

# TEXAS NEUROLOGICAL SOCIETY WINTER 2024 Broca's Area Area The Voice of Texas Neurology To State



Reeta Achari, MD TNS President

interpreting amyloid PET is offered on Thursday evening as well. I invite you to also attend our 50th Anniversary celebration which promises to be an outstanding evening.

As excited as I am about our meeting and the 50th anniversary, I am concerned about the state of neurology given the multiple issues of declining reimbursements and looming shortage of neurologists just as our patients and aging population needs more of us. As we continue the struggle against yet another Medicare cut in reimbursements, I have been thinking about the many ways that insurance companies and payors influence patient care.

The new amyloid-targeting therapies (ATTs) available for use in early stages of cognitive impairment require demonstration of abnormal amyloid deposition in the brain as a biomarker for precise diagnosis. This may be accomplished by amyloid-PET or analysis of CSF. While this may be an easier proposition for academic centers, it presents significant challenges for neurologists in clinical practice in the community. We have been disadvantaged not because we are unable or unwilling to use these methodologies, but because reimbursement issues have created a lack of access and advancement. Amyloid PET imaging was approved by the FDA over a decade ago. Rather than make this powerful tool available to neurologists in the precision diagnosis of Alzheimer's Disease, CMS has spent a decade creating studies with limited enrollments (the sample is skewed and does not adequately reflect diverse populations or women) and agreed to reimburse outpatient imaging centers outside of clinical trial in mid-October 2023. As of this writing, I am not able to obtain

# President's Message

In 2024, the Texas Neurological Society will celebrate its 50th birthday. Our meeting will start a day early, on Thursday, February 1st, to accommodate a Hot Topics Symposium in new diagnostic and discuss how Texas neurologist will bring state of the art diagnostics and treatments to our patients. As amyloid imaging is finally going to be available to clinicians as part of making the diagnosis, a training course in an amyloid PET for my patients under insurance coverage. This will likely take months to negotiate, further delaying diagnosis and treatment.

Neurologists have always been experts in reviewing the neuroimaging of their patients to make a diagnosis. Yet, we find ourselves at a disadvantage as we have not had training or exposure to interpreting amyloid PET scans. How many of us would feel comfortable making a diagnosis this serious and devastating to patients and families without feeling confident of our own interpretation of the imaging? Our nuclear medicine colleagues outsides of academic centers will also be confronting this task without much experience. We must educate ourselves and each other as we come together to deliver the precision care that is needed by our patients.

The death of the lumbar puncture is yet another fascinating story of insurance reimbursements shaping how neurology is practiced. Twenty years ago, the lumbar puncture was done several times daily by most practicing neurologists. As insurance reimbursements continued to decrease for this invaluable tool for patient care, and the price of the spinal tap kit became more than the payment for actually doing the procedure, neurologists could not longer justify performing lumbar punctures for outpatients. Hospital systems asked that the procedure be done in outpatient surgery suites to try and recoup some funds for the procedure as the reimbursements continued to drop, even for them. Currently, the outpatient lumbar punctures are often done in expensive interventional radiology suites and at a cost far greater than being done at a bedside. The radiologist, staff and equipment are used to perform what is normally a simple diagnostic procedure. In addition, the cost and time to the patient increased several fold. And lost were the additional information and insights that neurologists would gain by doing the LP, such as opening pressure. We now find ourselves in a situation where CSF biomarkers are an inexpensive diagnostic tool for the new ATTs, yet most clinical neurologists have lost the infrastructure and economic viability to perform a lumbar puncture, all due to devastatingly poor insurance reimbursements.





# President's Message continued

The impending physician shortage in the US has been documented and the need for neurological care in an aging population cannot be overstated. After the Covid-19 pandemic, the new issues with long-Covid and other neurologic sequelae are an additional patient population requiring our care that was not previously considered. When I started practice 30 years ago and for the neurologists of my father's era from the 1970s, we all seemed to have plenty of time to care for patients and the wait to see a neurologist was not 6 months. What happened to the time to provide care? Well, we know that 18 hours a week are spent by physicians in charting, prior-authorizations and worthless administrative tasks that have been imposed by the insurance system. A bulletin by AAN in 2013 stated that there were 16,366 neurologists practicing in the US. If we assume that each neurologist works for 48 weeks (wouldn't it be great to get a month vacation) we are currently loosing 14,169,600 hours in patient care yearly.

We may wring our hands and grumble about reimbursements, but the effect of the insurance industry on healthcare is negatively affecting our ability to care for patients in far more nuanced and insidious ways. The industry is affecting treatment, advancement and access. It is a main source of 'burnout' in physicians and patients alike. The level of frustration for our patients trying to get care is as high as our own in trying to deliver it. We spend between \$600 billion and \$1 trillion yearly in healthcare administrative costs-the proverbial 'man behind the curtain.'

I could go on about the loss of autonomy for patients in deciding how their healthcare dollars are spent, having to work through illness to have health insurance, the loss of the house call, the misperception of physicians by patients as part of the system that blocks care instead of as allies and community members, and the fractured methodology of the multi-level hospital teams that replaced the physicians who cared for patients from the office through their hospitalization and recovery; but that's for another time.

Some of these issues will require some time to correct. Some of them are simpler to fix. Getting time back with patients seems like an easy thing to tackle. Perhaps our advocacy with legislators will help. Armed with information, surely change for the better is possible for us. For my part, I am changing the way I practice, disassociating myself from the industry that threatens not only my livelihood, but patient care. Unshackling ourselves from the system may be a way out, but it's a difficult one if you've never seen what the world was like before. We were not always prisoners. Neither were our patients. It takes a long journey in an unfamiliar world to find out that you had the power to get home all along. Our own yellow brick road is not one without peril, and it will take time before we can click our ruby slippers. The Texas Neurological Society, with its missions of education and advocacy, is perfect for the ask at hand. I encourage you to continue your membership and become actively involved. It's time for all hands on deck.



#### Editor's Notes Randolph W. Evans, MD

#### **THIS ISSUE**

I thank our officers and other contributors for their excellent submissions to this issue. We look forward to seeing you at the TNS Annual Winter Conference at the Hyatt Regency in Austin, February 1-4. Gary

Clark, pediatric chair, has a terrific program as always. Shamin Masrour, program director, Erin Furr-Stimming, committee chair, and the education committee have planned an excellent program.

#### HAPPY 50TH ANNIVERSARY TNS!

TNS was founded in 1973 by Bill Fields, chair at UT Houston, Robert McMasters, chief at UT San Antonio, and Bill Riley, chief at St. Lukes. Some of you may remember them personally and with admiration. In this issue, we reissue Bill Riley's "The Origins of the Texas Neurological Society," from the Winter, 2011 issue.

I joined TNS our of residency in 1982. We had small meetings for years at the TMA meeting. Then in 1996, we had the first winter meeting in Austin. We didn't know if there would be enough interest but the winter meeting has been extremely successful offering AAN level CME with a very reasonable cost. We started the summer conference in 2004 and, again, weren't sure there would be interest but it has been very successful also. In 2001, we started the TNS Harris County Neurological Society which continues to be very active with regular meetings with President Mary Ellen Vanderlick. We tried to set up TNS chapters in other cities without success but perhaps some of you may wish to do this.

The late TNS president, Bill Riley, got me involved in leadership in 2000 when I was the winter program course director. I've been involved since going up the leadership pyramid and as the 3rd editor of Broca's. Broca's was started by Tom Hutton in 1993, then continued by Gage Van Horn.

In addition to CME, our TNS has also been involved in advocacy on many issues and levels including the Texas legislature.

However, when I think of TNS, I think of TNS as neurology sleep away camp where you get to see all your old and new friends and make new ones in an intimate setting compared to the national and international meetings we attend.

With our 1,000 members, we continue to be the most successful state neurological society and a model for other states. Thanks to Ky Camero for her great work.

TNS is only as good as we all make it. Those of you with interest should join committees or be part of the leadership. And we need and want your contribution for Broca's.



## Editor's Notes continued

#### FOOTBALL AND CONCUSSIONS

Since we're nearing the end of the NFL season, as neurologist's, we're particularly aware of concussion in sports. According to the NFL, there were 149 concussions in 271 games reported during the 2022 season compared to the 126 in 2018 and the 2018-2020 3 year average of 130.<sup>1</sup> A recent consensus statement of concussion in sports includes recommendations for return to play.<sup>2</sup>

Based upon a meta-analysis, "More evidence is needed to support the protective effect of mouthguards, additional padding in American football helmets, appropriate helmet fit in collision sport, policy limiting contact practice in adolescent American football, head contact rule enforcement in contact sports (e.g., American football, ice hockey), and training strategies targeting modifiable intrinsic risk factors."<sup>3</sup>

In the NFL, changes to reduce concussions include targeting rule changes, eliminating specific practice drills and in-game blind-side blocks. Measures taken to improve concussion detection and diagnosis include introduction of a centralized clinical electronic health record, Athletic Trainer spotter program, and unaffiliated neurotrauma consultants.

Many of you participated in our 2017 survey<sup>4</sup> on postconcussion syndrome. 68.4% of respondents disagreed or strongly disagreed with the following statement: I would support my son or grandson (or if you do not have one, relative's or friend's) playing football.

#### TUA TAGAVAILOA'S CONCUSSIONS<sup>5</sup>

"In the 9/25/22 game, Miami Dolphin's quarterback, Tua Tagovailoa, took a hit without loss of consciousness and then struggled to get to his feet and fell after a couple of steps. Four days later, he had another hit with loss of consciousness during which he displaced a fencing response (extension in one arm and flexing in the contralateral arm immediately after injury usually lasting for seconds).<sup>6</sup> The sideline neurotrauma expert who examined him after the 9/25/22 episode was fired for not following the concussion protocol.<sup>7</sup> On 10/7/22, the NFL and NFL Players Association announced that the step-by-step protocol was followed in his case. In response to an investigation, the league's protocol was modified by adding the diagnosis of "ataxia" to the mandatory "no-go" symptoms.<sup>7</sup>

He returned to play after one month and started 9 games. On 12/25/22, he hit his head on the turf late in the first half. He had 3 interceptions in the second half. He had symptoms and was placed in the concussion protocol after the game.

During the offseason, Tagovailoa considered retiring but then trained in jiu-jitsu one day a week to learn how to fall in a safe manner.<sup>8</sup> He next played during the 2023 season wearing the VICIS ZERO2 MATRIX QB, the NFL's new quarterback specific helmet designed to prevent concussion.<sup>9</sup>

Comment. Even with up to 24 cameras at the NFL game and an unaffiliated physician on the sideline, concussion can be difficult to diagnose. Obviously, there is no gold standard for diagnosing concussion.

Based upon a meta-analysis, visible signs of concussion among professional athletes were identified in 53-78.9%. The visible signs with the highest specificity include the following: tonic posturing (97%), impact seizure (96%), suspected loss of consciousness (93%), ataxia/motor incoordination with difficulty getting up (81%), abnormal behavior (55%), and blank/vacant/dazed look (62%).<sup>10</sup>

Subconcussive impacts may also cause cognitive impairment and increase the risk of chronic traumatic encephalopathy.<sup>11</sup>This reminds me of Ralph Nader's 1965 book, "Unsafe at Any Speed: The Designed-In-Dangers of the American Automobile."<sup>12</sup>

Based upon a systemic review, "No evidence was identified to support the inclusion of any patient-specific, injury-specific or other factors (e.g., imaging findings) as absolute indications for retirement or discontinued participation in contact or collision sport following SRC [sport related concussion]."<sup>13</sup>

#### HAYDEN HURST'S MISSED CONCUSSION

On 11/9/23, Carolina Panther's tight end, 30-year-old Hayden Hurst, took a big hit and his head slammed into the ground<sup>1,4</sup> He was briefly on his knees and then got up walking normally. He returned to the game in the same drive. He spoke to reporters after the game which players in the postconcussion protocol don't do postgame. He later stated that he did not remember up to 4 hours after the game. He was placed in the concussion protocol the next day.

Comment. Even after all the scrutiny after Tagavailoa's concussion last year and with all the cameras, doctors, trainers, and live broadcasters watching, concussion is still missed. Not surprising. Concussion may not be obvious. And we're often asked to diagnose concussion which occurred without loss of consciousness weeks, months, or even years later.

#### **TERRELL DAVIS AND FOOTBALLER'S MIGRAINE<sup>2</sup>**

The term, "footballer's migraine," was coined by Matthews in 1972<sup>15</sup> to describe headaches in young men who play soccer who had multiple migraines with aura attacks triggered only by impact.<sup>16</sup> Similar attacks can be triggered by mild head injury in any sport. This is the most famous example of "footballer's migraine" witnessed by 800 million viewers occurring in American football.

"Late in the first quarter of Super Bowl XXXII on January 25, 1998, Terrell Davis, a 25-year-old running back for the Denver Broncos with a history of migraine with and without aura since age 7, was unintentionally kicked in the helmet by a Green Bay Packers defender.<sup>17</sup> A few minutes later, he went to the sidelines with a migraine visual aura. Coach Shanahan sent him back in for one more play which was a fake where Elway kept the ball and ran into the end zone. Davis was given his usual migraine medication, dihydroergotamine nasal spray, on the sideline by the trainer. He went into the locker room and his severe headache was gone by the start of the third quarter with the benefit of the extra Super Bowl





### Editor's Notes continued

halftime minutes. When he returned for the second half, he had 20 carries for 90 yards including the winning touchdown and won the game's most valuable player award.<sup>18</sup> He had a Super Bowl-record three rushing touchdowns.

Comment. Early treatment of migraine can get your patient back to school and even enable them to be Super Bowl MVP.

#### **IS PRESIDENT BIDEN COGNITIVELY IMPAIRED?**

I suspect you all have opinions about this topic. Congressman Ronnie Jackson, former White House physician to 3 presidents (and UTMB alumnus), said in November, 2023 that President Biden's cognitive decline has been evident for some time and is only going to get worse putting the US at great risk. You could dismiss his concerns as partisan since he is a Republican. However, recent surveys show that most Americans do not believe the President has the necessary mental and physical health to be president for another term.

We have had prior presidents with severe neurological impairment which was covered up.

Wilson. - Woodrow Wilson had a significant neurological

history.<sup>19</sup> He had a history of migraines perhaps starting in 1983 as a graduate student which persisted. He had at least 14 periods in which "nervousness, dyspepsia, and headaches became so severe as to interfere seriously with his work." Shortly after becoming president in 1913, he started playing golf every day but Sunday, prescribed by his physician (and close friend Dr. Grayson, who was usually his partner) "as a necessary form of exercise for Wilson to battle the President Wilson at his desk with anguish of stomach cramps and Edith in June, 2020. First posed migraines headaches related to a heart condition that was aggravated



photo since the stroke (Library of Congress)

by stress." He played a least 1,200 rounds as president - perhaps as many as 1,600 - with an average score of 115.

While on speaking tour as president prior to his stroke in 1919, he was reported to have daily violent headaches<sup>1</sup> which were so bad that he could "hardly see." There is not sufficient information available to know whether these headaches might have been migraines or unrelated and perhaps due to uncontrolled hypertension. He had a history of hypertension, small strokes in 1986 and 1906, and chronic elevation of his blood pressure while president.<sup>1</sup>

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Cary T. Grayson, MD

In 1919, 62-year-old President Wilson had a stroke resulting in cognitive impairment and left sided weakness. Edith Wilson and White House physician, Grayson, filled in.<sup>20</sup> Some have described Mrs. Wilson as the first female President. Mrs. Wilson would cover the left side of his body with a blanket to try and literally cover-up the paresis. President Wilson still wanted to run for a third term but Democratic leaders refused nominating Governor Cox and Franklin Roosevelt (FDR) as vice president.

FDR. - You may recall FDR's complicated neurological history (see editor's notes, Winter, 2015 issue). He may have had AIDP rather than polio<sup>21</sup> essential tremor first noticed in 1943, and focal seizures in 1944 and 1945 (he was started on PBS in 1944).<sup>22</sup>



The Big Three at Yalta, February, 1945 at Livadia Palace (the former summer home of Czar Nicholas II). See cigarette in left hand. FDR smoked up to 2 packs per day.

As an aside, his son was married to Harvey Cushing's daughter in 1930. (FDR could not attend the Cushing Society Dinner for Cushing's 70th birthday so he sent a letter, "I realize, of course, that in these later years Harvey Cushing has labored under the most severe of all human handicaps - relationship with

the President of the United States. His courage and cheerful disposition in the face of this travail proves his eternal greatness."

FDR had cognitive impairment due to the effects of multiple illnesses including uncontrolled hypertension (including 230/126 in 1944) and congestive heart failure which everyone was aware of when he ran for a fourth term in 1944 but no one questioned. At the Yalta conference in 1945 with Stalin and Churchill, his cognitive impairment was obvious. He was later termed "the stick old man of Yalta."<sup>23</sup>He was only 63-years-old. FDR died 2 months later after having a massive cerebral hemorrhage.

Biden. - President Biden also has a significant neurological history. In February, 1988, he was having recurring headaches. Biden had a "a lightning flashing inside my head, a powerful electrical surge - and then a rip of pain like I'd never felt before."24 He was unconscious for five hours. He was found to have a left ACA aneurysm which was clipped. In May, 1988, he had an incidental right MCA aneurysm clipped.

Although a neurologist was part of the team who examined President Biden earlier this year and pronounced him fit to serve as president, the White House physician's February 16, 2023 health summary<sup>25</sup> includes a mild sensory neuropathy of the feet which has not progressed with normal testing including HbA1c, TFTs, and a B12 level. Neuro exam was normal except for mildly decreased heat/cold in both feet. For his "stiffened gait," he was evaluated by spine, foot and ankle, radiology, physical therapy, and movement disorder neurologic specialists. The etiology was opined to be due to degenerative osteoarthritis. He also has a non-valvular atrial fibrillation on apixaban (of course, there is still a small risk of stroke and hemorrhage.)





## Editor's Notes continued

There is no report of any cognitive assessment.

From the health summary, I don't know if he has cognitive impairment or not. But we're all too familiar with Alzheimer's disease becoming more common with older age. Alzheimer's disease is present in about 17% of people ages 75-84 and 32% of people 85 or older. MCI is also highly prevalent.

If President Biden was one of your patients, wouldn't you recommend a CT can of the brain (since he has the aneurysm clips) and neuropsychological testing? The results should be made available tot he public. Some people have expressed concern over former President Trump's cognitive status. He could have similar testing or decline and the voters could decide.

We wish President Biden the best of health but a wish is not enough. The fate of our country is too important for reassurances without the appropriate testing.

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# The Origins of the Texas Neurological Society

**Republished from Broca's Area 2011** William J. Riley, MD, Past President, TNS

Dr. Evans asked me to give you a brief vignette of the history of the founding of the Society. In the early 1970s, the organizational structure of the Texas Medical Association made provision for sections representing medical specialties. Neurology was part of the neuropsychiatry section. The impact of managed care was not far off but there were already many factors that were causing some increasing separation between the interests of practitioners of psychiatry and those of neurology. There was little sentiment for considering a formation of a section with neurosurgery which was, at that time, actively moving to form its own section.

For this reason, the late Dr. William Fields, the chairman of Neurology at the University of Texas Medical School at Houston and chief Neurology at Hermann Hospital convened a phone conference with Dr. Robert McMasters, chief of the division of Neurology at the University of Texas Medical School at San Antonio, and myself, then chief of Neurology at St. Luke's Episcopal Hospital in Houston. It was determined that it would be desirable to send a letter of inquiry to the 70+ neurologists in the state of Texas to inquire if we should form this new neurological society. We decided that the letter would come from me with private practice letterhead rather than on institutional stationery so clinicians would not think that this would be a purely academic oriented organization. I drafted and mailed a letter embodying the sense of our inquiry to the neurologists of the state and included a return address post card with a place for the neurologist to respond as to whether or not we should go forward with the formation of a separate organization under the umbrella of the Texas Medical Association. An exceedingly high proportion of these were received with only one dissenting view.

With this mandate, we announced our first meeting would be held during the Texas Medical Association annual meeting in 1974 which was held at the Shamrock Hilton Hotel (demolished in 1987) in Houston. In a second floor conference room at the Towers Hotel (demolished in 2004) across the street from the Shamrock, I chaired the initial meeting with 35-40 neurologists in attendance. Dr. Fields convened a founding group which developed the charter of the Texas Neurological Society and arranged for its ratification between 1974 and 1975.

From that time forward, the Texas Neurological Society has had a splendid growth curve and has managed to avoid duplication of activities better served within the family of medicine by other organizations such as ethical concerns or specific advocacy issues. The leadership of the organization looked into the cost effectiveness of these and many other activities and has stayed focused admirably on its missions and goals of serving well the citizens of the state of Texas, the family of medicine in Texas, and our colleagues in the neurologic sciences to the betterment of health of Texans and the strength of the medical profession in the state of Texas. We continue to develop and be blessed by noteworthy past presidents such as providing the immediate past president of the Texas Medical Association, Dr. William Fleming, and the current president of the Harris Country Medical Society, Dr. William Gilmer. Many other noteworthy figures have grown in being fostered by and serving our society.

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Broca's Area

# A History of the Texas Neurological Society: The Pivotal 1990s

Gage Van Horn, MD, Past President, TNS

William J. Riley published a brief history of the Texas Neurological Society (TNS) in the Winter, 1994 edition of Broca's Area. Bill recounted the events leading to the formation of the TNS in 1974. The founders envisioned a society formed within the framework of the Texas Medical Association (TMA). From the outset, we clearly had an identity crisis. We called our society the TNS but met annually through 1997 as the TMA Section of Neurology. We had no input regarding meeting location or time and were limited to a 1-day scientific session, usually in a small meeting room. Our mid-May meetings often occurred during or just preceding the annual meeting of the American Academy of Neurology (AAN). In 1998, the four-day TMA Annual Session was to coincide with the first weekend of the AAN 50th Anniversary Meeting. Those of us in TNS leadership predicted disaster regarding both attendance and our ability to attract quality speakers.

Tom Hutton often told several of us the story of his first TNS Meeting. In 1980 he returned to his home state of Texas from the Twin Cities, where he did his residency. He joined the TMA and attended his first TMA meeting held that year in Houston. While wandering the halls of the event center, and purely by happenstance, he came upon a placard outside a darkened meeting room that read "Texas Neurological Society". He entered the room and stayed for several excellent presentations. When the lights came on at the end of the morning, he was surprised that only a handful of attendees, no more than 15-20 individuals, were present. This anecdote pointed out what society leaders soon realized. We had poor attendance at our scientific meetings and society leaders did not communicate well with its members and prospective members.

The first pivotal event that occurred in the 1990's was the establishment of our newsletter, Broca's Area. Tom Hutton related the story of the newsletter's purpose and origin in a message published in the Summer, 1993 (second) edition of Broca's Area. Tom was the first editor, a position he held until February of 2000. We owe Tom and his wife, Trudy, a big debt of gratitude for their efforts in publishing the early editions of our newsletter. Broca's Area has clearly succeeded and surpassed our expectations. We now had a mechanism for communicating with each other.

TNS leaders, including past-presidents Bob Fayle, Tom Hutton, Blake O'Lavin, Ernesto Infante, Ed Garrison, and I began advocating for a free-standing TNS meeting each February in or near Austin. In the mid-90's, we approached TMA officials with a request for moving our scientific meeting to February of each year. We were told by the Annual Session Coordinator that if we attempted to move our meeting away from the TMA Annual Session, we would lose TMA support for out-of-state speakers and TMA would not furnish CME capabilities. Sometime in 1997, TMA changed their policy regarding CME support. Therefore, with TMA approval, we decided to move our meeting to the winter and hold all subsequent annual meetings in the Austin area. We asked our program director, Douglas Hudson of Austin, to make plans for a scientific meeting to be held in Austin aiming for February or March of 1998. Further, we asked him to involve the various chairs of Neurology in the planning stages. Four departmental chairs, Jim Ferrendelli, David Sherman, Clifford Schold, and Stan Appel helped plan the two-day scientific program. Each one of them then moderated one of the 4 half-day sessions held in the Omni Hotel, downtown Austin, on February 26-27, 1998. The program, published in the Fall, 1997 Broca's Area, was very successful and well-attended. Additionally, the format for this program became the template for subsequent programs. Later, we reserved the Friday morning session for Child Neurology and added a fifth half-day session on Sunday morning. Adopting a stand-alone scientific program became the second pivotal event that heavily influenced the development of our society. Credit goes to all the people named above. Rachael Reed, our long-serving secretary, guided us through the transition with her organizational expertise.

Many people worked hard over the years to squire TNS into becoming a model state neurological society. We can all feel proud of these collective efforts.





# **TNS Celebrates 50 Years!**

# Gala / Membership Celebration Saturday, February 3 6:30 PM

**Tickets:** Attendee + Guest (\$75) | Residents (\$0) Purchase a ticket when registering for the conference Stay connected and enter to win one of our social media giveaways at the TNS Winter Conference by tagging TNS and using the official event hashtag: #TNSW2024

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# Neurogenetics Workshop Friday, February 2nd

Neurologists are constantly asked about genetic test results and the relevance to their patients, their practice, and the implementation of new therapies. This workshop will build upon the pediatric session lectures and provide all neurologists some practical knowledge and experience analyzing genetic test results. Participants are strongly encouraged to bring their laptops and their brains. Dinner Included.

Register for this workshop when registering for the conference!



## **Advocacy Update**

#### Sara Austin, MD, TNS Legislative Affairs Chair and Tom Holloway, TNS Lead Lobbyist

The 88th Texas Legislature adjourned in May this year, followed by four subsequent special sessions. It's been a unique situation, specific to Texas, with the special sessions largely avoiding healthcare issues, which is fortunate.

#### **SCOPE OF PRACTICE**

A primary concern for the session revolved around efforts to erode scope of practice protections, an issue that continues to gain national attention. Once again, lawmakers introduced legislation to grant independent diagnosing and prescribing rights to non-physician practitioners. Fortunately, the TNS and TMA advocacy teams were able to halt most of these scope bills in committee, and all were ultimately prevented from becoming law. Notably, bills such as HB 4071 by Rep. Stephanie Klick and SB 1700 by Sen. Cesar Blanco aimed to grand APRNs independence, while HB 2553 by Rep. Lynn Stucky would have significantly expanded direct patient access to treatment by a physical therapist without a physician evaluation for referral.

#### **GRADUATE MEDICAL EDUCATION**

The increase in Graduate Medical Education (GME) funding was a significant victory, rising by 17% to \$233 million this biennium. The long-term objective is to create new residency slots, maintaining a target ratio of 1.1-1.0 GME slots to medical school graduates. Moreover, a 12% increase (to \$116 million) in support was allocated to residency training programs affiliated with medical schools.

#### **MEDICAL LIABILITY**

The hard-won protections for medical liability reform, first enacted in 2003, remain in place. Defending a robust and independent Texas Medical Board continues to be a point of emphasis, with its critical role of protecting patient safety and regulating the practice of medicine in Texas.

#### **MEDICAL CANNABIS**

This session, Representative Stephanie Klick (R-Fort Worth) filed HB 1805 to expand the list of qualifying conditions for the Texas Compassionate Use Program (TCUP). The bill would allow physicians to prescribe low-THC medical cannabis to patients experiencing chronic pain (for which a physician might otherwise prescribe an opioid) and other debilitating medical conditions designated by the Department of State Health Services. Despite receiving broad, bipartisan support in the Texas House (127-19), the legislation ultimately died in the Texas Senate when Lt. Governor Dan Patrick refused to call the bill for a vote. We expect to continue working with Representative Klick to advance similar legislation in the next session.

#### **MOBILE STROKE UNITS**

The Texas Neurological Society was proud to work alongside Representative Ann Johnson (D-Houston) to expand the availability of specialized ambulances known as "Mobile Stroke Units" in communities across Texas. These Mobile Stroke Units allow for the rapid diagnosis and treatment of the most common varieties of stoke within minutes of initial contact with a patient, saving valuable time, improving outcomes, and preserving physical function. While funding for new mobile stroke units was ultimately withdrawn from the state budget, TNS continues to work with the TMA to support mobile stroke units as a major priority for the Texas Legislature to address in 2025.

#### **TELEMEDICINE/RURAL ACCESS TO CARE**

Although the legislature declined to enact full payment parity for telemedicine services, the medical community was critical in passing a \$1.5 billion expansion of rural broadband based on its potential to extend access to quality telemedical services for Texans living in some of the most remote and underserved parts of the state.

#### **PHYSICIAN EMPLOYMENT CONTRACTS**

As a growing number of physicians enter employed rather than independent practice, the legislature has focused on addressing the proliferation of highly restrictive non-compete clauses in physician employment contracts. These clauses have been criticized for artificially restricting a physician's ability to practice and limiting access to care for patients. Representative Greg Bonnen, MD (R-Galveston) and Senator Charles Schwertner, MD (R-Georgetown) proposed legislation that would limit physician non-compete clauses to a 5-mile radius of the original practice location for no more than 12 months, as well as capping buy-outs at the physician's annual salary and making non-competes unenforceable if an employer terminates a physician without cause. While these bills did not pass, we expect they will resurface in the next session.

#### **PRESCRIPTION DRUG ABUSE**

As Texas continues to combat the opioid epidemic that has ravaged communities across the state, the legislature has committed more than \$1.6 billion in opioid settlement funds over the next 18 years to support programs designed to curb prescription drug abuse. The Opioid Abatement Fund Council is beginning the process of determining its funding priorities and values input from physicians and other members of the public. Additionally, the legislature has once again funded the full integration of Texas' Prescription Drug Monitoring Program (PMP or PDMP) into electronic health record workflows, saving all Texas physicians valuable time and money.





# Advocacy Update continued

#### **END-OF-LIFE CARE**

The policy debate over end-of-life care continued this session, resulting in a compromise that seems to satisfy the legislature and should hopefully put the issue to rest for the foreseeable future. Key changes include extending the period a patient's representative has to find an accepting facility from 10 to 25 days following a hospital ethics committee ruling. Other changes address the issuance of in-hospital DNRs, strengthen patient preferences regarding their own end-of-life wishes, and simplify the DNR notice process.

#### **MEDICAID REIMBURSEMENT**

While the legislature enacted limited Medicaid rate adjustments for pregnant patients and children, unfortunately, no changes were offered for the adult population served by Medicaid. The lack of commitment to appropriately fund the state's health safety net, even with a record \$32 billion budget surplus, remains a top concern for the entire medical community.

# 2023 TEXAS NEUROLOGY DAY AT THE STATE CAPITOL

Finally, this year, the Texas Neurological Society hosted the very first "Texas Neurology Day" at the Texas Capitol. Neurologists from across the state met at the Capitol to speak with lawmakers about our legislative agenda. Later, Senator Charles Schwertner, MD (R-Georgetown) recognized the group with a formal resolution in the Texas Senate. Thanks to everyone who helped make the inaugural Texas Neurology Day a success, and we hope you'll consider joining us in 2025!





## **Advances in the Management of Intracranial Arterial Aneurysms**

KJ Oommen<sup>1</sup> MD and Jonathan Kopel<sup>2</sup> MD, PhD

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#### Abstract

Various forms of aneurysms were known to physicians in ancient history from the time of Imhotep of Egypt almost 3,000 years before the Christian Era began, although Ambroise Pare is generally credited for its discovery. The discovery of intracranial arterial aneurysms (IAAs) by Morgagni of Padua, and the first report of an intracerebral hemorrhage from an aneurysm by John Blackwell in 1810. This is following by the current classifications of aneurysms and a discussion of the etiological factors and an analysis of the controversies surrounding the statistics of the incidence and prevalence of an unruptured IAA (UIA). The risks associated with UIAs and current consensus on treatment is discussed. Emphasis is given to restraint in the surgical approach when the risk of complications are greater from surgery compared to watchful observation as in the case of small aneurysms in an anterior location and prompt intervention when the risk is high. The management of the greatest risk from IAAs which is subarachnoid hemorrhage is addressed. The evolution of the methods of assessing the risks associated with ruptured IAAs are discussed to prospectively determine the best course of surgical intervention which currently includes surgical clipping and endovascular procedures with particular attention tot he evolution of the surgical approaches for the treatment of ruptures IAAs as well. This is followed by treatment methods such as litigation of the proximal neck with an aneurysm clip and the more recent endovascular procedures which are constantly being improved. The emphasis is put on the availability of a panel of experts for making treatment decisions considering the multiplicity of factors that determine the outcome of nor interventional and interventional treatments of cases of ruptured IAAs. Finally, the efforts in improving the currently available technologies are also mentioned.

**Keywords:** Aneurysm, Intracranial Arterial Aneurysms (IAA), clipping and endovascular.

#### Objectives

1. Review the historical background from the first known description of aneurysms by the physician Imhotep of Egypt almost 3,000 years ago to Ambroise Pare of France, the man who is generally credited for its discovery, and from there to the discovery of brain aneurysms by Morgagni of Padua, tot he first report of an intracerebral hemorrhage from an aneurysm by John Blackwell in 1810.

2. Discuss the current classification and what we know about its pathophysiology.



4. Narrate the treatment methods such as ligation of the proximal neck popularized by John Hunter to filling with muscle by Cushing and the more recent semi-invasive methodologies of intravascular coiling for its treatment.

5. Review the future of aneurysm treatment, such as technological advances in the "pipe-line."

#### Prelude

At the second and final round of *viva voce* for his MRCP examination, an exhausted Dr. Andrew who was afraid that he had lost his first round with a young examiner who appeared bent on finding reasons to fail his candidates; was asked by a kindly Sir. Robert Abbey, considered the third most distinguished physician in Europe at his time.

"Do you know anything about the history of aneurism?"

Dr. Manson's answer was "Ambroise Paré, is presumed to have first discovered the condition." A surprised Abbey, in the Novel *Citadel* [1] by AJ Cronin, asked,

"Why presumed, Dr. Manson, Paré, did discover aneurism."

A reddened at the same time pale Manson replied, "Sir, that is say. You will find it in every book - I myself took the trouble to verify that it was in six." After a quick breath, he added, "But I happened to be reading Celsus, brushing up on my Latin, - which needed brushing up, sir, - when I came across the word 'aneurismus.'Celsus knew aneurism. He descried it in full. And that was a matter of 13 centuries before Paré!"

[Imhotep must not have been known to Dr. Manson. Such is the nature of learned knowledge; always subject to revision. *Author 1*.]

#### Introduction

According the Merriam Webster [2] the word "aneurysm" means an abnormal blood-filled bulge of a blood vessel and especially an artery resulting from weakening (as from disease) of the vessel wall and traces its root to the Greek word "aneurysma" only as far back as the 15th century AD (C.E.) in their terminology! Further, there is evidence that the word aneurysm [3] was coined by Galen (129-210 AD), and that arterial swellings were known as far back as almost 3,000 BC to Imhotep the Egyptian physician [4], who wrote about it as referred to in the Ebers Papyrus. Such pathological dilations of blood vessels can occur for various reasons, in any vessel of any size, arterial or venous in the body. This article will deal only with the intracranial arterial aneurysms (IAAs).





Broca's Area

What may be considered the modern era in the surgical treatment of arterial aneurysms started with Paré who in 1552 treated a patient with a penetrating neck wound [5] by ligating the internal carotid artery. The famous Scottish surgeon John Hunter (1728-1793) who discovered the sub-sartorial of "Hunter's Canal," was familiar with the condition and revolutionized the treatment of aneurysms by ligation, but only 200 years after Paré. Hunter ligated the proximal neck of the aneurysm, instead of amputating the legs of patients with popliteal aneurysms, amputation being the common practice in the 18th century. As it pertains to the brain, aneurysms in relation to the cerebral vessels and their relevance to pathological conditions of the brain such as hemorrhage into the brain were described by Morgagni of Padua in 1761 [6] in his 'De Sedibus et Causis Morborum.' Four years later, the rupture of an aneurysm was first reported by Francici Biumi [7] of Milan in a post-mortem case of ruptured cavernous carotid artery aneurysm. The first report of a patient with subarachnoid hemorrhage (SAH) from a ruptured intracranial basilar aneurysm was made by John Blackall [8] in 1810 and attributed it to the cause of sudden death of the Swedish Crown Prince Charles August, an event of great historic significance as it changed the planned succession of the royal dynasty in Sweden by him to the one that is in existence today.

#### Incidence and prevalence of IAAs

The early data on the incidence and prevalence were estimates from autopsy and or surgical reports and were fraught with methodological and statistical inadequacies and are mentioned here only for historical reasons and to illustrate the difficulty of understanding its prevalence. Even today, some of the issues that plagued those pioneer authors are true with more sophisticated studies. One of the earliest and largest such series was provided by McDonald and Korb [9] in 1939. Their report was based on a review of 407 papers published through January 1, 1938, from which they collected 1,135 cases of "saccular aneurysms of the circle of Willis." However, this mixture of autopsy and surgical cases, rendering the collection unsuitable to make valid conclusions for clinical use, but was a good start simply based on its sheer size. Another impressive set up cases were collected and systematically analyzed by Housepian and Pool [10], which was an autopsy study of 5,762 adult brains examined from 1914 to 1956 in which they found aneurysms in 0.5% consistently until 1931. However, using the same source, their own data between 1931 to 1956 showed this figure rose significantly to 2.1% in the second epoch. The authors attributed this increase to the establishment of a department of neuropathology at their institution with subsequent systematization of brain examinations. Furthermore, the overall incidence dropped to 1.3% at the same institution when children were included in the analysis, which illustrated the variance imposed by their efforts at modernization and

and changing the pool of data used for analysis.

More refined autopsy studies following, which paid close attention to age, race, and other variables with more systematic statistical analyses. Some that are noteworthy among those pioneering attempts are included here. Inagawa and Hirano [11] review 10,259 autopsies from Montefiore Medical Center between 1951 and 1987, which found unruptured incidental intracranial aneurysms in 84 patients who had 102 unruptured aneurysms giving it a prevalence of 0.8%. Inagawa and Hirano noted that the incidence of unruptured aneurysms was higher in those 60 years or older and peaked at 1.2% in the seventh decade. Another large autopsy study of 7,650 patients 10 years or older was reported by McCormick and Nofzinger [12] from the University of Tennessee hospitals, where the majority of the population (86.9%) were black. Using this sample, McCormick and Nofzinger found aneurysms in 153 or 2% of all autopsies. McCormick then looked at a set of patients from the University of Iowa Hospitals from August 1, 1964 to March 31, 1965 and in this much smaller series where more than 95% were white, he found aneurysms in 8.9%, leading him to conclude that the condition was more prevalent in whites. However, this was disproved by later studies. It is obvious that the wide variance in the estimates of the incidence and prevalence of aneurysms observed in autopsy studies of that era were due to the epochs of time during which the data were derived, from methodologies employed for the autopsies, population subsets, and the various risk factors of the subsets under study, and not in the least, the definition of aneurysms themselves and the age criteria of adults vs. children used for the analyses. Variations have been observed even between the earlier and later data derived from within the same institution as noted above.

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The usefulness of autopsy studies, no matter how accurate, is less for clinical management of patients compared to data derived from a live patient population. The availability of conventional angiography, computerized tomographic (CT), and magnetic resonance (MR) angiograms opened a new avenue for estimated incidental unruptured intracranial aneurysms (UIA), which made such analysis in live patients more feasible. Winn et al [13] identified 3,684 radiographic reports of cerebral angiography considered unrelated to evaluation for aneurysms, such as those performed for vascular disease, trauma, tumor, and abnormal findings during neurological examination contributing to more than half of the indications, in patients with a median age of 47, for a period of 10 years between April 1969 and January 1980 and found incidental aneurysms in 24 and reported a prevalence rate of 0.65.







# Broca's Area



## A Brighter Brain Future: New Vision Set for Brain Health by 2050

*By: Carlayne E. Jackson, MD, FAAN -President, American Academy of Neurology* 

Neurologists are uniquely positioned to assume leadership in brain health, and your Academy continues to play a principal role in defining brain health and convening the many stakeholders involved in educating and engaging the public

on the importance of maintaining a healthy brain. Now the AAN is sharing its vision for brain health by 2050.

The vision foresees a 2050 where:

- Brain health research leads to scientific breakthroughs
- Preventative neurology is a thriving cross-disciplinary field
- Brain health practice guidelines are available for all ages
- Brain health visits are a standard of care
- Brain health education is widely available
- A national brain health plan guides research, care, and public engagement.

This vision is part of the new AAN position statement and platform on brain health published online in Neurology on September 20, 2023, and shared with the medica and public through a press released just ahead of the AAN's second Brain Health Summit, held on September 21 in Washington, DC. The summit brought together close to 150 leaders in brain health representing academia and research, professional medical and patient organizations, government agencies, biopharmaceutical and tech sector, health care administration, and advocacy groups.

Led by David A. Evans, MBA, and Natalia S. Rost, MD, MPH, FAAN, FAHA, and the AAN Committee on Public Engagement, the theme of the summit was "collaboration," with the goal of fostering engaging and dynamic conversations and establishing connections among stakeholders to create synergies and take action on the top priorities in the field of brain health. The AAN's definition of brain health is a continuous state of attaining and maintaining the optimal neurologic function that best supports one's physical, mental, and social well-being through every stage of life.

The position statement explains that brain health is crucial to optimizing both the function and well-being of every person at each stage of life and is key to both individual and social progress. The ambitious goals of the platform call for accelerating scientific discovery in brain health through crossdisciplinary collaboration, optimizing brain health through integration of preventative care practices, and enhancing public and patient engagement to advance public policy in this area.

We will work to expand the reach of the summit, encouraging increased public awareness of brain health and supporting efforts to study and develop better treatments to improve brain health.

We also took advantage of the energy and enthusiasm of this event by scheduling the AAN Legislative Summit the following day in Washington, with many AAN members who attended the summit also advocating for their legislators for improved access to brain health care.

The AAN has promoted brain health for decades through its advocacy and public outreach, which includes the AAN's free patient and caregiver magazine, Brain & Life<sup>®</sup> and Brain & Life<sup>®</sup> en Espanol, that collectively reach over 1.5M readers, BrainandLife.org, the Brain & Life book series, and the Brain & Life podcast. We are proud to stand united with a coalition of multidisciplinary stakeholders as we pursue a plan to improve brain health across each stage of life.

I want to thank all those involved - and to call on all of you to join in this work to accomplish our ultimate goal of reducing the burden of neurologic disorders and developing a public health response for achieving optimal brain health for everyone.



# **Business of Medicine** PROGRAM FOR RESIDENTS

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WHAT?

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- Coding rules
- Billing and payment processes for patients
- Physician payment plans

WHERE? Rotation sites in Austin, Dallas, San Antonio and Houston

For more information and to apply, visit the **TNS website**.







# Business of Neurology Video Series

2023 Videos include Alterative Practice Models, Are You Considering Selling Your Practice and Academic Careers in Neurology.

Need help with Coding? Employing APPs? How about Contract Negotiations? Enhancing your Practice with Ancillary Services?

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# TNS COMMITTEES



**Women Neurologists Section** Come network at conferences! This section gets together one evening at the close of the day's general session for the purpose of connection, support and mentoring. It is the best time to meet fellow TNS women neurologists. Get involved today!

**Legislative Committee** More of how we practice neurology is determined at the Texas Capital and in Washington D.C. This committee fosters relationships with legislators and policy makers to educate them about the delivery of neurologic healthcare to all Texans.

**Communications Committee** Outreach is important! Did you know TNS has various social media platforms? Distributes a biannual newsletter? This committee works to develop materials/projects as well as contribute to the TNS website as they relate to TNS; grab the attention of the current and future membership. Join this committee as well as contribute to the TNS website and let your creative side shine.

**Medical Economics Committee** This committee serves as a forum to discuss topics encountered in everyday practices. Join and bring your concerns and/or accomplishments to the group. Assist in brainstorming of topics for the "Business of Neurology" video series. Help TNS help its membership.

**Resident Committee** Do you want to shape a young neurologists mind? Answer their questions about their future as a neurologist? Then, this is the committee for you! Join resident representatives from all of the Texas programs and some board members, too, as they work to develop projects or materials geared toward neurology residents. This committee also is responsible for the continuing development of the "Business of Medicine" program.

# For more information, visit the **TNS Website.**