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# WFNS 2019 INTERNATIONAL MEETING

ONE WORLD, ONE NEUROSURGERY

March 21<sup>st</sup>-24<sup>th</sup> 2019  
Crowne Plaza, Belgrade

## SCIENTIFIC PROGRAM



## Thursday, March 21<sup>st</sup>, 2019

### PRE-MEETING COURSES

- |                    |  |        |
|--------------------|--|--------|
| <b>07:30-18:50</b> | <b>WFNS Education Pre-meeting Course</b><br>Chair: Isabelle Germano<br>Venue: Crowne Plaza   | Hall 6 |
| <b>07:55-18.00</b> | <b>WFNS Neurosurgical Anatomy Committee Pre-meeting Course</b><br>Chairs: Vladimir Benes, Imad N. Kanaan<br>Venue: Crowne Plaza  | Hall 5 |
| <b>08.15-17.30</b> | <b>WFNS Endoscopy Pre-meeting Course</b><br>Chairs: Chrاندrashekhar Deopujari and Paolo Cappabianca<br>Venue: University of Belgrade,<br>Institute for Anatomy "Niko Miljanic" |        |
| <b>08.00-17.45</b> | <b>Global Neuro Seminar-Neurotrauma</b><br>Chairs: Fatos Oildashi, Andras Buki, Maurizio Iacoangeli<br>Venue: Crowne Plaza   | Hall 3 |
| <b>09.00-16.00</b> | <b>Spine Intraoperative Navigation</b><br>Course director: Kresimir Rotim<br>Course Co-director: Tomislav Sajko<br>Venue: Crowne Plaza   | Hall 2 |
| <b>13.00-18.00</b> | <b>AO Spine Advanced Seminar - Cervical Spine</b><br>Chair: Alessandro Ducati<br>Venue: Crowne Plaza   | Hall 4 |



**19:30-22:30**

## **OPENING CEREMONY AND WELCOME RECEPTION**

Venue: Hotel Crowne Plaza / Hall I

### **Welcome addresses:**

- **Prof. Dr. Lukas Rasulic**  
Co-President of the Meeting, SNSS President, SeENS President
- **H.E. Mr. Aleksandar Vucic**  
President of the Republic of Serbia
- **Ass. Dr. Zlatibor Loncar**  
Minister of Health of the Republic of Serbia
- **H.E. Mr. Carlo Lo Cascio**  
Ambassador Extraordinary and Plenipotentiary,  
Embassy of the Republic of Italy
- **Prof. Dr. Marco Cenzato**  
Co-president of the Meeting, SINch President
- **Prof. Dr. Franco Servadei**  
Honorary President of the Meeting, WFNS President
- **Mr. Mladen Sarcevic**  
Minister of Education, Science and Technological Development,  
Republic of Serbia
- **Academician Vladimir Kostic**  
President, Serbian Academy of Sciences and Arts
- **Prof. Dr. Ivanka Popovic**  
Rector, University of Belgrade, Serbia
- **Academician Nebojsa Lalic**  
Dean, Faculty of medicine, University of Belgrade, Serbia
- **Prof. Dr. Kresimir Rotim**  
Honorary President of the Meeting, SeENS Honorary President



**WFNS 2019  
INTERNATIONAL MEETING**  
ONE WORLD, ONE NEUROSURGERY

March 21<sup>st</sup> - 24<sup>th</sup> 2019, Crowne Plaza, Belgrade



## Friday, March 22<sup>nd</sup>, 2019

**08:00-08:15      Opening remarks      Hall I**

### **PLENARY SESSION I** **Chairs: Lukas Rasulic , Marco Cenzato**

**Hall I**

- 08:15-08:30      Surgical treatment of spinal cord intramedullary tumor:  
experience of more than 750 cases**  
Nikolay Konovalov, Russia
- 08:30-08:45      From simulation through cadaver training to patient care: a  
safe way to educate spinal surgeons**  
Karl Schaller, Switzerland
- 08:45-09:00      Visual function preservation in microsurgical management  
of parasellar meningiomas**  
Francesco Tomasello, Italy
- 09:00-09:15      The revolution of DAVF treatment in the neurovascular  
section**  
Ling Feng, China
- 09:15-09:30      Neurosurgical management of craniopharyngiomas**  
Rudolf Fahlbusch, Germany
- 09:30-09:45      Problems of geriatric spine surgery**  
Mehmet Zileli, Turkey
- 09:45-10.00      Coffee break**

**10.00-12.45      GLOBAL NEUROSURGERY SESSION**  
Moderators: Gail Rosseau, Franco Servadei  
PANELISTS: Graham Fieggen, Miroslav Vukic, Edgardo Spagnuolo,  
Amr El Shawarby, Ioan Stefan Florian

**Hall I**

## WOMEN IN NEUROSURGERY

Chairs: Souad Bakhti, Ling Feng

Hall I

- 12.45-12.55      Association of opium addiction with rupture of intracranial aneurysms**  
 Samira Zabihiyan, Iran
- 12.55-13.05      Pineal region tumors - surgical strategy**  
 Danica Grujicic, Serbia
- 13.05-13.15      Pitfalls and avoidance of complications in neuroendoscopy**  
 Najia El Abbadi, Morocco
- 13.15-13.25      Multidisciplinary treatment of brain metastases**  
 Isabelle Germano, USA
- 13.25-13.35      Women in neurosurgery: a young italian neurosurgeon**  
 Teresa Somma, Italy
- 13.35-13.45      Men's Contribution for Development of WINS**  
 Hari Chandran, Malaysia
- 13:45-14:30      Lunch**

## LUNCH SYMPOSIUM NEUROTRAUMA

Hall I

- 13.45-13.50      Introduction**  
 Franco Servadei, Italy
- 13.50-14.05      Utility of ICP monitoring: which patients and for which treatment?**  
 Andras Buki, Hungary
- 14.05-14.20      Cranial Decompression & Reconstruction: two faces of the same coin?**  
 Konstantinos Fountas, Greece
- 14.20-14.30      Q&A**

Friday, March 22<sup>nd</sup> / Hall I

**MT-I**

**PEDIATRICS**

**Chairs: Concezio Di Rocco, Graham Fieggen**

**Hall I**

- 14.30-14.45 Pituitary adenomas in pediatric age: Which is the role of endoscopic endonasal transphenoidal approaches?**  
Davide Locatelli, Italy
- 14.45-15.00 Breakthroughs in Medulloblastoma management. Can it be cured?**  
Alexandru-Vlad Ciurea, Romania
- 15.00-15.15 Surgical approach to thalamic tumors**  
Memet Özek, Turkey
- 15.15-15.30 Spinal tumors in children**  
Concezio Di Rocco, Germany
- 15.30-15.45 Unusual behavior of rosette-forming glioneuronal tumor in children**  
Nejat Akalan, Turkey
- 15.45-16.00 Management of Spina Bifida**  
Graham Fieggen, South Africa
- 16.00-16.15 Long-term surgical results in pediatric craniopharyngiomas**  
Abdeslam El Khamlichi, Morocco
- 16.15-16.30 Affordable Paediatric Neurosurgery in the third world**  
Alistair Jenkins, UK
- 16.30-16.45 Many a slip between the cup and the lip: Management dilemmas in congenital craniovertebral junction anomalies**  
Sanjay Behari, India
- 17.00-17.15 Coffee break**

**12:45-13:05**

**MORE OPTIONS IN NEUROSURGERY**

**Hall 2**

**Introduction to VISUALASE™ MRI-Guided  
Laser Ablation Technology**

Presented by Joyce van der Sijde

**13:45-14:30**

**Lunch**

**MT-2**

**TUMOR**

**Chairs: Miguel Arraez, Kenan Arnautovic**

**Hall 2**

**14.30-14.45**

**Surgical management of petrous apex lesions**

Miguel Arraez, Spain

**14.45-15.00**

**Endonasal approach to craniopharyngiomas**

Luigi Cavallo, Italy

**15.00-15.15**

**Meningiomas of the CP angle**

Panagiotis Selviaridis, Greece

**15.15-15.30**

**Cranio-orbital pretemporal skull base approach to sellar/  
juxtaseilar lesions**

Kenan Arnautovic, USA

**15.30-15.45**

**Long-term morbidity of meningioma**

Tiit Mathiesen, Denmark

**15.45-16.00**

**Management of foramen magnum Meningioma**

Najia El Abbadi Bendahane, Morocco

**16.00-16.15**

**High-grade gliomas surgery: combined fluorescence,  
IOUS and CEUS experience**

Natale Francaviglia, Italy

**16.15-16.30**

**Management of giant pituitary adenomas**

Nicolas Foroglou, Greece

**16.30-16.45**

**Olfactory groove meningiomas - results of transcranial  
resection in relation to imaging-based selection criteria  
for endoscopic approach**

Thomas Santarius, UK

**16.45-17.00**

**Endonasal transsphenoidal surgery for pituitary tumors**

Julius July, Indonesia

**17.00-17.15**

**Coffee break**

**MT-3**

**NEW HORIZONS**

**Chairs: Ihsan Solaroglu, Amir Samii**

**Hall 3**

- 14:30-14:45**     **Intraneural ganglion cysts**  
Robert Spinner, USA
- 14:45-15:00**     **First Experiences with a Dedicated Hybrid OR for Spine Surgery**  
Amir Samii, Germany
- 15:00-15:15**     **Cerebral Revascularization Surgery: Techniques And Applications**  
Yong Kwang Tu, Taiwan
- 15:15-15:30**     **The role of augment and virtual reality in neurosurgery: how the digital era is changing training and surgery**  
Antonio Bernardo, USA
- 15:30-15:45**     **Supracerebellar transtentorial approach to the mediobasal temporal region in prone position**  
Feridun Acar, Turkey
- 15:45-16:00**     **Extent of surgical resection of malignant astrocytoma of the spinal cord**  
Vincenzo Paterno, Germany
- 16:00-16:15**     **The surgery of intramedullary spinal cord tumors in the era of neuromonitoring**  
Francesco Sala, Italy
- 16:15-16:30**     **Overcoming Fracture Progression in Complicated Kümmell's Disease: Single-stage Transpedicular Vertebral Body Reconstruction**  
Se-Hoon Kim, Korea
- 16:30-16:45**     **Comprehensive Management of Spinal Cord Lesions**  
Manfred Westphal, Germany
- 16:45-17:00**     **Anterior brain circulation aneurysm surgery - single center experience**  
Goran Tasic, Serbia
- 17:00-17:15**     **Coffee break**





## **PANEL SESSION-SPINAL CORD TUMORS**

*Promotion of the book "Spinal cord tumors",  
Kenan Arnautovic, Ziya Gokaslan, Springer, 2019*  
**Moderators: Kenan Arnautovic, Lukas Rasulic, Kresimir Rotim**

**Hall 4**

- 12.45-12.50      Introduction**  
Lukas Rasulic, Serbia and Kresimir Rotim, Croatia
- 12.50-12.55      Importance of books among neurosurgical publications**  
Franco Servadei, Italy
- 12.55-13.05      Spinal Cord Tumors- Book introduction and review**  
Bruno Splavski, Croatia
- 13.05-13.10      The Spinal Cord Tumor book- from inspiration and idea to the book completion**  
Kenan Arnautovic, USA
- 13.10-13.20      Spinal cord tumors- pearls from the pioneer and leader**  
Madjid Samii, Germany
- 13.20-13.25      Spinal meningiomas- new horizons**  
Roberto Delfini, Italy
- 13.25-13.30      Spinal cord tumor- how did I start**  
Ibrahim Omerhodzic, Bosnia and Herzegovina
- 13.30-13.35      Turkey developing Spinal Cord Tumor Program**  
Y. Sukru Caglar, Turkey
- 13:35-14:00      Round Table Discussion**
- 13:45-14:30      Lunch**

**MT-4**

**VASCULAR**

**Chairs: Antonino Raco, Abdessamad El Ouahabi**

**Hall 4**

- 14.30-14.45 New Technologies in Aneurysm Surgery**  
Jorge Mura, Chile
- 14.45-15.00 Surgery of complex aneurysms**  
Edgardo Spagnuolo, Uruguay
- 15.00-15.15 Management of ruptured intracranial aneurysms in the Post Isat era: current indications and place of microsurgical clipping**  
Abdessamad El Ouahabi, Morocco
- 15.15-15.30 Giant aneurysms multimodal treatments**  
Marco Cenzato, Italy
- 15.30-15.45 Future challenges of vascular microsurgery**  
Kresimir Rotim, Croatia
- 15.45-16.00 New endovascular aneurysm technology**  
Daniel Hoit, USA
- 16.00-16.15 The Role of Intraoperative MRI in Neurovascular Surgery: Our Experience**  
Antonino Raco, Italy
- 16.15-16.30 ICA blister aneurysms**  
Torstein Meling, Switzerland/Norway
- 16.30-16.45 Surgical treatment of cerebral AVM – cohort from 2005-4/2018**  
Martin Smrcka, Czech Republic
- 16.45-17:00 Microsurgical clipping of Anterior communicating artery (AcomA) aneurysms**  
Gopal Raman Sharma, Nepal
- 17:00-17:15 Coffee break**

## 09.00-18.00 **BESTA NEUROSIM CENTER SIMULATION**

**Hall 7**

- 09.00-09:12 Introduction to the Simulation Session - The Besta NeuroSim Center**  
 Francesco DiMeco, Italy
- 09:12-09:24 Simulation in Surgery - What's the Evidence?**  
 Torstein R. Meling, Switzerland/Norway
- 09:24-09:36 Simulation in neurosurgery; the solution for future challenges in education and training?**  
 André Grotenhuis, Netherlands
- 09:36-09:48 Virtual Reality Performance Metrics for Neurosurgical Training: A Disruptive Assessment and Learning Technology**  
 Rolando F. Del Maestro, Canada
- 09:48-10:00 New neurosurgical training paradigms in Europe**  
 Alessandro Perin, Italy

**Four-hour course: 18 participants**  
**After the course, the simulation centre is open to the public.**

## 14.30-18.30 **WFNS SPINE COMMITTEE CONSENSUS CONFERENCE "Lumbar Spinal Stenosis"**

**Hall 11**

## 3D SPECIAL LECTURES \*

**Hall 12**

- 13:45-14:15 Surgery of Brainstem Cavernous Angiomas**  
 Eka J Wahjoepramono, Indonesia
- 14:15-14:45 Surgical approaches for tumors in the 3rd and 4th ventricles**  
 Thomas Santarius, UK
- 14:45-15:15 Microvascular Decompression and cranial nerves in posterior fossa**  
 Julius July, Indonesia

**\* Lunch will be served within the session**

## KEYNOTE LECTURES & ORAL PRESENTATIONS

### TUMOR (OP-I)

**Chairs: Maurizio Iacoangeli, Danica Grujicic**

**Hall I**

- 17.15-17.30 KEYNOTE LECTURE: Skull base and cranio-facial approaches to minimize approach-related morbidity for intradural neoplastic and vascular lesions**  
Maurizio Iacoangeli, Italy
- 17.30-17.45 KEYNOTE LECTURE: Transcallosal approach to midline tumors**  
Danica Grujicic, Serbia
- 17.45-18.00 KEYNOTE LECTURE: Surgical treatment of the lateral ventricle tumors**  
Vincenzo D'Angelo, Italy
- 18:00-18:10 GRANT WINNER: Enhanced B7-H4 expression in gliomas with low PD-L1 expression identifies an immune-desert phenotype**  
Di Chen et al., China
- 18:10-18:20 Gemistocytic astrocytomas: A 15-year, multicenter study**  
Atef Ben Nsir et al., Tunisia
- 18:20-18:26 Results following transsphenoidal endoscopic pituitary surgery – a retrospective analysis in regards to the learning curve, a single department experience**  
Aleksandar Stanimirovic, et al., Serbia
- 18:26-18:32 Single cell sequencing identifies cellular heterogeneity in human microglia**  
Adam Young et al., UK
- 18:32-18:38 Role of trans-nasal endoscopic surgery for suprasellar meningiomas**  
Salman Mohammed Shaikh et al., India
- 18:38-18:44 Identification of prognostic factors for survival in series of 110 patients with newly diagnosed glioblastoma – A single-center observational study.**  
Rosanda Ilic et al., Serbia
- 18:44-18:50 Remote cerebellar hemorrhage following surgery for supra-tentorial pathology**  
Rajesh Meena et al., India

- 18:50-18:56**    **The evolution of surgical treatment strategies for olfactory groove meningiomas: Historic and contemporary open surgical approaches and proposal of new classification system**  
 Farhan Mirza et al., US
- 18:56-19:02**    **Differential DNA methylome and gene expression analysis of growth hormone pituitary adenomas revealing the correlation of cell-cell adhesion and tumor invasiveness**  
 Silin Wu et al., China

### **SPINE (OP-2)**

**Chairs: Tito Arcadio Perilla Cepeda, Reza Ghadirpour**

**Hall 2**

- 17:15-17:30**    **KEYNOTE LECTURE: Spinal intramedullary tumors**  
 Hakan Emmez, Turkey
- 17:30-17:45**    **KEYNOTE LECTURE: Intraoperative monitoring in spinal cord tumor surgery**  
 Reza Ghadirpour, Italy
- 17:45-18:00**    **KEYNOTE LECTURE: Management of Complications after transpedicular fixations**  
 Tito Arcadio Perilla Cepeda, Colombia
- 18:00-18:10**    **GRANT WINNER: Use of intra-facet fixation in lumbar spine**  
 Tossif Ghodiwalla et al., Russia
- 18:10-18:16**    **Cervical radiculopathy vs. carpal tunnel syndrome-the shared territory; Miljan Bulatović-Clinical Hospital Centre Zemun-Belgrade, Belgrade, Serbia**  
 Miljan Bulatović et al., Serbia
- 18:16-18:22**    **Microspheres of Ebm-Titanium: A Valid Alternative to Pmma in the Treatment of Vertebral Fracture**  
 Natale Francaviglia et al., Italy
- 18:22-18:28**    **Intraoperative neurophysiological monitoring and clinical assessment in patients with anterior cervical discectomy and fusion**  
 Vedrana Karan et al., Serbia

- 18:28-18:34     Anatomic and radiologic characteristics of the craniocervical junction and their significance for the choice of neurosurgical approach**  
Marina Milic et al., Serbia
- 18:34-18:40     Tandem spinal stenosis; Searching for the best clinical approach: Case report and Review of literature**  
Marko Samardzic et al., Serbia
- 18:40-18:46     Clinico-radiological outcome assesment of minimal invasive transforaminal lumbar interbody fusion for spondylolisthesis**  
Deepak Bhangale et al., India
- 18:46-18:52     Surgical technique for cervical pedicle screw insertion using O-Arm navigation plus mini screws**  
Nobuyuki Shimokawa et al., Japan
- 18:52-18:58     Lumbar Angiolipoma Removal Via Percutaneous Endoscopic Interlaminar Approach,**  
Márcio Robertti, Ramalho da Cunha et al., Brazil
- 18:58-19:04     Are we punishing the innocent: Relevance of Ganglion preservation in the cases of craniovertebral anomalies with C1/C2 instrumentation and joint manipulation?**  
Arun Srivastava et al., India
- 19:04-19:10     Severity of the spinal stenosis –A novel classification method**  
Milenko Stanic et al., Serbia
- 19:10-19:16     Is it necessary to plate after multilevel anterior cervical discectomy and fusion?**  
Marios Theologou et al., Greece

## **VASCULAR (OP-3)**

**Chairs: Marco Fontanella, Harjinder Bhatoe**

**Hall 3**

- 17.15-17.30 KEYNOTE LECTURE: Cerebral Cavernomas: treatments and problems**  
 Marco Fontanella, Italy
- 17.30-17.45 KEYNOTE LECTURE: Microsurgery for brain arteriovenous malformations**  
 Harjinder Bhatoe, India
- 17.45-18.00 KEYNOTE LECTURE: Neurovascular conflicts**  
 Barbara Masotto, Italy
- 18:00-18:10 GRANT WINNER: Predicting long-term outcomes after poor-grade aneurysmal subarachnoid hemorrhage using machine learning algorithms**  
 Bing Zhao et al., China
- 18:10-18:20 GRANT WINNER: The optimal operation time for rapid progression pediatric Moyamoya disease**  
 Wenjun Shen et al., China
- 18:20-18:26 Thrombolysis in acute ischemic stroke patients with Tenecteplase in a developing nation: Challenges and experience**  
 Neeraj Basantani et al., India
- 18:26-18:32 Cerebral aneurysm progression: smooth muscle cell, endothelial cell and extracellular matrix**  
 Peixi Liu et al., China
- 18:32-18:38 Transciliary keyhole approach for middle cerebral artery aneurysms**  
 Abhay Singh et al., India
- 18:38-18:44 The application of hybrid surgery in the treatment of brain arteriovenous malformation**  
 Jianping Song et al., China
- 18:44-18:50 Neural network in neurovascular surgery: first experience in vasospasm prediction**  
 Aleksei Trubkin et al., Russia
- 18:50-18:56 Non-endoscopic minimally invasive evacuation of intracerebral haematoma**  
 Tomaz Velnar et al., Slovenia

- 18:56-19:02**    **Internal maxillary artery bypass for the treatment of complex middle cerebral artery aneurysms**  
Long Wang et al., China
- 19:02-19:08**    **Microsurgical resection of Intracranial arteriovenous malformation: Result in 197 patients**  
Ismail Yuce et al., Turkey
- 19:08-19:14**    **Patterns and predictors of in- hospital aneurysmal rebleed**  
Ranjit Rangnekar et al., India

### **TUMOR (OP-4)**

**Chairs: Tomislav Sajko, Giuseppe Talamonti**

**Hall 4**

- 17.15-17.30**    **KEYNOTE LECTURE: Dysembryoblastic neuroepithelial tumors: surgical and seizure outcome**  
Tomislav Sajko, Croatia
- 17.30-17.45**    **KEYNOTE LECTURE: Neuroendoscopy and combined therapy in ventricular tumors**  
Piero Andrea Oppido, Italy
- 17.45-18.00**    **KEYNOTE LECTURE: Endoscopic endonasal approach to treat craniopharyngiomas**  
Diego Mazzatenta, Italy
- 18:00-18:10**    **GRANT WINNER: Endoscopic endonasal and supraorbital keyhole surgery for the management of anterior skull base meningiomas: Overcoming the barriers between above and below approaches**  
Davide Nasi et al., Italy
- 18:10-18:16**    **New trends in glioblastoma treatment in Vojvodina Province (Serbia): progress and achievements**  
Igor Djan et al., Serbia
- 18:16-18:22**    **Surgical outcome in intracranial lower cranial nerves (LCNs) schwannomas. Recent experience**  
Vincenzo Fontana et al., Italy
- 18:22-18:28**    **Hydatid cyst, an extinct, rare entity (we hope so) – single centre experience**  
Adrian - Mircea Furtos et al., Romania



- 18:28-18:34      Pediatric glioblastomas: study of a Tunisian surgical series**  
 Firas Akrouit et al., Tunisia
- 18:34-18:40      Foramen magnum meningiomas: clinical presentation and surgical management**  
 Mario Giarletta et al., Italy
- 18:40-18:46      Middle cerebellar peduncle: niche for a spectrum of high grade lesions**  
 Jaskaran Singh Gosal et al., India
- 18:46-18:52      Endoscopic treatment of the 3rd ventricle colloid cyst, total resection is real**  
 Jalal Najjar et al., Syria
- 18:52-18:58      Deep white matter ischemia after awake surgery for gliomas**  
 Yoshitaka Narita et al., Japan
- 18:58-19:04      Supratentorial cerebellar liponeurocytoma, a benign tumor with malignant features**  
 Alejandro Feria et al., USA
- 19:04-19:10      Surgical management of thalamic glial lesion: a retrospective study of 60 patients**  
 Marco Paolo Schiariti et al., Italy
- 19:10-19:16      Surgical treatment of Jugular Foramen Schwannoma: Surgical approaches and techniques**  
 Shao-bo Su et al., China

## TUMOR (OP-5)

Chairs: Milos Jokovic, Ibrahim Omerhodzic

Hall 5

- |             |   |
|-------------|---|
| 17.15-17.30 | <b>KEYNOTE LECTURE: Low grade gliomas - follow up, radical surgery, radiotherapy, chemotherapy, or...</b><br>Milos Jokovic, Serbia                                    |
| 17.30-17.45 | <b>KEYNOTE LECTURE: Cerebellar gliomas</b><br>Ibrahim Omerhodzic, Bosnia and Herzegovina  |
| 17.45-18.00 | <b>KEYNOTE LECTURE: Clinoid area meningiomas lessons learned from tcs in 50 personal cases</b><br>Mentor Petrela, Albania   |
| 18:00-18:10 | <b>GRANT WINNER: The accuracy and complications of frame-based stereotactic brain biopsy - The value of histopathological analysis</b><br>Bojan Jelaca et al., Serbia |
| 18:10-18:16 | <b>Controversies in the management of vestibular schwannomas</b><br>Shankar Athawale et al., India  |
| 18:16-18:22 | <b>Recent evidence in diagnosis and treatment of meningiomas: A brief systematic review</b><br>Naci Balak et al., Turkey  |
| 18:22-18:28 | <b>Prognostic factors in vestibular schwannoma surgery for hearing function preservation</b><br>Marco Cancedda et al., Italy  |
| 18:28-18:34 | <b>Is Medulloblastoma associated with systemic immunomodulation? - A comparative analysis of pre-operative inflammatory markers</b><br>Varidh Katiyar et al., India   |
| 18:34-18:40 | <b>Prognostic factors associated with pituitary microscopic dural invasion</b><br>Ronald Murambi et al., Australia  |
| 18:40-18:46 | <b>Atypical intracranial meningiomas: a case series analysis of outcomes and treatment modalities</b><br>Filip Vrban et al., Croatia                                  |
| 18:46-18:52 | <b>Ruptured Intracranial Dermoid Cysts: A Retrospective Review</b><br>Nishanth Sadashiva et al., India  |

- 18:52-18:58**    **Local selective chemotherapy in recurrent glioblastoma with doxorubicine. First clinical experience with 2 cases.**  
Tatiana Rusu et al., Moldova
- 18:58-19:04**    **Completely extraarachnoidal dissection for giant acoustic schwannomas: Institutional experience**  
Venkata Ramesh Chandra Vemula et al., India
- 19:04-19:10**    **Improving efficiency of initial management in neuro-oncology through implementation of a digital referral process**  
Mei Yin Wong et al., UK
- 19:10-19:16**    **Surgical treatment of intramedullary ependymomas in the intraoperative neurophysiological monitoring era**  
Giampietro Pinna et al., Italy

### **SPINE (OP-6)**

**Chairs: Nebojsa Stojanovic, Massimiliano Visocchi**

**Hall 6**

- 17:15-17:30**    **KEYNOTE LECTURE: Indications for reconstructive surgery of the cervical spine - multisegmental approach**  
Nebojsa Stojanovic, Serbia
- 17:30-17:45**    **KEYNOTE LECTURE: 360° surgical approaches to the craniovertebral junction: a fearless revolution around the skull base**  
Massimiliano Visocchi, Italy
- 17:45-18:00**    **KEYNOTE LECTURE: Sagittal Balance and importance for spine surgery**  
Onur Yaman, Turkey
- 18:00-18:10**    **GRANT WINNER: Short term outcome of surgical treatment of patients with lumbar disc herniation**  
Miroslav Fimic et al., Serbia
- 18:10-18:16**    **Surgical management of subaxial cervical fractures: Our experience**  
Geldon Fejzo et al., Albania
- 18:16-18:22**    **Propofol infusion versus combination of isoflurane with nitroglycerine for controlled hypotensive anesthesia in spine surgery: A randomized controlled study**  
Mohamed Gaber et al., Egypt

- 18:22-18:28 Surgical management of upper cervical fractures:  
Our experience**  
Irgen Hodaj et al., Albania
- 18:28-18:34 Transforaminal endoscopic discectomy for L5-S1 disc  
herniations- is it a myth or reality?**  
Karlo Houra et al., Croatia
- 18:34-18:40 Intramedullary spinal cavernoma about a series of 7 cases**  
Ahmed Maatoug et al., Tunisia
- 18:40-18:46 Dynamic stabilization of the lumbar spine in high  
biomechanic demand individuals: analysis of a series of  
70 military patients**  
Carlos Roberto Massella Junior et al., Brazil
- 18:46-18:52 Evaluation of surgical procedures for thoracolumbar  
body fracture due to high-energy trauma**  
Hiroaki Matsumoto et al., Japan
- 18:52-18:58 Lateral extended TLIF using a novel apophyseal resting  
TLIF cage: three year experience**  
Ronald J. Sabitzer et al., Austria
- 18:58-19:04 Herniated discs. Open microsurgical or endoscopic  
approach? What is better for the surgeon and what is  
better for the patient?**  
Mikhail Safronov et al., Russia
- 19:04-19:10 Long-term outcome of lumbar disc surgery: five years  
follow up**  
Mohamed Shabaan et al., Egypt
- 19:10-19:16 Water-sports related cervical injuries- last summer  
season experience of 5 cases**  
Rajeev Sharma et al., India

## VASCULAR (OP-7)

Chairs: Eka J Wahjoepramono, Talat Kiriş

Hall 8

- 17.15-17.30 KEYNOTE LECTURE: Wisdom in management of Giant Aneurysms**  
 Eka J Wahjoepramono, Indonesia
- 17.30-17.45 KEYNOTE LECTURE: Clipping Strategies in Complex Aneurysms**  
 Talat Kiriş, Turkey
- 17.45.-18.00 KEYNOTE LECTURE: Surgery of MCA Aneurysm**  
 Abdessamad El Azhari, Morocco
- 18:00-18:10 GRANT WINNER: Squalenoyl adenosine nano-assemblies enhance cerebral blood flow in filament perforation SAH model in mice**  
 Ilkay Isikay et al., Turkey
- 18:10-18:20 GRANT WINNER: Perimesencephalic subarachnoid haemorrhage (PMSAH): Proposal of modified UK rinkel criteria**  
 Amad Khan et al., UK
- 18:20-18:26 How to manage and reduce the risk of Intraoperative Rupture of Intracranial Aneurysms**  
 Said, Ait Benali et al., Morocco
- 18:26-18:32 Gamma knife radiotherapy for arteriovenous malformations located in midbrain region of the brain**  
 Atmaranjan Dash et al., India
- 18:32-18:38 Management of ruptured intracranial aneurysms in the Post Isat era: current indications and place of microsurgical clipping**  
 Abdessamad EL Ouahabi et al., Morocco
- 18:38-18:44 Intracranial artery tortuosity: association with risk of aneurysm rupture**  
 Kornelia Klis et al., Poland
- 18:44-18:50 Prognosis value of ICH Score in patients with intracerebral hemorrhage: first study analysis in the Moroccan population**  
 Salma Mrichi et al., Morocco

- 18:50-18:56 Outcome analysis in operated cases of Distal anterior cerebral artery aneurysms; An Institutional experience in forty consecutive cases**  
Bimal Sahoo et al., India
- 18:56-19:02 Intracranial dural arteriovenous fistulas with cortical venous drainage: Gamma knife radiosurgery as the treatment of choice**  
Hardik Sardana et al., India
- 19:02-19:08 Clipping versus coiling, in posterior circulation intracranial aneurysms: A meta-analysis**  
Eleni Tsianaka et al., Kuwait
- 19:08-19:14 Evaluation of wall structure corresponding to high-resolution vessel wall imaging in unruptured intracranial aneurysms**  
Kai Quan et al., China

## TRAUMA (OP-8)

Chairs: Stefano Signoretti, Imad Talahma

Hall 9

- 17.15-17.30 KEYNOTE LECTURE: Post-traumatic cranioplasty: Time for a Consensus Conference**  
 Corrado Iaccarino, Italy
- 17.30-17.45 KEYNOTE LECTURE: Low cost lumber fusion**  
 Imad Talahma, Palestine
- 17.45-18.00 KEYNOTE LECTURE: Avoidance of complications in spine trauma**  
 Keki Turel, India
- 18:00-18:10 GRANT WINNER: Prognostic computed tomography scores in traumatic brain injury**  
 Muhammad Rafay et al., Pakistan
- 18:10-18:20 Blood glucose levels for prediction of absence of intracranial injuries in minor head trauma**  
 Georgios Alexiou et al., Greece
- 18:20-18:26 Efficacy of single burr hole for the treatment of chronic subdural hematoma: An institutional study of 150 cases**  
 Sudhendoo Babhulkar et al., India
- 18:26-18:32 Single burr-hole surgery with or without membranectomy for chronic subdural hematoma**  
 Milena Roganovic et al., Montenegro
- 18:32-18:38 Hematoma recurrence in burr hole drainage compared to burr hole irrigation as treatment of chronic subdural hematoma: A Systematic review and meta-analysis**  
 Made Bhuwana Putra et al., Indonesia
- 18:38-18:44 Missile traumatic adult brain injury in the north of palestine: management and outcomes of 380 patients**  
 Mazhar Darwazeh et al., Palestine
- 18:44-18:50 Chronic traumatic encephalopathy (CTE): Causes, diagnosis, role of the neurosurgeon and edico-legal implications**  
 Domenic Esposito et al., UK



# WFNS 2019 INTERNATIONAL MEETING

ONE WORLD, ONE NEUROSURGERY

March 21<sup>st</sup> - 24<sup>th</sup> 2019, Crowne Plaza, Belgrade



**SINch**  
SOCIETÀ ITALIANA  
NEUROCHIRURGIA



- 18:50-18:56**     **Controversies on post traumatic hydrocephalus.  
A retrospective study and review of the literature**  
Charalampos Gatos et al., Greece
- 18:56-19:02**     **The Dubrava Model- a novel approach in treating acutely  
neurotraumatized patients in rural areas, a proposal for  
management**  
Darko Oreskovic et al., Croatia
- 19:02-19:08**     **Improved outcomes in chronic subdural hematoma  
with etizolam: Magic Pill?**  
Saraswati S. Shenoy et al., India

## 08.00-19.00     **WFNS 2019 BELGRADE E-POSTER SESSION**

Area for Poster presentation

## 17.30-19.00     **WFNS 2019 BELGRADE POSTER EVALUATION AND DISCUSSION SESSION**

### **GROUP ONCOLOGY**

**Moderators: Martin Smrcka, Petar Vulekovic, Luigi Cavallo**

Area for Poster presentation



## Saturday, March 23<sup>rd</sup>, 2019

### PLENARY SESSION 2

Chairs: Kresimir Rotim, Francesco Tomasello

Hall I

- |                    |  |
|--------------------|--|
| <b>08:00-08:15</b> | <b>Reconstructive Neurosurgery After TBI</b><br>Alexander Potapov, Russia  |
| <b>08:15-08:30</b> | <b>Historical Reflections on Nerve Surgery Since World War II</b><br>David Kline, USA  |
| <b>08:30-08:45</b> | <b>Clipping aneurysms-lessons i have learned after 1000 operated aneurysms</b><br>Ioan Stefan Florian, Romania                             |
| <b>08:45-09:00</b> | <b>Anticoagulation, reversal, and hemostasis in neurosurgery with special emphasis on neuro-trauma patients</b><br>Christopher Loftus, USA |
| <b>09:00-09:15</b> | <b>Endoscopic endonasal approach for anterior fossa meningiomas</b><br>Paolo Cappabianca, Italy  |
| <b>09:15-09:30</b> | <b>Craniocervical junction chordomas</b><br>Sebastien Froelich, France   |
| <b>09:30-09:45</b> | <b>Soccer and Neurosurgery</b><br>Nelson Oyesiku, USA  |
| <b>09:45-10:00</b> | <b>New insights into the surgical management of diffuse low-grade gliomas</b><br>Hugues Duffau, France                                     |
| <b>10:00-10:15</b> | <b>Simulation: revolution in neurosurgical training and practice</b><br>Gail Rosseau, USA  |
| <b>10:15-10:30</b> | <b>Brain Mapping for Tumors in Eloquent Areas</b><br>Isabelle Germano, USA   |
| <b>10:30-10:45</b> | <b>Growth Patterns of Pituitary Adenoma with Parasellar Growth: Anatomy, Surgery and Results</b><br>Engelbert Knosp, Austria               |
| <b>10:45-11:00</b> | <b>Coffee break</b>  |

**MT-5 HOW TO IMPROVE QUALITY OF PUBLICATIONS**  
**Chairs: Tiit Mathiesen, Nelson Oyesiku**

**Hall I**

- 11:00-11:15**    **What is the editor looking for**  
Tiit Mathiesen, Denmark
- 11:15-11:30**    **Randomized controlled trials in neurosurgery: an assessment of discontinuation and publication outcomes**  
Andreas Demetriades, UK
- 11:30-11:45**    **Publication Quality Improvement by Plagiarism Detection. Acta Clinica Croatica Experience**  
Kresimir Rotim, Croatia
- 11:45-12:00**    **The state of the journal Neurosurgery**  
Nelson Oyesiku, USA
- 12:00-12:15**    **When will I recommend publication of a single case**  
André Grotenhuis, Netherlands
- 12:15-12:30**    **How to convince reviewer?**  
Ihsan Solaroglu, Turkey
- 12:30-12:45**    **Publications in Neurosciences: A self-improvement exercise or drudgery?**  
Sanjay Behari, India
- 12:45-13:15**    **Brainstorming**
- 13.15-14.00**    **Lunch**

**MT-6**

**TRAUMA**

**Chairs: Corrado Iaccarino, Tariq Khan**

**Hall 2**

- 11:00-11:15**     **Traumatic brain injury biomarkers: State of the center - TBI study**  
 Andras Buki, Hungary
- 11:15-11:30**     **The anti-secretory factor and the intra-cranial pressure**  
 Mohammad Alolama, UAE
- 11:30-11:45**     **Decompressive Craniectomies without ICP Monitoring**  
 Tariq Khan, Pakistan
- 11:45-12:00**     **Skull Base Trauma – Worthwhile dealing with that?**  
 Christian Matula, Austria
- 12:00-12:15**     **Severe traumatic brain injury patients management - institutional experience and protocol**  
 Djula Djilvesi, Serbia
- 12:15-12:30**     **Brain injury in elderly patients: a new scoring system**  
 Dariusz Jaskólski, Poland
- 12:30-12:45**     **Disasters and surgery: mass casualty centers benefit global healthcare**  
 Russell Andrews, USA
- 12:45-13:00**     **Diagnostic of mild traumatic brain injury – Is there anything more we can do?**  
 Mladen Karan et al., Serbia
- 13:15-14:00**     **Lunch**

- 14:20-14:40**     **COMMERCIAL SYMPOSIUM**  
**Codman Certas, Streamline your Hydrocephalus procedure**

**MT-7**

**FUNCTIONAL & PAIN**  
**Chairs: Marc Sindou, Piero Picozzi**

**Hall 3**

- 11:00-11:15**     **The treatment of Arnold neuralgia: Can we rewrite the history?**  
Stefano Ferraresi, Italy
- 11:15-11:30**     **Endoscope-assisted microvascular decompression in hemifacial spasm**  
Henry Schroeder, Germany
- 11:30-11:45**     **Classical trigeminal neuralgias: from imaging to surgery**  
Marc Sindou, France
- 11:45-12:00**     **Pudendal neuralgia - Experience with the transgluteal approach**  
Gregor Antoniadis, Germany
- 12:00-12:15**     **Highly selective neurectomy for spasticity: a single center experience**  
Mark Mahan, USA
- 12:15-12:30**     **New Era in Gamma Knife Radiosurgery**  
Selçuk Peker, Turkey
- 12:30-12:45**     **Everything You Always Wanted to Know about Radiosurgery of AVM (But Were Afraid to Ask)**  
Mikhail Chernov, Russia / Japan
- 12:45-13:00**     **Brain stimulation in Disorder of Consciousness from theory to practice**  
Darko Chudy, Croatia
- 13:00-13:15**     **Outcome after epilepsy surgery in Serbia – single center experience**  
Vladimir Bascarevic, Serbia
- 13.15-14.00**     **Lunch**

**MT-8**

**SPINE**

**Chairs: Scott Robertson, Roberto Delfini**

**Hall 4**

- 11:00-11:15**     **New classification for lumbar microinstability: clinical and radiological results at 2 years follow-up**  
 Roberto Delfini, Italy
- 11:15-11:30**     **Long Term Results with Minimally Invasive Plif In Degenerative Lumbar Spondylolisthesis**  
 Matjaz Vorsic, Slovenia
- 11:30-11:45**     **Combined anterior and posterior approach for complex cervical cases**  
 Maurizio Fornari, Italy
- 11:45-12:00**     **Minimally invasive transforaminal lumbar interbody fusion**  
 Nikolay Velinov, Bulgaria
- 12:00-12:15**     **Cervical myelopathy: how to identify best responders to surgery**  
 Marco Corniola, Switzerland
- 12:15-12:30**     **Cervical Intramedullary tumors and its mimicks; How to avoid Maslows Hammer?**  
 Suresh Nair, India
- 12:30-12:45**     **Skeptical approach to the spine surgery**  
 Michalakis Spyrou, Cyprus
- 12:45-13:00**     **Decision making in spine surgery**  
 Kantha Rasalingam, Malaysia
- 13:00-13:15**     **Complications of anterior cervical discectomy and fusion**  
 Scott Robertson, USA
- 13.15-14.00**     **Lunch**

**13.15-14.00**     **Southeast Europe Neurosurgical Society - SEENS  
 EC Business Meeting**

**Hall 4**

Saturday, March 23<sup>rd</sup> / Hall 4

## **YOUNG NEUROSURGEONS' FORUM**

**Chairs: Andreas Demetriades, Ihsan Solaroglu, Tomislav Sajko,  
Marco Corniola, Djula Djilvesi**

**Hall I**

- 14:00-14:07 Pathohistology of ligamentum flavum and correlation with neurogenic claudications**  
Vuk Aleksic et al., Serbia
- 14:07-14:14 Serum biomarkers as predictors of severity of injury and functional outcome after acute traumatic spinal cord injury**  
Raheja Amol et al., India
- 14:14-14:21 Not-aneurysm-related bleeding after aneurysmal subarachnoid hemorrhage: Causes and impact**  
Marvin Darkwah Oppong et al., Germany
- 14:21-14:28 Age at brain AVM presentation – Why it matters**  
Ioan-Alexandru Florian et al., Romania
- 14:28-14:35 Effect of humic acid on acute spinal cord injury and oxidant/antioxidant levels in spinal cord injury model: An experimental study**  
Burak Kinali et al., Turkey
- 14:35-14:42 Thromboembolic and hemorrhagic complications after operative treatment of intracranial meningiomas**  
Nebojsa Lasica et al., Serbia
- 14:42-14:49 Implications for maxillary and middle meningeal artery insonation in neurosurgery**  
Milan Lepic et al., Serbia
- 14:49-14:56 Flow 800 vascular map model in predicting onset of vasospasm following micro vascular clipping of ruptured intracranial aneurysms**  
Sunil Munakomi et al., Nepal
- 14:56-15:03 Use of Autologous multipotent cables as interposition grafts for sciatic nerve regeneration in rat models**  
Suyash Singh et al., India
- 15:03-15:10 Digital aid in neurosurgery: Is this the era of deep neural networks?**  
Jagos Golubovic et al., Serbia

## **09.00-17.15 BESTA NEUROSIM CENTER SIMULATION**

**Hall 7**

## KEYNOTE LECTURES & ORAL PRESENTATIONS

### TUMOR (OP-9)

**Chairs: Petar Vulekovic, Paolo Ferroli**

**Hall I**

- 15.15-15.30 KEYNOTE LECTURE: Role of stereotactic biopsy of brain tumors in neurosurgical practice**  
Petar Vulekovic, Serbia
- 15.30-15.45 KEYNOTE LECTURE: Aggressive multimodal management of brain metastasis**  
Alfredo Conti, Italy
- 15.45-16.00 KEYNOTE LECTURE: Management of Craniopharyngiomas; open vs endoscopic techniques-current state of the art**  
Fred Gentili, Canada
- 16.00-16.10 GRANT WINNER: Navigated transcranial magnetic stimulation brain mapping in glioma patients**  
George Petrescu et al., Romania
- 16.10-16.20 Sodium balance disorders post-transsphenoidal adenomectomy: Systematic review.**  
Mohammad Abdoh et al., Saudi Arabia
- 16.20-16.26 Full endoscopic removal of third ventricular colloid cysts technique, results and limitations**  
Ilyas Dolas et al., Turkey
- 16.26-16.32 Tuberculum sellae meningiomas: Grading scale to assess surgical outcomes in endoscopic endonasal surgery**  
Federico Frio et al., Italy
- 16.32-16.38 Attitudes towards high-grade gliomas in the elderly: An international neurosurgical survey**  
Aimee Goel et al., UK
- 16.38-16.44 Single session hybrid operation combining embolization and microsurgical resection is safe and effective in central nervous system (CNS) hypervascular tumors management**  
Peiliang Li et al., China



- 16:44-16:50**    **Intraoperative objective assessment of tumor fluorescence reveals biological heterogeneity within histologically seemingly homogenous tumor zones in glioblastoma**  
Aliasgar Moiyadi et al., India
- 16:50-16:56**    **Interest of brain mapping by direct electrical stimulation in surgery of gliomas near or within eloquent areas**  
Idir Moulla et al., Algeria
- 16:56-17:02**    **Endoscopic assisted supraorbital “key hole” approach to suprasellar tumors. Our experience**  
Arthur Mumliev et al., Ukraine
- 17:02-17:08**    **Long term outcome and prognostic factors in adults with medulloblastoma**  
Ema Tot et al., Italy



## **SPINE & PERIPHERAL NERVE (OP-10)**

**Chairs: Robert Spinner, Kartik Krishnan**

**Hall 2**

- 15.15-15.30 KEYNOTE LECTURE: Perineuriomas**  
 Robert Spinner, USA
- 15.30-15.45 KEYNOTE LECTURE: Endoscopic Nerve Surgery**  
 Kartik Krishnan, Germany
- 15.45-16.00 KEYNOTE LECTURE: Peripheral nerve injury at war: Yemen war experience**  
 Khaled AlAly, UAE
- 16:00-16:10 GRANT WINNER: Comparison of surgical versus conservative treatment of sciatica due to lumbar disc herniation**  
 Noor-ul-Huda Maria et al., Pakistan
- 16:10-16:20 GRANT WINNER: A novel classification for the treatment of lumbar foraminal stenosis**  
 Orhun Mete Cevik et al., Turkey
- 16:20-16:26 Epidural hematoma causes acute hydrocephalus after foramen magnum decompression surgery for chiari I malformation**  
 Levent Aydin et al., Turkey
- 16:26-16:32 Endoscopic surgery for recurrent disc herniation after open and endoscopic lumbar discectomy**  
 Salih Aydın et al., US
- 16:32-16:38 Surgical treatment of the subaxial cervical spine injury: About 60 cases**  
 Abdelmoumene Ryad Ayoun et al., Algeria
- 16:38-16:44 Neurophysiological demonstration of surface electrodes polyelectromyography [sPEMG] for assessment of motor control of lower trunk muscles**  
 Boban Joksimovic et al., Serbia
- 16:44-16:50 Results of surgical treatment of cavernous malformations of the spinal cord**  
 Bahromhon Zakirov et al., Russia
- 16:50-16:56 Radiological differences in spinal cord diameters based on surgical approach for Potts spine with neurologic deficits - are clinical outcomes also different?**  
 Manoj Phalak et al., India

- 16:56-17:02**     **Reccurence of trigeminal neuralgia after microvascular decompression. What to do?**  
Mihai Alexandru Stanciuc et al., Romania
- 17:02-17:08**     **Structural and functional Changes of the median nerve in carpal tunnel syndrome**  
Mahmoud Wahdan et al., Egypt

**FUNCTIONAL & PAIN (OP-11)**  
**Chairs: Amr El Shawarbi, Angelo Lavano**

**Hall 3**

- 15.15-15.30**     **KEYNOTE LECTURE: Vagal nerve stimulation for intractable Epilepsy**  
Amr El Shawarbi, UAE
- 15.30-15.45**     **KEYNOTE LECTURE: Spinal cord stimulation for failed back surgery syndrome**  
Angelo Lavano, Italy
- 15.45-16.00**     **KEYNOTE LECTURE: Thoracic outlet syndrome: a common, frequently overlooked cause of non discogenic brachialgia**  
Debora Garozzo, UAE
- 16:00-16:10**     **GRANT WINNER: Relationship between tremor rate and MRI thalamic lesion appearance in a series of 30 patients treated by 1.5Tesla transcranial magnetic resonance-guided focused ultrasound for movement disorders**  
Giuseppe Roberto Giammalva et al., Italy
- 16:10-16:20**     **GRANT WINNER: 2 years follow-up of the first clinical series of patients with essential tremor and tremor-dominant Parkinson's disease treated MRgFUS-thalamotomy using 1.5Tesla scanner**  
Rosario Maugeri et al., Italy
- 16:20-16:26**     **Neurovascular conflict syndromes. Physiological approach to an anatomical problem**  
Harjinder Singh Bhatoe et al., India
- 16:26-16:32**     **Minimally invasive disconnection of hypothalamic hamartomas using robotic and O arm guidance**  
Ramesh Doddamani et al., India



- 16:32-16:38**     **Puzzling technique for fixation of poly-methyl methacrylate cranioplasty flaps**  
Ahmed EL-Fiki et al., Egypt
- 16:38-16:44**     **Improving targeting accuracy leading to successful treatment of secondary dystonia with deep brain stimulation of globus pallidus internus**  
Sarah Hendrickx et al., Belgium
- 16:44-16:50**     **Subthalamic and pallidal deep brain stimulation in primary meige syndrome: Long-term outcomes**  
Zhiqi Mao et al., China
- 16:50-16:56**     **Acupuncture for pain management in evidence-based medicine**  
Taqee Ansari Mohammed et al., India
- 16:56-17:02**     **Functional hemispherectomy for uncontrollable epilepsy: a single center experience**  
Sergio Sousa et al., Portugal
- 17:02-17:08**     **Spontaneous chronic subdural hematoma in elderly people - risk factors**  
Aleksandar Kostic et al., Serbia
- 17:08-17:14**     **Brain stereotaxic transplantation of human neural stem cells for chronic stroke patients: a review**  
Yassine Yachou et al., Russia

## SPINE (OP-12)

Chairs: Salvatore Cardali, Danilo Radulovic

Hall 4

- 15.15-15.30 KEYNOTE LECTURE:**The evolution of intraoperative navigated 3D fluoroscopic imaging for surgery of spine degenerative diseases  
Salvatore Cardali, Italy
- 15.30-15.45 KEYNOTE LECTURE:**Anterior cervical approach for the treatment of cervical myelopathy  
Danilo Radulovic, Serbia
- 15.45-16.00 KEYNOTE LECTURE:** The influence of age on cervical lordosis restoration after anterior cervical discectomy and fusion with bone allograft  
Bruno Splavski, Croatia
- 16.00-16.10 GRANT WINNER:** Is a picture worth a thousand words? Correlation between new scale for MRI findings and clinical presentation in patients with one level lumbar disc herniation and nerve root compression  
Filip Pajicic et al., Serbia
- 16:10-16:20 Cervical disc arthroplasty versus anterior cervical discectomy and fusion**  
Ahmed Abdelkhalek et al., Egypt
- 16:20-16:26 Vertebral augmentation Dr. Salah Albishawi, FRCS (Glasg.), FRCS. SN (Eng.Ed.Glasg.Ire,) Consultant neurosurgeon, Jordan Hospital Dr. Mohamed Idris, MD neurosurgical resident**  
Salah Albishawi et al., Jordan
- 16:26-16:32 Cervical collars for the management of type II odontoid fractures in the elderly;Are they necessary?**  
Lauren Harris et al., UK
- 16:32-16:38 Novel use of recombinant tissue plasminogen activator in an acute extensive spinal epidural haematoma in a patient with coagulopathy**  
Stavros Koustais et al., Ireland
- 16:38-16:44 Clinical outcome related to C2 nerve-root sacrifice and the feasibility of its preservation in patients with congenital atlantoaxial dislocation**  
Karthigeyan Madhivanan et al., India



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**SINCh**  
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NEUROCHIRURGIA



- 16:44-16:50**     **Our experiences in surgical treatment of neck discus hernia and neck trauma with cervical cage with anterior cervical plate system, Ohrid, Macedonia**  
Mitre Miloshevski et al., Macedonia
- 16:50-16:56**     **The morphology of the cod dorsal horn - implications for DREZ surgery using suction of the gray substance as the lesioning method**  
Milan Spaic et al., Serbia
- 16:56-17:02**     **Minimally invasive techniques for lumbar disc herniation**  
Ante Subasic et al., Croatia
- 17:02-17:08**     **Full-endoscopic utilization for decompression of nerve structures on lumbar level of the spine: first experience report**  
Vasily Korolishin et al., Russia

**17:30-18:30**     **Serbian Neurosurgical Society - SNSS  
EC Business Meeting**

**Hall 4**

Saturday, March 23<sup>rd</sup> / Hall 4

## SPINE (OP-13)

**Chairs: Gualtiero Innocenzi, Fatos Olldash**

**Hall 5**

- 15.15-15.30 KEYNOTE LECTURE: Neuronavigation in Dorso-Lumbar Surgery**  
Gualtiero Innocenzi, Italy
- 15.30-15.45 KEYNOTE LECTURE: How Much Fusion Do We Need?**  
Fatos Olldash, Albania
- 15.45-16.00 KEYNOTE LECTURE: Surgical treatment of spinal dysraphism. A 25 years single centre experience**  
Aleksandar Caparoski, North Macedonia
- 16:00-16:10 GRANT WINNER: Intradural spinal tumors: Surgical considerations and institutional experience**  
Domagoj Gajski et al., Croatia
- 16:10-16:16 Validation of Enneking oncologic principles applied to primary osseous tumours of spine: A single centre retrospective cohort study**  
Nitish Agarwal et al., India
- 16:16-16:22 Open Carpal Tunnel Release: A Retrospective Surgical Demographic Data of a Single Center Experience**  
Ibrahim Alhalal et al., Saudi Arabia
- 16:22-16:28 Transpedicular screw fixation in degenerative lumbosacral spine disease - surgical outcome**  
Osama Arim et al., Turkey
- 16:28-16:34 Vertico-horizontal atlantoaxial index A new craniovertebral radiographic index**  
Rami Darwazeh et al., Palestine
- 16:34-16:40 Minimally invasive non endoscopic carpal tunnel release**  
Peter Hwang et al., Singapore
- 16:40-16:46 Efficacy of transplantation fibrin matrix with neuroinduced mesenchymal stem cells for restoration sciatic nerve function after its complete rupture in rats**  
Vladyslav Kaliuzhka et al., Ukraine
- 16:46-16:52 Results of surgical treatment of patients with carpal tunnel syndrome by decompression with endoscopic assistance**  
Artur Pogosyan et al., Russia



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**SINCh**  
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NEUROCHIRURGIA



- 16:52-16:58**     **Our Experience In Secondary Repair In Peripheral Nerve Injury 2017-2018, Ohrid, North Macedonia**  
Micun Micunovic et al., North Macedonia
- 16:58-17:04**     **A Comparative study of anterolateral versus posterolateral decompression and spinal fixation in thoracic and thoraco-lumbar potts spine**  
Siddarthareddy Musali et al., India
- 17:04-17:10**     **Posterior pedicle fixation-based dynamic lumbar stabilization versus rigid fusion:  
A pilot study with critical analysis**  
Shashivadhanan Sundaravadhanan et al., India
- 17:10-17:16**     **Somatosensory evoked potentials evaluations of patients with spina bifida occulta**  
Gokhan Canaz et al., Turkey

Saturday, March 23<sup>rd</sup> / Hall 5

## GENERAL (OP-14)

**Chairs: Miroslav Vukic, Davide Milani**

**Hall 6**

- 15.15-15.30 KEYNOTE LECTURE: : Influence of normal hydrostatic pressure gradient on CSF physiology and hydrocephalus treatment**  
Miroslav Vukic, Croatia
- 15.30-15.45 KEYNOTE LECTURE: 18F-FET PET in the differential diagnosis between radionecrosis and recurrence in patients operated for glioblastoma**  
Roberto Stefini, Italy
- 15.45-16.00 KEYNOTE LECTURE: Facial nerve integrity in CPA tumor surgery**  
Imad Kanaan, Saudi Arabia
- 16:00-16:10 GRANT WINNER: Are Neurosurgeons fearful of artificial intelligence (AI) replacing them in the future?: Initial Insights**  
Varadaraya S. Shenoy et al., India
- 16:10-16:16 High-tech simulation and psychometric assessment for neurosurgery residents: new paradigms for a better training**  
Alessandro Perin et al., Italy
- 16:16-16:22 The Impact of thymoquinone on cerebral vasospasm in an experimental subarachnoid hemorrhage (SAH) model**  
Enes Akkaya et al., Turkey
- 16:22-16:28 Factors predicting need for post-operative ventilation after microsurgical clipping of cerebral aneurysms – A Multivariate analysis**  
Saad Bin Anis et al., Pakistan
- 16:28-16:34 How can we increase the efficacy of DC? (Fresh Cadaver Study)**  
Andras Csokay et al., Hungary
- 16:34-16:40 A Clinical experience with decompressive craniectomy**  
Ozgur Demir et al., Turkey
- 16:40-16:46 A Review of neurosurgical research validation: The absence of direct replication studies**  
Neal Kerr et al., New Zealand





- 16:46-16:52**     **Antioxidant and neuroprotective effects of dexpanthenol in traumatic brain injury-induced rats**  
Pınar Kuru Bektasoglu et al., Turkey
- 16:52-16:58**     **Effect of pycnogenol on ischemia/reperfusion induced inflammatory and oxidative brain injury in rats**  
Baris Ozoner et al., Turkey
- 16:58-17:04**     **Academic vs. non-academic neurosurgeons in China: Comparison in terms of workload, burnout, and engagement**  
Yirui Sun et al., China
- 17:04-17:10**     **A chronic CSF over-shunting condition causing cervical cord signs: Miyazaki Syndrome**  
**Case report and review of pathomechanism**  
Dušan Vitanovic et al., Serbia
- 17:10-17:16**     **The status quo of working and living among Chinese neurosurgeons: Results of a cross-sectional nationwide survey**  
Jinli Yu et al., China

## **PEDIATRICS (OP-15)**

**Chairs: Carlo Giussani, Venelin Gerganov**

**Hall 8**

- 15.15-15.30 KEYNOTE LECTURE: Management of low grade gliomas in children**  
Souad Bakhti, Algeria
- 15.30-15.45 KEYNOTE LECTURE: Surgical treatment of Chiari I malformation**  
Venelin Gerganov, Germany
- 15.45-16.00 KEYNOTE LECTURE: Photometric evaluation of cranial and facial symmetry in hemicoronal single suture synostosis treated with open fronto-orbital remodelling and rigid internal fixation**  
Carlo Giussani, Italy
- 16:00-16:10 GRANT WINNER: Heterogeneity of cerebrospinal fluid diversion sites in the treatment of adult and pediatric hydrocephalus**  
Cezar Octavian Morosanu et al., UK
- 16:10-16:16 The predictive role of electrodiagnostic evaluations in recovery of children with obstetrical brachial plexus lesion in first year of life**  
Jasna Stojkovic et al., Serbia
- 16:16-16:22 The Outcome of surgical excision of giant supratentorial brain tumors in pediatrics: a study of consecutive 70 cases at our institute**  
Ahmed Ashry et al., Egypt
- 16:22-16:28 VP shunt complications**  
Ala Belhaj et al., Tunisia
- 16:28-16:34 An alternative and complementary medicine method in vulnerable pediatric cancer patients: Yoga**  
Emmanuel Gazdama Hamatu et al., Nigeria
- 16:34-16:40 Treatment of pediatric brain tumors: single institution experience**  
Mirsad Hodzic et al., Bosnia and Herzegovina

- 16:40-16:46**     **Correlation between the radiological disappearance of syrinx and clinical improvement in surgical decompression of chiari malformation type I (CM- I)**  
Ahmed Kamal Abdelaziz et al., Egypt
- 16:46-16:52**     **Shunt anal extrusion in a type 2 chiari malformation**  
Brighton Valentine Nyamapfene et al., Zimbabwe
- 16:52-16:58**     **Surgical treatment for pediatric caudate nucleus tumors**  
Bahattin Tanrikulu et al., Turkey
- 16:58-17:04**     **Outcomes of ventriculo-peritoneal shunt placement by conventional or laproscopic techniques with or without supra-hepatic fixation an observational study**  
Medha Vyas et al., India
- 17:04-17:10**     **Trajectory planning with the use of image guidance system for endoscopic third ventriculostomy and its effect in reducing complications**  
Muhammad Samir Irfan Wasi et al., Pakistan
- 17:10-17:16**     **Severe positional plagiocephaly: safe surgical technique and results**  
Bojana Zivkovic et al., Serbia

## SPINE (OP-16)

**Chairs: Michael Bruneau, Yavor Petkov Enchev**

**Hall 9**

- 15.15-15.30 KEYNOTE LECTURE: Management of cervical tumors**  
Michael Bruneau, Belgium
- 15.30-15.45 KEYNOTE LECTURE: Vertebroplasty and/or kyphoplasty?**  
Yavor Petkov Enchev, Bulgaria
- 15.45-16.00 KEYNOTE LECTURE: Minimally invasive unilateral approach for extensive bilateral decompression of lumbar spinal canal stenosis using tubular retractors and over the top technique**  
Robert Saftic, Croatia
- 16:00-16:10 GRANT WINNER: Minimally invasive approach for surgical treatment of craniocervical junction meningiomas**  
Stanislav Kaprovoy et al., Russia
- 16:10-16:16 Posterior transpedicular corpectomy and circumferential reconstruction in thoraco-lumbar burst fractures: a feasible and safer approach**  
Carla Daniela Anania et al., Italy
- 16:16-16:22 Pain is the recovery priority for patients with degenerative cervical myelopathy**  
Oliver Mowforth et al., UK
- 16:22-16:28 Transdural approach for upper lumbar disc herniation**  
Khalil Ayadi et al., Tunisia
- 16:28-16:34 The management of traumatic spine injury in a territorial Hub and Spoke system of a northern region of Italy. Analysis of one year of activity**  
Corrado Iaccarino et al., Italy
- 16:34-16:40 Intraoperative computed tomography and surgical navigation system combination in spinal surgery: effectiveness and safety**  
Dmiry Asyutin et al., Russia
- 16:40-16:46 Intraoperative video angiography experience in surgical treatment of spinal cord hemangioblastomas**  
Stanislav Timonin et al., Russia



# WFNS 2019 INTERNATIONAL MEETING

ONE WORLD, ONE NEUROSURGERY

March 21<sup>st</sup> - 24<sup>th</sup> 2019, Crowne Plaza, Belgrade



**SINCh**  
SOCIETÀ ITALIANA  
NEUROCHIRURGIA



- 16:46-16:52**    **Modern aspects of treatment of extramedullary spinal cord tumors**  
Roman Onoprienko et al., Russia
- 16:52-16:58**    **Sagittal balance in spinal surgery**  
Evgeniy Brinyuk et al., Russia
- 16:58-17:04**    **Dynamic stabilization of the lumbar spine in patients with degenerative spondylolisthesis and lumbar spine instability. 5 Years follow-up**  
Sergey Kolesov et al., Russia
- 17:04-17:10**    **Endoscopic detethering of cord**  
Sumeet Pawar et al., India
- 17:10-17:16**    **Cervical alignment following open door laminoplasty for cervical spondylotic myelopathy (CSM) and ossified posterior longitudinal ligament (OPLL)**  
Ravi Sharma et al., India

## 08.00-17.00    **WFNS 2019 BELGRADE E-POSTER SESSION**

Area for Poster presentation

## 15.30-17.00    **WFNS 2019 BELGRADE POSTER EVALUATION AND DISCUSSION SESSION**

**Groups: SPINE, FUNCTIONAL, PERIPHERAL**  
**Moderators: Dariusz Jaskólski, Selcuk Peker, Alexandru Budu**

Area for Poster presentation

## 20.00-00.00    **SOCIAL DINNER**

Saturday, March 23<sup>rd</sup> / Hall 9

## Sunday, March 24<sup>th</sup>, 2019

**MT-9**

### **ENDOSCOPY & TUMOR**

**Chairs: Claudio Yampolsky, Petar Vulekovic**

**Hall I**

- 08:00-08:15**     **Combined endoscopic approach in the management of suprasellar craniopharyngioma**  
Chrandrashekhar Deopujari, India
- 08:15-08:30**     **Complications of endoscopic endonasal skull base surgery and their avoidance**  
Andre Grotenhuis, Netherlands
- 08:30-08:45**     **Endoscopic approach to clival chordomas and chondrosarcomas**  
Savaş Ceylan, Turkey
- 08:45-09:00**     **Skull base reconstruction in endoscopic endonasal skull base surgery**  
Domenico Solari, Italy
- 09:00-09:15**     **Minimally invasive surgery in spinal metastases**  
Claudio Yampolsky, Argentina
- 09:15-09:30**     **Research Laboratory for Microsurgical and Endoscopical Anatomy as a translational approach**  
Peter Winkler, Austria
- 09:30-09:45**     **Endoscopic approaches to colloid cysts**  
Alberto Delitala, Italy
- 09:45-10:00**     **Transplanum transtubercl removal of suprasellar meningiomas and craniopharyngiomas**  
Roman Bosnjak, Slovenia
- 10:00-10:15**     **Endoscope Assisted Microneurosurgery for Intracranial Expansive and Vascular Lesions**  
Renato Galzio, Italy
- 10:15-10:30**     **Transnasal endoscopic odontoidectomy**  
Davide Milani, Italy
- 10:30-10:45**     **Full-Endoscopic Surgery of Degenerative Diseases of Lumbar and Cervical Spine- More than standard surgery, state of the art and possibilities**  
Marko Markovic, Serbia
- 10:45-11:00**     **Coffee break**

**MT-10**

**TUMOR**

**Chairs: Konstantinos Fountas, Raymond Sawaya**

**Hall 2**

- 08:00-08:15**      **Language mapping for parietal gliomas**  
 Igor Maldonado, France
- 08:15-08:30**      **Exoscope-guided (VITOM 3D) single-stage removal of  
 supratentorial cavernous angioma and hemangioblastoma**  
 Antonino Germano, Italy
- 08:30-08:45**      **Surgery around the corticospinal tract**  
 Vincenzo Esposito, Italy
- 08:45-09:00**      **Extraoperative cortical stimulation and mapping for  
 epilepsy and tumors in eloquent areas.**  
 Konstantinos Fountas, Greece
- 09:00-09:15**      **Fluorescence assisted surgery for brain tumors**  
 Giovanni Broggi, Italy
- 09:15-09:30**      **The neurosurgical treatment of the malignant brain tumors**  
 Branko Djurovic, Serbia
- 09:30-09:45**      **Advantages of perilesional resections for glioblastoma**  
 Raymond Sawaya, USA
- 09:45-10:00**      **Brain metastasis- current therapeutic options**  
 Vladimir Papic, Serbia
- 10:00-10:15**      **Challenges in reconstructive neurosurgery of  
 brachiocephalic arteries**  
 Dmitry Usachev, Russia
- 10:15-10:30**      **The use of different technologies in the OR to optimize  
 the extent of resection of brain tumors**  
 Alessandro Olivi, Italy
- 10:30-10:45**      **Factors affecting the length of survival of patients with  
 glioblastoma**  
 Vesna Nikolov, Serbia
- 10:45-11:00**      **Coffee break**

**MT-11**

**SPINE & PERIPHERAL NERVE**  
**Chairs: Stefano Ferraresi, Marcos Masini**

**Hall 3**

- 08:00-08:15**     **Intercostal nerve transfers to the muscolo-cutaneous nerve**  
Luviano Brigante, Italy
- 08:15-08:30**     **Surgical challenges in the management of giant nerve sheath spinal tumors. Multidisciplinary approach**  
Alexandru Budu, UK
- 08:30-08:45**     **Minimally invasive and keyhole neurosurgery**  
Sumit Sinha, India
- 08:45-09:00**     **Can scoring system predict outcome in metastasis spine**  
Salman Sharif, Pakistan
- 09:00-09:15**     **Management of complication in peripheral nerve surgery**  
Lukas Rasulic, Serbia
- 09:15-09:30**     **Microsurgical Treatment of Lumbar Spondylolysis and Spondylolisthesis**  
Marcos Masini, Brazil
- 09:30-09:45**     **Role of minimal invasive techniques and new classification system in the surgical treatment of pathologies situated in the spinal canal**  
Peter Banczerowski, Hungary
- 09:45-10:00**     **MISS (minimally invasive spinal surgery, the concept. MISS is not a miss-surgery)**  
Nikolay Peev, UK
- 10:00-10:15**     **Minimalistic approaches to cranio-vertebral junction tumors**  
Mario Ammirati, USA
- 10:15-10:30**     **We've Got Your Back: How the Nerve Surgeon Can Bail Out the Spine Surgeon**  
Eric Zager, USA
- 10:30-10:45**     **Management strategies for csf leaks and durotomy: spine and cranial**  
Regunath Kandasamy, Malaysia
- 10:45-11:00**     **Coffee break**



**MT-12**

**ONE WORLD, ONE NEUROSURGERY**

**Chairs: Djula Djilvesi, Edgardo Spagnuolo**

**Hall 4**

- 08:00-08:15**    **Moyamoya, surgical experience**  
Artur Xhumari, Albania
- 08:15-08:30**    **Hybrid visualisation systems and fluorescence-guided microsurgery for high grade glial tumors**  
Y. Sukru Caglar, Turkey
- 08:30-08:45**    **Molecular cellbiology of glioma invasion**  
Ather Enam, Pakistan
- 08:45-09:00**    **The role of complexity in outcome prediction after intracranial tumor resection**  
Paolo Ferroli, Italy
- 09:00-09:15**    **Anterolateral skullbase approaches**  
Iype Cherian, Nepal
- 09:15-09:30**    **Surgical treatment of trigeminal neuralgia**  
Paolo Perrini, Italy
- 09:30-09:45**    **Use of bypasses in neurosurgery**  
Goran Mrak, Croatia
- 09:45-10:00**    **The role of radiosurgery in pain treatment**  
Piero Picozzi, Italy
- 10:00-10:15**    **Cognitive biases and neurosurgery**  
Nikolay Gabrovsky, Bulgaria
- 10:15-10:30**    **Can evidence based medicine help us in achieving supreme results in degenerative lumbar surgery?**  
Tomislav Cigic, Serbia
- 10:30-10:45**    **Osteoplastic orbitotomy for treatment of orbital tumors**  
Jamil Rzaev, Russia
- 10:45-11:00**    **Coffee break**

**08.00-11.00    WFNS 2019 BELGRADE E-POSTER SESSION**

**Area for Poster presentation**

**09.30-11.00    WFNS 2019 BELGRADE POSTER EVALUATION AND DISCUSSION SESSION**

**Groups: VASCULAR, TRAUMA, VARIA**

**Moderators: Ioan Stefan Florian, Nebojsa Stojanovic, Vincenzo Paterno**

**Area for Poster presentation**

### PLENARY SESSION 3

**Chairs: Franco Servadei, Ioan Stefan Florian, Ihsan Solaroglu**

**Hall I**

- 11:00-11:15     Surgery of Brainstem Cavernomas**  
Ying Mao, China
- 11:15-11:30     Surgical management of focal brain stem tumors in kids**  
Frederick Boop, USA
- 11:30-11:45     The microsurgical approach to medulla oblongata**  
Ugur Ture, Turkey
- 11:45-12:00     Arachnoid membrane in meningioma surgery**  
Vladimir Benes, Czech Republic
- 12:00-12:15     Treatment options for intracranial vessel dissections**  
Alexandros Andreou, Greece
- 12:15-12:30     A high-tech playground for the next generation neurosurgeons: real-time intraoperative imaging**  
Francesco Di Meco, Italy
- 12:30-12:45     Craniopharyngiomas: a lifetime of lessons, pitfalls and surgical results**  
Alexander Konovalov, Russia
- 12:45-13:00     Hearing preservation in acoustic or surgical approaches to parasellar meningioma**  
Ian Dunn, USA
- 13:00-13:30     Surgical approaches for midline tumors**  
Madjid Samii, Germany

**13.30-14.00     YOUNG NEUROSURGEONS AWARD, BEST ORAL PRESENTATION AND BEST E-POSTER PRESENTATION AWARDS & CLOSING CEREMONY**

## WFNS 2019 BELGRADE E-POSTERS

Area for Poster presentation

### GROUP FUNCTIONAL

- EPI001. **Bilateral Sixth Cranial Nerve Palsy Following Lumboperitoneal Shunt**  
Ibrahim Alhalal et al., Saudi Arabia
- EPI002. **The Topographical Influence of Nanomaterials on Neuroregeneration in the Central Nervous System**  
Ya Lyn Samantha Ang et al., Singapore
- EPI003. **The Relationship of The Dentate Nucleus with The Pyramid of Vermis: A Microneurosurgical Anatomical Study**  
Santhosh Kumar Annayappa et al., India
- EPI004. **Ventriculo Pleural Shunts: Management and Surgical Challenges**  
Levent AYDIN, et al., Turkey
- EPI005. **Results of Surgical Treatment of Patients With Focal Drug-Resistant MR-Negative Epilepsy**  
Tossif Ghodiwalla et al., Russia
- EPI006. **Triple Conjoint Nerve root Syndrome: a Special Case of Sciatic Pain**  
Sarah Hendrickx et al., Belgium
- EPI007. **Assessment of Postural Control of Lower Back By Galvanic Vestibular Stimulation**  
Ksenija Ribaric et al., Serbia
- EPI008. **Clinical Program for Assessment of Low Back Postural Control in Subjects With Chronic Back Pain**  
Radoje Cobeljic et al., Serbia
- EPI009. **Pain and Motor Control of the Lumbopelvic Region**  
Boban Joksimovic et al., Serbia
- EPI010. **The Role of Thalamotomy for Treatment of Tremor in the Era Of Deep Brain Stimulation**  
Amad Khan et al., UK

- EPI011. Cortical and Subcortical Mapping of the Language Area in the Cavernoma of the Perisylvian Area: Case Report**  
Carlos Roberto Massella Junior et al., Brazil
- EPI012. TcMRgFUS Thalamotomy as a Repeatable Option for Treating Relapsing Movement Disorder. Report of a Second Treatment in a Patient Affected With Refractory Essential Tremor Combined With Parkinsonism**  
Rosario Maugeri et al., Italy
- EPI013. Deep Brain Stimulation for Vegetative and Minimal Conscious State. Volumetric Analysis in Patients After Implanted Electrode in Centromedian Parafascicle Complex**  
Marina Raguz et al., Croatia
- EPI014. Deep Brain Stimulation (DBS) in Parkinson's Disease. Preliminary Experience Of 7 Patients, Oujda Morocco**  
Nabil Raouzi et al., Morocco
- EPI015. Two-Year Outcomes of Vagus Nerve Stimulation for Drug-Resistant Epilepsy: Longer Intervals from Disease Onset to Surgery are Associated With Worse Outcomes**  
Vasco Sá Pinto et al., Portugal

## **GROUP ONCOLOGY**

- EP2001. **Hydatid Cyst of the Posterior Fossa: Two Cases Report and a Review of Literature**  
 Souhir Abdelmouleh et al., Tunisia
- EP2002. **Cerebral Hydatid Cyst, About a Case**  
 Daira Abdenmour et al., Algeria
- EP2003. **Dysembryoplastic Neuroepithelial Tumors (DNET), About a Case**  
 Daira Abdenmour et al., Algeria
- EP2004. **Meningioma in the Form of Acute Subdural Hemorrhage, Unusual Presentation: A Case Report**  
 Mohammad Abdoh et al., Saudi Arabia
- EP2005. **Clinical and Radiological Aspects of Ruptured Spinal Dermoid Cyst: Report of a Case and Review of Literature**  
 Firas Akrouit et al., Tunisia
- EP2006. **Intraoperative Flow Cytometry May Predict Prognosis in Glioblastoma**  
 Georgios Alexiou et al., Greece
- EP2007. **Rosmarinic Acid Induce Apoptosis in Glioblastoma Cells**  
 Georgios Alexiou et al., Greece
- EP2008. **Von Hippel-Lindau Disease. Cerebellar Hemangioblastoma: Case Report**  
 Anita Andersone et al., Latvia
- EP2009. **Spine and Spinal Cord Tumor Surgery: Advanced Treatment Concept**  
 Dmitry Asyutin et al., Russia
- EP2010. **Metastasis of Small-Cell Lung Carcinoma With a Fourth Ventricle Localization: A Rare Case Report**  
 Ayşegül Aydin et al., Turkey
- EP2011. **Management of Acute Colloid Cysts: Surgical Management and Nuances**  
 Levent Aydin et al., Turkey
- EP2012. **Tumors of the Orbit: About 11 Cases**  
 Abdelmoumene Ryad Ayoun et al., Algeria

- EP2013. **A Method for Simulation of the Resection of Intracranial Tumors in Training**  
Naci Balak et al., Turkey
- EP2014. **A Rare Tumor of the Pituitary Region**  
Ala Belhaj et al., Tunisia
- EP2015. **Management of a Special Kind of Adenomas**  
Ala Belhaj et al., Tunisia
- EP2016. **Mediastinal Chordoma: An Unusual Location of a Rare Tumor**  
Ala Belhaj et al., Tunisia
- EP2017. **Pineal Meningioma: A Case Report and Review of Literature**  
Ala Belhaj et al., Tunisia
- EP2018. **Brown Tumors Mimicking Bone Metastases: A Case Report With Literature Review**  
Atef Ben Nsir et al., Tunisia
- EP2019. **Giant Cervical Dumbbell-Shaped Neurinoma: Case Report Refining the Anatomic Boundaries of the Posterolateral Approach**  
Atef Ben Nsir et al., Tunisia
- EP2020. **Intraventricular Meningiomas**  
Harjinder Singh Bhatore et al., India
- EP2021. **Feasibility of Robotic Implementation in Neurosurgery: Fourth Ventricle and Paramedian Supracerebellar Transtentorial Approach**  
Orhun Mete Cevik et al., Turkey
- EP2022. **Isolated Central Nervous System Metastasis in Pediatric Wilms' Tumor: A Case Report and Review of Literature**  
Ines Cherif et al., Tunisia
- EP2023. **Ruptured Central Nervous System Dermoid Cyst of the Suprasellar Region Manifesting as Unusual Epileptic Seizure: A Case Report**  
Ines Cherif et al., Tunisia
- EP2024. **Testicular Non-Seminomatous Germ Cell Tumors (NSGCT) and Brain Metastases: About a Rare Location of the Posterior Fossa**  
Ines Cherif et al., Tunisia
- EP2025. **Sphenoorbital Meningiomas: Diagnosis, Surgical Management and Recurrence Rate**  
Rami Darwazeh et al., Palestine

- EP2026. **Surgical Strategies for Removing the Intracanalicular Portion of Vestibular Schwannoma and the Clinical Outcomes**  
 Rami Darwazeh et al., Palestine
- EP2027. **Sub Temporal Preauricular Infratemporal Approach Combined With Fronto Temporo Orbitozygotomy in Single Stage for Lateral and Posterior Skull Base Tumor: Experience in 18 Patients**  
 Atmaranjan Dash et al., India
- EP2028. **Brain Hydatid Cyst in Three Years Old Child**  
 Novak Lakicevic et al., Montenegro
- EP2029. **Parasagittal Meningioma Surgery**  
 Ashraf Elbadry et al., Egypt
- EP2030. **Can Hydrogen Peroxide Enhance Hemostasis in Meningioma Surgical Excision Without Preoperative Embolization?**  
 Ashraf Elbadry et al., Egypt
- EP2031. **Extent of Hyperostotic Bone Removal in Convexity Meningioma to Achieve Pathologically Free Margins**  
 Ahmed El-Fiki et al., Egypt
- EP2032. **One-Step Surgery: A Custom-Made Technic in Oncological Cases**  
 Natale Francaviglia et al., Italy
- EP2033. **Exoscope-Guided (VITOM 3D) Single-Stage Removal of Supratentorial Cavernous Angioma and Hemangioblastoma**  
 Antonino Germano et al., Italy
- EP2034. **On the Road to New Therapies in the Treatment of Glioblastoma: Role Of Dkk-3 and Claudin-5**  
 Antonino Germano et al., Italy
- EP2035. **Surgical Management of Brain Tumors in Language Areas**  
 Tossif Ghodiwalla et al., Russia
- EP2036. **Surgical Management of Cushing's Disease**  
 Khalida Grine et al., Algeria
- EP2037. **Prognostic Factors of Surgically Treated Spinal Meningeomas and Long-Term Surgical Outcomes**  
 Berenyi Gyorgy et al., Hungary
- EP2038. **Intraparenchymal Meningioma: Case Report**  
 Mohamed Amine Hadj Taieb et al., Tunisia

- EP2039. **Pediatric Supratentorial Anaplastic Oligodendroglioma: A Rare Tumor in Children**  
Mohamed Amine Hadj Taieb et al., Tunisia
- EP2040. **About a Rare Case of Osteolytic Epidermoide Cyst of the Skull: An Overview**  
Mechergui Haifa et al., Tunisia
- EP2041. **Intracerebral Hematoma: Unusual Mode of Revealing an Acute Lymphoblastic Leukemia**  
Mechergui Haifa et al., Tunisia
- EP2042. **Multifocal Glioblastoma in Adults With Brainstem Involvement: A Case Report**  
Mechergui Haifa et al., Tunisia
- EP2043. **Multiple and Bilateral Cerebral Hydatid Cyst: A Case Report**  
Mechergui Haifa et al., Tunisia
- EP2044. **The Paraganglioma of Cauda Equina: A Case Report**  
Mechergui Haifa et al., Tunisia
- EP2045. **The Vault Metastases of a Thyroid Carcinoma Miming a Meningioma: About Two Cases**  
Mechergui Haifa et al., Tunisia
- EP2046. **A Review on the Importance of Nursing Approaches in Nutrition of Children with Cancer**  
Emmanuel Gazdama Hamatu et al., Nigeria
- EP2047. **Validation of NIH Recurrent Glioblastoma Scale to Predict Survival After Surgery for Recurrent Glioblastoma Multiforme**  
Rosanda Ilic et al., Serbia
- EP2048. **Spinal Subdural Abscess Mimicking an Extradural Tumor: Case Report and Review of Literature**  
Stanislav Kaprovoy et al., Russia
- EP2049. **Survival and Functional Outcomes After Surgical Treatment Intramedullary Spinal Cord Astrocytomas**  
Stanislav Timonin et al., Russia
- EP2050. **Whether to Recommend Operation When Benign Brain Tumor Was Found in Elderly Patients in the Age 70 or Older**  
Chang Hyun Kim et al., Republic of South Korea
- EP2051. **A Rare Case of Giant Primary Orbital Hydatid Cyst**  
Ambuj Kumar et al., India



- EP2052. **Minimally Invasive Microendoscopic Technique for Management of Deep Seated Intracranial Lesions: Experience of 463 Cases**  
 Ambuj Kumar et al., India
- EP2053. **A Case of a B Cell Lymphoma Revealed By a Dorsal Spinal Cord Compression With Review of Literature**  
 Ahmed Maatoug et al., Tunisia
- EP2054. **A Rare Case of Cerebellar Metastasis of Osteosarcoma**  
 Ahmed Maatoug et al., Tunisia
- EP2055. **Brain Metastasis from Ovarian Cancer: A Case Report**  
 Ahmed Maatoug et al., Tunisia
- EP2056. **Brain Metastasis from Renal Cell Carcinoma**  
 Ahmed Maatoug et al., Tunisia
- EP2057. **Ependymomas of the Terminal Filum**  
 Ahmed Maatoug et al., Tunisia
- EP2058. **Intraventricular Meningioma Case Report and Literature Review**  
 Ahmed Maatoug et al., Tunisia
- EP2059. **Ossified Cephalhematoma**  
 Ahmed Maatoug et al., Tunisia
- EP2060. **Primary Liposarcoma of the Thoracic Spine: Case Report**  
 Ahmed Maatoug et al., Tunisia
- EP2061. **Spontaneous Regression of Intracranial Meningioma: A Case Report**  
 Ahmed Maatoug et al., Tunisia
- EP2062. **Intratumoral Hemorrhage in Pediatric Primary Spinal Intradural Ewing's Sarcoma Presenting With Acute Neurological Decline**  
 Karthigeyan Madhivanan et al., India
- EP2063. **Case Report: Central Neurocytoma in A 26 yrs Old Girl**  
 Noor-ul-Huda Maria et al., Pakistan
- EP2064. **Postoperative Rise in Serum Sodium Level, an Indicator of Diabetes Insipidus After Pituitary Adenoma Surgery**  
 Noor-ul-Huda Maria et al., Pakistan
- EP2065. **Cervical Tarlov Cyst Mimicking a Spinal Hydatid Cyst: A Case Report**  
 Hammoud Marouane et al., Morocco

- EP2066. Endoscopic Endonasal Transsphenoidal Surgery of 43 Pituitary Adenomas. Experience of University Hospital of Fez Morocco**  
Hammoud Marouane et al., Morocco
- EP2067. Factors Predicting Facial Nerve Function After Acoustic Neuroma Surgery**  
Barbara Masotto et al., Italy
- EP2068. Case of Large Mixopapillary Ependymoma Presented With Back Pain**  
Vladimir Miladinovic et al., Serbia
- EP2069. Complications of Gamma Knife Surgery: Cross Analysis Between Three Medical Centers (2 Canadian Centers and 1 Serbian Center)**  
Aleksandar Miljkovic et al., Serbia
- EP2070. Posterior Fossa Dermoid Cyst: Case Report and Review of Literature**  
Idir Moulla et al., Algeria
- EP2071. Simple Improvisation to Enhance Utility of Fluorescein Sodium in Resection of Intracranial Lesions at Routine Neurosurgical Centers**  
Siddharthreddy Musali et al., India
- EP2072. Combined Endoscopic Endonasal and Open Transmandibular-Transcervical Approach for Management of Giant Clival Chordomas Extended to the Cranio-Vertebral Junction**  
Davide Nasi et al., Italy
- EP2073. Revisiting the Selective Vestibular Neurotomy for Intractable Ménière's Disease in the Era of Endoscopy and Intraoperative Advanced Neuromonitoring**  
Davide Nasi et al., Italy
- EP2074. Tailored Approach for the Resection of Planum Sphenoidale Meningiomas**  
Punga Oana-Mihaela et al., Romania
- EP2075. Survival Prognosis in Glioblastoma Patients in Relation to ATRX, IDH and P53 Expression**  
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