

Perspectives From American Otological Society Past Presidents Since the 125th American Otological Society Anniversary Publication

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Monographs chronicling the history of the American Otological Society (AOS) were produced in honor of the 100th and the 125th anniversaries of the society. At this writing of the 150th anniversary of the AOS, the past 25 years have, to date, gone unchronicled. In an attempt to address this gap, a number of options were available. One was to examine the publications of the past 25 years to gain a sense of what key developments have arisen. While valid, this method does not capture those important developments that did not result in a publication, such as the formal adoption of the newly minted neurotology fellowship. For this reason, and to gain the personal reflections of many of the individuals who were involved in making the history over this period, I polled a group of otologists who were there when events happened and who had insights into those events. A logical choice are the Past Presidents (PPs) of the AOS. This group of individuals have diverse specific interests within the field of otology. Some had primary interests in hearing, others in vestibular function. Some had particular expertise in basic science research, others made their mark as clinicians. All are leaders in the field.

The 21 living PPs of the AOS were contacted. The earliest PP presided over the 1988 annual meeting and the most recent presided in 2016. Each were asked several questions. PPs responded to none, some, or all of the questions posed to them. What follows is a synopsis of their replies.

QUESTION #1: WHAT WAS THE GREATEST DEVELOPMENT OF THE PAST 25 YEARS?

As would be expected, there were a range of responses. Some PPs noted, not one, but several developments

of great importance. In general, responses fell into a number of groups. These groups included: Diagnostic Innovations, Disease Entities, Education, and Surgical Technologies.

Diagnostic Innovations

In the last 25 years, a revolution in diagnostic imaging took place. As stated by Jeffrey P. Harris, M.D., Ph.D., President of the AOS in 2004: “The use of CT then MRI for diagnosis of acoustic neuromas (AN) (was a) huge advance over tomography and pneumoencephalography.” The development of the modern MRI scan makes the identification of 3 mm acoustic neuromas, vascular loops and an enlarged vestibular aqueduct routine.

Several respondents noted, from a basic science perspective, that clinicians are now able to confidently diagnose genetic mutations, resulting in precise clinical diagnoses, such as the identification of the neurofibromatosis type II defect on chromosome 22 or the connexin 26 defect resulting in genetically transmitted sensorineural hearing loss.

Disease Entities

Several replies noted the discovery by Lloyd Minor, M.D., of Superior Semicircular Canal Dehiscence. Superior Semicircular Canal Dehiscence became a frequently recognized diagnosis, treatable by a reliable surgical procedure.

Numerous respondents also described the role of the otologist/neurotologist in the care of patients with acoustic neuromas. Acoustic neuroma surgery and specifically breaking the barrier of the dura, changed the surgical practice of otologists in the past 25 years. In addition, the role of nonsurgical treatment of acoustic tumors was brought to the fore. Expanding on this Herman A. Jenkins, M.D., President of the AOS in 2012, stated that “Probably leading the list (of developments in this time period) would be acoustic neuroma management with watchful waiting versus surgery versus radiation.” The efficacy of stereotactic radiosurgery (SRS) was debated

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at length at the AOS. A contentious issue, it is unclear how much SRS changes the natural history of these slow growing and, at times, nongrowing tumors. In addition, it is yet to be determined if late postirradiation recurrences will develop into a significant clinical problem.

Education

Innovations in the running of the AOS were noted by several respondents, including the noteworthy election of Juliana Gulya, M.D., in 2001 as the first female President. Further, an important new feature of the AOS annual meeting during the past 25 years was the introduction of a basic science lecturer as a key component.

One of the areas of greatest agreement was the importance of the advent of the standardization of a high quality, university-affiliated comprehensive training program for neurotology. This was a contentious issue as well. Before this point, otologic and neurotologic fellowships were not regulated in terms of length, curriculum, surgical experience, and additional resources provided. With that said, there were some excellent fellowship programs offered in nonuniversity settings, and many AOS members did not think that there was a value in changing the entrenched system. Bruce J. Gantz, President of the AOS in 2010 wrote the following: "Undoubtedly the evolution of the Neurotology Fellowship and ABOto certification was the most controversial issue (over the past 25 years) and I unfortunately was in the middle of the fray! There were many contentious encounters during meetings when we went to a 2 year fellowship and then the certification exam several years later. Looking back I am glad that we were able to move this forward and have a significant impact on our field. The interaction with neurosurgery dramatically changed when we had board certification. We became colleagues instead of combatants. I will say that I learned a lot during these meetings and am certain that I would do it all again."

Surgical Technologies

The past 25 years may be best characterized by the astounding changes brought on by technology resulting from the increasing speed and capacity of devices created to process and share information. This miniaturization led to the development of smartphones, and lightweight and powerful laptop computers and also resulted in a quantum leap in the technologies used to treat hearing loss.

But the real innovations took place in the minds of the pioneers who dared to consider new ways to treat old problems. This was most true when considering the father of modern otology and neurotology, Dr. William House. Dr. House pioneered acoustic neuroma surgery and cochlear implantation. With regards to both, but especially cochlear implantation, there was tremendous resistance to his new ideas by basic scientists and clinicians alike at AOS meetings. Dr. Michael Glasscock III was the AOS President in 1992. Along with Dr. William House, Dr. Glasscock was one of the two most influential otologists in the United States. The House fellowship and the

Glasscock fellowship trained the bulk of the otologists/neurotologists of the present generation, and as a colleague of Dr. House, Dr. Glasscock had a unique perspective on the struggles in the development of the cochlear implant. He wrote: "The cochlear implant was one of the greatest controversies. Dr. House faced great opposition at meetings to this idea, over a period of many years. His tenacity and attitude of never giving up led to this accomplishment of the century. Dr. House's achievements help illustrate why the most important key attitude to bring to meetings is an open mind. Vigorous discussions are important, while an overly negative approach can limit new ideas. Galileo is often cited as an example of new science being threatened—in his case, by the Inquisition. A later classic example is the story of Ignaz Semmelweis, who proposed antiseptic theory 20 years before germ theory was proposed. Simply, he asked doctors delivering babies to wash their hands. He cut the mortality rate at his hospital by 90 percent. In spite of this, his ideas were rejected and dismissed, and he met a tragic end, ostracized by his community. "Belief perseverance" is the tendency to stick to what one knows vs being open to new ideas. Hopefully, when professionals gather in the modern era, as the AOS does, we will continue to advance in our ability to consider and share creative new ideas." Sam E. Kinney, M.D., President in 2005 shared in the pride of working with Dr. House writing: "The most important new technology presented to AOS is cochlear implants. I was privileged to be on Bill House's first group of clinicians to do Cochlear implants."

Harkening back to Dr. William House and acoustic neuromas, Gregory Matz, President in 1999 wrote: "In 1964 I met Bill House and saw how he approached acoustic neuromas, he changed everything and really started the field of otoneurology."

QUESTION #2: WHAT WAS THE GREATEST CONTROVERSY OF THE PAST 25 YEARS?

As noted above, some of the great developments over the past 25 years were controversial, especially the advent of the cochlear implant and the development of the neurotology fellowship. However many responses to presented articles and panel discussions evolved into debate, dealing with issues that had been around for decades, if not longer. In fact, some of these discussions took place over years and held prominent positions in AOS programs. One such topic was the role of endolymphatic sac surgery for **Menière's** disease. Another controversy was noted by AOS President in 2008, Clough Shelton. He stated: "Probably the biggest controversy that I heard debated at meetings was that about perilymphatic fistulas. People were divided into camps of believers and nonbelievers." Other disagreements have mostly faded with time including the role of surgical decompression for Bell's palsy, while yet others are active such as the role for canal wall up and canal wall down surgeries in the treatment of cholesteatoma.

QUESTION #3: WHAT ARE YOUR REFLECTIONS ON THE MEANING OF BEING ELECTED TO THE AOS?

Not surprisingly there were some excellent responses to this query. The responses fell into five groups: the impact on aspiring otologists, AOS support of research, AOS as a forum for presentation of one's best work, collegiality and relationships, and the honor of membership.

The Impact on Aspiring Otologists

Derald Brackmann, M.D., President, in 1996 focused on the importance of the AOS for young otologists writing: "I think that the AOS is very important to our field in that it stimulates young physicians to work hard, do research and publish so that they can become members of the AOS." Charles Luetje, M.D., President in 1998 echoed these sentiments: "Membership in the AOS is a goal and an honor toward which younger Otologists & Neurotologists aspire because of its rich history and opportunities to perhaps learn of unwritten clinical occurrences."

AOS Support of Research

Joseph B. Nadol Jr., M.D., President in 2009 is one of several voices expressing thanks to the AOS for the support research, writing: "The long tradition of peer review and support for research efforts in the field of otology, particularly research by our younger members has resulted in the well-earned reputation of the AOS as a highly valued senior society in otolaryngology. The AOS has not only been a venue for hearing the best in research across a broad array of subjects related to otology, including deafness, vestibular disease, vestibular schwannoma, otosclerosis, to name a few, but also its support of research has positively influenced the growth of the field." C. Phillip Dasput, M.D., President in 2011 agrees: "The AOS has had a significant impact on the practice of otology/neurotology. I think our research arm reviewing grant applications and awarding money to young investigators has been the linchpin in our reputation." Horst R. Konrad M.D., President in 2003 echoes this sentiment, writing: "The greatest AOS contributions are the mentorship and research funding by our society."

Debara L. Tucci, M.D., President in 2016 was able to review AOS original documents dating back many years and wrote: "I write these reflections having recently spent a day with Kristen Bordignon and Bob Cueva going through a storage room full of boxes dating back to the earliest days of the AOS. This exercise made me grateful for those who made the effort to acquire and preserve the documents and photographs from the earliest time of our subspecialty. What struck me about these materials is how dedicated the members were to advancing care of

our patients with otologic diseases and disorders. Early records from the AOS Research Fund (originally named the "Central Bureau of Research!") reveal their dedication to these principles. Some of the best minds in our field have been funded by the AOS Research fund, and their work has led to significant advances over these many years."

AOS as a Forum for Presentation of One's Best Work

Paul R. Lambert, M.D., President in 2013 writes: "The AOS podium presentations and panel discussions have been the premiere forum for discussing the latest otologic advancements, and the guest lectureships represent the best minds presenting the best science." John W. House, M.D., President in 2013 succinctly adds: "(there were) many great articles and lively discussion."

Collegiality and Relationships

D. Bradley Welling, M.D., Ph.D., President in 2015 underscores a point made by others as well: "the collegiality of the Senior Society (the AOS) and the great mentors and friends are unparalleled in our specialty in my opinion. It is a tremendously enriching association."

The Honor of Membership

Richard A Chole, M.D., Ph.D., President in 2002 wrote: "I feel it is an honor to be a member of the Society. I remember well the day that I was accepted into the Society in 1984 (yikes!)—it was truly one of the highlights of my career. . .—the AOS has been my academic home for over 3 decades. On a personal note, I cherish the friendships that I have been blessed with among the many distinguished members of the AOS." Dr. Julianna Gulya President in 2001 wrote: "Membership in the AOS was a great honor and I felt it represented recognition by my peers of having achieved an outstanding level of performance in the practice of otology. I was fortunate to be able to socialize and learn from the greats in the field and so membership served as a vehicle for both professional and personal growth."

One response that captured the essence of this question was submitted by C. Gary Jackson, M.D., President in 2000, who wrote: "The AOS represents the field's Hall of Fame. However, unlike other Halls of Fame, the achievement of meeting the lofty standards for AOS induction is not traditionally enjoyed at the time of a well-deserved retirement. AOS membership is awarded to those from whom much more is expected. Membership is dynamic. It is, in fact, assumed that one will continue to serve and produce special contribution to our field and to embellish the credentials which afforded them admission to the oldest and greatest medical society on the planet. There can be no higher honor than its membership."