

Advancing interest in neurological surgery and allied subjects

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NSA 2017 Conference Wrap-up

Sherrod wins NSA poster contest

The Neurosurgical Society of Alabama proudly presented a \$500 prize at the NSA 2017 Annual Conference to **Brandon Sherrod** for his abstract presentation on *Reoperation Rates for Device Infection and Erosion Following Implantable Pulse Generator Placement for Deep Brain Stimulators*.

Brandon is originally from Florence and attended the University of Alabama at Birmingham for undergraduate studies, majoring in biomedical



Brandon Sherrod, MS-4

engineering and graduating magna cum laude in 2013 with university and departmental honors.

Following a year of research at Vanderbilt University in Nashville, Tenn., he returned to Birmingham for medical school in 2014, where he is currently in his fourth year of studies. He has enjoyed working with faculty in adult and pediatric neurosurgery on several outcomes research projects related to readmission, reoperation and infection.

Special thanks to the presenters at NSA's 2017 Conference. Attendees gave the conference excellent reviews, which we attribute to the quality and experience of our speakers. The following conference presentations will be available on [NSA's website](#) until the end of September:

- *OPPOSE - Patient Compensation Act* by Tamela E. Esham, JD
- *Review of Recent Developments in Immunotherapy for Glioma* by Trey McClugage, MD
- *Concussive Collegiate Helmeted Impacts* by John Amburgy, MD
- *Towards Evidence-based Guidelines for Intraoperative Monitoring During Spinal Surgery* by Christopher Shank, MD
- *Pipeline Embolization of Intracranial Aneurysms: Analysis of an International Multicenter Experience* by Paul Foreman, MD
- *State of the Art Management of Carotid Stenosis* by Mark Harrigan, MD
- *Radiographic Markers of Clinical Outcomes after Endoscopic Third Ventriculostomy with Choroid Plexus Cauterization* by Curtis Rozzelle, MD
- *An Update on Endovascular Treatment of Acute Ischemic Stroke* by William Stetler, MD
- *International Neurosurgical Education: Results from a Resident Boot Camp Training Course in Southeast Asia* by Matthew Davis, MD
- *Reoperation Rates for Device Infection and Erosion Following Implantable Pulse Generator Placement for Deep Brain Stimulators* by Brandon Sherrod, MS-4
- *Prospective and Multicenter Evaluation of Outcomes for Quality of Life and Activities of Daily Living Following Balloon Kyphoplasty in the Treatment of Vertebral Compressive Fractures: The EVOLVE Trials* by Arsalaan Salehani, MD

see more on page 2



Save the date for NSA's 2018 Conference • July 20-22, Hilton Sandestin

NSA 2017 Conference Wrap-up, cont.

NSA's 2017 Conference provided attendees with seven hours of Category 1 CME and plenty of time to socialize at the Welcome Reception and Saturday night dinner.



In the news...

Senator McCain's newly diagnosed brain tumor brings spotlight on glioblastoma

American Association of Neurological Surgeons

News that U.S. Senator John McCain (R-Ariz.) has been diagnosed with a primary brain tumor known as a glioblastoma has heightened the public's interest in learning more about this aggressive form of brain cancer. The American Association of Neurological Surgeons' (AANS) website features a patient section, which includes information about many neurosurgical conditions, including glioblastoma. The information is written and edited by neurosurgeons who donate their time to keep free, accurate and easily accessed information available to the public.

The direct link to the glioblastoma page is: <http://www.aans.org/Patients/Neurosurgical-Conditions-and-Treatments/Glioblastoma-Multiforme>.

"On behalf of America's neurosurgeons, the AANS wishes Senator McCain, and all patients suffering from brain cancer, our encouragement as they battle this devastating disease," said AANS president, Alex B. Valadka, MD, FAANS.

"While a cure remains elusive, with the

availability of more aggressive and targeted treatments, there has never been a more hopeful time for improving the quality of life and life expectancy for patients experiencing this dreaded disease," Dr. Valadka added.

Trigeminal nerve stimulation shows promise for management of TBI

Northwell Health

Researchers at the Feinstein Institute for Medical Research and the department of neurosurgery at the Hofstra Northwell School of Medicine, announced in July that they have published a paper with research findings that could have implications for the treatment of many neurological conditions, including severe traumatic brain injury (TBI). The team of researchers found that in an animal model with TBI, trigeminal nerve stimulation (TNS) resulted in increased cerebral blood flow (CBF) and oxygen to the brain.

The research paper, "Neuroprotective Effects of Trigeminal Nerve Stimulation in Severe Traumatic Brain Injury," was co-authored by Northwell Health's Amrit Chiluwal, MD, Raj K. Narayan, MD, Wayne Chung, PhD, Neal Mehan, MD, Ping Wang, MD, Chad E. Bouton,

and Chunyan Li, PhD. The paper was also co-authored by Eugene V. Golanov, MD, PhD, from the department of neurosurgery at the Houston Methodist Research Institute.

"Following TBI, ischemia and hypoxia play a major role in further worsening of the damage, a process known as secondary injury," said Dr. Li, assistant professor of the Center for Bioelectronic Medicine at the Feinstein Institute. "Preventing secondary injury is vitally important in the overall management of TBI. In the animal model, we investigated the use of electrical TNS for improving CBF and delivering more oxygen to the brain, with the goal of decreasing secondary injury. We found that TBI rat models with TNS treatment demonstrated significantly increased systemic blood pressure, CBF, oxygen, as well as significantly reduced brain edema, blood-brain barrier disruption and lesion volume."

Dr. Narayan, Northwell Health's senior vice president and executive director, neurosurgery services added, "... there is an urgent need for developing novel therapeutic strategies to maximize recovery. ... TNS could also offer some benefit in other pathological states such as stroke or vasospasm after subarachnoid hemorrhage where the brain is at risk for ischemic and/or inflammatory damage."

AANS 2018 Annual Scientific Meeting April 28-May 2 • New Orleans

The 2018 AANS Annual Scientific Meeting will be held in New Orleans, April 28 - May 2. Plan to attend for the latest in neurosurgical science and hands-on training in clinical care. AANS President Alex Valadka, MD, FAANS, has chosen the theme, *Neurosurgery: The Privilege of Service*, which attendees will see played out through the speakers, awards and special events organized around the meeting. [Learn more.](#)

2017 Conference Vendors

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Download the 2018 Prospectus at

www.nsaneurosurgeons.com/conference/

or contact Jill Smith at jsmith@alamedical.org

for details.

Study: Brain recovery time for athletes with concussion found to be longer than clinical recovery

St. Michael's Hospital

University athletes with a recent concussion had changes in their brain structure and function even after they received medical clearance to return to play, a new study has found.

In a study published Aug. 24 in *Scientific Reports*, researchers from St. Michael's Hospital used advanced MRI to measure brain structure and function in 27 athletes within the first week after a concussion and again after they were medically cleared to return to play. They compared those findings to a group of 27 uninjured varsity athletes.


They found that brain changes seen in the first MRI scan were still present when athletes were cleared to return to play.

The study, done in collaboration with the David L. MacIntosh Sport Medicine Clinic at the University of Toronto, looked at male and female varsity athletes in seven different contact and non-contact sports, demonstrating the relevance of the findings for the overall sporting community, not just traditional high-risk sports such as hockey and football, according to the authors.

The findings suggest that following a concussion, changes in the brain persist even after other symptoms have resolved, said Dr. Nathan Churchill, the study's lead author and a post-doctoral fellow in St. Michael's Neuroscience Research Program.

"This is the first concrete evidence we have that the brain is lagging behind in terms of recovery from a concussion," he said. "Our study shows that the neurobiological consequences of concussion may outlast the symptoms we're typically looking for when determining whether an athlete is ready to return to play."

The brain areas showing differences at medical clearance are especially concerning, as vision, planning and physical coordination are critical for athletes to avoid re-injury during sport participation. However, the current study did not directly examine whether athletes would be at risk for further injury by returning to play, according to the authors. Further research is needed to determine whether or not athletes need more time between acute injury and returning to play to fully recover.

"We want to emphasize that, in general, the health benefits of sport participation still outweigh the risk of concussion," said Dr. Tom Schweizer, head of the Neuroscience Research Program and a co-author of the paper. "Our findings help us to better understand how the brain changes over the course of recovery, which will in turn help to guide concussion management. The more we know about concussion, the better we can reduce potential risks." 

NSA News & Notes

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The neurosurgical society of Alabama is organized is to advance the interest in neurological surgery and allied subjects and to act as a representative for its members at the discretion of the membership.

The articles contained in NSA News & Notes are meant to provoke thought and comment and do not necessarily reflect the views and opinions of the members, Executive Council or staff of the Neurosurgical Society of Alabama. Comments and letters to the editor are welcome Send to cmorris@alamedical.org.