistants, including lectures, hands-on sessions and small workshops.

These will be geared toward helping the vascular surgeon improve his or her practice now and in the near future, said SVS Program Committee Chair Matthew Eagleton, MD. “We’ll be talking about what’s available now and what’s on the near horizon,” he said,

with an eye toward improving patient care as well.

The SVS’ new Technology Task Force will hold sessions there, and the Section on Outpatient and Office Vascular Care plans gatherings on outpatient-based care. Other offerings may highlight courses for PAs and vascular nurses. The format will range from lectures to small-group sessions, plus hands-on training.

“This will be a whole new opportunity for our surgeons and their teams,” said Dr. Eagleton. “There’s a lot we can focus on in these two days, and we hope our members take full advantage

of this new learning space.”

Pavilion activities confer no educational credits. The Exhibit Hall will be open Thursday and Friday, June 18 and 19.

In other tweaks for 2020, committee members have fine-tuned the entire schedule, trying to reduce the number of overlapping sessions on similar topics.

“At the same time, we want to offer a lot of programming, so there will be some conflicts,” said Dr. Eagleton. “But we’re trying to have fewer of them, and we’re trying to avoid similar topics occurring at the same time.”

The Virtues of Vascular Surgery in the VA

BY RYAN MCENANEY, MD, AND
KATHLEEN RAMAN, MD
SVS VA VASCULAR SURGEONS
COMMITTEE

Fortune smiles upon the vascular surgeon, as opportunities are plentiful, and demand continues to increase. While there are many possibilities, one that any finishing vascular fellow would be remiss to discount is that of building a career within the VA (Department of Veterans Affairs) health care system.

There are many reasons to consider the VA. For starters, the versatility of a VA career is unmatched. The VA comprises the largest health care system in the country, accounting for

1,200 hospitals and facilities in total serving 9 million enrolled veterans. There is no need to build a patient base! Malpractice insurance is covered and salary is guaranteed, which keeps the focus on patient care rather than productivity measures. There are administrative leadership opportunities early on and, as a VA vascular surgeon, your medical license is valid in all 50 states and Puerto Rico.

Second, the VA provides ample opportunity for teaching students and training future vascular surgeons. The VA is affiliated with more than 1,800 unique educational institutions nationwide, including most allopathic and osteopathic medical schools. VA surgeons play a major role in graduate medical education — more than 70 percent of VA physicians have faculty appointments and participate in teaching activities both in and out of the operating room.

Interested in building a research career? The VA provides many resources to do so. Careers in basic and clinical research are fostered through funding mechanisms such as the Career Development and the Merit Review Awards. These federally sponsored grants provide substantial salary support (ensuring protected time for research) and are awarded exclusively to investigators with VA appointments. Most VA researchers are also clinicians providing patient care, demonstrating the VA commitment to translational research and retention of its talented professionals.

The VA is an important source of high-quality clinical research. VA investigators and the VA Cooperative Studies Program have contributed

to clinical trials that have influenced the management of carotid disease, aortic aneurysms, lower limb arterial occlusive disease and hemodialysis access. There are ample opportunities to participate in multicenter trials, such as the ongoing CREST-2 (The Carotid Revascularization and Medical Management for Asymptomatic Carotid Stenosis Study). Health services research at the VA is robust as well. Supported by the Corporate Data Warehouse, the vast longitudinal clinical data represent a tremendous opportunity for advancing management of vascular disease. The Million Veteran Program (MVP) is building one of the largest repositories of genetic and health information worldwide, providing unique and exciting opportunities to study genetic influence on health and disease.

Of course, central to the practice of vascular surgery at the VA is the privilege of caring for our nation’s veterans. It is an honor to work with these incredible men and women, to hear their stories and help to improve their lives. Our veterans trust and choose the VA Healthcare System, a system that continues to provide high-quality and comprehensive health care.

Those who have served our country and “borne the battle” comprise a population that is heavily afflicted with arterial and venous disease. It is no exaggeration to say the VA vascular clinician’s skills will be challenged from the outset. Complex open, endovascular and hybrid procedures are commonly indicated, and the VA needs well-trained vascular surgeons who can perform them.

So, what are you waiting for?

From Our Journals:

Journal of Vascular Surgery:

Fenestrated endovascular aneurysm repairs completed at a high-volume medical center can result in positive contribution margins, according to an article in the January 2020 issue of Journal of Vascular Surgery. Authors examined hospital finances and physician payment associated with FEVAR at such a center and compared costs and reimbursements for FEVAR with open repair, and trends over time. The article is open-source through Feb. 29; visit [vsweb.org/JVS-FEVARfinance](https://www.vascularweb.org/JVS-FEVARfinance).

JVS-Venous & Lymphatic Disorders:

A study in January’s JVS-VL assesses the effects of pharmacomechanical catheter-directed thrombolysis (PCDT) on quality of life for patients with proximal and iliofemoral deep vein thrombosis. Patients experienced improvement in disease-specific quality of life at different times, post treatment. The article is open-source until Feb. 29; visit [vsweb.org/JVSVL-Attract](https://www.vascularweb.org/JVSVL-Attract).



WILLOWPIX / GETTY IMAGES



SVS PAC Gears Up for the 2020 Elections With New Scorecard for Congressional Candidate Support

From the SVS PAC Committee

The SVS Political Action Committee (PAC) supports congressional candidates whose positions on health care policies are aligned with SVS and our members. SVS support for candidates who share our views is a critical tool for achieving SVS legislative and regulatory priorities, and we have identified a number of candidates who could strengthen the influence and voice of vascular surgery on Capitol Hill.

They are listed below. The SVS PAC Committee identified them after, in preparation for the 2020 campaign season, conducting a candidate selection process. The committee identified a pool of candidates representing physician members of Congress and/or members of Congress serving on congressional committees with



jurisdiction over health care issues. Each candidate was then evaluated on whether he or she co-sponsored or

supported the following key SVS legislative and regulatory priorities:
Cosponsorship of Improving Se-

niors' Timely Access to Care Act of 2019 (HR 3107), legislation that reduces the burden and costs of prior authorization policies imposed by Medicare Advantage plans.

Cosponsorship of Resident Physician Shortage Act (HR 1763/S 348), legislation addressing the doctor shortage by adding 15,000 additional Medicare-supported residency slots over five years.

Cosigning onto the following four separate congressional letters addressing payment and policy concerns related to global surgical packages:

- A 2014 Congressional letter to the Centers for Medicaid & Medicare Services opposing the conversion of all 10- and 90-day global procedures to 0-day global procedures beginning in 2017, put forward
- SVS PAC** continued on following page

SUBMIT YOUR RESEARCH

2020 Call for Abstracts

Abstract & Video Submissions

Accepted from: November 11, 2019 – January 15, 2020
vsweb.org/abstracts20



Scientific Sessions: June 18-20, 2020
Exhibits: June 18-19, 2020

SVS | Society for Vascular Surgery

Housing & Registration to Open in Early March 2020

PASSPORT NEEDED FOR VAM 2020!



All U.S. residents entering Canada will be required to travel with a valid passport. Your passport expiration date may not be within six months of your travel dates. For additional information (including passport requirements for international travelers), visit the Canada Border Services Agency's website at vsweb.org/CanadaDocuments.

U.S. members, start your passport process at vsweb.org/USPassports.

SVS | Society for Vascular Surgery

CMS Releases Medicare Rules

The Centers for Medicare & Medicaid Services has issued its CY2020 final rules on Medicare Physician Fee Schedule (PFS) and Hospital Outpatient Prospective Payment and Ambulatory Surgical Center Payment Systems and Quality Reporting Programs (HOPPS).

These rules will go into effect on Jan. 1, 2020. Highlights for vascular surgery include:

- The Medicare conversion factor will increase by 0.14 percent.
- IBE implantation now has Category 1 codes.
- There are new pre-op AVF artery/vein mapping codes.
- Procedures performed in outpatient-based fa-

cilities will see a continued decrease in compensation or overhead.

- Stab phlebectomy codes were revalued and now are 10-day global codes.
- E/M coding is being overhauled for 2021.

Details on global code issues in the PFS are available in the SVS “DC Update” November electronic newsletter (vsweb.org/DCUpdateNov2019). SVS and its colleagues in the surgical community strongly opposed CMS efforts to limit the updated adjustments to Evaluation and Management code values and not apply the new adjusted values to global codes.

Despite the opposition, CMS has announced it

would adopt the policy as part of the PFS.

“The SVS Coding Committee has worked and will continue to work of behalf of the SVS membership to advocate for fair and appropriate reimbursement,” said Matthew Sideman, committee chair. “We will continue to oppose, vigorously, policies that negatively impact reimbursement for surgical procedures and we will update SVS members about this important issue.”

To review the Final Rules in their entirety visit:

- CY2020 Physician Fee Schedule: vsweb.org/FeeSchedule.
- CY2020 HOPPS: vsweb.org/CY2020HOPPS.

Spotlight/In Memoriam

Dr. K. Craig Kent, dean of the Ohio State University College of Medicine, has been elected to the National Academy of Medicine, considered one of the highest honors in health and medicine.

In Memoriam
James J. Rams, MD, 90, of O’Hara Township, Pa., Oct. 23.

CLASSIFIEDS

Also available at MedJobNetwork.com

PROFESSIONAL OPPORTUNITIES



Cambridge Health Alliance (CHA) is a well-respected, award-winning health system with full service hospital campuses located in Cambridge, MA and Everett, MA. We provide outstanding and innovative healthcare to a diverse patient population throughout the local communities in the Boston metro area. CHA is a teaching affiliate of Harvard Medical School and Tufts University Medical School and is clinically affiliated with the Beth Israel Deaconess Medical Center. We are a teaching site for the BIDMC General Surgery Residency Program.

CHA is recruiting a **Vascular Surgeon** who meets our criteria and is interested in joining our team:

- Our existing department consists of over 20 general and fellowship trained subspecialized surgeons.
- Candidates must be BC/BE, possess excellent clinical/communications skills, and a demonstrated commitment to providing the highest quality care to our multicultural, underserved patient population.
- Candidates should have a strong endovascular skill set.
- CHA uses a fully integrated EMR which is shared with BIDMC for provider access.

We offer a comprehensive benefits package and competitive salaries.

Qualified candidates may visit www.CHAproviders.org to learn more and submit applications through our secure portal. Candidates may also send CV and cover letter via email to Kasie Marchini, Provider Recruitment at ProviderRecruitment@challiance.org

We are an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law.

SVS PAC

continued from previous page

in the 2015 Medicare Physician Fee Schedule (MPFS) proposed rule.

- A 2015 Congressional sign-on letter to the House leadership supporting language that would nullify the conversion of all 10- and 90-day global procedures to 0-day global procedures in 2017 as adopted in the 2015 MPFS final rule.
- A 2016 Congressional sign-on letter to the Administration opposing a provision in the 2017 MPFS proposed rule requiring the collection of data for all 10- and 90-day global services from all practitioners who perform these services.
- A 2019 Congressional sign-on letter to CMS opposing a provision in the 2020 MPFS proposed rule that does not include updated adjusted values for Evaluation/Management codes in the global codes.

In evaluating senatorial candidates, the SVS PAC Committee also considered whether a senator were up for re-election in 2020. Based on these criteria, the SVS PAC Steering Committee identified the following candidates in addition to the leadership of the House and Senate health care committees for

campaign funding support as we get going with the 2020 election cycle.

Dr. Ami Bera (D-CA)
Dr. Larry Bucshon (R-IN)
Dr. Neal Dunn (R-FL)
Dr. Andy Harris (R-MD)
Rep. George Holding (R-NC)
Dr. John Joyce (R-PA)
Rep. Mike Kelly (R-PA)
Dr. Roger Marshall (R-KS)
Rep. David McKinley (R-WV)
Rep. Bill Pascrell (D-NJ)
Dr. Phil Roe (R-TN)
Dr. Raul Ruiz (D-CA)
Rep. Kurt Schrader (D-OR)
Dr. Kim Schrier (D-WA)
Dr. Jefferson Van Drew (D-NJ)
Rep. Jackie Walorski (R-IN)
Dr. Brad Wenstrup (R-OH)
Sen. Susan Collins (R-ME)

The SVS PAC Committee invites SVS members to nominate members of Congress who are running for re-election that they believe merit SVS PAC support and would like the SVS PAC Committee to consider. The PAC Committee will review and respond to all candidate nominations received. SVS members can send candidate nominations via email to MMalek@vascularsociety.org. All nominations should include a few sentences about why the candidate is deserving of SVS PAC support.

ANEURYSMS

What Repair Is Best for Juxtarenal Aneurysms?

BY RICHARD MARK KIRKNER
MD
EDGE NEWS
EXPERT ANALYSIS FROM
MIDWESTERN VASCULAR 2019

CHICAGO – Outcomes with fenestrated endografts and endograft

anchors to repair abdominal aortic aneurysms (AAAs) in the region of the renal artery have improved as the techniques have gained popularity in recent years, but open repair may still achieve better overall results, **Juxtarenal** continued on following page

Juxtarenal

continued from previous page

vascular surgeons on opposite sides of the controversy contended during a debate at the annual meeting of the Midwestern Vascular Surgery Society.

Fenestrated endovascular aortic repair (FEVAR) “is as safe as open surgery to treat complex aneurysm,” said Carlos Bechara, MD, of Loyola University Medical Center in Chicago. “EndoAnchors [Medtronic] do provide an excellent off-the-shelf solution to treat short, hostile necks with promising short-term results.”

Arguing for open repair was Paul DiMusto, MD, of the University of

But FEVAR was approved by the Food and Drug Administration in 2012, with an indication for an infrarenal neck length of 4-14 mm, Dr. Bechara noted. Since then, several studies have reported excellent outcomes with the technique. An early small study of 67 patients reported a 100% technical success rate with one patient having a Type 1 endoleak at 3 years (J Vasc Surg. 2014;60:1420-8).

This year, a larger study evaluated 6,825 patients in the American College of Surgeons National Surgical Quality Improvement Program who had FEVAR, open AAA repair or standard infrarenal endovascular repair during 2012-2016. “Actually, the

fenestrated approach had fewer complications than open repair and the outcomes were comparable to standard EVAR,” Dr. Bechara noted. The trial reported FEVAR had lower rates of perioperative mortality (1.8% vs. 8.8%; $P = .001$), postoperative renal dysfunction (1.4% vs. 7.7%; $P = .002$), and overall complications (11% vs. 33%; P less than .001) than did open repair (J Vasc Surg. 2019;69:1670-78).

In regard to the use of endograft anchors for treatment of endoleaks, migrating grafts, and high-risk seal zones, Dr. Bechara noted they are a good “off-the-shelf” choice for complex AAA repair. He cited current results of a cohort of 70 patients with short-neck AAA (J Vasc Surg. 2019;70:732-40). “This study showed a procedural success rate at 97% and a technical success rate at 88.6%,” he said. “They had no stent migration, no increase in sac size or AAA rupture or open conversion.”

He also pointed to just-published results from a randomized trial of 881 patients with up to 14 years of follow-up that found comparable rates of death/secondary procedures, as well as durability, between patients who had endovascular and open repairs (77.7% and 75.5%, respectively, N Engl J Med. 2019;380:2126-35). Also, he noted that hospital volume is an important predictor of success with open repair, with high-volume centers reporting lower mortality (3.9%) than low-volume centers (9%; Ann Surg. 2018 Nov 29. doi: 10.1097/SLA.0000000000002873). “So not

many centers are doing high-volume open aortic surgery,” he said.

To make his case that open surgery for juxtarenal AAAs is superior, Dr. DiMusto cited a number of recent studies, including a three-center trial of 200 patients who had open and FEVAR procedures (J Endovasc Ther. 2019;26:105-12). “There was no difference in perioperative mortality [2.2% for FEVAR, 1.9% in open repair],” Dr. DiMusto said. “There was a higher freedom from reintervention in the open group [96% vs. 78%], and there was higher long-term vessel patency in the open group” (97.5% having target patency for open vs. 93.3% for FEVAR).

He also pointed to a meta-analysis of 2,326 patients that found similar outcomes for mortality and postoperative renal insufficiency between FEVAR and open repair, around 4.1%, but showed significantly higher rates of renal failure in FEVAR, at 19.7% versus 7.7% (J Vasc Surg. 2015;61:242-55). This study also reported significantly more secondary interventions with FEVAR, 12.7% vs. 4.9%, Dr. DiMusto said.

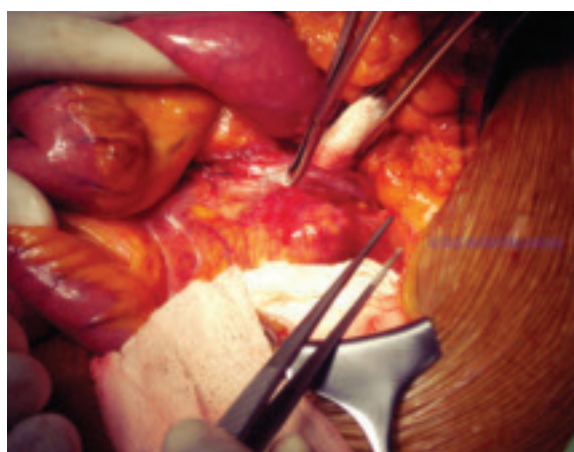
Another study of 3,253 complex AAA repairs, including 887 FEVAR and 2,125 open procedures, showed

that FEVAR had a technical success rate of 97%, with no appreciable difference in perioperative mortality between the two procedures (Ann Surg. 2019 Feb 1. doi: 10.1097/SLA.0000000000003094).

However, Dr. DiMusto said, adjusted 3-year mortality in this study was higher with FEVAR, and further analysis yielded outcomes that favored open repair. “After excluding perioperative deaths, differences remained, with 9% mortality for FEVAR and 5% for open repair [$P = .02$],” he said. “This corresponded to a 66% higher risk for overall mortality following FEVAR.”

What’s more, Dr. DiMusto said, draft guidelines from the National Institute for Health and Care Excellence in the United Kingdom advise against offering complex EVAR to people with an unruptured AAA under two scenarios: if open surgery is an option; and even if they’re unable to have surgery because of anesthetic or medical issues. The final guidelines have yet to be released.

Dr. Bechara disclosed financial relationships with Gore Medical and Cook Medical and equity interest in MOKITA Medical. Dr. DiMusto has no relevant financial disclosures.



Open surgical repair of an abdominal aortic aneurysm is shown.

Wisconsin–Madison. “Open repair has an equal perioperative mortality to FEVAR,” Dr. DiMusto said, adding that the open approach also has a higher long-term branch patency rate, lower secondary-intervention rate, a lower incidence of long-term renal failure, and higher long-term survival. “So putting that all together, open repair is best,” he said.

They staked out their positions by citing a host of published trials.

“The presence of a short neck can create a challenging clinical scenario for an endovascular repair of abdominal aortic aneurysm,” Dr. Bechara said. However, he noted he was discussing complex aneurysm in which the aortic clamp is placed above the renal arteries, differentiating it from infrarenal AAA in which the clamp is below the renal arteries with no renal ischemia time. He noted a 2011 study that determined a short neck was a predictor of Type 1A endoleak after AAA repair, but that compliance with best practices at the time was poor; more than 44% of EVARs did not follow the manufacturer’s instruction (Circulation. 2011;123:2848-55).

GORE® VIABAHN® Endoprosthesis

INDICATIONS FOR USE IN THE U.S.: The GORE® VIABAHN® Endoprosthesis is indicated for improving blood flow in patients with symptomatic peripheral arterial disease in superficial femoral artery de novo and restenotic lesions up to 270 mm in length with reference vessel diameters ranging from 4.0 – 7.5 mm, in superficial femoral artery in-stent restenotic lesions up to 270 mm in length with reference vessel diameters ranging from 4.0 – 6.5 mm, and in iliac artery lesions up to 80 mm in length with reference vessel diameters ranging from 4.0 – 12 mm. The GORE® VIABAHN® Endoprosthesis is also indicated for the treatment of stenosis or thrombotic occlusion at the venous anastomosis of synthetic arteriovenous (AV) access grafts.

CONTRAINDICATIONS The GORE® VIABAHN® Endoprosthesis with Heparin Bioactive Surface is contraindicated for noncompliant lesions where full expansion of an angioplasty balloon catheter was not achieved during pre-dilatation, or where lesions cannot be dilated sufficiently to allow passage of the delivery system. Do not use the GORE® VIABAHN® Endoprosthesis with Heparin Bioactive Surface in patients with known hypersensitivity to heparin, including those patients who have had a previous incidence of Heparin-Induced Thrombocytopenia (HIT) type II. Refer to *Instructions for Use* at goremedical.com for a complete description of all warnings, precautions and adverse events. Rx Only



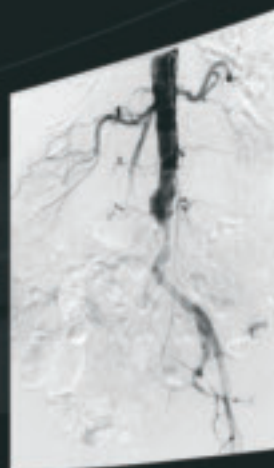
Products listed may not be available in all markets.
GORE®, VIABAHN®, and designs are trademarks of W. L. Gore & Associates.
© 2011, 2017, 2018 W. L. Gore & Associates, Inc. AQ0162-EN3 JANUARY 2018

OPEN MORE POSSIBILITIES

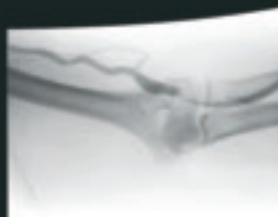
- | Lesions across the elbow
- | Thrombosed AV grafts
- | Complex iliac lesions
- | In-stent restenosis of the SFA
- | PTA failures of AV graft lesions
- | Long SFA lesions
- | Chronic total SFA occlusions



ISR of the SFA



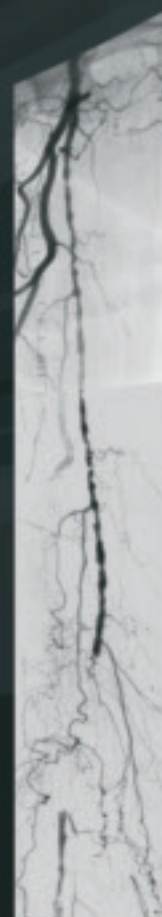
Occluded right iliac



Lesion across the elbow



Left SFA CTO



Long diffuse
right SFA

Durable outcomes and unmatched versatility across a broad range of complex cases.

See the results at goremedical.com/viabahn/possibilities

* Heparin Bioactive Surface is synonymous with the CBAS Heparin Surface.

Images courtesy of Robert Minor, M.D.; Barry Weinstock, M.D.; Sapan Desai, M.D.; Bruce Gray, M.D.; and James Persky, M.D. Used with permission.

W. L. Gore & Associates, Inc. | Flagstaff, AZ 86004 | goremedical.com

Please see accompanying prescribing information in this journal.
Products listed may not be available in all markets.

CBAS is a trademark of Carmeda AB, a wholly owned subsidiary of W. L. Gore & Associates, Inc.
GORE®, VIABAHN®, and designs are trademarks of W. L. Gore & Associates.
© 2019 W. L. Gore & Associates, Inc. AX1510-EN3 MARCH 2019

