

# CV Section News

## Chairman's Message

Editor: Andrew F. Ducruet MD

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### J Mocco, MD, MS

It is an honor to have the opportunity to serve as the chair of the AANS/CNS Section on Cerebrovascular Surgery this year. I am happy to report the Section's continued success representing neurosurgery to the larger cerebrovascular community in 2018. We have advocated strongly to The Joint Commission on critical standards for CSC and TSC certification. We have also worked tirelessly on creating a merged data registry tool between the cerebrovascular module of QOD and the NVQI of the SNIS. These efforts dovetail with our formative advocacy at the FDA to create the DAISI registry. As CV section members, you can be proud of the section's efforts to improve patient care.

We have seen continued strengthening of our relationships with the Society of NeuroInterventional Surgery (SNIS) and the Society of Vascular and Interventional Neurology (SVIN), and we have recently begun efforts to work more closely with the WFNS. We enter into 2018 with plans for an exciting annual meeting in Hawaii next February. This will include a satellite symposium run jointly with the WFNS. Dr. Stav Tjoumakaris, in collaboration with the Dr. Mark Bain representing the SNIS, has planned a provocative program that will guarantee an educational and inspirational meeting. In addition, the CV Section/SNIS collaboration, in particular, continues to flourish, with collaborative efforts on policy development, research, education, and quality initiatives.

The CV Section remains a vital component of the neurosurgical community and you, as a member, can be proud of the contributions being made by the section. We encourage all neurosurgeons and cerebrovascular practitioners to become involved in our quality, educational, research and advocacy activities.

J Mocco, MD, MS  
Chairman, AANS/CNS Cerebrovascular Section

**SECRETARY'S MESSAGE**

As we of the AANS/CNS Joint Section on Cerebrovascular Surgery progress through 2018, we continue to see tremendous change in our field. We were starkly reminded in the spring that the ongoing evolution of care for patients with acute ischemic stroke is far from over and once again see the field change almost overnight in response to the high-level evidence from randomized trials like DAWN and DEFUSE3 that allows selected patients to receive the benefit an expanded treatment time-window up to 24 hours after onset of symptoms. Along with that comes the perhaps not surprising realization that cerebrovascular surgery as a whole has entered an era where treatment plans and practices are founded on solid evidence and risk and benefit can be better than ever defined when discussing potentially life altering surgery or intervention with our patients. We saw new high-level evidence spanning the field from coiling to stenting and are looking forward to results in the treatment of intracerebral hemorrhage.

At the same time new and exciting opportunities lie ahead. The section continues to represent us as the only group of practitioners who are able to provide comprehensive care, bringing expertise ranging from radiosurgery to clipping of aneurysms to the table and if nothing else we know that detractors pointing out any of these modalities are niches and bound to disappear are likely proven wrong within a short while.

Our next meeting in collaboration with SNIS will be in Honolulu, HI and the onus is on us to show and exchange ideas with colleagues from all over the world, especially with our colleagues from Japan who will hopefully take the opportunity to meet us in the middle of the Pacific Ocean.

The section remains a vibrant place across the entire lifecycle of cerebrovascular specialist, from interested medical student to emeritus and we seek to offer value to all members, ranging from trainees who will benefit from another interaction of the fellows' course during the upcoming meeting as part of the established cycle of training courses to the now known CAST training pathway for individuals to the established practitioners who are looking to specifically visit a center of excellence for a particular disease or procedure and want to find a way to take time out of their own busy practices to do so. The newly created CV section traveling fellowship, administered through NREF allows you to obtain a stipend to do exactly that. At the upcoming annual meeting we will hear from the current awardees and give out the next rounds of fellowships.

On the other end of the spectrum, the section created a new named research medal for a body of collaborative cerebrovascular research. Dr. Ralph Dacey was the inaugural recipient. He was presented with the medal at the annual meeting and will lend his name to the medal going forward.

I again want to also highlight the strong culture of giving in our section. We created an easy pathway that allows anyone to give money towards CV section activities using the charitable donation process through the CNS foundation or NREF foundation - either way earmarked and reserved for CV section activities. Robust giving will allow us to create the funds for more research and training activities for tomorrow which will directly influence the future of our profession and specialty.



Clemens M. Schirmer, MD, PhD, FAANS, FACS, FAHA

Secretary, AANS/CNS Cerebrovascular Section

## **MEMBERSHIP UPDATE**

William Mack, MD

The membership of the CV Section is currently 2441. It has, once again, increased over the past year in total, active, lifetime, resident and medical student members. There are 391 active, 110 senior, 65 international, 39 adjunct, 1813 resident/fellow and 23 medical student members. We continue to reach out to members and encourage dues payments and section activity. Membership benefits include priority access to seminars and courses at the Annual Meeting, and receipt of the Cerebrovascular Section Newsletter and access to the CV section website. We look forward to implementing a new pilot member services program through the AANS.

**CNS ANNUAL MEETING (October 6-10, 2018, Houston, TX)**

*Scott Simon, Stavropoula Tjoumakaris, Chad Washington, Josh Osbun*

The CV content for the upcoming 2018 CNS meeting promises to continue to offer interesting and engaging content. There are two new courses covering stenting and bypass techniques, a new dinner seminar examining AVM treatment including historical perspectives, and guideline sessions covering AVMs, aneurysms, and acute stroke. The popular AVM and aneurysm interactive sessions will be offered again and there will be an address from Dr. Hunt Batjer will share his perspective on education of the CV surgeon of the future.





## MEETING UPDATES

### CV SECTION ANNUAL MEETING (February 4-5, 2019, Honolulu, HI)

*Scott Simon, Stavropoula Tjoumakaris, Mark Bain*

The CV Section meeting in Hawaii proudly presents an exciting vascular program. A collaboration with the Cerebrovascular Diseases and Therapy Committee (CVDTC) of the WFNS allowed us to establish a partnering satellite symposium. There will be strong representation from CV world leaders on the topic of CV Surgery around the globe, focusing on cases, history and politics.

Leaders in flow diversion will discuss in great depth second generation devices, extended indications, surface modifications and critical literature. Multimodality treatment of AVMs, MIS for ICH will also be presented. Stroke care within emerging new stroke systems and innovative surgical technologies are additional critical highlights of the program.

We are honored to have Dr. Sander Connolly give the Ralph Dacey Lectureship and Dr. Nobuyuki Sakai the Luessenhop Lecture.

### INTERNATIONAL STROKE CONFERENCE (February 6-8, 2019, Honolulu, HI)

*Judy Huang, Louis Kim, Andrew Ducruet*

The upcoming 2019 International Stroke Conference program will include an invited session entitled “The changing face of subarachnoid hemorrhage in the ICU” as well as a session on aneurysms entitled “What do I do with this aneurysm”. Additionally, there will be a session entitled “Moya Moya Disease: What’s behind the Smoke? We hope you will join us for an informative and enjoyable conference in Hawaii.



## AANS ANNUAL MEETING (April 13-17, 2019, San Diego, CA)

*Scott Simon, Josh Osbun*

The CV content for the upcoming 2019 AANS is currently being formalized. The 2019 AANS meeting will include an invited lecture by CV section past-president Dr. Greg Zipfel as well as a Point/Counterpoint on surgical management of ICH.

**CV Section Newsletter Technology Forum Summer 2018:****Transradial vs Transfemoral Access for Neuroendovascular Surgery****W. Christopher Fox, MD****University of Florida**

Transfemoral access has long been the standard for the majority of neuroendovascular procedures. However, in patients with severe peripheral vascular disease, after trauma, or in those with congenital skeletal abnormalities, femoral access may be high risk or impossible. Tortuous aortic arch anatomy may also preclude easy selection of the great vessels and reduce guide catheter support for microcatheter work. In these circumstances, upper extremity access using the radial or brachial artery is an alternative. For the majority of neuroendovascular surgeons, however, transradial access has been relegated to cases where there is no other option.

More recently this sentiment has begun to change as some neurointerventionalists have adopted radial access as the rule rather than the exception. What started as a small group has grown, with techniques and case examples being shared across social media using #radialfirst. The radial approach has long been used by our cardiology colleagues, as reflected in the literature. Reduced complications, no need for immobilization after diagnostic and interventional procedures, as well as patient requests, have led many cardiologists to make radial access standard of care. Transradial access has also been previously described for a number of neuroendovascular procedures.

In this Technology Forum, Drs. Peterson and Park debate the pros and cons of radial versus femoral access.

**Radial Access – Pro****Eric C. Peterson, MD****University of Miami**

*“When are you guys going to get out of the dark ages and transition to radial access? I guess you’ll wake up eventually, probably about a decade after us like always.”*

*-Cardiology fellow, spoken to my fellow, June 2016*

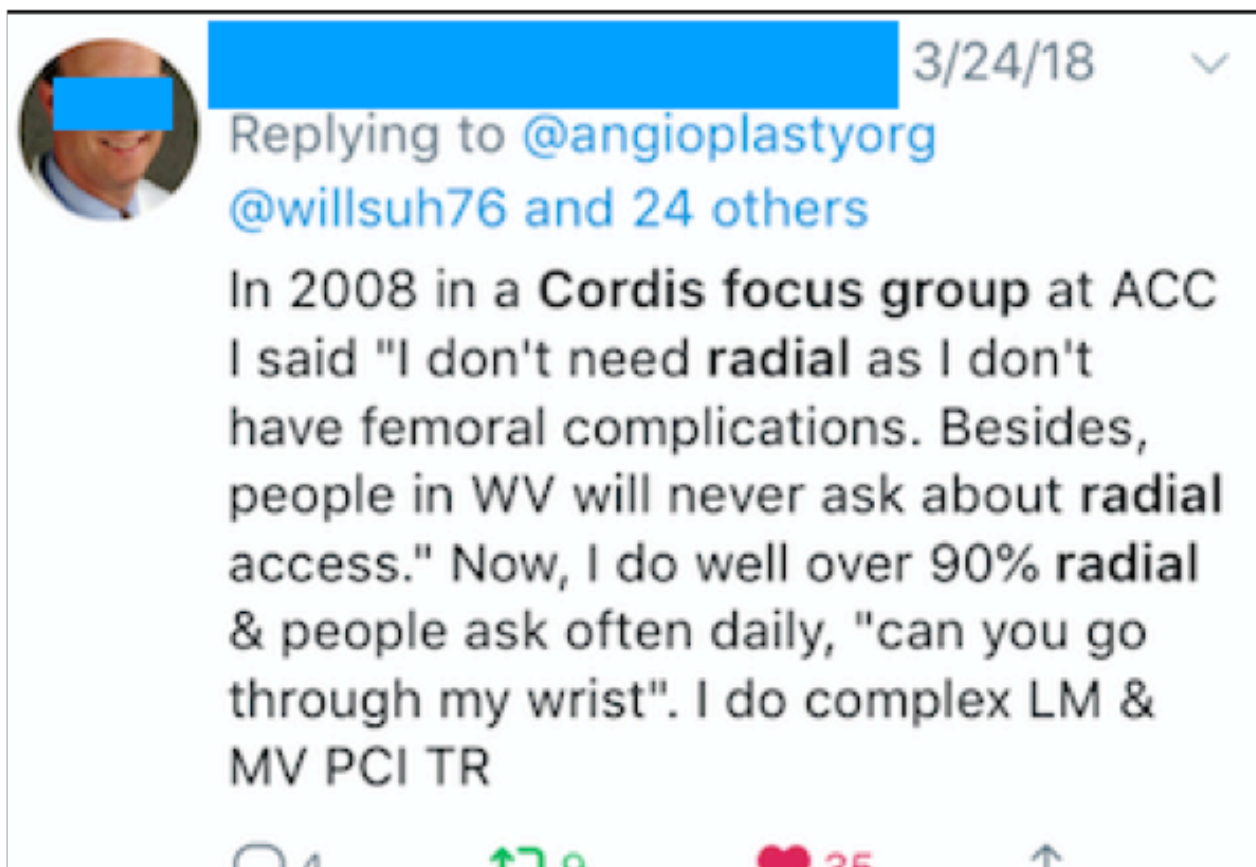
What if I told you there was an endovascular technique that has been shown in multiple prospective randomized controlled trials to reduce dramatically reduce complications, lower cost, and improve patient satisfaction? My first question would be “how much?”, expecting there to be a catch. There is no catch, except learning the technique. The technique? Performing our endovascular procedures via the radial artery as opposed to the femoral artery. The power of the data supporting radial access as a safer alternative to femoral access is overwhelming. A recent meta-analysis of over 20 prospective randomized controlled trials comparing radial access to femoral access in cardiac interventions concluded an overall 70% decrease in access site complications just from doing the procedure via the radial artery.[1] In 2016, the 2800 patient MATRIX trial documented a significant mortality difference – just from avoiding femoral access.[2] This trial led to guidelines in Europe formally recommending that PCI should be performed as a first choice via the radial artery.[3] Over 80% of cardiac intervention in Europe is now done via transradial access.

There is no arguing that radial is safer for neurointervention. We routinely perform our procedures on dual antiplatelets and full heparinization, and cardiologists are not “sloppy.” They use the same 6-7F systems that we do. The radial artery occlusion rate is consistently <5% with proper technique.[4] There is no need to repeat the decade of experience and multitude of RCTs with >1000 patients in each arm. The evidence supporting radial access over femoral access is far more powerful than anything in neurointervention. What is lacking in neuro? Two things: education and specialized access systems designed for neurointervention via the radial artery. The learning curve for radial is well documented, both in cardiac and in neurointervention.[5] Having traveled it myself along with my fellows, I can say without hesitation that it takes time to learn. You and your lab have to commit to learning it and being a radial first lab. You have to go to radial courses and send your fellows to radial courses. As far as the access systems, it’s up to us to demand specialized systems from industry to help our patients.



This is a good thing. It is good for our patients. It is good that we have the cardiologists to learn from. It's ok that innovations in the neurointervention space (stents, balloon, radial) consistently lag behind that in cardiology by 10 years. It gives us a unique opportunity to use their remarkable experience to help our patients. In fact, if you look back 10 years ago, it is instructive to see the tone and type of comments in interventional cardiology regarding radial access: "I don't have any femoral complications," "My patients never complain about the access in the groin." It is word for word what I hear my neurointerventional colleagues often say about their access.

I always teach my fellows when evaluating a treatment decision to ask "what risk to the patient am I taking off the table by doing this?" As a field we have taken significant risk off the table by transitioning a large proportion of cerebrovascular surgery away from open craniotomy to a percutaneous procedure. But we have a duty to our patients to continue to innovate and find ways to continue to take risk off the table for them. Radial access is unquestionably safer. We owe it to our patients to learn the technique, and partner with industry to develop the tools to perform complex neurointervention and stroke via the radial artery. Every interventionist owes it to their patients to become proficient at radial access and offer it as a safer alternative.



**Radial Access – Con****Min S. Park, MD****University of Virginia**

Neurointerventionalists have liberally borrowed techniques and devices from other disciplines in both the distant and recent past and we will continue to do so in the near and distant future. Certainly, radial access for neurointerventional procedures is not novel, but has generally been a secondary route over transfemoral access.

Transradial access has grown in popularity among interventional cardiologists for good reason. There is a growing body of literature in percutaneous coronary interventions which favor radial over femoral access. The adoption of radial access has resulted in less access site complications during coronary interventions.[6,7] Additionally, while the innominate artery generally directs the catheter towards the coronary vessels like the ascending aorta, there may be less tortuosity of the radial/brachial arteries compared with the descending aorta in older patients.

However, the advantages identified in the cardiac literature may not completely translate to other interventional specialties. While the vertebral arteries (like coronary arteries) are an ideal target for the radial approach, accessing the carotid arteries may be more difficult given the anatomic constraints. Similarly, spinal angiography will likely remain the exclusive province of the transfemoral approach. Possibly due to the more technically challenging approach, radial approaches may also come at a cost of longer fluoroscopy times in non-coronary interventions.[8]

The most feared complication of radial access is radial artery occlusion and this has been associated with a number of factors.[9-11] Larger sheath size has been identified as one factor in post-intervention occlusions of the radial artery.[9] This may be an issue when a more robust platform is necessary to access particularly tortuous anatomy. Additionally, certain neurosurgical pathologies which may require serial interventions (i.e. vasospasm) can present an issue with repeated access due to the progressively increasing risk of radial artery occlusion.[10,11]

However, there are no real “cons” to knowing different methods of access. As in all cases, each patient must be considered individually. The best route for treatment will be dictated by safety, accessibility, support, and operator comfort. Having a more diverse armamentarium can only serve to make our efforts more effective and safe.

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**OPPORTUNITIES FOR FUNDING****AANS FELLOWSHIP/GRANTS**

<http://www.aans.org/Grants%20and%20Fellowships.aspx>

**CNS FELLOWSHIP/GRANTS**

<https://www.cns.org/grants-awards/grants-awards-and-fellowships>

**AMERICAN HEART ASSOCIATION**

[http://my.americanheart.org/professional/Research/FundingOpportunities/Funding-Opportunities\\_UCM\\_316909\\_SubHomePage.jsp](http://my.americanheart.org/professional/Research/FundingOpportunities/Funding-Opportunities_UCM_316909_SubHomePage.jsp)

**BRAIN ANEURYSM FOUNDATION**

<http://www.bafound.org/applying-research-grant>

**THE ANEURYSM AND AVM FOUNDATION**

[http://www.taafonline.org/pr\\_grants.html](http://www.taafonline.org/pr_grants.html)

**JOE NIEKRO FOUNDATION**

<http://www.joeniekrofoundation.com/research-grants/joe-niekro-research-grant/>

**JOINT AANS/CNS CV SECTION**

<http://www.cvsection.org/research/awards-and-grants-217>

**BE BRAVE FOR LIFE (BENIGN BRAIN TUMORS OR CEREBROVASCULAR DISEASE)**

<https://bebrave.life/micro-grants/>

**THE BEE FOUNDATION**

<http://www.thebeefoundation.org/brain-aneurysm-research-grant/>

**Calendar****October 6-10, 2018**

CNS Annual Meeting  
Houston, TX

**February 4-5, 2019**

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