

## WFNS2022 | SCIENTIFIC PROGRAM

14/03/2022

### 07:00 - 09:00 TRAUMA WAR AND DISASTER

**Room A** **Moderators:** *Reisner, Andrew*  
*Rubiano, Andrés*

7:00 - 07:15 Disaster Management in Neurosurgery: A Call for Action

*Russell Andrews (United States)*

7:15 - 07:30 Management of Blast Head and Neck Injuries (Video)

*Jeffrey Rosenfeld (Australia)*

7:30 - 07:45 Experience of Neurotrauma Management in a War Hospital in Iraq

*Samer Hoz (Iraq)*

7:45 - 08:00 Management of civilian penetrating injuries

*Tariq Khan (Pakistan)*

8:15 - 08:30 Experience of Neurotrauma Management in a field military hospital (Video)

*Rocco Armonda (United States)*

8:30 - 08:40 Video from Ukraine

*TBD (TBD)*

9:55 - 10:10 Damage Control in Neurotrauma: Applications for Acute Injuries in Low Resources Settings

*Andrés Rubiano (Colombia)*

10:25 - 10:40 Discussion

**07:00 - 08:30 STATE OF ART - Spine IB**

**Room BC** **Moderators:** *Lafuente Baraza, Jesus  
Alves, Oscar*

- 7:00 - 07:15 MISS: The Role of Stimulation Stations for Training  
*Avelino Parajon Diaz (Spain)*
- 7:15 - 07:30 MISS Posterior Fusion  
*Oscar Alves (Portugal)*
- 7:30 - 07:45 Thoracolumbar percutaneous pedicle screw placement using augmented reality guidance  
*Camilo Molina (United States)*
- 7:45 - 08:00 MISS Navigation  
*Claudius Thome (Austria)*
- 8:00 - 08:15 MISS in The Elderly  
*Jesus Lafuente Baraza (Spain)*
- 8:15 - 08:30 MISS Tubular Procedures  
*Claudius Thome (Austria)*

**07:00 - 08:30 STATE OF ART - Skull Base I**

**Room EF** **Moderators:** *Ajler, Pablo  
Guinto Balanzar, Gerardo*

- 7:00 - 07:15 Pituitary Adenomas: Classification Update  
*Najia El Abbadi (Morocco)*
- 7:15 - 07:35 Giant Pituitary Tumors  
*Nelson Oyesiku (United States)*
- 7:35 - 07:55 Neurosurgical Approach to Acromegaly  
*Henry Schroeder (Germany)*
- 7:55 - 08:15 Neurosurgical Approach to Cushing's disease  
*Henry Schroeder (Germany)*
- 8:15 - 08:30 Pituitary Adenomas: Radiosurgery Update  
*Eduardo Lovo (El Salvador)*

**07:00 - 08:30 STATE OF ART - Functional I**

**Room G** **Moderators:** *Zorro Guio, Oscar Fonoff, Erich*

- 7:00 - 07:15 Centromedian thalamic nucleus. Microrecording for epilepsy  
*William D Hutchison (Canada)*
- 7:15 - 07:30 Hippocampal Stimulation for Epilepsy  
*Arthur Cukiert (B)*
- 7:30 - 07:45 Multi-target DBS for drug-resistant epilepsy. State of the art  
*Robert Gross (United States)*
- 7:45 - 08:00 Deep brain stimulation in the centromedian thalamic nucleus for epilepsy  
*Adriana Lucia Lopez Rios (Colombia)*
- 8:00 - 08:15 Usefulness of VNS therapy on pediatric focal epilepsies  
*Mario Arturo Alonso Vanegas (Mexico)*
- 8:15 - 08:30 DBS of Hypothalamus for Aggressive Behavior  
*Juan Carlos Benedetti (Colombia)*

**07:00 - 08:30 STATE OF ART - Vascular I**

**Room HI** **Moderators:** *Polónia, Patrícia Alaraj, Ali*

- 7:00 - 07:15 Early Brain Injury and Delayed Cerebral Ischemia after SAH. Physiopathology and Current Treatment  
*Leonidas Quintana (Chile)*
- 7:15 - 07:30 Unruptured Intracranial Aneurysms less than 5 mm. Endovascular treatment: Indications and Techniques  
*Michel Piotin (France)*
- 7:30 - 07:45 Surgical Techniques for Aneurysm Therapy  
*Leonardo Rangel-Castilla (Mexico)*
- 7:45 - 08:00 Aneurysmal Surgery. Lessons I have learned  
*Ioan Stefan Florian (Romania)*
- 8:00 - 08:15 Anterior communicating artery aneurysms: treatment strategies and return-to-work. A review of 145 patients  
*Patrícia Polónia (Portugal)*
- 8:15 - 08:30 Causes of death in aneurysm therapy 1990-2005 and 2008-2022: Did we make any progress  
*Veit Rohde (Germany)*

**07:00 - 08:30 STATE OF ART - Peripheral I**

**Room J** **Moderators:** *Binaghi, Daniela*  
*Rasulic, Lukas*

- 7:00 - 07:15 Why Neurosurgeons Should Perform Peripheral Nerve Surgery?  
*Mariano Socolovsky (Argentina)*
- 7:15 - 07:30 Nerve Sheath Tumors  
*Thomas Wilson (United States)*
- 7:30 - 07:45 Neural Tumors of the Sacrum  
*Alberto Isla (Spain)*
- 7:45 - 08:00 Desmoid Tumor: What Should We do  
*Carlos Rodríguez (Mexico)*
- 8:00 - 08:15 Update on Management of Peripheral Nerve Tumors  
*José Fernando Guedes Correa (Brazil)*
- 8:15 - 08:30 Discussion

**07:00 - 08:30 STATE OF ART - Pediatric I**

**Room K** **Moderators:** *Teo, Charles*  
*Ghotme, Kemel*

- 7:00 - 07:20 The new algorithm on Chiari management  
*Guirish Solanki (England)*
- 7:20 - 07:35 Endoscopic coagulation of choroid plexus as treatment for hydrocephalus: indication and surgical technique  
*Waleed A. Azab (Kuwait)*
- 7:35 - 07:50 Management of Non-Syndromic Craniosynostosis in Infants  
*Mark Proctor (United States)*
- 7:50 - 08:05 Diagnostics and treatment of diffuse intrinsic pontine glioma  
*James Rutka (Canada)*
- 8:05 - 08:20 Contemporary frontiers in Myelomeningocele Care across the life span  
*Jeffrey Blount (United States)*
- 8:20 - 08:30 Discussion

**07:00 - 08:30 STATE OF ART - Oncology I**

**Room LM** **Moderators:** *Vargas Grau, Gabriel Maldaun, Marcos*

- 7:00 - 07:15 Anatomy Guided Microneurosurgery for the Removal of Lobar Low Grade Gliomas  
*Fernando Martinez (Uruguay)*
- 7:15 - 07:30 Molecular Markers: How Useful They are to Define Prognosis and Treatment for LGG  
*Philippe Schucht (Switzerland)*
- 7:30 - 07:45 Role of Intra-operative MRI for Glioma Surgery  
*Marcos Maldaun (Brazil)*
- 7:45 - 08:00 Role of Surgery for LGG  
*Hugues Duffau (France)*
- 8:00 - 08:15 Pitfalls in Insular LGG Surgery  
*Jose Valerio (United States)*
- 8:15 - 08:30 Surgery-enhanced recovery after brain tumor surgery  
*Alexis Morell (United States)*

**07:00 - 08:30 NEXT MILLENIUM I**

**Room N** **Moderators:** *Zanon Collange, Nelci Rosseau, Gail*

- 7:00 - 07:15 Ethics in the Neurosurgery Practice in the Future-Values Based Medicine  
*Ahmed Ammar (Saudi Arabia)*
- 7:15 - 07:30 How to train the Neurosurgeon of the Future taking into account current knowledge and technology  
*Vakis Papanastasiou (Cyprus)*
- 7:30 - 07:45 Beyond White Light: Advanced Endoscopic Visualization Techniques in Skull Base Surgery  
*Paul Gardner (United States)*
- 7:45 - 08:00 Invention and innovation: a global perspectives  
*Najia El Abbadi (Morocco)*
- 8:00 - 08:15 Fetal Neurosurgery in the future  
*Frank Van Calenbergh (Belgium)*
- 8:15 - 08:30 Discussion

**07:00 - 08:30 STATE OF ART - Spine IA**

**Room O** **Moderators:** *Visocchi, Massimiliano*  
*Casey, Adrian*

- 7:00 - 07:15 Cervical Fractures with Ankylosis  
*Claudius Thome (Austria)*
- 7:15 - 07:30 Surgical Management of Jefferson's Fractures  
*Jake Timothy (United Kingdom)*
- 7:30 - 07:45 Cervical Facet Dislocations and Closed or Open Reduction  
*Vakis Papanastasiou (Cyprus)*
- 7:45 - 08:00 Central or axial atlantoaxial instability. Exoanding horizons of craniovertebral junction surgery  
*Atul Goel (India)*
- 8:00 - 08:15 Lateral transpsaos approach, evolution, indications and future  
*Avelino Parajon Diaz (Spain)*
- 8:15 - 08:30 Endoscopic approaches to the thoracic spine  
*Daniel Rosenthal (Germany)*

**08:40 - 10:10 CONTROVERSIES IN NEUROSURGERY - Virtual and Augmented Reality in Neurosurgery**

**Room BC** **Moderators:** *Jean, Walter*  
*Bendok, Bernard*

- 8:40 - 08:45 Introduction  
*Walter Jean (United States)*
- 8:45 - 09:00 Virtual and Augmented Reality and the neurosurgical patient  
*Walter Jean (United States)*
- 9:00 - 09:15 Virtual and Augmented Reality application in spine surgery  
*Camilo Molina (United States)*
- 9:15 - 09:30 Virtual and Augmented Reality application in cerebrovascular surgery  
*Bernard Bendok (United States)*
- 9:30 - 09:45 Augmented Reality Navigation in Brain Tumor Surgery: Single center experience with a new technology  
*Diego Fernando Gómez-Amarillo (Colombia)*
- 9:45 - 10:00 Global Education with Mixed Reality  
*James Johnston (United States)*
- 10:00 - 10:10 Discussion and Final Remarks  
*Walter Jean (United States)*

**08:40 - 10:10 CONTROVERSIES IN NEUROSURGERY - Skull Base I**

**Room EF** **Moderators:** *Da Silva, Carlos Eduardo*  
*El Khamlichi, Abdeslam*

- 8:40 - 08:55 Tuberculum Sellae Meningiomas. Transcranial Approach  
*Gerardo Guinto Balanzar (Mexico)*
- 8:55 - 09:10 Tuberculum Sellae Meningiomas. Endoscopic Approach  
*Paul Gardner (United States)*
- 9:10 - 09:25 Schwannoma trigeminal tumors: Transcranial Approach  
*Pablo Ajler (Argentina)*
- 9:25 - 09:40 Schwannoma trigeminal tumors: Endoscopic Approach  
*Juan Luis Gomez Amador (M)*
- 9:40 - 10:10 Discussion

**08:40 - 10:10 CONTROVERSIES IN NEUROSURGERY - Functional I**

**Room G** **Moderators:** *Benedetti, Juan Carlos*  
*Gross, Robert*

- 8:40 - 08:55 Microrecording method for tracks targeting Vc ventral caudal thalamic nucleus in pain  
*William D Hutchison (Canada)*
- 8:55 - 09:10 Posterior Subthalamic area for tremor  
*Jose Damian Carrillo Ruiz (Mexico)*
- 9:10 - 09:25 Directional Electrodes and DBS for Gait and Postural Instability in Parkinson Disease (DBS in gait/PI)  
*Robert Gross (United States)*
- 9:25 - 09:40 Spinal Cord Stimulation for Gait and Postural Instability in Parkinson Disease  
*Erich Fonoff (Brazil)*
- 9:40 - 09:55 Surgery for Dystonia  
*Giovanni Broggi (Italy)*
- 9:55 - 10:10 Deep brain stimulation in the globus pallidus internus for secondary dystonia  
*Fabian Piedimonte (Argentina)*

**08:40 - 10:10 CONTROVERSIES IN NEUROSURGERY - Vascular I**

**Room HI** **Moderators:** *Morcos, Jacques*  
*Pabon, Boris*

- 8:40 - 08:55 Complex aneurysms: Surgical Solutions  
*Ioan Stefan Florian (Romania)*
- 8:55 - 09:10 Large and Giant Aneurysms: Flow Diverter as First Option  
*Nader Sourour (France)*
- 9:10 - 09:25 Stroke management real facts - first and third world country differences  
*Leonardo Rangel-Castilla (Mexico)*
- 9:25 - 09:40 Microsurgical clipping vs Woven EndoBridge device for the management of unruptured wide-neck bifurcation aneurysms.  
*Veit Rohde (Germany)*
- 9:40 - 10:10 Discussion

**08:40 - 10:10 CONTROVERSIES IN NEUROSURGERY - Peripheral I**

**Room J** **Moderators:** *España, Julian*  
*Rodríguez, Carlos*

- 8:40 - 08:55 Transient Electronics to Enhance Nerve Regeneration  
*Wilson Ray (United States)*
- 8:55 - 09:10 The Role of a Somatic to Autonomic Nerve Transfer In Restoring Micturition - From Basic Science to the Clinic  
*Justin Brown (United States)*
- 9:10 - 09:25 Open versus endoscopic carpal tunnel release  
*Fernando Martinez (Uruguay)*
- 9:25 - 09:40 Managing Complications Related to Peripheral Nerve Surgery  
*Lukas Rasulic (Serbia)*
- 9:40 - 10:10 Discussion



**08:40 - 10:10 CONTROVERSIES IN NEUROSURGERY - Pediatric I****Room K Moderators:** *El Beltagy, Mohamed*

- 8:40 - 08:55 Complex/Multiloculated Hydrocephalus: Pathophysiology and Clinical Guideline  
*Ahmed Ammar (Saudi Arabia)*
- 8:55 - 09:10 Extraventricular Intracisternal Obstructive Hydrocephalus  
*Graham Fieggen (South Africa)*
- 9:10 - 09:25 Surgery for Chiari Type I Malformation in Children  
*Mark Proctor (United States)*
- 9:25 - 09:40 Management of Syndromic Craniosynostosis in Infants  
*Erick Muñoz (Colombia)*
- 9:25 - 09:40 Management of Syndromic Craniosynostosis in Infants  
*Sergio Díaz Martínez (Colombia)*
- 9:40 - 09:55 Telescoping in Craniosynostosis  
*Diego Caycedo (Colombia)*
- 9:40 - 10:10 Discussion
- 9:40 - 09:55 Telescoping in Craniosynostosis  
*Luis Fdo Santacruz (Colombia)*

**08:40 - 10:10 CONTROVERSIES IN NEUROSURGERY - Oncology I****Room LM Moderators:** *Valerio, Jose  
Morell, Alexis*

- 8:40 - 08:55 Feasibility and safety of "en-masse" resection of LGG  
*Atul Goel (India)*
- 8:55 - 09:10 Tips and tricks on intradural extramedullary spinal cord tumor  
*Nikolay Konovalov (Russian Federation)*
- 9:10 - 09:25 Tokuhashi, Tomita, SINS, NOMS etc.: Usefulness of Spinal Mets Scales and Index  
*Jeronimo Milano (Brazil)*
- 9:25 - 09:40 Spine Radiosurgery for Spinal Metastasis  
*Jose Valerio (United States)*
- 9:40 - 09:55 Surgery and New Tools in Spinal Metastasis  
*Jesus Lafuente Baraza (Spain)*
- 9:55 - 10:10 Discusión

**08:40 - 10:10 CONTROVERSIES IN NEUROSURGERY - Spine I**

**Room O** **Moderators:** *Soriano Sánchez, Jose Antonio  
Thome, Claudius*

- 8:40 - 08:55 Single cervical radioculopathy: anterior vs posterior foraminotomy  
*Marcos Baabor (Chile)*
- 8:55 - 09:10 Cervical Disc Herniation: Total Disc Replacement vs ACDF  
*Miroslav Vukić (Croatia)*
- 9:10 - 09:25 Cervical spondylotic myelopathy: Anterior approach  
*Kenan Arnautovic (United States)*
- 9:25 - 09:40 Laminoplasty for Cervical Spondylotic Myelopathy  
*Erhan Türkoglu (Turkey)*
- 9:40 - 09:55 Transforaminal Lumbar Endoscopy  
*Ralf Wagner (Germany)*
- 9:55 - 10:10 Thoracic Disc Herniation: Endoscopic Management  
*Daniel Rosenthal (Germany)*

**10:40 - 11:00 PLENARY SESSION - Vascular I**

**Auditorium** **Moderators:** *Úrculo, Enrique  
Oyesiku, Nelson  
Rubiano, Andrés*

- 10:40 - 11:00 Symptomatic Grade III AVM. How to treat it  
*Giuseppe Lanzino (United States)*

**11:00 - 11:20 PLENARY SESSION - Spine I**

**Auditorium** **Moderators:** *Úrculo, Enrique  
Rubiano, Andrés  
Oyesiku, Nelson*

- 11:00 - 11:20 Concomitant cranial and spinal trauma: epidemiological & clinical challenges  
*Andreas Demetriades (United Kingdom)*

**11:20 - 11:40 PLENARY SESSION - Oncology I**

**Auditorium** **Moderators:** *Úrculo, Enrique  
Oyesiku, Nelson  
Rubiano, Andrés*

- 11:20 - 11:40 Contribution of the meta-networking Theory of brain functions to a connectome-based surgery for LGG; about over 1100 procedures with awake mapping  
*Hugues Duffau (France)*

**11:40 - 12:00** PLENARY SESSION - Skull Base I

**Auditorium** Moderators: *Úrculo, Enrique*  
*Oyesiku, Nelson*  
*Rubiano, Andrés*

11:40 - 12:00 Recent Developments in Skull Base Surgery  
*Madjid Samii (Germany)*

**12:00 - 12:20** PLENARY SESSION - Special Guest I

**Auditorium** Moderators: *Úrculo, Enrique*  
*Oyesiku, Nelson*  
*Rubiano, Andrés*

12:00 - 12:20 Neurosurgery Latinoamerican History  
*Armando Basso (Argentina)*

**12:30 - 13:45** LUNCH SESSION - Dr Paul Gardner

**Auditorium** Moderators:

12:30 - 13:30 New Skull Base Approaches: Windows Opened by Endoscopy  
*Paul Gardner (United States)*

**12:30 - 14:00** e-POSTER SESSION 1 | Screen 1

**Floor 3 Lobby** Moderators:

12:30 - 12:40 SELECTIVE POSTERIOR CORPUS CALLOSOTOMY IN A CHILD WITH LENNOX-GASTAUT SYNDROME: CASE REPORT  
*Zindy Barrientos (Perú)*

12:43 - 12:53 STIMULATION OF THE ANTERIOR TALLAMUS NUCLEUS IN REFRACTORY EPILEPSIES: Meta-analysis  
*Gabriel Lima de Carvalho (Brazil)*

12:56 - 13:06 EPILEPSY SURGERY AT SAN IGNACIO UNIVERSITY HOSPITAL: EXPERIENCE FROM A COLOMBIAN CENTER  
*Alejandro Vargas-Moreno (Colombia)*

13:09 - 13:19 Epiduroscopy techniques in low back pain management: a systematic review of the literature  
*Mariana Agudelo-Arrieta (Colombia)*

13:48 - 13:58 Spinal cord stimulation to treat meralgia paresthetica. Is it feasible: A case report.  
*Borja Ferrández-Pujante (Spain)*

**12:30 - 14:00 e-POSTER SESSION 1 | Screen 2****Floor 3 Lobby Moderators:**

- 12:56 - 13:03 Outcomes and complications in deep brain stimulation under general anesthesia with stereotactic guide and microelectrode recording at Hospital Universitario San Ignacio in Bogota, Colombia  
*Sara Henao Romero (Colombia)*
- 13:09 - 13:19 The analysis of the results of treatment by the bilateral uniportal video-assisted thoracic sympathectomy in patients with hyperhidrosis and facial blushing  
*Oleksii Eroshkin (Ukraine)*
- 13:35 - 13:45 Treatment by percutaneous balloon compression for trigeminal neuralgia due to ischemic pons lesion  
*Leandro Oliveira (Portugal)*

**12:30 - 14:00 e-POSTER SESSION 1 | Screen 3****Floor 3 Lobby Moderators:**

- 12:43 - 12:53 Technical modification of the Hartel Technique for the cannulation of the foramen ovale  
*Alejandro Vargas-Moreno (Colombia)*
- 13:35 - 13:45 BILATERAL THALAMIC INFARCTION AS RARE COMPLICATION OF MICROSCOPIC TRANSSPHEOIDAL SURGERY: CASE REPORT  
*Zindya Barrientos (Perú)*
- 13:48 - 13:58 A report of a rare presentation of osteopetrosis with an optic canal compression  
*Ala Belhaj (Tunisia)*

**12:30 - 14:00 e-POSTER SESSION 1 | Screen 4****Floor 3 Lobby Moderators:**

- 12:30 - 12:40 Brainstem Hydatid Cyst : a case report  
*Ala Belhaj (Tunisia)*
- 12:43 - 12:53 Corpus callosum lipoma : a case report  
*Ala Belhaj (Tunisia)*
- 12:56 - 13:06 Langerhans cell histiocytosis of skull in adults: a case report and review of the literature  
*Ala Belhaj (Tunisia)*
- 13:09 - 13:19 Langerhans Cell Histiocytosis of the Skull: a case report  
*Ala Belhaj (Tunisia)*
- 13:22 - 13:32 Sphenoidal sinus aspergillitis mucocele: a case report and review of the literature  
*Ala Belhaj (Tunisia)*

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**12:30 - 14:00 e-POSTER SESSION 1 | Screen 5****Floor 3 Lobby Moderators:**

- 12:30 - 12:40 Personalized 3D Printed Molds, A Novel Low-cost Solution for Cranioplasty  
*Hajhouji Farouk (Morocco)*
- 12:43 - 12:53 Effect of COVID-19 on mortality in neurosurgical patients  
*Maurício Bezerra Sales (Brazil)*
- 13:48 - 13:58 Drainage of intraparenchymal hematoma by single trepan with artisan port system, example of minimal invasion in a medical center in developing country; About a case.  
*Luis Enrique Hernández-Hurtado (Mexico)*

**12:30 - 14:00 e-POSTER SESSION 1 | Screen 6****Floor 3 Lobby Moderators:**

- 12:30 - 12:40 WHITE MARROW SYNDROME: CASE REPORT  
*Eduardo Laos Plasier (Perú)*
- 12:56 - 13:06 CEREBRAL TUBERCULOMAS. CLINICAL SERIES IN BOLIVIA  
*Mirko Joe Mantilla Mena (Bolivia)*
- 13:22 - 13:32 Predicting Academic Career Placement via Development of Novel Intra-Residency Metrics  
*Alexis Morell (United States)*
- 13:35 - 13:45 Same-day Discharge After Brain Tumor Resection: A Prospective Pilot Study  
*Alexis Morell (United States)*

**12:30 - 14:00 Varian | Satellite Symposium****Room H1 Moderators:**

- 12:30 - 14:00 Surface guided stereotactic radiosurgery with automated delivery  
*Evan Thomas (United States)*

**12:30 - 14:00 e-POSTER SESSION 1 | Screen 7****Floor 3 Lobby Moderators:**

- 12:30 - 12:40 Implementation of a Medication Reconciliation Program in Neurosurgery  
*Robson Luís Oliveira Amorim (Brazil)*
- 12:43 - 12:53 PREVALENCE OF POTENTIAL DRUG-DRUG INTERACTIONS IN NEUROSURGICAL PATIENTS  
*Robson Luís Oliveira Amorim (Brazil)*
- 13:09 - 13:19 Changes in patient profile and neurosurgical procedures in a large military hospital in Colombia before and after the peace process: A retrospective analysis of clinical records  
*Harold Palmera Pineda (Colombia)*
- 13:48 - 13:58 MULTIPLE CEREBELLUM ABSCESS DUE TO STREPTOCOCCUS AGALACTIAE IN AN IMMUNOCOMPETENT PATIENT: ABOUT A CASE  
*Miguel Angel Ramirez Sosa (Mexico)*

**12:30 - 14:00 e-POSTER SESSION 1 | Screen 8****Floor 3 Lobby Moderators:**

- 12:30 - 12:40 Assessment of Anxiety, Depression and Accidents in Neurosurgery Residents at a Neurosurgical Neurologic Center: During Sleep Deprivation and COVID-19 pandemic.  
*Diego Alberto Sandoval-lópez (Mexico)*
- 12:43 - 12:53 CENTRAL NERVOUS SYSTEM INFECTION CAUSED BY MULTI-RESISTANT CANDIDA AURIS, NEWFANGLED AND EMPIRIC TREATMENT CASE REPORT AND LITERATURE REVIEW  
*Johann Serrato (Colombia)*
- 12:56 - 13:06 Frontal Bilateral Brain Abscess, Hyperbaric medicine, surgery and antimicrobial therapy in Rare Germ, Case Report and Literature Review  
*Johann Serrato (Colombia)*
- 13:09 - 13:19 Multifocal Brain Abscess due to Nocardia farcinica Mimicking Brain Metastases: Presentation of a Case and 1-Year Follow-up.  
*Andrés Camilo Vargas-Jiménez (Spain)*
- 13:48 - 13:58 Surgical Management Outcomes of Cerebral Schistosomiasis - A Case Series and Review of Literature  
*Llarx Saundt Yu (Philippines)*

**12:30 - 14:00 e-POSTER SESSION 1 | Screen 9****Floor 3 Lobby Moderators:**

- 12:30 - 12:40 Increasing Trend of Shunt Procedures in a Major Trauma Center: A Retrospective Review from 2016-2019  
*Veniza Maravilla (United Kingdom)*
- 12:56 - 13:06 Cerebrospinal fluid closing pressure-guided tap test for the diagnosis of idiopathic normal pressure hydrocephalus: A descriptive cross-sectional study  
*Diego Fernando Gómez-Amarillo (Colombia)*
- 13:09 - 13:19 Ventriculo-atrial shunt: Comparison of an ultrasound-guided peel-away technique versus conventional technique in the management of normal pressure hydrocephalus  
*Andrés Segura-Hernández (Colombia)*
- 13:35 - 13:45 Filum Paraganglioma: Clinical and Radiological Insights From an Institutional Series  
*Kevin Agyemang (United Kingdom)*

**12:30 - 14:00 e-POSTER SESSION 1 | Screen 10****Floor 3 Lobby Moderators:**

- Methodology for developing a novel, population-specific prognosis prediction system in the case of surgically treated spinal metastases patients  
*Péter Banczerowski (Hungary)*
- COMBINED TREATMENT “MICROSURGERY-ARTHRODESIS”: TOTAL EXERCISIS OF DORSAL SCHAWNNOMA PLUS DORSAL ARTHRODESIS  
*Lizert Aquino Fabian (Perú)*
- TIPS ON THE PTERIONAL APPROACH FOR EXERCISING SELAR TUMOR. CASE REPORT. INTRODUCTION  
*Lizert Aquino Fabian (Perú)*
- A rare case of an intracerebral Chondroma : A case report with a review of literature  
*Ala Belhaj (Tunisia)*
- Approach and surgical strategy for a frontal sinus osteoma with intraorbital extension  
*Ala Belhaj (Tunisia)*

**14:00 - 16:00 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - GL1 | Global Neurosurgery****Room A****Moderators:** *Serrato, Himmler  
Demetriades, Andreas*

- 14:00 - 14:10 Factors related to the appearance of the post-craniectomy trephine syndrome and the clinical evolution after cranioplasty.  
*Julio César Delgado Arce (Mexico)*
- 14:10 - 14:20 Neurosurgical publication - Should we publish at any cost An in-depth analysis of cost incurred in publication.  
*Adam Vacek (United Kingdom)*
- 14:20 - 14:30 Surgical treatment of brain tumors without informed consent - medical, organizational and legal aspect  
*Zygmunt Siedlecki (Poland)*
- 14:30 - 14:40 Impact of COVID-19 on the neurosurgical resident training program: an early experience  
*Mazin Omer (Germany)*
- 14:40 - 14:50 VASCULAR NEUROSURGICAL TRAINING IN 3 LEVELS OF DEPTH WITH 3D TECHNOLOGY  
*Cristian Eugenio Salazar Campos (Perú)*
- 14:50 - 15:00 Cerebral Radiation Necrosis: Evaluation of Commercially Available Deep Learning Program for Automated Segmentation of MRI  
*Jillyn Turunen (United States)*
- 15:00 - 15:10 Applicability of microsurgical training in human placenta: from the laboratory to the operating room  
*Iracema Estevão (Brazil)*
- 15:10 - 15:20 Women in Neurosurgery: where does the United Kingdom stand  
*Meriem Amarouche (United Kingdom)*
- 15:20 - 15:30 External Ventricular Devices-Related Infection: descriptive statistic analysis of a longitudinal cohort  
*Jose Luis Chaves (Colombia)*
- 15:40 - 15:50 Catastrophic case of spondylodiscitis T2T3: sequelae of a posterior decompression in an unstable spine and a delayed cervico-sternal approach as a rescue measure  
*Andrés Camilo Vargas-Jiménez (Spain)*



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**14:00 - 16:00 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - EPI | Epilepsy****Room BC**

**Moderators:** *Zorro Guio, Oscar*  
*Campos Puebla, Manuel*  
*Alonso Vanegas, Mario Arturo*

- 14:00 - 14:10 Microsurgical limits to amigdalohipocampectomia in epilepsy surgery for mesial sclerosis  
*Mario Jorge Jiménez Torres (Bolivia)*
- 14:10 - 14:20 Experience in the use of Stereoelectroencephalography-guided epilepsy surgery in a Colombian hospital: a prospectively analysis of 67 patients  
*Amanda Del Rosario Cuastumal Aguirre (Colombia)*
- 14:20 - 14:30 Insulectomy for refractory epilepsy: case series and literature review  
*Paulo Henrique Aguiar (Brazil)*
- 14:30 - 14:40 Posterior quadrant epilepsy surgery: Case series of a South American Hospital  
*Alejandro Vargas-Moreno (Colombia)*
- 14:40 - 14:50 Stereotactic thermocoagulation for drug-resistant epilepsy: Lessons from Parc de Salut Mar, Barcelona.  
*Alvino De Leon (Panama)*
- 14:50 - 15:00 Curvilinear Reformatting Imaging in Neurosurgery Improved Diagnosis and Intraoperative Surgical Mapping  
*Lucca Pizzato Tondo (Brazil)*

**14:00 - 16:00 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - GL2 | Global Neurosurgery****Room D**

**Moderators:** *Molina, Marco*  
*Fandiño, Jaime*  
*Grotenhuis, André*

- 14:10 - 14:20 CLINICAL CHARACTERIZATION AND EPIDEMIOLOGY OF PATIENTS SUBJECTED TO NEUROENDOSCOPY  
*Mayra Alejandra Viana Durini (Guatemala)*
- 14:20 - 14:30 A significant challenge: Creating affordable technology in neurosurgery for developing countries.  
*Julian Andraus (Colombia)*
- 14:30 - 14:40 The Era of Web Based Learning & its Impact on Neurosurgical Training: Do We Need to Listen to the Call of the Void to Take the Leap of Faith  
*Qurrat Ain (Pakistan)*
- 14:40 - 14:50 Infection Prophylaxis Measures in Neurosurgery: a Global Perspective  
*James Ulrich (United Kingdom)*
- 14:50 - 15:00 Neurosurgical Responsiveness During COVID-19 Pandemic: An Institutional Experience  
*Daniel Ballesteros Herrera (Mexico)*
- 15:00 - 15:10 A NEW APPROACH IN POST-COVID19 NEUROSURGICAL EDUCATION: DESCRIPTION AND EVALUATION OF A NEUROANATOMY PROGRAM BASED ON A POINT AND LINES SYSTEM  
*Cristian Eugenio Salazar Campos (Perú)*

**14:00 - 16:00 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - VA1 | Vascular**

**Room EF** **Moderators:** *Bastos, Dr. Victor Hugo*  
*Quintana, Leonidas*

- 14:10 - 14:20 Providing an automated method for detection Coronary atherosclerosis based on carotid arteries to prevent ischemic stroke in these patients based on a new thermography technique  
*Fatemeh Valipoori Goodarzi (Iran)*
- 14:20 - 14:30 Multimodal cerebral arteriovenous malformation treatment: a 8-year experience in a single institution  
*Yeison Esteban Montoya-Muñoz (Colombia)*
- 14:30 - 14:40 EXTRACRANIAL - INTRACRANIAL BYPASS IN ISCHEMIC EVENTS.  
*Edgar Nathal Vera (Mexico)*
- 14:40 - 14:50 Venous Tortuosity as a Novel Biomarker of Rupture Risk in Arteriovenous Malformations: The ARI Score  
*Alejandra Mosteiro (Spain)*
- 15:00 - 15:10 Current Management of Ruptured aneurysms: is the clip dead lessons learned from the management of >1000 cerebral aneurysms  
*Abdessamad El Ouahabi (Morocco)*
- 15:10 - 15:20 MEASUREMENT AND COMPARATION OF HANDMADE VASCULAR CLIPS VERSUS STANDARD COMMERCIAL CLIPS  
*Edgar Nathal Vera (Mexico)*

**14:00 - 16:00 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - VA2 | Vascular****Room G**

**Moderators:** *Lanzino, Giuseppe*  
*Revilla Pacheco, Francisco*  
*Almeida Perez, Rafael Del Cristo*

- 14:00 - 14:10 Persistent trigeminal neuralgia after microvascular decompression: which is plan B  
*Vincenzo Fontana (Italy)*
- 14:10 - 14:20 Risk factors for symptomatic vasospasm after clipping of ruptured intracranial aneurysm: a case-control study  
*Juan E Basilio-Flores (Perú)*
- 14:20 - 14:30 TEST PREDICTIVE OF VASOSPASM  
*Juan Armando Mejia Cordovez (Colombia)*
- 14:30 - 14:40 How to manage and reduce the risk of Intraoperative Rupture of Intracranial Aneurysms  
*Said Ait Benali (Morocco)*
- 14:40 - 14:50 Impact of the COVID-19 pandemic on aneurysmal subarachnoid hemorrhage in a Peruvian national social security hospital.  
*Jose Daniel Flores-Sanchez (Perú)*
- 14:50 - 15:00 ENDOSCOPIC EVACUATION OF INTRACEREBRAL HEMATOMAS USING A SYRINGE AS A WORKING CHANNEL  
*Jerson Flores (Perú)*
- 15:00 - 15:10 BRAINSTEM CAVERNOUS MALFORMATIONS : A SINGLE-INSTITUTION CASE SERIES FROM PERU  
*Rene Alejandro Apaza Tintaya (Perú)*
- 15:20 - 15:30 Cerebral proliferative angiopathy: A clinical spectrum, literature review and case series from a tertiary care hospital in Brazil  
*Glaucia Jong A Liem (Brazil)*
- 15:30 - 15:40 Idiopathic Intracranial Hypertension and Pregnancy: A Comprehensive Review of Management  
*Chandrasekaran Kaliaperumal (United Kingdom)*
- 15:40 - 15:50 Comparison of Surgical Clipping vs Endovascular Coiling for Posterior Projecting Anterior Communicating Artery Aneurysm  
*Qurrat Ain (Pakistan)*

**14:00 - 16:00 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - SP01 | Spine**

**Room HI** **Moderators:** *Rosenthal, Daniel*  
*Uriza, Gustavo Adolfo*

14:00 - 14:10 FULL ENDOSCOPIC PERCUTANEOUS SPINAL SURGERY FOR LUMBAR SPINE DISORDERS

*Jose Name Guerra (Colombia)*

14:10 - 14:20 Clinical and radiological outcomes for mini-open combined one step anterior and oblique approach for two level lumbar interbody fusion.

*Pablo Mendivil (Argentina)*

14:20 - 14:30 The Outcomes of Lumbar discectomy in a young and active Population

*Farid Zahrou (Morocco)*

14:30 - 14:40 Cervical spine vertebrectomies in civilian gunshot spine injury: case series

*Alejandro Gómez Martínez (Colombia)*

14:40 - 14:50 Cervical adjacent segment degeneration after spine surgery

*Carlos Ribeiro (Portugal)*

14:50 - 15:00 Atypical symptoms in patients with cervical spondylosis: results from anterior cervical discectomy and fusion compared to cervical arthroplasty

*Giovanni Grasso (Italy)*

15:10 - 15:20 ALIF's experience with conditioned devices in a public hospital in Lima-Peru

*Elar Cari (Perú)*

15:20 - 15:30 How to reduce the risk of post operative Pain in lumbar degenerative spine surgery. Our experience

*Said Ait Benali (Morocco)*

15:30 - 15:40 Three-dimensional impression in neurosurgery: Application in spinal instrumentation surgery

*Cristian Eugenio Salazar Campos (Perú)*

**14:00 - 16:00 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - OC01 | Oncology****Room K**

**Moderators:** *Stummer, Walter*  
*Aristizabal Maya, Jorge Humberto*  
*Valerio, Jose*

- 14:00 - 14:10 Germinoma with diffuse subependymal quadriventricular, cerebellar, and rostral brainstem spread.  
*Enrique Villarreal García (Mexico)*
- 14:10 - 14:20 Neuronavigation associated with Motor Functional Resonance, Validation by Direct Cortical Stimulation in surgery of Motor Area Tumors  
*Pablo Landaburu (Argentina)*
- 14:20 - 14:30 Awake or Hypnosis for Low-Grade Glioma Surgery: A single institutional cross-sectional study at CHRU Bretonneau Tours France.  
*Nourou Dine Adeniran Bankole (Morocco)*
- 14:30 - 14:40 The vicious interplay between disrupted sleep and malignant brain tumors  
*Darko Oreskovic (Croatia)*
- 14:40 - 14:50 Intracranial Pressure Monitoring as an Early Predictor of Adverse Craniotomy Outcomes  
*Mohamed Soliman (Egypt)*
- 14:50 - 15:00 High Cervical Anterolateral Retropharyngeal Transclival Approach to Clivus: A Cadaveric Study  
*Mert Babur (Turkey)*
- 15:00 - 15:10 Brain Metastasis: Criteria for personalized surgical treatment  
*César Chong Loo (Ecuador)*
- 15:10 - 15:20 Clinical Characteristics in Patients with Glioblastoma and Long-term Survival: A Case Series.  
*Luis Alfredo Lara Bahena (Mexico)*
- 15:20 - 15:30 A Rapid Automated Preoperative Protocol for Mapping of the Corticospinal Tract in Patients with Motor Area Brain Tumors: A Comparative Analysis of 1.5 and 3 T Acquisitions  
*Edgar G Ordóñez-Rubiano (Colombia)*

**14:00 - 16:00** PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - OC02 | Oncology + AN1 |  
**Room LM** Anatomy

**Moderators:** *García Colmena, Fernando*  
*Vargas Grau, Gabriel*

- 14:00 - 14:10 Vestibular Schwannoma surgery: Factors prognosticating Facial Nerve outcome.  
*Rajiv Jha (Nepal)*
- 14:10 - 14:20 Adaptive radiosurgery for symptomatic primary and secondary brain tumors  
*Eduardo Lovo (El Salvador)*
- 14:20 - 14:30 Experience using intraoperative ultrasound (intracavitary probe) as guidance for resection of brain tumors in a low income country as a substitution of neuronavigation and intraoperative MRI.  
*Andres Vargas (Colombia)*
- 14:50 - 15:00 Angle and measurements of the optic nerve. Nerviometry for pre-surgical planning  
*Jose Garcia Benavides (Perú)*
- 15:00 - 15:10 Choice of Safe Fenestration Areas of the Third Ventricle Floor Dependent on the Position of the Basilar Complex: Surgical Planning Using Magnetic Resonance.  
*Nadin Abdala Vargas (Colombia)*
- 15:10 - 15:20 Three-Dimensional Topographic Location for Vascular and Tumor Brain Lesions from Craniometric Points on Custom 3D Prints  
*Cristian Eugenio Salazar Campos (Perú)*
- 15:20 - 15:30 Topographic Anatomy of the Lateral Surface of the Parietal Lobe and Its Relationship with White Matter Tracts and Atrium  
*Volkan Oglin (Turkey)*

**14:00 - 16:00 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - FUN1 | Functional****Room N**

**Moderators:** *Lozano, Andrés*  
*Benedetti, Juan Carlos*  
*Carrillo Ruiz, Mr. Jose Damian*

- 14:00 - 14:10 Promising electromyographic motor outcomes in short-term and long-term recovery of patients victims of incomplete spinal cord injury treated with neuromodulation techniques: A systematic review  
*Daniel Gonçalves (Brazil)*
- 14:10 - 14:20 Giant Virchow Robin perivascular space in the basal ganglia associated with Parkinsonism. A case report treated with endoscopic fenestration and literature review.  
*Yovany Capacho (Colombia)*
- 14:20 - 14:30 Gamma Knife Radiosurgery for Trigeminal Neuralgia: Targeting Proximal or Distal to the Dorsal Root Entry Zone.  
*Alejandra Moreira (El Salvador)*
- 14:30 - 14:40 Refractory meralgia paresthetica treated with spinal cord stimulation. Case Report.  
*Borja Ferrández-Pujante (Spain)*
- 14:50 - 15:00 Effectiveness of EM-Guided Percutaneous Balloon Compression in the Treatment of Trigeminal Neuralgia  
*Megan Lonie (United Kingdom)*
- 15:00 - 15:10 Efficacy of Intrathecal Ziconotide in the Management of Chronic Pain. Systematic Review and Meta-Analysis of Randomized, Placebo-Controlled Trials  
*Jaime Eduardo Becerra Ospina (Colombia)*
- 15:10 - 15:20 Outcomes of single-port video-assisted thoracic sympathectomy in patients with hyperhidrosis  
*Oleksii Eroshkin (Ukraine)*
- 15:20 - 15:30 The Internal Structure of Gasserian Ganglion and its Implications on the Efficacy of Percutaneous Radiofrequency Thermocoagulation for Trigeminal Neuralgia  
*Mert Babur (Turkey)*

**14:00 - 16:00 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - SB1 | Skull Base**

**Room O** **Moderators:** *Gardner, Paul*  
*Arango, Germán*  
*Daniel, Roy*

- 14:00 - 14:10 The Evolution of Endoscopic Endonasal Approach for Olfactory Groove Meningiomas  
*Paul Gardner (United States)*
- 14:10 - 14:20 Turning 2D Endoscopy into 3D: Synthetically generating stereoscopic endoscopy using deep image structure and texture similarity (DISTS) scoring  
*Douglas Kondziolka (United States)*
- 14:20 - 14:30 Endoscopic total remove of sellar and suprasellar papilloma tumor : a very rare case report and review of the literature  
*Lamia Benantar (Morocco)*
- 14:30 - 14:40 Olfactory groove meningiomas: Approaches and complications  
*Kamila Blaka (Brazil)*
- 14:40 - 14:50 Intracanalicular Tumor Management (Vestibular Schwannoma)  
*Eduard Zverina (Czech Republic)*
- 15:00 - 15:10 Detecting early changes in the post-radiosurgery vestibular schwannoma microenvironment: a multinuclear MRI study  
*Daniel Lewis (United Kingdom)*
- 15:10 - 15:20 Dural Sealants Do Not Reduce Postoperative Cerebrospinal Fluid Leak After Endoscopic Endonasal Skull Base Surgery  
*Paul Gardner (United States)*
- 15:20 - 15:30 Low Preoperative Prealbumin Levels Are A Strong Independent Predictor of Postoperative Cerebrospinal Fluid Leak Following Endoscopic Endonasal Skull Base Surgery  
  
*Paul Gardner (United States)*
- 15:30 - 15:40 Effect of the Extent of Posterior Septectomy on Surgical Access During the Endoscopic Endonasal Approach: A Technical Note  
*Amr Mohamed (Egypt)*



**16:30 - 18:10 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - GL3 | Global Neurosurgery\_****Room A**

**Moderators:** *Soriano Sánchez, Jose Antonio  
Arráez Sánchez, Miguel Angel  
Oviedo, Juan Carlos*

16:30 - 16:40 Medical errors and surgeon's responsibility

*Said Ait Benali (Morocco)*

16:40 - 16:50 Sexual Health and Neurosurgery

*Leandro Oliveira (Portugal)*

16:50 - 17:00 A Foldoscope: Scope in Neurosurgery-A Feasibility Study

*VENKATA SATYA RAMAN Bhavana (India)*

17:00 - 17:10 Current Status of Specialist Neurosurgical Training in Africa and Impact on 2030 Neurosurgeon Workforce Projections

*Anthony Fuller (United States)*

17:10 - 17:20 Disparities in Neurosurgical Research Output: The Pressing Need for Research Capacity Building in LMICs

*Edward Ham (United States)*

17:20 - 17:30 Various Surgical Options for Cerebral Mucormycosis. Our Institutional Experience - king george hospital , visakhapatnam, India

*Hema Swaroop Kurumella (India)*

17:40 - 17:50 Use of Telemedicine in Neurotrauma.

*Fatos Olldashy (Albania)*

17:50 - 18:00 Management of Cerebrospinal Fluid Fistula as a complication in the Far Lateral approach for the treatment of a right petroclival meningioma and meningioma of the foramen magnum."Case report"

*Abraham Gallegos Pedraza (Mexico)*

**16:30 - 18:10 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - PR1 | Peripheral**

**Room BC** **Moderators:** *Socolovsky, Mariano*  
*Rasulic, Lukas*  
*España, Julian*

- 16:30 - 16:40 Hand Reinnervation outcomes in Traumatic Brachial Plexus Injury: a systematic review  
*Rhuann Pontes Santos Silva (Brazil)*
- 16:40 - 16:50 IS IT POSSIBLE TO IMPROVE AXILLARY NERVE RESULTS IN BRACHIAL PLEXUS SURGERIES  
*Luciano Foroni (Brazil)*
- 16:50 - 17:00 FIRST REPORT OF PERIPHERAL NERVES SURGERY IN ANGOLA  
*Adilson De Oliveira (Angola)*
- 17:00 - 17:10 Dual Neurotization for Shoulder Reanimation for best functional outcome  
*Amit Thapa (Nepal)*
- 17:10 - 17:20 Obstetrical brachial palsy a serious problem in Angola and the first steps towards a solution  
*Adilson De Oliveira (Angola)*
- 17:20 - 17:30 Impact of covid-19 on the amount of brachial plexus microsurgery with micrografting during 2020 : retrospective control case study  
*laçanã Teixeira (Brazil)*
- 17:30 - 17:40 The beginning of peripheral nerve surgery in a tertiary neurosurgery department: the first 30 peripheral nerve tumors results  
*Leandro Oliveira (Portugal)*
- 17:40 - 17:50 Comparative study of two nerve transfer techniques for axillary nerve reinnervation.  
*Natalia Burgos-Morales (Ecuador)*
- 17:50 - 18:00 Case report: Multiple malignant schwannomas in peripheral nerves  
*Victor Enrique Antolinez Ayala (Colombia)*

**16:30 - 18:10 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - VA3 | Vascular**

**Room EF** **Moderators:** *Morcos, Jacques*  
*Lobelo, Nelson*

- 16:30 - 16:40 Minimally invasive parafasicular surgery for Hemorrhagic Stroke. First experience. From January 2018 to January 2021. Panama.  
*Alvino De Leon (Panama)*
- 16:40 - 16:50 Characterizing and comparing brain injury associated with traditional self-retracting brain retractors with novel tubular retractors.  
*Abdul Naeem (Canada)*
- 16:50 - 17:00 Correlation in Neurovascular scales for AVMs  
*Rebeca Perez-Alfayate (Spain)*
- 17:00 - 17:10 Predictive factors for the outcome of flow diversion of intracranial aneurysms: a Peruvian single-center experience  
*Juan E Basilio-Flores (Perú)*
- 17:10 - 17:20 Novel Rodent Approach for Advanced Microsurgical Training, Simulating Cerebrovascular Bypass  
*Diego A. Devia (Colombia)*
- 17:30 - 17:40 Natural history of asymptomatic non-bifurcation middle cerebral artery (MCA) aneurysms  
*Nicholas Borg (United States)*
- 17:40 - 17:50 Long-Term Trends In Skull Base Approach Utilization For Cavernous Malformation Resection  
*Diego A. Devia (Colombia)*

**16:30 - 18:10 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - VA4 | Vascular****Room G**

**Moderators:** *Gonzalez-Llanos Fernandez De Mesa, Francisco*  
*Aristizabal Maya, Jorge Humberto*

- 16:40 - 16:50 MICROVASCULAR DECOMPRESSION WITH THE USE OF SYNTHETIC DURAMMER WITH A TENDERING TECHNIQUE IN THE TREATMENT OF TRIGEMINAL NEURALGIA MORE GUIDED BY FLUORESCIN: A CASE REPORT  
*Piero Palacin Silva (Perú)*
- 16:50 - 17:00 Impact of COVID-19 pandemic on patients with intracranial aneurysm rupture at Dos de Mayo National Hospital in Lima, Peru  
*Jose Luis Acha (Perú)*
- 17:00 - 17:10 HYBRID MANAGEMENT OF PROXIMAL SUPERIOR CEREBELLAR ARTERY ANEURYSM, PROXIMAL CONTROL BALLOON-ASSISTED OF BASILAR ARTERY AND ROAD MAPPING-GUIDED CLIPPING: A CASE REPORT.  
*Ricardo Santiago Villagrana Sánchez (Mexico)*
- 17:10 - 17:20 Development of contralateral epidural hematoma after decompressive craniectomy of a traumatic acute subdural hematoma: Systematic Review and Metanalysis  
*Robson Luís Oliveira Amorim (Brazil)*
- 17:20 - 17:30 Endovascular Treatment with Curative Intention for Treating High-Grade Arteriovenous Malformation versus Radiosurgery: Efficacy, Safety, and Cost-Effectiveness Analysis  
*Giovanni Grasso (Italy)*
- 17:30 - 17:40 "PARICHAY" a potential next-generation mechanical thrombectomy device for acute ischemic stroke due to large artery occlusion  
*Lingaraju Thyagaturu Shivakumara Swamy (India)*
- 17:40 - 17:50 Stepwise Dissection of Sylvian Fissure with PRIDE Method: Technical Note  
*Gabriel Mauricio Longo Calderon (Guatemala)*

**16:30 - 18:10 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - SP02 | Spine****Room HI**

**Moderators:** *Masini, Marcos*  
*Fessler, Richard G*  
*Cossio, Neftali*

- 16:30 - 16:40 Robotic Assisted Spinal Surgeries, A Ray of Hope During an Infective Pandemic  
*Qurrat Ain (Pakistan)*
- 16:40 - 16:50 Hybrid surgery improve quality of life in multilevel cervical degenerative disc disease: Long-term follow-up study  
*Giovanni Grasso (Italy)*
- 16:50 - 17:00 Outcomes of craniocervical or atlantoaxial fixation in paediatric cohort with craniocervical instability  
*Fardad T. Afshari (United Kingdom)*
- 17:00 - 17:10 SPINAL TUMOR RESECTION BY MISS APPROACHES, INITIAL EXPERIENCE  
*Alberto Ramírez R. (Mexico)*
- 17:10 - 17:20 Temporary Standalone Percutaneous Fixation with Pedicle Screws for the Treatment of Subacute Tuberculosis Osteomyelitis with Kyphotic Deformity in the Lumbar Spine  
*Mokshal Porwal (United States)*
- 17:20 - 17:30 Cervical Total Disc Replacement in High-Impact Sports: Case-Report  
*Carlos Ribeiro (Portugal)*
- 17:30 - 17:40 Complications Associated with Subaxial Placement of Pedicle Screws versus Lateral Mass Screws in the Cervical Spine: Systematic Review and Meta-analysis Comprising 1,768 Patients and 8,636 Screws  
*Mohamed Soliman (Egypt)*
- 17:40 - 17:50 Surgical management of C3-C7 Cervical Fractures  
*Geldon Fejzo (Albania)*

**16:30 - 18:10 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - OC03 | Oncology****Room K**

**Moderators:** *Duffau, Hugues*  
*Rotta, Jose Marcus*  
*Cifuentes, Hernando*

- 16:30 - 16:40 Resting-state Functional Magnetic Resonance Imaging for Surgical Neuro-Oncology Planning: Towards a Standardization in Clinical Setting  
*Fabio Torregrossa (Italy)*
- 16:40 - 16:50 A Review of Teenage and Young Adult (TYA) patients treated for intracranial tumours over a 10 year period. A large center single series.  
*Adam Razak (United Kingdom)*
- 17:00 - 17:10 The ghost tumour revisited: corticosteroids in primary central nervous system lymphoma  
*Alejandra Mosteiro (Spain)*
- 17:10 - 17:20 Rare Case of Young Patient with Intraventricular Angiomatous Meningioma  
*Arthur Angonese (Brazil)*
- 17:20 - 17:30 Intraventricular Meningiomas  
*Harjinder Singh Bhatoe (India)*
- 17:30 - 17:40 ADVANTAGES AND DISADVANTAGES OF ENDOSCOPIC ENDONASAL APPROACH FOR CRANIOPHARYNGIOMA IN CHILDREN  
*Graciela Zuccaro (Argentina)*

**16:30 - 18:10 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - OC04 | Oncology****Room LM**

**Moderators:** *Diez, Mr. Juan Carlos*  
*Dirven, Clemens*

- 16:30 - 16:40 Synthetization and Validation of a Novel Nanoparticle System for Select Targeting of Therapy-Resistant Cell Populations Glioblastoma  
*Mohamed Soliman (Egypt)*
- 16:40 - 16:50 Primary Spinal Melanoma: Case Report and Systematic Review  
*Mohamed Soliman (Egypt)*
- 16:50 - 17:00 Surgical protocol for frameless needle stereotactic biopsy of supratentorial intraparenchymal lesions  
*Yavor Enchev (Bulgaria)*
- 17:00 - 17:10 WHO grade III meningiomas: A 20-year institutional experience  
*Hannah Redpath (United Kingdom)*
- 17:10 - 17:20 Resection of Brain Lesions in Eloquent Areas by Minimally Invasive Approaches (Minicraniectomies / Brain Port) Guided with Subcortical Mapping and Tractography: A Functional Resection.  
*Nadin Abdala Vargas (Colombia)*
- 17:20 - 17:30 Minimally invasive endoscopic approach in advanced cranial base tumors  
*Joel Caballero García (Ecuador)*
- 17:30 - 17:40 Differential Tractography Connectometrics for Immediate Postoperative Evaluation of Corticospinal Tract Patency After Resection of Motor Area Glioma  
*Hebert Pimienta (Colombia)*

**16:30 - 18:10 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - PED1 | Pediatric****Room N**

**Moderators:** *Ammar, Ahmed*  
*Rueda Franco, Fernando*  
*Baquero, Pablo Enrique*

- 16:30 - 16:40 Paediatric Intracranial Arachnoid Cysts: Single Institutional Review  
*Mohit Arora (United Kingdom)*
- 16:40 - 16:50 COVID-19 Impact on Cerebrospinal Fluid Diversion: a single institution experience  
*Shelly Sharma (United States)*
- 16:50 - 17:00 Low-grade spinal astrocytomas with aggressive evolution in children  
*Ricardo De Amoreira Gepp (Brazil)*
- 17:00 - 17:10 PAEDIATRIC MENINGIOMAS IN UNUSUAL INTRACRANIAL LOCATIONS: A REPORT OF THREE FILIPINO CASES  
*Jeanne Vyka Sarangay (Philippines)*
- 17:10 - 17:20 Hydrocephalus in Prenatal versus Postnatal Surgery for Myelomeningocele. Case Control Study in Peru.  
*Marco Mejia-tupa (Perú)*
- 17:20 - 17:30 Intrauterine prevalence of neural tube defect among pregnant mothers in Addis Ababa, Ethiopia: A prospective community based study  
*Hodan Abdi (United States)*
- 17:30 - 17:40 Surgical Management of Complex Craniosynostosis, Case Reports Interdisciplinary Experience  
*Erick Muñoz (Colombia)*
- 17:40 - 17:50 Treatment of Pyogenic Cerebral Ventriculitis with Hydrocephalus in Pediatric Patients with Neuroendoscopy: Experience in a Reference Center.  
*Nadin Abdala Vargas (Colombia)*
- 17:50 - 18:00 Surgical complications of spinal fusion in myelomeningocele in children and Tethered Cord Release  
*Ricardo De Amoreira Gepp (Brazil)*
- 18:00 - 18:10 Long-term clinical and radiological outcomes from foramen magnum stenosis in achondroplasia  
*Richard Moon (United Kingdom)*

**16:30 - 18:10 PERSONAL NEUROSURGICAL PRACTICE AND RESEARCH - SB2 | Skull Base**

**Room O** **Moderators:** *Tatagiba, Marcos*  
*Campero, Alvaro*  
*Penagos, Pedro*

16:30 - 16:40 An Institutional Review of Clinical Outcomes for Skull Base Chordoma: An Analysis of 263 Cases Over 19 Years

*Paul Gardner (United States)*

16:40 - 16:50 SURGICAL ANATOMY STUDY OF CAVERNOUS SINUS RULE OF FIVE

*Juan Armando Mejia Cordovez (Colombia)*

16:50 - 17:00 Volumetric Growth Rates of Untreated Cavernous Sinus Meningiomas

*Douglas Kondziolka (United States)*

17:00 - 17:10 Frontal sinus osteoplastic flap procedure: its role in the endoscopic era

*Débora Gonçalves (Portugal)*

17:10 - 17:20 Temporal Bone Meningo-Encephalic-Herniation: The role of Middle Cranial Fossa Approach

*Débora Gonçalves (Portugal)*

17:30 - 17:40 Surgical Challenges in Tuberculum Sellae Meningioma

*Amr Mohamed (Egypt)*

17:40 - 17:50 An Integrated Management Paradigm for Skull Base Chordoma Based on Clinical and Molecular Characteristics

*Paul Gardner (United States)*