2021 ADVANCE PROGRAM

North American Skull Base Society

2021 Virtual Symposium

“Teams and Teamwork”

Saturday, February 13, 2021
8:00 AM-2:00 PM PT | A Virtual Event

PRESIDENT: John G. Golfinos, MD

PROGRAM CHAIRS: Daniel Prevedello, MD & Arturo Solares, MD

SCIENTIFIC PROGRAM COMMITTEE: John G. Golfinos, MD, President, Daniel Prevedello, MD, Program Co-Chair, Arturo Solares, MD, Program Co-Chair, Carolina Benjamin, MD, Juan Fernandez-Miranda, MD, David Friedman, MD, Jose Gurrola, MD, Bharat Guthikonda, MD, Oswaldo Henriquez, MD, David Jang, MD, Cristine Klatt-Cromwell, MD, Diego Mendez-Rosito, MD, Matthew Ord, MD, Donato Pacione, MD, Carlos Pinheiro-Neto, MD, Gustavo Pradilla, MD, Christopher Rassekh, MD, Pablo Recinos, MD, Camilo Reyes, MD, Brian Thorp, MD, Jamie Van Gompel, MD, Lee Zimmer, MD
Dear and Esteemed Members of the North American Skull Base Society:

It is one of the greatest honors and privileges of my life to have been chosen to lead this august Society as President. When I consider the talented individuals within the North American Skull Base Society – the gifted surgeons, the precise anatomists, the brilliant radiation oncologists, the insightful ophthalmologists – I am completely humbled to be considered among their ranks. The individuals who have preceded me as President include some of the greatest skull base specialists in history, not least of whom is my immediate predecessor, Ricardo L. Carrau, MD. I owe Ric an enormous debt for handing over a thriving, robust, and prosperous Society. He has indeed left very large shoes for me to fill.

The Society is in excellent shape, expanding faster and achieving membership larger than it ever has before. There are now more than 1,000 members in the North American Skull Base Society (NASBS), for the first time in the Society's history. This achievement is due to the hard work of Dr. Carrau and our leaders on the membership committee, including especially Brian Thorp, MD, Eric Wang, MD, and L. Madison Michael, II, MD and their crew of indefatigable skull base proselytizers. Their enthusiasm for the camaraderie and scholarship of the Society has been transmitted to the largest number of new recruits we have ever seen.

In similar fashion, our committees are more streamlined and effective than ever before, one of the many accomplishments of Dr. Carrau and also James Evans, MD who preceded him as NASBS President. Committees like our Website & Communications Committee, our Research Committee, our Value Based Healthcare Committee, and our Surgical Education Committee are hotbeds of innovation and accomplishment. I am amazed as what those committees and their leadership have accomplished in the last year. There are too many individuals to name without forgetting some, but especially Erin McKean, MD (Value Based Healthcare Chair), Shaan Raza, MD and Anand Devaiah, MD (Research Co-Chairs), and Christopher Graffeo, MD (Social Media Director), who somehow is still in training and yet has the time to post outstanding content on NASBS' social media accounts with the help of the Social Media Subcommittee. If you are not already following NASBS on Twitter or Instagram, I strongly urge you to do so. I look forward to every new Rhoton anatomy question and NASBS post, and I never have to worry about our Twitter account being permanently suspended, unlike the worries of some other, now former, Presidents.

To achieve all of this in any other year would be a spectacular accomplishment and ample evidence of a bustling, flourishing society, but to do all this in the horrible year that was 2020 defies the imagination. The past year has seen the Society confronted by the same problems and issues that have afflicted all of us personally. The pandemic has had an impact even at the skull base, as many of our otolaryngology colleagues know all too well. We have played our part in trying to keep health care workers and operating room staff in particular as safe as possible during the onslaught of the virus. For the Society itself, the pandemic’s impact has been felt most acutely in our education efforts. This year will be the first year since the founding of the North American...
Skull Base Society that we will not have an in-person academic meeting for the exchange of ideas and the enjoyment of collegiality. In place of our Annual Meeting in 2021, we will have a Virtual Symposium scheduled for February 13th and held online. It is a one-day meeting and packs into that one day all the important ideas and new clinical and scientific research that one would hear over our usual multi-day meeting. The Virtual Symposium has been brought together and organized by two of the greatest Scientific Program organizers one could ever hope for: Daniel Prevedello, MD, our scientific program chair, and C. Arturo Solares, MD, his co-chair. I cannot possibly thank Danny and Arturo enough for the incredible job they have done in organizing an exciting, informative meeting that will (almost literally) keep you glued to your Zoom screen. They have done spectacular work in picking the highest impact abstracts for presentation and in recruiting moderators and commentators with enormous insight and experience. We will harness and maintain the enthusiasm and energy of our very successful November Virtual Skull Base Course organized by Chris Rassekh, MD and our Surgical Education Committee. The honored guest for the meeting will be Prof. Michel Kalamarides from Paris, France one of the world’s experts on the genomics of meningiomas and leading light in NF2 as well. We expect a day filled with the best that our unique Society has to offer about the skull base. Registration is open now, so don’t miss out on the definitive meeting about the Skull Base.

Before I close, I want to mention the other unfathomable events of the year that was 2020. It was a year that saw my hometown, New York City, convulsed by the loss of innocent Black American lives. If there is any silver lining at all to the pandemic, perhaps it is the reflection that people of color in America have suffered far too much for far too long. The pandemic itself has laid these inequities bare, exposing them for all of us to see. To me, the North American Skull Base Society is in a unique position to show the way and help. We are a Society deliberately composed of physicians who approach the dividing line of the skull base from different directions and with different ideas. We all have conflicting notions of what is right and wrong at the skull base, and yet, through collaboration, discussion, and collegiality, we together arrive at answers better than any of us could achieve on our own. The North American Skull Base Society is proof that a surgically diverse team can accomplish more than any individual could - proof of the deep, intrinsic value of diversity. Even more, through our international scholarships and our other educational ventures, the Society remains devoted to improving the delivery of medical and surgical care throughout the world, devoted to the idea that every single person deserves the same level of outstanding care and expertise.

The year that was 2020, a true annus horribilis, has forced unique circumstances upon the NASBS. Above all, we will miss the ability to come together in person at our annual meeting, which had been scheduled for Atlanta. Our Virtual Symposium will take its place. Because of the unusual events, and in order to preserve continuity and unity, in a time marked by social distance, the Board of the NASBS voted to preserve the current leadership in their current positions. I will serve as President until our next annual meeting in Phoenix in February 2022. I can tell you that the decision was not made lightly, and it was made unanimously. (It was also made well before the storming of the US Capitol!) By keeping the leadership team in place for two years, we will best be able to ensure a smooth run-up to our first opportunity to come together in person and celebrate with the warm shaking of hands and, one hopes, even hugs. Drs. Prevedello and Solares, our Annual Meeting Scientific Program Chairs, will stay in place, bearing the largest burden of the two years of service, but I doubt anyone is better prepared for that task.
Let us not miss the opportunity to see each other at least virtually this February. Join us all at the Virtual Symposium. Stay in touch with what is going on at the Skull Base, and see your colleagues on the screen during our scientific program and our social hours. It will be a refreshing respite from the turmoil of the world around us and will recharge all of us until we can finally see each other again in person. Don’t miss it and get left out!

Until then, please stay safe and be well, and continue the excellent care of patients in need that is a hallmark of the members of the North American Skull Base Society.

With warmest and most sincere regards, I remain yours,

John G. Golfinos, MD
NASBS President 2020 - 2022
General/CME Information

CME ACCREDITATION:

Physician Accreditation Statement
This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint providership of PESI Inc. and North American Skull Based Society (NASBS). PESI Inc. is accredited by the ACCME to provide continuing medical education for physicians.

AMA PRA Designation Statement
PESI, Inc. designates this other educational activity (online live for 10 credits and online enduring for 10.25 credits) for a maximum of 20.25 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

International CME
International Physicians are formally eligible for AMA PRA Category 1 Credit™.

Physician Assistants
AAPA accepts Category 1 credit from AOACCME, Prescribed credit from AAFP, and AMA PRA Category 1 Credit™ for the PRA from organizations accredited by ACCME.

Each session claimed for credit must be attended in its entirely.

ANNUAL MEETING OBJECTIVES
Upon completion of this course, participants will be able to:
- Understand and explain most recent recommendations for management of skull base pathology.
- Describe recent advances in instrumentation and technology in skull base surgery.
- Gain knowledge in challenging skull base pathology from experienced leaders in the field.
- Collaborate in multidisciplinary working groups to identify state of the art management for select skull base pathology.
- Gain knowledge on optimal technical surgical management of complex skull base pathology through video analysis and expert critique of intraoperative video.
- Establish consensus statement on management of complex skull base pathology through review of existing medical literature.

WHO SHOULD ATTEND
The NASBS meeting is open to NASBS members and non-members.
General Information

TARGET AUDIENCE
- Otolaryngologists, head and neck surgeons, neurosurgeons, reconstructive surgeons, radiation oncologists, radiologists, medical oncologists, physical rehabilitation physicians, ophthalmologists, neurologists, maxillofacial surgeons, maxillofacial prosthodontists and endocrinologists.
- Targeted allied health professionals include physical therapists, oncology nurses, oral health specialists, occupational therapists, speech and language pathologists, optometrists and psychologists.

DISCLOSURE INFORMATION
In compliance with the ACCME Accreditation Criteria, the PESI, Inc., as the accredited provider of this activity, must ensure that anyone in a position to control the content of the educational activity has disclosed all relevant financial relationships with any commercial interest. All reported conflicts are managed by a designated official to ensure a bias-free presentation. Please see the insert to this program for the complete disclosure list.

MEMBERSHIP BENEFITS
- Active members will receive the official journal of the society, The Journal of Neurological Surgery Part B, a publication that contains peer reviewed original articles, review articles, and position papers. It also presents news and information on an international scope to keep members aware of recent and upcoming events, activities, and evolving developments in skull base surgery. Affiliate, International and Candidate members may subscribe to the journal for $100 annually.
- Discounted rates to attend the Annual Meeting
- Opportunities to network with colleagues and experts from across North America and globally
- Committees which provide opportunities for camaraderie, involvement and leadership development
- Online access to all members contact information.

Please visit www.nasbs.org/membership for more information or email membership@nasbs.org.

WHY JOIN NASBS?
Membership is based on an interest in skull base surgery and related sciences. Individuals with backgrounds in neurosurgery, otolaryngology, head and neck surgery, radiology, neuroradiology, otology, neurotology, plastic and reconstructive surgery, and others interested in skull base diseases are welcome to apply.
Virtual Event FAQ

1. **What is a Virtual Event?**
   
   The aim of the NASBS 2021 Virtual Symposium is to provide similar educational, networking, and industry opportunity as an in-person Annual Meeting. The NASBS 2021 Virtual Symposium Task Force have developed a balanced virtual program of excellent work. All programming will take place online in the following three formats:
   
   1. **Live Zoom Webinar** - Speakers and Moderators video and audio are enabled. Participating attendees can submit questions and comments via the Q&A feature.
   2. **Live Zoom Meeting** - Speakers, Moderators, and Attendees can enable video and audio.
   3. **On Demand** - All registered attendees will have access to pre-recorded presentations. Viewers are encouraged to submit comments and questions via the comments feature below the video.

2. **What do I need in order to attend the virtual conference?**

   Content can be accessed by most devices with internet connection. We recommend using a computer with strong internet connection with the recommended internet browser. Google Chrome is advised for the best compatibility and experience.

3. **If I want to watch live sessions that are occurring simultaneously, can I go back later and view them?**

   Yes, most concurrent live sessions are recorded. The recording will be available after the live session as On Demand content.

4. **How long will On Demand content be available?**

   All On Demand content will be available until December 31, 2021.

5. **How long will ePosters be available?**

   Genigraphics will archive ePosters for five (5) years.

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**Past Presidents**

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<td>Jacques Morcos, MD, FRCS(Eng), FRCS(Ed), FAANS</td>
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<td>2018</td>
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<td>2019</td>
<td>James Evans, MD, FACS, FAANS</td>
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<tr>
<td>2020</td>
<td>Ricardo Carrau, MD, MBA</td>
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6. **Will there be continuing medical education (CME) credits?**
   The NASBS 2021 Virtual Symposium has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint providership of PESI, Inc. and North American Skull Base Society. PESI, Inc. is accredited by the ACCME to provide continuing medical education for physicians. For more information regarding CME please visit [https://www.nasbs.org/future_meetings/cme-information/](https://www.nasbs.org/future_meetings/cme-information/)

7. **How long do I have to claim credits?**
   Evaluations and claims for CME will be accepted through January 31, 2022. Please note that content will be available for viewing through December 31, 2021.

8. **How will I receive access to the virtual conference platform?**
   After registering you will receive an email from the NASBS office with event access information. For more information regarding registration please visit [https://www.nasbs.org/future_meetings/registration/](https://www.nasbs.org/future_meetings/registration/)
Content-at-a-Glance

Saturday, February 13, 2020
All times listed in Pacific Time Zone (PST)

8:00am – 8:30am Presidential Opening Remarks
8:35am – 9:35am Main Topics:
• Topic 1: Meningioma
• Topic 2: Pituitary

9:40am – 10:40am Main Topics:
• Topic 3: Complication
• Topic 4: Covid

10:45am – 10:55am Break with Exhibitors
10:55am – 11:15am Main Presentation
11:15am – 12:15pm Main Topics:
• Topic 5: Acoustic Neuroma
• Topic 6: Open Approaches

12:20pm – 1:20pm Main Topics:
• Topic 7: Malignancies & Chordoma
• Topic 8: Reconstruction
• Topic 9: Training, EEA Technology, & Malignancies

1:25pm – 2:25pm Closing Remarks & Awards

On-Demand Content to include Topics on:

» Anatomy Of The Skull Base
» Aneurysms
» Cerebrospinal Fluid Leaks
» Clival Tumors/Chordoma/Chondroid Tumors
» Complications Of Skull Base Surgery
» Cost Utility Of Skull Base Treatments
» Craniofacial Surgery
» Craniopharyngiomas
» Development Of Novel Technology
» Endoscopic Assisted And Keyhole Approaches
» Endoscopic Transnasal Skull Base Surgery
» Head And Neck Tumors
» Inflammatory And Infectious Skull Base Conditions
» Innovative Techniques, Technology, And Approaches To The Skull Base
» Intraoperative Neuromonitoring
» Lateral Skull Base Surgery
» Medical Management Of Skull Base Neoplasms
» Meningiomas
» Microvascular Decompression
» Novel Techniques and Treatment
» Oncologic Outcomes
» Orbital Tumors
» Pediatric Skull Base Surgery
» Pituitary Tumors
» Quality Of Life Following Skull Base Surgery
» Sinonasal Neoplasms
» Skull Base Reconstruction
» Skull Base Surgery
» Stereotactic Radiosurgery
» Telemedicine
» Temporal Bone Tumors
» Training And Education
» Transorbital Skull Base Surgery
» Vestibular Schwannomas
Live Events Schedule

**Time (Pacific)**

8:00am - 8:30am

Presidential Opening Remarks - John G. Golfinos, MD

8:35am - 9:35am

**Session**

**Topic 1: Meningioma**

Expert Talk:

Molecular Biomarkers in Meningiomas - Wenya Linda Bi, PhD

**Abstract Presentations:**

To Radiate Upfront or at Initial Recurrence after Gross Total Resection of Newly Diagnosed WHO II Meningiomas? A Propensity Score Adjusted Analysis - Arbaz Momin, BS

The value of Simpson I-II resection in deep-seated and skull base WHO grade I meningioma - Colin Przybylowski, MD

International Tuberculum Sellae Meningioma Study: Preoperative grading scale to predict outcomes and inform approach selection - Stephen T Magill, MD, PhD

Machine Learning Analysis of Local Recurrence of Meningioma treated with Stereotactic Radiotherapy - Benjamin A Greenberger, MD

**Live Question and Answer:** All Presenters

Moderated by Donato Pacione and Pablo F Recinos

8:35am - 9:35am

**Session**

**Topic 2: Pituitary**

Expert Talk:

Does the New WHO Classification Make Sense? - Nelson M Oyesiku

**Abstract Presentations:**

Does having a Primary Care Physician Predict Neurosurgical Outcomes? An Analysis of 225 Nonfunctional Pituitary Adenoma Resections Across Seven Years - Robert C Osorio, BS

Peri-operative variables and costs associated with early remission in Cushing’s patients with micro and macroadenomas - Limi Sharif, BS

Remission Rates and Efficacy Profile of Endoscopic Endonasal Surgery for Prolactinomas Based on Their Cavernous Sinus Invasiveness - Hussam Abou-Al-Shaar, MD

Postoperative Oral Antibiotics and Sinonasal Outcomes Following Endoscopic Transsphenoidal Surgery for Pituitary Tumors (POET) study: a multicenter, prospective, randomized, double-blinded, placebo-controlled study - Andrew S Little, MD
Assessment of the Validity and Reliability of the Sinonasal Outcomes Test-22 in Endoscopic Endonasal Transsphenoidal Pituitary Surgery in a Multicenter Prospective Trial - Christina E Sarris, MD

**Live Question and Answer:** All Presenters
Moderated by Brian David Thorp and Lee Zimmer

9:40am - 9:55am  **Topic 3: Complication**

**Expert Talk:**
Preventing and Managing Vascular Injuries in Endonasal Surgery - Paul A Gardner

**Abstract Presentations:**

Characterization of outcomes and practices utilized in management of internal carotid artery injury not requiring embolization, stenting, or ligation - Nyall R London, MD, PhD

Endoscopic Endonasal Carotid Injury: Case series and review of the modern literature with lessons learned - Sean P Polster, MD

90-day Bundled Payment Simulation, Healthcare Utilization, and Complications Following Craniopharyngioma Resection in Adult Patients - Nicholas Dietz, MD

Management of the osteoradionecrosis of the median skull base: systematic review - Chadi Makary, MD

**Live Question and Answer:** All Presenters
Moderated by Bharat Guthikonda and Camilo Reyes

9:40am - 9:55am  **Topic 4: Covid**

**Expert Talk:**
Skull Base Surgery and COVID-19: Myths and Reality! - Zara M Patel

**Abstract Presentations:**
Aerosol Generation During Endonasal Instrumentation in the Clinic Setting - Alexander Murr, BS

Aerosol Generation During Endoscopic Sinonasal Surgery - Alexander Murr, BS
Live Events Schedule

Effects of Interruption of Care during COVID-19 Pandemic on Sinus and Skull Base Surgery Patients - Katherine Y Liu, BA

Intraoperative use and validation of a novel negative pressure, face-mounted antechamber to minimize aerosolization of particles during endoscopic skull base surgery - Matthew Kim

Topical Therapies to Prevent Aerosolization of Respiratory Viral Particles During Endonasal Skull Base Surgery: A Practical Review - Katherine Tai, BA

Live Question and Answer: All Presenters

Moderated by David W Jang and Jose G Gurrola

10:45am - 10:55am Break

10:55am - 11:15am Main Presentation - Advances in Vestibular Schwannoma Surgery

Michel Kalamarides, MD, PhD

Michel Kalamarides is a Professor of Neurosurgery at Pitié-Salpetrière Hôpital (Faculté de Medécine, Sorbonne-Université), Paris France.

He is specialized in vestibular schwannoma and meningioma surgery. He has performed more than 1500 CPA tumor surgeries with neuro-otology team previously led by Olivier Sterkers. Within a large INSERM unit- U 1127 at Brain and Spine Institute (Pitié-Salpetrière), Dr. Kalamarides is leading a research group on meningioma, particularly using mouse models to dissect the mechanisms of meningioma initiation and progression.

He is leading the French NF2 reference clinical center and the French NF2 network.

11:20am - 12:20pm Topic 5: Acoustic Neuroma

Expert Talk:

Vestibular Schwanomas: Can Molecular Biomarkers Influence the Clinical Outcome? - Konstantina Stankovic

Abstract Presentations:

Technology-assisted minimally invasive surgical options for the treatment of medium to large vestibular schwannomas: our experience - E. Carrassi, MD

Distinct immune signature predicts progression of vestibular schwannoma and unveils a possible viral etiology - Moran Amit, MD, PhD

Surgical outcomes following vestibular schwannoma resection in patients over the age of sixty-five - Ben A Strickland
Live Events Schedule

Prospective Quality of Life in Patients with Sporadic Vestibular Schwannoma: A Comparison of Observation, Microsurgery, and Radiation Treatment Modalities - Ashley M Nassiri, MD, MBA

Continued Observation of Growing Vestibular Schwannomas - Donald Tan, MD

**Live Question and Answer: All Presenters**
Moderated by Gustavo Pradilla and Jamie Joseph Van Gompel

11:20am - 12:20pm  Topic 6: Open Approaches

**Expert Talk:**
Can the Use of ICG Really Improve Outcomes? - John Yk Lee

**Abstract Presentations:**
Augmented reality guided retrosigmoid approach - Christoph Leuze

Utility of Modified Frailty Index (mFI) and Traditional Prognostic Measures to Prognosticate Adverse 30-Day Quality Outcomes after Microvascular Decompression for Trigeminal Neuralgia - Mohammed Ali Alvi, MBBS, MS

Radiosurgery vs Microsurgery for Newly Diagnosed, Small Petroclival Meningiomas with Trigeminal Neuralgia - Hun Ho Park, MD

Transorbital neuroendoscopic surgery as a mainstream neurosurgical corridor: a systematic review - Lena Mary Houlihan, MD, MCH

**Live Question and Answer: All Presenters**
Moderated by Bharat Guthikonda and C. Arturo Solares

12:25pm - 1:25pm  Topic 7: Malignancies & Chordoma

**Expert Talk:**
Perineural Invasion in Cutaneous Squamous Cell Carcinoma: Current Clinical Practice and the Future of Immunotherapies - Benedict J Panizza

**Abstract Presentations:**
An Integrated Management Paradigm for Skull Base Chordoma Based on Clinical and Molecular Characteristics - Hussein M Abdallah

CDKs Blockade Enhances In Vivo Efficacy of EGFR Inhibition in Chordomas - Tianna Zhao
Live Events Schedule

Evaluation of the immune microenvironment in sinonasal squamous cell carcinoma and its association with patients' survival - Yoko Takahashi, PhD

Sinonasal Rhabdomyosarcoma: A 26-Year Experience at a Single Institution - Lulia A Kana, BS

Implementation of the Patient Protection and Affordable Care Act (PPACA) Affects Treatment Modality in Sinonasal Squamous Cell Carcinoma - Abdullah H Feroze, MD

Live Question and Answer: All Presenters
Moderated by Carolina G Benjamin and Matthew Owen Old

12:25pm - 1:25pm  Topic 8: Reconstruction

Expert Talk:

Should Endonasal Free Flaps Replace Regional Flaps? - Michael Fritz

Abstract Presentations:

Low pre-operative prealbumin levels are a strong independent predictor of post-operative cerebrospinal fluid leak following endoscopic endonasal skull base surgery - Daryl P Fields, MD, PhD

Magnetic Resonance Venography and Spontaneous Cerebrospinal Fluid Leaks to the Temporal Bone - Shubham Patel, BS

Analysis of Lumbar Puncture Opening Pressures Before and After Closure of Spontaneous Anterior and Lateral Cranial Base Cerebrospinal Fluid Leaks - Glen D'Souza

Long-Term Fate of Vascularized Pedicled Nasoseptal Flap after Endonasal Endoscopic Skull Base Surgery - Jack Birkenbeuel, BS

Anatomic Configurations in Midfacial Reconstruction Using Scapula and Scapular Tip Flaps - Brian P Swendseid, MD

Live Question and Answer: All Presenters
Moderated by Carlos Pinheiro-Neto and Cristine N Klatt-Cromwell

12:25pm - 1:25pm  Topic 9: Training, EEA Technology, and Malignancies

Expert Talk:

The Operating Room of the Future - Martin Citardi

Abstract Presentations:

Implementation of TDABC to Analyze Cost Drivers in Endoscopic Skull Base Surgery - Shravani Pathak
Live Events Schedule

Limited utility of 5-ALA optical fluorescence in endoscopic endonasal skull base surgery; a multicenter retrospective study - Alexander Micko

Long Term Outcomes After Surgery For Esthesioneuroblastoma: A Single Comprehensive Cancer Center Experience - Dauren Adilbay

Multi-center study on clinical outcomes of olfactory neuroblastoma - Matt Lechner, MD, PhD

**Live Question and Answer: All Presenters**
Moderated by Jose G Gurrola and Oswaldo A Henriquez

**1:30pm - 2:30pm**

**Closing Remarks**
Daniel Prevedello, MD and C. Arturo Solares, MD
On Demand Content Details

Anatomy Of The Skull Base
- Comparison between Far Lateral Approach, Far Medial Expanded Endonasal Approach and Contralateral Transmaxillary Corridor to the Jugular Tubercle - Cleiton Formentin, MD
- Ethmoidal Width as a Predictor of the Size and Surgical Freedom of the Trans-Cribriform Corridor. - Zaid Aljuboori, MD

Aneurysms
- Skull base approaches for cerebrovascular disorders - M.R. Fasinella, MD
- Standard Orbitozygomatic Craniotomy vs Mini Orbitozygomatic Craniotomy Via an Eyebrow Incision for Microsurgical Treatment of Anterior Communicating Artery Aneurysms - David R Peters, MD

Cerebrospinal Fluid Leaks
- Single-arm, open-label, multicenter study to evaluate the safety and performance of Dura Sealant Patch in reducing CSF leakage following elective cranial surgery; the ENCASE trial - Tristan P van Doormaal, MD, PhD
- Simple Non-Watertight Closure for Keyhole Retrosigmoid Craniotomies - Is Less More? - Andrew K Wong, MD
- Clinical Outcomes of Surgical and Pharmacological Treatment of Spontaneous Cerebrospinal Fluid leaks to the Temporal Bone - Shubham Patel, BS

Clival Tumors/Chordoma/Chondroid Tumors
- An institutional review of clinical outcomes for skull base chordoma: An analysis of 263 cases over 19 years - Nallammai Muthiah
- Long-term outcomes of grade I&II skull base chondrosarcoma: an insight into the role of surgery and radiotherapy - Hirotaka Hasegawa, MD, PhD
- Surgical Management of Clival Malignancies: Predictors of Quality of Life - Patrick J Hunt
- Chondrosarcoma of the skull base: a single-institution 15-year review - Alyssa M Civantos
- Metastatic chordoma is associated with significantly shorter progression free survival following resection - Zachary C Gersey, MD

Complications Of Skull Base Surgery
- Preoperative Bleeding Risk Factors in Patients with Morbid Obesity Undergoing Anterior Skull Base Surgery - Aksha Parray, BA
- Complication Frequency and Timing in Patients with Morbid Obesity Undergoing Anterior Skull Base Surgery - Aksha Parray, BA
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- Sino-nasal Aneurysmal Bone Cyst Invading the Frontal Skull Base: A Case Report – Ashwag Alqurashi, MD
- First Case Report of a Cerebrospinal Fluid Leak as a Complication of Induction Chemotherapy in a Pregnant Patient with Sinonasal Undifferentiated Carcinoma – David C Mundy, BS
- Nasal Inverting Papilloma extending to Bilateral Temporal Bones with Intracranial Extension: A Case Report and Literature Review – Christine Matthews, MD
- Sinonasal Neuroendocrine Carcinoma: 15 Years of Experience at a Single Institution – Charles A Keilin
- High-Grade Biphenotypic Sinonasal Sarcoma: A case report – Sukaina Hasnie, MD

Skull Base Reconstruction

- Lumber Drain Outcomes in Endonasal Endoscopic Skull Base Surgery – Jack Birkenbeuel, BS
- Skull Base as a Team Sport: Role of the Neurosurgeon in Complex Head and Neck Cancer Surgery Requiring Vascularized Tissue Transfer Reconstruction – Varun S Shah
- Management of Complicated Skull Base Osteoradionecrosis with a Buccal Fat Flap and Free Tissue Transfer – Ricardo Aulet, MD, MBA
- Free Tissue Transfer in the Endoscopic Era: Evolving Role of the Top Tier of Skull Base Reconstruction – Satyan B Sreenath, MD
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- Bilateral Inferior Turbinate Flap for Repair of Skull Base Dehiscence after Proton Beam Radiotherapy for Clival Chordoma – Kayva L Crawford, MD

Skull Base Surgery

- Cerebral arterial vasospasm as a complication in an endoscopic transnasal approach for the resection of a WHO I Meningioma. A Case report – Andrés F Méndez, MD
- Skull base chordoma with intradural component and compression to pons. – Tural Rahimli, MD
- Longitudinal Trends in the Morbidity and Mortality of Skull Base Surgery by Anatomic Subsite – Nilan G Vaghjiani, BS
- A Low Subfrontal Dural Opening For Anterior Skull Base Lesions – Samuel J Cler, BS
- Intraoperative Differentiation of Normal Pituitary Gland from Adenoma Using Frozen Section and Touch Preparation Techniques – Nataly Raviv, MD
- Steps of the Expanded Extreme Lateral Approach: A Systematic and Consequential Anatomical Description – Irakliy Abramov, MD, PhD
- Endoscopic Transorbital Approach for Spheno–Orbital Meningiomas, first Colombian Case Reports. – Andrés F Méndez, MD
- The Blood Supply of Intracavernous Cranial Nerves: An Anatomic Study and Its Implications for Transcranial and Endoscopic Cavernous Sinus Surgery – Edinson Najera, MD
- Optic canal decompression for delayed vision loss in post traumatic optic neuropathy – Stefania B Diniz, MD
- The transfrontal sinus approach to anterior fossa skull base tumors in the era of expanded endonasal endoscopy – Kevin A Cross, MD
- Surgical Strategies for Incising the Tentorium in Skull Base Approaches – Michael G Kim
- Skull Base Chondromyxoid Fibroma: A Case Report and Review of the Literature – Christopher Weeks, MD

Stereotactic Radiosurgery

- Gamma Knife Radiosurgery for Hypothalamic Hamartomas: Systematic Review – Aditya M Kondajji, BS
- Zapping Vestibular Schwannomas: The first vestibular schwannoma treated with the ZAP-X – Malika Bhargava, MD, MBA
- Microsurgical Resection of Petroclival Meningiomas Treated with Stereotactic Radiosurgery to Address Persistent Post-Treatment Trigeminal Pain – Baha’eddin A. Muhsen, MD
# Poster Listing

## Temporal Bone Tumors
- In vivo application and short-term outcomes of exoscope-assisted near-total temporal bone resection for malignancy – Rima Rindler, MD
- Primary skull base melanoma causing jugular foramen syndrome – GRene Alvarez Berastegui, MD, Neurosurgeon

## Training And Education
- Understandability and readability of online resources for skull base surgery patients – Drew Cutshaw
- Pilot study in theoretical and hands-on experience and its contribution to learning of residents and young trainees in Neurosurgery. The importance of surgical anatomy laboratories as part of training – Luciano Leonel, PhD
- Investigation of Surgical Precision and Efficiency in a Laboratory Model of Endoscopic Endonasal Dural Suturing: Is 3D Endoscopy Superior to 2D Endoscopy? – Ivanna Nebor, MD
- Upright, Bright, Instruments in Sight: A Multimodal Training Module for Assisting in Endoscopic Endonasal Procedures for Junior Surgical Residents – Rima Rindler, MD
- Micro-CT 3D Printed Temporal Bone Dissection: A Feasibility Study – Nathaniel Webb

## Training The Future Skull Base Surgeon
- Anatomical step-by-step dissection of complex skull base approaches for trainees: surgical anatomy of the endoscopic endonasal approach to the orbit – Laura Salgado-Lopez, MD

## Transorbital Skull Base Surgery
- First Case Report of Primary Central Nervous System Amyloidoma Involving Cranial Nerves V and VII – Esther Yesde Son, PhD
- A Multiplanar Perspective of Endoscopic Approaches to the Infratemporal Fossa: A Cadaveric Study – Roberto M. M Soriano, MD

## Vascular Malformations/Tumors
- Multidisciplinary Approach to Recalcitrant Dural AV Fistula – Joshua C Page, MD
- Treatment of a pontine cavernoma with laser interstitial thermal therapy: case report – Jesse D Lawrence, MD
- Cerebellopontine angle Glioblastoma: Unlikely presentation and limited treatment options – Danielle D Dang, MD
Poster Listing

Vestibular Schwannomas

- A Case-Case Analysis of Intralabyrinthine versus Intracanalicular Vestibular Schwannomas – Kelli L Hicks, MD
- Contralateral Hearing Loss After Vestibular Schwannoma Resection – S Hasnie, MD
- Cochlear Ossification after Vestibular Schwannoma Resection via the Middle Cranial Fossa Approach – Scott B Shapiro, MD
- Surgical Exposure of the Proximal Internal Auditory Canal: An Anatomosurgical Comparison of Retrosigmoid and Middle Fossa Transpetrosal Corridors – Michael G Kim
- Pontocerebellar Angle Pathology: Analysis of the casuistry of a neurosurgical center in Chile – Pablo Peña, MD
- Porus Acusticus Obstruction from a Densely Adherent Loop of AICA During Retrosigmoid Resection of a Vestibular Schwannoma – Jacob Kahane
- Vision deterioration and hydrocephalus: rare presentations of vestibular schwannoma and evolution of management – Marte van Keulen, MD
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