

ICRAN-2018

International Conference
on Recent Advances on
Neurotraumatology



WFNS
Neurotraumatology
Committee



NAPLES, (ITALY)

JUNE 20-22, 2018

HOTEL ROYAL CONTINENTAL

Honorary President

Franco Servadei (*Italy*)

Congress Chairmen

Paolo Cappabianca (*Italy*)

Corrado Iaccarino (*Italy*)



FINAL PROGRAM

Wednesday, June 20

PLENARY ROOM - AUDITORIUM

h. 14.00 – 14.30

OPENING SESSION

WELCOME AUTHORITIES

Valeria Fascione (Italy)

Chairman of Innovation Startup and International Office of Campania Region

Francesco Tomasello (Italy)

President of Second Congress of MANS

Souad Bakhti (Algeria)

President of MANS

Mohammed Tariq Khan (Pakistan)

Chairman of Neurotraumatology Committee of WFNS

Paolo Cappabianca (Italy)

Co-Chairmen ICRAN2018 – Secretary SINCH

Walter Ricciardi

President National Institute of Health

President World Federation of Public Health Associations (WFPHA)

AUDITORIUM - PLENARY SESSION #1

JOINT SESSION MANS - ICRAN

h. 14.30 – 16.15

RECENT ADVANCES ON TRAUMATIC BRAIN INJURY

Chairmen: Domenico D'Avella (Italy), Francesco Tomasello (Italy), Corrado Iaccarino (Italy)

h. 14.30

Rimini ICRAN 1996 - Napoli ICRAN2018 20 years later

Franco Servadei (Italy)

h. 14.45

Clinical trials in neurotrauma

Peter Hutchinson (UK)

h. 15.00

Recent advances on cranio-facial trauma and reconstruction

Luigi Califano (Italy)

h. 15.15

Cerebrospinal fluid hydrodynamics and recent advances in neuroimaging of traumatic brain injury

Miroslav Vukic (Croatia)

h. 15.30

Intensive care medicine for severe TBI 20 years later

Nino Stocchetti (Italy)

h. 15.45

Fission or fusion: destiny of mitochondria following traumatic brain injury

Stefano Signoretti (Italy)

h. 16.00

Following FDA approval: future applications of blood-based biomarkers for diagnosis and management of severe traumatic brain injury

Ronald L Hayes (USA)



ROOM MIRABILIS - PARALLEL SESSION #1

- h. 16.30 – 18.30** **THE TRAUMATIC BRAIN INJURY PATIENT MANAGEMENT IN INTENSIVE CARE UNIT**
Chairmen: Giovanni Gordini (Italy), Andrea Lavinio (UK)
- 16.30** The Intensive Care Unit management of elderly severe traumatic brain injury patients,
Nino Stocchetti (Italy)
- 16.45** Fever control and hypothermia
Fabrizio Ortolano (Italy)
- 17.00** How to evaluate the initial severity of traumatic brain injury?
Jean Francois Payen (France)
- 17.15** Is intracranial pressure monitoring futile?
Randall M Chesnut (USA)
- 17.30** The transcranial doppler ultrasound in the Neurointensive Care Unit
Frank Rasulo (Italy)
- 17.45** Pre-hospital traumatic brain injury care
Pierre Bouzat (France)
- 18.00** Discussion

ROOM SVEVA - PARALLEL SESSION #2

- h. 16.30 – 18.30** **NEUROTRAUMA – FROM PREVENTION TO TREATMENT TO REHABILITATION: PROGRAMS WORLDWIDE TO INTEGRATE DISCIPLINES AND ENHANCE OUTCOMES**
Chairmen: Marco Fontanella (Italy), Maximillian Mehdorn (Germany)
- 16.30** Prevention of head and spine injuries
Kazadi KN Kalangu (Zimbabwe)
- 16.40** Brain stimulation for the altered state of consciousness
Maximillian Mehdorn (Germany)
- 16.50** Vagal nerve stimulation for drug resistant posttraumatic epilepsy
Alessandro Ducati (Italy)
- 17.00** Role of Magnetic Resonance Imaging in diffuse axonal injury and its prognostic value
Virendra Sinha (India)
- 17.10** Neuromodulation of cerebral blood flow past or present?
Massimiliano Visocchi (Italy)
- 17.20** Multimodal monitoring: a conceptual prospective
David P. Adelson (USA)
- 17.30** Intrathecal Baclofen in the management of spasticity after cerebral or spinal trauma
Damianos E Sakas (Greece)
- 17.40** Disaster response: advancing neurotrauma care worldwide
Russel Andrews, Leonidas Quintana, Tariq Khan, Sergio Aguilera (USA)
- 17.50** The state of stupor in Iranian mysticism
Laili Mahoozi (Iran)
- 18.00** Influence of impaired craniospinal communication on intracranial pressure in different body position
Marijan Klarica, Miroslav Vukic, Milan Rados, Ivana Jurjevic, Goran Erceg, Antonio Petosic, Darko Oreskovic (Croatia)
- 18.10** Discussion



ROOM S. LUCIA – MEET & TALK SESSION

h. 16.30 – 18.30 **MEET & TALK: GLOBAL NEURO TRAUMATIC BRAIN INJURY EXPERTS**
Chairmen: Anthony Figajj (South Africa), Shelly Timmons (USA)

- 16.30** Surgical management of severe traumatic brain injury in low and middle income countries: the impact of the ecology of care
Andres Rubiano (Colombia)
- 16.40** Minimally invasive and precision surgery in neurotrauma
Christian Matula (Austria)
- 16.50** Outcome in traumatic brain injury: lessons learned from multicentric clinical trials
Andrew Maas (Belgium)
- 17.00** Actual role of decompressive craniectomy in neurotrauma
Peter Hutchinson (UK)
- 17.10** **Introduction to case discussion**
- 17.15** Minicraniotomy under local anaesthesia and monitoring sedation for the operative treatment of acute extradural hematoma
Amos O. Adeleye, Olusola K Idowu (Nigeria)
- 17.30** Surgical treatment of post-traumatic CSF leaks of the anterior cranial fossa
Del Maestro M (Italy)
- 17.45** Long-term outcome after traumatic brain injury in elderly patients
**Alessandra Lombardo, Cristina Mietto, Riccardo Giudici, Paola Fassini
Francesca Miriano, Danilo Radrizzani (Italy)**
- 18.00** Access to neurosurgical care across Africa
Kerry Vaughan, Meghal Shah, Ernest Barthelemy, Kee Park (USA)
- 18.15** Message to take home **Figajj A (South Africa), Timmons S (USA)**

Thursday, June 21

AUDITORIUM – MAIN SESSION #1

- h. 08.30-10.45** **DEVELOPMENT OF RESOURCE STRATIFIED GUIDELINES FOR TRAUMATIC BRAIN INJURY**
Chairmen: Mohammed Tariq Khan (Pakistan), Alberto Delitala (Italy)
- 08.30** Challenges to implement evidence based traumatic brain injury guidelines in worldwide practice
Wilco Peul (Netherlands)
- 08.45** Strategies to achieve improved neurotrauma outcomes and establishment of level 1 trauma centres: ground zero basics
Deepak Gupta (India)
- 09.00** Stratified protocols for severe traumatic brain injury management in low and middle income countries: how to become practical in the real world
Andres Rubiano (Colombia)
- 09.15** Variations in neurosurgical capacity among facilities within low and middle income countries
Kee B Park (USA)



- 09.30** Central nervous system injury from a global perspective
Walter D. Johnson (Switzerland)
- 09.45** The living evidence ecosystem: moving towards living reviews and guidelines
Andrew Maas (Belgium)
- 10.00** Treatment of head injuries with minimal resources
Kazadi KN Kalangu (Zimbabwe)
- 10.15** WFNS role of improving care of neurosurgical patients in low and middle income countries
Franco Servadei (Italy)
- 10.30** Discussion

ROOM MIRABILIS PARALLEL SESSION #2

- h. 08.30 – 10.45** **CONSENSUS CONFERENCE ON POST-TRAUMATIC CRANIOPLASTY
OPEN SESSION**
Chairmen: Ioan Stefan Florian (Croatia), Bruno Zanotti (Italy)
- h. 08.30** Osteointegration in cranial reconstruction
Roberto Stefani (Italy)
- h. 08.40** Homologous banked bone grafts for the reconstruction of large cranial defects in pediatric patients
Giuseppe Talamonti, Gabriele Canzi, Davide Sozzi, Marco Picano (Italy)
- h. 08.50** Cranioplasty implants using three-dimensional printers and polymethyl-methacrylate casting
Virendra Sinha (India)
- h. 09.00** Outcome analysis of cranioplasty: a single-center experience on PEEK
Angelo Pompucci, Ginevra Federica D'Onofrio, Flavia Frascchetti, Francesco Signorelli, Gianluca Trevisi, Carmelo Anile (Italy)
- h. 09.10** Cranioplasty with polypropylene-polyester knitwear prostheses prepared according to patient's CT scans- experiences with 200 patients with 12 months follow-up
Piotr Kasprzak (Poland)
- h. 09.20** Multicenter post-marketing surveillance study on CUSTOMBONE SERVICE in a specific pediatric age group (7-13 years old)
Paolo Frassanito, Angelo Nataloni, Valentina Canella, Luca Massimi, Gianpiero Tamburrini, Massimo Caldarelli (Italy)
- h. 09.40** A thin but strong and easy to handle custom-made cranioplasty: EBM technology for skull bone defects reconstructions
Natale Francaviglia, Francesco Meli, Gabriele Costantino, Alessandro Villa (Italy)
- h. 09.50** Complication of cranioplasty
Ioan Stefan Florian (Croatia)
- h. 10.00** Cranioplasty and ventriculomegaly: lessons learned from the past and the development of a strategy for complication avoidance
Konstantinos Fountas (Greece)
- h. 10.10** Timing
Corrado Iaccarino (Italy)
- h. 10.20** Impact of cranioplasty on neurorehabilitation
Rita Formisano (Italy)
- h. 10.30** Skin flap complications after decompressive craniectomy and cranioplasty: proposal of classification and treatment options
Alessandro Di Rienzo, Valentina Liverotti, Roberta Benigni, Maurizio Gladi, Maurizio Iacoangeli (Italy)



ROOM SVEVA PARALLEL SESSION #3

h. 08.30 -11.00 **THE PERIOPERATIVE INTENSIVE CARE UNIT MANAGEMENT OF TRAUMATIC BRAIN INJURY PATIENTS**
Chairmen: Jean Francois Payen (France), Sandra Rossi (Italy)

- 08.30** TBI patients and hemorrhagic extracranial procedures
Arturo Chierigato (Italy)
- 08.45** Osmotherapy in traumatic brain injury
Carlo Alberto Castioni (Italy)
- 09.00** Neuromonitoring after decompressive craniectomy
Edoardo Picetti (Italy)
- 09.15** Hemodynamic goals in traumatic brain injury
Chiara Robba (Italy)
- 09.30** Glycemic control and nutrition in traumatic brain injury
Hervé Quintard (France)
- 09.45** Managing severe traumatic brain injury without ICP monitoring: it's possible?
Randall M Chesnut (USA)
- 10.00** Introduction of the CENTER-TBI serum biobank: current state –future plants
Buki A (Hungary)
- 10.15** Second tier therapies: barbiturates and beyond
Luca Longhi (Italy)
- 10.30** **Discussion**

ROOM S. LUCIA - PARALLEL SESSION #4

h. 08.30 – 10.45 **HOW I DO IT: TRAUMATIC SPINE INJURY 1**
Chairmen: Michele Rotondo (Italy), Vincenzo Vitiello (Italy)

- h. 08.30** Microsphere of EBM-titanium: a valid alternative to PMMA in the treatment of thoraco-lumbar vertebral fractures
Natale Francaviglia, Francesco Meli, Alessandro Villa, Gabriele Costantino (Italy)
- h. 08.40** Advantages of vertebral body stenting for traumatic fractures of thoraco-lumbar spine
Antonio Bocchetti, Valentina Cioffi, Raffaele De Falco (Italy)
- h. 08.50** Evolution of mini invasive treatment of TSI of neurologically intact patients,
Mario Muto (Italy)
- h. 09.00** Evolution of Minimally-Invasive techniques in instrumented thoraco-lumbar surgery: our experience,
Fabrizio Gregori, Nicola Marotta, Francesco Marzetti, Roberto Delfini (Italy)
- h. 09.10** Damage control - spine surgery
Gene E Bolles (USA)
- h. 09.20** Surgical approaches for the treatment of thoraco-lumbar fractures in neurologically intact patients: experiences with 50 consecutive cases
Pierpaolo Nina, Luca Arpino, Cristiano Capuano, Vincenzo Vitiello (Italy)
- h. 09.30** Treatment of thoraco-lumbar fractures in neurologically intact patients: our experience
Ettore Amoroso, Vincenzo Buono (Italy)
- h. 09.40** Short percutaneous posterior instrumentation in thoraco-lumbar spinal fractures without spinal cord involvement
Mauro Campello, Giuseppina Caruso, Francesco Turiano, Mary Romano (Italy)



- h. 09.50** Short-term lumbar plexus morbidity related to mini-open retroperitoneal transpoas corpectomy
Ramona Guatta, Adrien May, Gianpaolo Jannelli, Enrico Tessitore, Karl Schaller, Marc Gallay (Switzerland)
- h. 10.00** Treatment of unstable thoracolumbar junction fractures: short-segment pedicle fixation with inclusion of the fracture level versus long-segment
Mauro Dobran, Davide Nasi, Maurizio Gladi, Maurizio Iacoangeli, Valentina Liverotti, Roberta Benigni, Denis Aiudi, Massimo Scerrati (Italy)
- h. 10.10** Posterior only approach for corpectomy and 360° fixation in dorso-lumbar fractures: series presentation and technical notes
Carla Daniela Anania, Massimo Tomei, Alessandro Ortolina, Franco Servadei, Maurizio Fornari, Francesco Costa (Italy)
- h. 10.20** Thoracic & thoracolumbar junction spine interbody fusion technique
Sang Ryong (South Korea)
- h. 10.30** Discussion

h. 08.30 – 10.45***POSTER SESSION #1 EXHIBITION HALL******Chairmen: Tedy Apriawan (Indonesia), José Nel Carreño (Colombia)***Consensus protocol for the medical and surgical management of severe head injury,
S. Bouchakour Mr. Brellah (Algeria)

Music medicine in intensive care unit

Ennio Fuselli (Italy)

Relationships among neurocognitive dysfunction, emotional instability and malingered neurocognitive dysfunction in disability evaluation after TBI

Oh-Lyong Kim (South Korea)

A randomised controlled trial on the effect of cognitive rehabilitation for attention in mild traumatic brain injury: a preliminary report

Norhamizan Hamzah, Vairavan Narayanan, Norlisah Ramli, Nor Atikah**Mustapha, Nor Adibah Mat No, Li Kuo Tan, Mahmoud Danaee, Mazlina Mazlan (Malaysia)**

Engraftment, neuroglial trans-differentiation and behavioral recovery after complete spinal cord transection in rats

Alberto Maria Crovace, Sabino Luzzi, Luca Lacitignola, Valerio Valentini,**Edda Francioso, Giacomo Rossi, Gloria Invernici, Renato J. Galzio,****Antonio Crovace (Italy)**

Correlation between level of IL-6 and Glasgow outcome scale extended 3 months in severe traumatic brain injury patients in RSUD

Fendi Fatkhurrohman Gozi, Abdul Hafid Bajamal (Indonesia)

Cognitive map in acute phase of traumatic brain injury

Blanca Navarro-Main, Ana Maria Castaño-león, Pedro Gómez, Alfonso Lagares (Spain)

Increased expression of NOGO-A, a myelin-associated inhibitor to axonal regeneration, in human brain tissue following traumatic brain injury

Sami Abu Hamdeh, Johanna Flygt, Martin Ingelsson, Irina Alafuzoff,**Niklas Marklund (Sweden)**

S100B protein: a screening tool in mild traumatic brain injury

Chiara Capisani, Simona Cavallo, Maria Cristina Aguiari, Luca Brazzi,**Maurizio Berardino (Italy)**

Cerebral hemodynamic assessment using transcranial doppler and its correlation with



invasive intracranial pressure: animal model,

Gustavo Sousa Noleto, Matheus Schmidt Soares, Almir Ferreira De Andrade, Alessandro Belon, Marcelo Lima Oliveira, Wellingson Silva Paiva, Manoel Jacobsen Teixeira (Brasil)

Can highly-sensitive troponin I be a prognostic biomarker in patients with traumatic brain injury?

Bilel Loukil, Mouna Rkhami, Ali Jendoubi, Ahmed Ben Slimene (Tunisia)

Vascular sphincters in central nervous system: pathophysiological implication and their role in traumatic brain injury

Simone Sangiorgi, Paolo Casiraghi, Simona Bistazzoni, Jacopo Poli,

Marina Protasoni, Marcella Reguzzoni, Simone Maria Zerbi, Silvio Bellocchi (Italy)

10.30 – 11.00

Open coffee

AUDITORIUM – PLENARY SESSION #2

h. 10.45 – 13.30

ETHICS AND LEGAL CONTROVERSIES IN NEUROTRAUMA

Chairmen: Peter Hutchinson (UK), Franco Servadei (Italy)

10.45

A survey on the adherence of European neurosurgical centers to brain trauma foundation guidelines on severe traumatic brain injury

Antonino Germanò (Italy)

11.00

Failure of traumatic brain injury guidelines: Quo Vademus Nunc?

Randall M Chesnut (USA)

11.15

Do we really use ICP only to decide on decompressive craniectomy ? A criticism of our RCT-approach

Anthony Figaji (South Africa)

11.30

Clinical decision for severe traumatic brain injury surgical management in austere environments: an ethical dilemma?

Andres Rubiano (Colombia)

11.45

Decompressive craniectomy no limits or withdrawal proposal

Corrado Iaccarino (Italy)

12.00

Choice craniostomy: patient selection and surgical results on consecutive series

Iype Cherian (Nepal)

12.15

Ethics of research in patients with altered state of consciousness - experiences from an academic ethics committee

Maximillian Mehdorn (Germany)

12.30

Moral boundaries of craniocervical trauma

Wilco Peul (The Netherlands)

12.45

Ethical dilemmas in the management of pediatric head trauma,

Ahmed Ammar (Saudi Arabia)

13.00

Discussion



ROOM MIRABILIS - INTEGRA SEMINAR LUNCH

h. 13.30 – 14.30 Decompressive craniectomy and reconstruction: challenges, complications and literature
Franco Servadei, Ajay Sinha, Dirk Lindner

h. 13.30 – 14.30 **LUNCH TIME**

AUDITORIUM – MAIN SESSION #2

h. 14.30 – 16.30 **HOW I DO IT: TRAUMATIC BRAIN INJURY 1**
Chairmen: Indira Devi Bhagavatula (India), Alexandru Vlad Ciurea (Romania)

h. 14.30 Dural sealing: a consensus conference
Franco Servadei (Italy)

h. 14.40 Endoscopic management of traumatic CSF rhinorrhea – our experience in a tier 2 city in India
Bharath Kumar Reddy Bandi, Gowtham Kuncha, Saikiran Pattupogula, Selva Muthukumaran Krishnamoorthy (India)

h. 14.50 Damage control – neurosurgery
Gene E Bolles (USA)

h. 15.00 Comparison of two surgical techniques in management of acute SDH
Saad Bin Anis (Pakistan)

h. 15.10 Surgical management of acute subdural hematoma: a comparison between decompressive craniectomy and craniotomy on patients treated from 2010 to the present in a single center
Martina Tempestilli, Martina Cappelletti, Benedetta Fazzolari, Lorenzo Spizzichino, Andrea Gennaro Ruggeri, Roberto Delfini (Italy)

h. 15.20 Post-traumatic aSDH in elderly: a 3-years single center experience
Riccardo Stanzani, Elisa Moriconi, Giorgio Casoli, Stavros Dimitriadis, Luc Mirabeau Djoumessi Tiotsia, Alberto Feletti, Giacomo Pavesi (Italy)

h. 15.30 Short-term outcome of operated traumatic brain injury patients with intracranial hemorrhage in Tikur Anbessa specialized Hospital
Hagos Biluts (Ethiopia)

h. 15.40 Clinical outcome from hemorrhage evacuation craniotomy of traumatic brain injury with critical Glasgow coma scale
Tedy Apriawan, Fitra Fitra, Abdul Hafid Bajamal (Indonesia)

h. 15.50 Early and late outcome predictors in moderate-severe traumatic brain injury: analysis of a monocentric cohort of 193 patients
Paolo Gritti, Alberto Cadisco, Rosalia Zangari, Luca Giovanni Longhi, Carlo Brembilla, Claudio Bernucci, Gianmario Bortolotti, Gaia Giovanna Cavalleri, Lorella Fagnani, Diego Manzoni, Silvia Marchesi, Francesco Ferri, Francesco Biroli (Italy)

h. 16.00 Minimally invasive technique for urgent treatment of chronic subdural hematomas. Single center experience and future perspectives

h. 16.10 The management and outcomes of chronic subdural hematoma in UK
Valentina Cioffi, Antonio Bocchetti, Raffaele De Falco (Italy)
Angelos Koliass (UK)

h. 16.20 **Discussion**



ROOM MIRABILIS - PARALLEL SESSION #5

- h. 14.30 – 16.30** **NEUROTRAUMA ON THE WEB**
Chairmen: Iype Cherian (Nepal), Gianluigi Zona (Italy)
- h. 14.30** Neurotrauma public engagement and education using social media, art and film: the Brainbook experience
Hira Rana, Cilein Kearns, Priya Rogers, Alice Kershberg, Aswin Chari, Tom Fowler-doke, Amin Elyas, Alexander Alamri, Angelos Koliass, Peter Hutchinson, Chris Uff (UK)
- h. 14.40** Web-visibility of national neurosurgical societies in Europe: a necessary tool for enhancing scientific network cooperation and information distribution
Giovanni Raffa, Antonino Scibilia, Flavia Meccio, Felice Esposito, Filippo Flavio Angileri, Salvatore Cardali, La Torre, Antonino Germanò (Italy)
- h. 14.50** Medical approach to posttraumatic CNS infections: what is available on the web
Josè Luis Castillo (Colombia)
- h. 15.00** The CSF-shift edema and cisternostomy: clinical outcomes in a series of cases
Hira Burhan, Iype Cherian, Andrea Gerosa, Andrea Di Cristofori, (Pakistan)
- h. 15.10** Role of decompressive craniotomies in severe head injury patients
Tariq Salahuddin (Pakistan)
- h. 15.20** Preliminary experience with cisternostomy in severe traumatic brain injury
Lorenzo Giammattei, Alexandre Simonin, Daniele Starnoni, Rodolfo Maduri, Mauro Oddo, Marc Levivier, Mahmoud Messerer, Roy T. Daniel (Switzerland)
- h. 15.30** Cisternostomy in severe traumatic brain injury: impact on multimodal cerebral monitoring
Alexandre Simonin, Lorenzo Giammattei, Daniele Starnoni, Rodolfo Maduri, John-Paul Miroz, Mauro Oddo, Marc Levivier, Mahmoud Messerer, Roy Thomas Daniel (Switzerland)
- h. 15.40** Outcome following decompressive craniectomy due to severe head injury: a case series study
Christos Tsitsipanis, Konstantinos Ntotsikas, Nikolaos Moustakis, Antonios Vakis (Greece)
- h. 15.50** Outcome of decompressive craniectomy for CHI in adults
Charalampos Gatos, Thanasis Paschalis, Kostas Fountas (Greece)
- h. 16.00** Cisternostomy for management severe traumatic brain injury: a novel revolutionary surgical procedure
Yonghong Wang (China)
- h. 16.10** **Discussion**

ROOM SVEVA - PARALLEL SESSION #6

- h. 14.30 – 16.30** **HOW I DO IT: TBI IN ICU**
Chairmen: Josè Luis Castillo (Colombia), Elvio De Blasio (Italy)
- h. 14.30** Determining the lower limit of cerebral perfusion pressure in patients undergoing decompressive craniectomy following traumatic brain injury
Do-sung Yoo, Jin Eun, Hae-kwan Park, Cheol Ji (South Korea)



- h. 14.40** Maximum contraction velocity on pupilometer as an indicator of specific compartment syndrome after traumatic brain injury
Angélica Clavijo (Colombia)
- h. 14.50** Pupillometry in detecting cerebrospinal fluid infection
Eleonora Ioannoni, Anselmo Caricato, Daniele Guarino Biasucci, Camilla Gelormini, Isabella Melchionda, Serena Silva, Eleonora Stival, Massimo Antonelli (Italy)
- h. 15.00** Ipsilateral increased optic nerve sheath diameter as an early diagnostic tool for intracranial compartment syndrome in traumatic brain injury patients
Ahsan Ali Khan, Nelly Daniela Gonzalez, Teo N Campo, Angélica Clavijo, Daniel A Mendoza, Ricardo Borda, Jose L Castillo, Raul A Echeverri, Angelos Kolias, Peter Hutchinson, P. David Adelson, Andres M Rubiano (Colombia)
- h. 15.10** Rebound temperature rise after prolonged diclofenac infusion for fever management in patients with acute brain damage
Monica Cattaneo, Silvia Aresi, Gaia Cavalleri, Lucia Zacchetti, Francesco Ferri, Luca Longhi, Luca Lorini (Italy)
- h. 15.20** The effect of mild hypothermy therapy in the level of MMP-9 proteine, the four and Marshall score in high risk traumatic brain injury
Eko Prasetyo, Andi Asadul Islam, Mochammad Hatta, Djoko Widodo, Pattelongi Ilhamjaya (Indonesia)
- h. 15.30** Up to date of hemodynamic monitoring and management in traumatic brain injury,
Seungjoo Lee, Sang Ryoung Jeong (South Korea)
- h. 15.40** Shared collected data: a tool for single centre clinical improvement .
Intensive care unit infections in traumatic brain injury patients
Iaria Depetris, Fulvio Agostini, Simona Cavallo, Stefano Finazzi, Luca Brazzi, Maurizio Bernardino (Italy)
- h. 15.50** Continuous EEG monitoring by a new wireless headset
Anselmo Caricato, Maria Giuseppina Annetta, Daniele Guerino Biasucci, Giacomo Della Marca, Camilla Gelormini, Eleonora Ioannoni, Isabella Melchionda, Serena Silva, Eleonora Stival, Alessandra Tersali, Massimo Antonelli (Italy)
- h. 16.00** A practical approach for the management of sodium disorders in traumatic brain injury
Josè Luis Castillo (Colombia)
- h. 16.10** Discussion

ROOM S. LUCIA - PARALLEL SESSION #7

- h. 14.30 – 16.30** **RESEARCH IN NEUROTRAUMA**
Chairmen: Anthony Belli (UK), Giorgio Iaconetta (Italy)
- h. 14.30** Mesenchymal stem cells-based therapies in brain injuries: state of the art and future perspectives
Daniele Bongetta, Mattia Del Maestro, Sabino Luzzi, Cesare Zoia, Renato Galzio (Italy)
- h. 14.40** The role of stem cells in traumatic sciatic nerve regeneration in rats: functional and histological outcome
Bharat Shinde, Dhananjaya Bhat, Indrani Datta (India)
- h. 14.50** cSDH-A retrospective study to analyse the role of VEGF in pathophysiology and prevention of recurrence
Shashivadhanan Sundaravadhanan, Prabal Deb (India)
- h. 15.00** Microvascular changes in traumatic brain injury: a LM, TEM, SEM-corrosion casting morphological experimental study



Simone Sangiorgi, Paolo Casiraghi, Simona Bistazzoni, Jacopo Poli, Marina Protasoni, Marcella Reguzzoni, Simone Maria Zerbi, Silvio Bellocchi (Italy)

h. 15.10 The correlation between cortical morphometry and neuropsychological outcome in mild traumatic brain injury

Vairavan Narayanan, Aditya Hernowo, Vigneswaran Veeramuthu, Norlisah Ramli (Malaysia)

h. 15.20 Brain-derived neurotrophic factor (Val66Met) polymorphism predicts structural white matter and neurocognitive recovery in mild traumatic brain injury,

Vigneswaran Veeramuthu, Azlina Ahmad Annuar, Li Kuo Tan, Aditya Hernowo, Dharmendra Ganesan, Vairavan Narayanan (Malaysia)

h. 15.30 Development of stem cell agent in chronic spinal cord injury, **Sang Ryong Jeon (South Korea)**

h. 15.40 Basic fibroblast growth factor effect on neuroprotective effect in traumatic brain injury model, **Do-Sung Yoo (South Korea)**

h. 15.50 Early levels of GFAP and NF-L in predicting the outcome of mild traumatic brain injury,

Md. Iftakher Hossain, Jussi P. Posti, Matias Yli-olli, Lauri Heiskanen, Kalle M. J. Aitasalo, Jaakko Rinne, Ville Vuorinen, Willy Serlo, Olli Tenovuo, Pekka K. Vallittu, Jaakko M. Piitulainen (Finland)

h. 16.00 3D printed biomodels for training in the surgical management of neurotrauma, **Vicknes Waran, Vairavan Narayanan (Malaysia)**

h. 16.10 Discussion

AUDITORIUM – MAIN SESSION #3

h. 16.30 – 18.30 **TRAUMA OF CRANIO-CERVICAL, CERVICO-THORACIC JUNCTIONS: FROM DIAGNOSIS TO CURRENT EVIDENCE-BASED TREATMENT**
Chairmen: Wilco Peul (The Netherlands), Giuseppe Barbagallo (Italy)

h. 16.30 Craniocervical reconstruction

Massimiliano Visocchi (Italy)

h. 16.40 Hand reconstruction in tetraplegia after cervical trauma using nerve transfer: how I do it?

Mohammadreza Emamhadi (Iran)

h. 16.50 Functional outcome of elderly patients treated for odontoid fracture. A multicentric study

Giorgio Lofrese, Roberto Donati, Francesco Cultrera, Pasquale De Bonis, Federico De Iure, Corrado Iaccarino, Antonio Martucci, Michele Alessandro Cavallo, Franco Servadei, Antonio Musio (Italy)

h. 17.00 Surgical reconstruction considerations in high C-spine injury

Wilco Peul (The Netherlands)

h. 17.10 Odontoid fracture in the elderly: ethical and technical controversies and our experience

Alessandro Longo (Italy)

h. 17.20 Extreme indication of the endoscopic endonasal approach for complex C1-C2 fractures

Maurizio Iacoangeli, Davide Nasi, Maurizio Gladi, Roberta Benigni, Martina Della Costanza, Alessandra Marini, Riccardo Paracino, Massimo Scerrati (Italy)

h. 17.30 One stage combined anterior-posterior approach for treatment of subaxial cervical spine dislocation fractures in ankylosing spondylitis of elderly patients

Nicola Marengo, Marco Ajello, Fabio Cofano, Federica Penner, Salvio Petrone, Cecilia Giordano, Diego Garbossa, Alessandro Ducati (Italy)

h. 17.40 Preliminary results of the innovate trial: an international cooperative trial on surgical versus conservative treatment for odontoid fractures in elderly



Jeroen Huybregts, Samuel Polak, Mark Arts, Carmen Vleggeert-lankamp, Wilco Peul (The Netherlands)

- h. 17.50** The treatment of traumatic cervicothoracic junction pathology...when a more complex approach could be necessary? Preoperative planning and technical
- h. 18.00** **Armando Rapanà, Gennaro Ismeno, Carmine Iaffaldano, Francesco Maria Paradiso, Giuseppe Diaferia, Vincenzo Brandini (Italy)**
Axis injuries: decision making and treatment algorithms of C2 traumatic lesions
Sabino Luzzi, Mattia Del Maestro, Daniele Bongetta, Vittorio Silvani, Francesco Lombardi, Mattia Sansone, Renato J. Galzio (Italy)
- h. 18.10** Discussion

ROOM MIRABILIS- PARALLEL SESSION #8

- h. 16.30 – 18.30** **HOW I DO IT: TRAUMATIC BRAIN INJURY 2**
Chairmen: Pasqualino De Marinis (Italy), Wellington Paiva (Brazil)
- h. 16.30** Penetrating intracranial trauma
Gene E Bolles (USA)
- h. 16.40** Missile traumatic adult brain injury in the North of Palestine
Mazhar Darwazeh (Palestine)
- h. 16.50** Outcome predictors of civilian gunshot wounds to the head: a retrospective five-year study from Pakistan
Muhammad Mukhtar Khan, Faiqa Filza Khan, Muhammad Tariq Khan (Pakistan)
- h. 17.00** Factors predicting poor outcome after gunshot injuries to brain in Afghanistan civilian population - a review of 45 cases
Yousuf Shaikh (Pakistan)
- h. 17.10** Penetrating cranio-cerebral injuries: our experience
Danilo De Paulis, Alberto De Bellis, Marisa Gentile, Alessandra Alfieri, Moriello Vania, Giuseppe Cantone, Pasqualino De Marinis (Italy)
- h. 17.20** Military neurotrauma: experience of the Military Hospital
José Nel Carreño (Colombia)
- h. 17.30** Blast induced neurotrauma: a retrospective study in Indian armed forces
Shashivadhanan Sundaravadhanan, Ashwini Kumar Sharma, Sridhar Madakasira Sitaram (India)
- h. 17.40** The importance of neck position in ICP control
Gianpaolo Petrella, Mariella Aloisi, Genoveffa Piragine, Andrea Pietrantonio, Alberto Delitala, Agazio Menniti (Italy)
- h. 17.50** Neurosurgical management of non-missile penetrating head injuries
Francesco Signorelli (Italy)
- h. 18.00** Surgical elevation for symptomatic depressed skull fractures over dural venous sinus
Hesham Elsobky, Amr Farid (Egypt)
- h. 18.10** Discussion

ROOM SVEVA - PARALLEL SESSION #9

- h. 16.30 – 18.30** **UPDATE ON COAGULOPATHY IN NEUROTRAUMA**
Chairmen: Gianmattia Mastrojanni (Italy), Giovanni Di Minno (Italy)



- h. 16.30** Prophylaxis in neurotrauma
Giovanni Di Minno (Italy)
- h. 16.40** Platelet status in neurotrauma
Vanessa Agostini (Italy)
- h. 16.50** Neurotrauma trends in Japan - Influence of aging and antithrombotic drugs
Michiyasu Suzuki, Eiichi Suehiro (Japan)
- h. 17.00** Transfusion protocols for poly trauma patients with severe TBI injury
José Nel Carreño (Colombia)
- h. 17.10** Traumatic intracranial hemorrhage and anticoagulant therapy after appearance of direct oral anticoagulants (DOAC) in Japan
Junzo Nakao, Shota Yamashita, Hiroshi Kimura, Kensuke Nakamura, Yoji Komatsu, Akira Matsumura (Japan)
- h. 17.20** Pre-surgical reversal of anticoagulation with Idarucizumab for chronic subdural hematoma in patient undergoing Dabigatran: case report and review of the literature
Maria Blagia, Antonio Colamaria, Maria Teresa Bozzi, Ignazio De Trizio, Rossella Fasinella, Mario De Robertis (Italy)
- h. 17.30** The impact of anticoagulation and antiplatelet treatment on outcome and recurrence rate in patients with chronic subdural hematoma
Elena Fazzari, Giovanni Raffa, Antonino Scibilia, Maria Luisa Gorgoglione, Filippo Flavio Angileri, Salvatore Massimiliano Cardali, Antonino Francesco Germanò (Italy)
- h. 17.40** Viscoelastic test: thromboelastogram in TBI and neurosurgical coagulopathy management
Michela Leone, Giacomo Iapichino, Erika Borotto, Roberto Stefini, Chiara Novelli, Danilo Radrizzani (Italy)
- h. 17.50** Are antiplatelet and anticoagulants drugs a risk factor for bleeding in mild Traumatic Brain injury?
Daniele Bongetta, Cesare Zoia, Laura Uccella, Sabino Luzzi, Mattia Del Maestro, Renato Galzio (Italy)
- h. 18.00** Incremental prognostic value of the activated partial thromboplastin time and creatinine in addition to the crash score in traumatic brain injury patients
Davi Solla, Robson Luis Amorim, Manoel Jacobsen Teixeira, Wellingson Paiva, Gustavo Souza Noletto (Brazil)
- h. 18.10** Discussion
- h. 16.30 – 18.30** *POSTER SESSION #2 – EXHIBITION HALL*
Chairmen: Claudio Schonauer (Italy), Sabino Luzzi (Italy)

Isolated subarachnoid hemorrhage in mild traumatic brain injury: is a repeat CT scan necessary?

Ramona Guatta, Adrien May, Gianpaolo Jannelli, Andrea Bartoli, Karima Tizi, Karl Schaller (Switzerland)

Severe facial fractures is related to severe brain injury

Se-hyuk Kim, Namkyu You, Mi Sun Choi, Tae Hoon Roh, Donghwan Jeong (South Korea)

Addition of resection of temporal muscle and fascia in decompressive craniectomy in the treatment of Traumatic Brain injury

Won Ho Cho, Seung Han Yu, Byung Chul Kim, Jae Il Lee, Hyuk Jin Choi (South Korea)

Delayed traumatic intracerebral hemorrhage after decompressive craniectomy in patients with acute subdural hematoma

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Kum Whang, Jiwoong Oh, Bungoh Kim, Sungmin Cho, Jongyeun Kim, Jongwook Choi, Yeonmoo Koo (South Korea)

Influencing factors of delayed surgical epidural hematoma,

Kum Whang, Jiwoong Oh, Nayong Kim, Sungmin Cho, Jongyeun Kim, Jongwook Choi, Yeonmoo Koo (South Korea)

Additive technologies in making new porous and mesh Titanium composite implants for skull defect reconstruction

Alexander Kravchuk, Vladimir Okhlopkov, Alexey Maryakhin, Yaroslav Latyshev, Vladimir Komlev, Vasily Mamonov (Russia)

Natural History of Mild Traumatic Brain Injury

Dhaval Shukla (India)

Compare the intracranial pressure trend after the decompressive craniectomy between massive intracerebral hemorrhagic and major ischemic stroke patients

Do-sung Yoo, Jin Eun, Hae-kwan Park, Cheol Ji (South Korea)

Very severe traumatic brain injury (GCS3-5): too much nihilism or optimism?

Raghu Samala, Deepaak Kumar Gupta, PShashank Sharad Kale (India)

Growing skull fracture: a rare complication of head trauma in children

Bilel Loukil, Mouna Rkhami, Mohamed Chabaane, Mohamed Badri (Tunisia)

Traumatic brain injury in children: A 100 cases study

Bilel Loukil, Mouna Rkhami, Mohamed Chabaane, Kamel Bahri, Ihsen Zammel (Tunisia)

Fatal pediatric head injuries: an autopsy study

Philip Mwachaka, Julius Ogeng'o, Peter Kitunguu (Kenia)

Predisposing Factors of Head and Spinal Injuries in Pakistan, a Developing Country: A Comparison Between Slums & Urban Area

Dr. Noor ul Huda Maria, FCPS PGR (Pakistan)

Friday, June 22

AUDITORIUM – PLENARY SESSION #3

h. 8.30 – 11.00

HEAD & SPINE INJURY IN LOW AND MIDDLE INCOME COUNTRIES 1

Chairmen: Kazadi KN Kalangu (Zimbabwe), Marcelo G Zenteno (Bolivia)

08.30

The epidemiology of traumatic spine injuries in low and middle income countries

Kee B Park (USA)

08.45

An international survey to inform the development of a global registry for traumatic brain injury - preliminary findings

Sujit Gnanakumar, David Clark, Angelos Kolias, Tom Bashford, Karol

Budohoski, Rikin Trivedi, David Menon, Peter Hutchinson, Alexis Joannides, On Behalf Of The Nihl Global Health Research Group On Neurotrauma (UK)

09.00

Status of pre hospital care of head trauma patients in developing countries

Virendra Sinha (India)

09.15

Traumatic Brain injury in Bolivia

Marcelo G Zenteno (Bolivia)

09.30

Traumatic brain injury: value of epidemiological research and education. Experience in two centers at corners of the world (Italy-Ecuador),

Francesco Biroli, Rosalia Zangari, Laura Bottani, Paolo Gritti (Italy)



- 09.45** The national motorcycle helmet law two years on: review on his impact on the epidemiology of traumatic brain injury in a major government hospital in Cambodia, **Sara Venturini, Megan Still, Iv Vycheth, Sam Nang, Din Vuthy, Kee Park (UK)**
- 10.00** Etiology and predictive factors of spine surgery complications at major government hospital in Cambodia, **Megan Still, Sara Venturini, Iv Vycheth, Sam Nang, Din Vuthy, Kee Park (USA)**
- 10.15** Spinal trauma from a third world perspective, **Ahmed Ali Shah, Gohar Javed (Pakistan)**
- 10.30** Telemedicine in Vietnam
Dong VanHe (Vietnam)
- 10.45** Discussion
- 11.00** COFFEE

AUDITORIUM – MAIN SESSION #4

- h. 11.30 – 13.30** **HEAD & SPINE INJURY IN LOW AND MIDDLE INCOME COUNTRIES 2**
Chairmen: Kee B Park (USA), Roberto Stefini (Italy)
- h. 11.30** Epidemiology of traumatic brain injuries in a low-middle income country (SRI LANKA) potential targets for global health initiatives
Shavinthi Wickramasinghe Wadanamby, Pani De Silva, Saman Wadanamby (UK)
- h. 11.40** Neurotrauma care in Quito, Ecuador, the value of education and international cooperation
Laura Bottani, Antonio Biroli, Rosalia Zangari, Paolo Gritti, Francesco Biroli (Ecuador)
- h. 11.50** Profile of head injuries: prehospital care, diagnosis and severity in an Ethiopian tertiary hospital
Tsegazeab Laeke Teklemariam, Abenezer Tirsit Aklilu, Finot Debebe, Desalegn Gere, Kee B Park, Aklilu Azazh (Ethiopia)
- h. 12.00** Optimization of local resources to manage neurotrauma in Bangalore
Manjul Tripathi (India)
- h. 12.10** Decompressive craniectomy in severe head injury in India
Drsanjay Sharma, Dr. Namita Sharma (India)
- h. 12.20** Surgical outcome of secondary decompressive craniectomy without intracranial pressure monitoring: a perspective from Pakistan
Muhammad Mukhtar Khan, Muhammad Tariq Khan (Pakistan)
- h. 12.30** CT-based neurosurgical epidemiology: patterns of head trauma in rural Haiti
Ernest Barthélemy, Yannis Valtis, Margaret Cochran, Louine Martineau, Kee Park, Jeffrey Mendel, Aaron Berkowitz (USA)
- h. 12.40** Outcome in patients undergoing surgery for spinal injury in an Ethiopian hospital: an experience from a low income setup
Martin Andreas Lehre, Lars Magnus Eriksen, Abenezer Tirsit Aklilu, Segni Bekele, Saba Petros, Kee B. Park, Marianne Lundervik Bøthun, Knut Wester Gustav (Ethiopia)
- h. 12.50** Current management and surgical care of spine trauma in Tanzania
Andreas Leidinger, Eliana E Kim, Rodrigo Navarro-ramírez, Hamisi Shabani, Roger Hartl (USA)
- h. 13.00** A 2-years description of traumatic brain injury admissions in Tikur Anbessa specialized hospital in Ethiopia



Hagos Biluts (Ethiopia)

h.13.10

Discussion

ROOM MIRABILIS - PARALLEL SESSION #10

11.30 – 13.30

HOT TOPICS IN NEUROTRAUMA INTENSIVE CARE

Chairmen: Tullio Cafiero (Italy), Marina Munari (Italy)

11.30

Fluid management in traumatic brain injury patients

Daniele Poole (Italy)

11.45

Decompressive craniectomy in traumatic brain injury: a neurosurgical point of view
Francesco Signorelli, Trevisi G, Frascetti F, D'Onofrio GF, Carmelo Anile, Angelo Pompucci (Italy)

12.00

Decompressive craniectomy in traumatic brain injury: an intensivist point of view
Maurizio Bernardino (Italy)

12.15

Development of a prognostic model to predict mortality after traumatic brain injury in an intensive care setting

Dhaval Shukla (India)

12.30

Update on advanced neuroimaging technologies

Virginia Newcombe (UK)

12.45

Role of tissue oxygen monitoring in patients with acute brain injury in pediatric and adults patients

Cristina Benassi, Leonardo Bussolin (Italy)

13.00

Discussion

ROOM SVEVA - PARALLEL SESSION #11

h. 11.30 – 13.30

PEDIATRIC TRAUMATIC BRAIN INJURY

Chairmen: P. David Adelson (USA), Giuseppe Cinalli (Italy)

11.30

Spine/spinal cord injury in children

P. David Adelson (USA)

11.40

Decompressive craniectomy

P. David Adelson (USA)

11.50

Pediatric traumatic brain injury guidelines proposal: results of ADAPT study

Deepak Gupta (India)

12.00

Management of traumatic intracerebral hemorrhage in children: a retrospective study of 82 children

Nesrine Mentri, Karim Izirouel, Idir Takbou, Souhil Tliba (Algeria)

12.10

Feasibility of optimal arterial blood pressure determination for cerebral autoregulation monitoring in neonates and children: first experience in Italy

Stefano Pezzato, Chiara Robba, Silvia Buratti, Raffaella Marrocco, Francesca Febbo, Gianluca Piatelli, Andrea Moscatelli, Pietro Tuo (Italy)

12.20

Split calvarial graft reconstruction for growing skull fracture in pediatrics

Hesham Elsobky, Amr Farid (Egypt)

12.30

Not delayed cranioplasty improves neurological outcome after head injury in children too. Monoinstitutional experience at Meyer's Hospital

Flavio Giordano, Barbara Spacca, Regina Mura, Elena Arcovio, Lorenzo Genitori, Federico Mussa, Mirko Scagnet, Manuela Grandoni, Pierarturo Donati (Italy)



- 12.40 Decompressive craniectomy in children: clinical features and treatment in our pediatric series
Ferdinando Aliberti, Pietro Spennato, Giuliana Dimartino, Maria Serena De' Santi, Vincenzo Trischitta, Raffaele Stefano Parlato, Giuseppe Cinalli
- 12.50 Microdialysis monitoring in pediatric traumatic brain injury
Ursula Rohlwick (South Africa)

13.00 **Discussion**

ROOM S. LUCIA - PARALLEL SESSION #12

h. 11.30 – 13.30

HOW I DO IT: CRANIOPLASTY

Chairmen: Anastasia Tasiou (Greece), Raffaele De Falco (Italy)

- h. 11.30** Our experience with post-traumatic cranioplasty
Alexandru Vlad Ciurea, Horia Ples, Dan Teleanu, Dan Aurel Nica, Horatiu Alexandru Moisa (Romania)
- h. 11.40** Optimal timing for restorative cranioplasty
Anastasia Tasiou (Greece)
- h. 11.50** Step ladder expansive cranioplasty: a concept
Sudip Kumar Sengupta (India)
- h. 12.00** Cranioplasty after severe traumatic brain injury: effects of trauma and patient recovery on cranioplasty outcome
Md. Iftakher Hossain, Jussi P. Posti, Matias Yli-olli, Lauri Heiskanen, Kalle M. J. Aitasalo, Jaakko Rinne, Ville Vuorinen, Willy Serlo, Olli Tenovuo, Pekka K. Vallittu, Jaakko M. Piitulainen (Finland)
- h. 12.10** Study of intracranial pressure changes during cranioplasty
Eleni Tsianaka, Anastasia Tasiou, Charalampos Gatos, Thanos Paschalis, Ajit Singh, Kostas Fountas (Greece)
- h. 12.20** Neurophysiological evaluation with TMS before and after cranioplasty in Traumatic Brain Injury
Gustavo Sousa Noletto, Cintya Yukie Hayashi, Davi Jorge Fontoura Solla, Almir Ferreira De Andrade, Wellingson Silva Paiva, Manoel Jacobsen Teixeira (Brasil)
- h. 12.30** Titanium cranioplasty implants molded utilizing 3D printing technique
Vicknes Waran, Vairavan Narayanan, Zainal Ariff Abdul Rahman (Malesya)
- h. 12.40** Decompressive craniectomy for traumatic brain injury: the value of cranioplasty and hydrocephalus on outcome
Davide Nasi, Maurizio Iacoangeli, Lucia Giovanna Maria Di Somma, Alessandro Di Rienzo, Valentina Liverotti, Fabrizio Mancini, Gianluca Bizzocchi, Massimo Scerrati (Italy)
- h. 12.50** Clinical experience with cranioplasty in seven years in Sant'Anna Hospital of Como. What we have learned
Paolo Casiraghi, Silvio Bellocchi, Simone Sangiorgi (Italy)
- h. 13.00** Handmade cranioplasty: how I do it
Nicola Acciarri, Andrea Cuoci, Giorgio Palandri, Carlo Bortolotti, Carmelo Sturiale (Italy)

Discussion

h. 11.30 – 13.30

POSTER SESSION #3 – EXHIBITION HALL

Chairman: Carmela Chiaramonte (Italy)



Usefulness of procalcitonin levels within the CSF to reduce patient's exposure to antibiotics in neurosurgery-associated bacterial meningitis: a feasibility pilot study
Daniele Guerino Biasucci, Anselmo Caricato, Giancarlo Scoppettuolo, Eleonora Ioannoni, Camilla Gelormini, Isabella Melchionda, Serena Silva, Eleonora Stival, Massimo Antonelli (Italy)

Implementation of cEEG/qEEG in neurointensive care unit: proposal of a standardized training program for intensivists

Daniele Guerino Biasucci, Anselmo Caricato, Giacomo Della Marca, Eleonora Ioannoni, Camilla Gelormini, Isabella Melchionda, Serena Silva, Eleonora Stival, Massimo Antonelli (Italy)

Comparison of pupilometer and optic nerve sheath diameter as diagnostic tools for detection of traumatic intracranial compartment syndrome in facilities with limited resources

Ahsan Ali Khan, Nelly Daniela Gonzalez, Teo N Campo, Angélica Clavijo, Daniel A Mendoza, Ricardo Borda, Jose L Castillo, Raul A Echeverri, Angelos Kolias, Peter Hutchinson, P. David Adelson, Andres M Rubiano (Colombia)

Sleep disorders after traumatic brain injuries during sports activity. Study in young athletes

Nikolaos Syrmos, Vaitsa Giannouli, Gerogios Gavridakis, Argyrios Mylonas (Greece)

Life threatening large subcutaneous hematoma in a patient with coagulopathy: a rare case
Bilel Loukil, Ghassen Gader, Mouna Rkhami, Maher Ben Salem, Ihsen Zammel (Tunisia)

Post-operative cognitive dysfunction (POCD)

Gene E Bolles (USA)

Management of penetrating gunshot wound in the ethmoid air cells by endonasal endoscopy exploration

Yunus Kuntawi Aji, Tedy Apriawan, Abdul Hafid Bajamal (Indonesia)

Complete post-traumatic tetraplegia in Klippel-Feil syndrome: case report and literature review

Maria Blagia, Antonio Colamaria, Maria Teresa Bozzi (Italy)

Single screw anterior fixation for type II odontoid fractures: a single centre experience

Davide Luglietto, Ludovica Cellini, Anna Vaiano, Francesco Iacoangeli, Giacomo Tiezzi, Laura Lippa, Barbara Batani, Giuseppe Oliveri (Italy)

Atlas Injuries: Decision Making and Treatment Algorithms of C1 Traumatic Lesions

Mattia Del Maestro, Sabino Luzzi, Vittorio Silvani, Viola Custodi, Angela Elia, Andrea Montalbetti, Renato J. Galzio (Italy)

Severe traumatic injuries of the craniocervical and cervicothoracic junction: Report of two cases

Francesco Floris, Leonardo Polizzi, Ralf Leuze, Loredana Secci, Giorgio Granella, Carlo Conti, Federico Loi (Italy)

Clinical outcome, mortality and morbidity in traumatic cervical spinal cord injury in adult vs elderly patients

Sang-bok Lee, Jun-ki Kim (South Korea)



AUDITORIUM – MAIN SESSION #5

14.30 – 16.30

HOW I DO IT: TRAUMATIC SPINE INJURY 2

Chairmen: Maurizio Iacoangeli (Italy), Pasquale Caiazzo (Italy)

h. 14.30

Instrumentation through interrupted trajectory in complex cervical spine cases
Walid Attia (Saudi Arabia)

h. 14.40

Treatment of occipital condyle fractures
Dogan Güçlühan Güçlü (Turkey)

h. 14.50

Surgical reduction and fixation for the C1-2 subluxation
Yunghsiao Chiang (Taiwan)

h. 15.00

Vertebral body spread in thoracolumbar burst fractures can predict posterior construct failure

Giorgio Lofrese, Federico De Iure, Francesco Cultrera, Sofia Battisti, Pasquale De Bonis (Italy)

h. 15.10

PRP and osteoinducing agents during osteosynthesis of burst DL fracture especially in elderly

Alessandra Alfieri, Pasquale Amato, Antonio Fruggiero, Marisa Gentile, Vania Moriello, Francesco Rolando, Maria Rivellini, Eugenio Covelli, Sonia Raimondi, Pasqualino De Marinis (Italy)

h. 15.20

Multiple vertebral fractures: a 9 years experience of a single center

Giulio Carlo Wembagher, Giabbani Niccolò, Stefano Romoli (Italy)

h. 15.30

Jazz in trauma spine surgery,

Carlo Brembilla, Luigi Andrea Lanterna, Gianluigi Dorelli, Angela Dele Rampini, Marcella Chimenti, Emanuele Costi, Bruno Resmini, Angelo Mirco Sicignano, Claudio Bernucci (Italy)

h. 15.40

Establishing the right priorities for treatment of thoracic and thoracolumbar spinal injuries in multiply injured patients; the "spine damage control" protocol

Armando Rapanà, Maria Carmela Bruno, Claudia Pennisi, Pasquale Antonio Crudele, Alessandra Alfieri, Tommaso Scarabino, Michele Santoro (Italy)

h. 15.50

Restoring vertebral height and kyphosis with spinejack in traumatic thoracolumbar junction compression fractures: preliminary radiological outcome in one center

Corrado Lucantoni, Giuliano Maselli, Filippo Pineto, Beniamino Nannavecchia, Francesco Bigossi, Rosario Sepe, Danilo Lucantoni (Italy)

h. 16.00

Discussion

ROOM MIRABILIS - PARALLEL SESSION #13

14.30 – 16.30

HOW I DO IT: TRAUMATIC BRAIN INJURY 3

Chairmen: Angelos Koliass A (UK), Giuseppe Catapano (Italy)

h. 14.30

Code black: implementing a time-critical protocol for neurotrauma surgery in a London major trauma centre

Moumin Awadelkarim Mohamed, Aswin Chari, Alex Alamri, Aida Kafai-golmohammad, Samir Matloob, Arnab Ghosh, William Muirhead, Neil Durge, Christopher Uff (UK)

h. 14.40

Post-traumatic arterial neurovascular lesions

Andrea Cuoci, Rooda Bucpapaj, Carlo Bortolotti, Carlo Coniglio, Francesco Tagliatalata, Carmelo Sturiale (Italy)



- h. 14.50** Endocrine relapse and hypopituitarism in acute phase and 12 months after Traumatic brain injury: first investigation in Molise
Maria Michela Niro, Rosalia Corona, Romeo Flocco (Italy)
- h. 15.00** Blood pressure and pulse rate changed before and after decompression surgery; reverse Cushing phenomenon
Do-sung Yoo, Jin Eun, Han-young Huh, Jae-geun Ahn, Hae-kwan Park, Cheol Ji (South Korea)
- h. 15.10** Our experience on ICP monitoring and management: 2 years retrospective analysis of data of moderate and severe traumatic brain injury
Giacomo Tiezzi, Pierparolo Mongelli, Francesco Iacoangeli, Laura Lippa, Ludovica Cellini, Davide Luglietto, Anna Vaiano, Barbara Batani, Sabino Scolletta, Giuseppe Oliveri (Italy)
- h. 15.20** Is intracranial pressure monitoring useful for all patients with moderate and severe head injury? An institutional experience in a tier 2 city in India
Gowtham Kuncha, Bharath Kumar Reddy Bandi, Selvamuthukumaran Krishnamoorthy (India)
- h. 15.30** Dose related efficacy of Mannitol in traumatic brain injury based on intra cranial pressure monitoring
Sultan Kashif Ali, Naveed Ashraf Ashraf (Pakistan)
- h. 15.40** Traumatic brain injury in elderly patients
Doru Baltateanu, Valentin Craciun, Dan Cristian Voinescu, Diana Dobrin, Minodora Stoiceanu, Catalin Stelian Sandu, Mihaela Teodoru (Romania)
- h. 15.50** Effectiveness of steroids in conservative management of CSDH: preliminary results from a mono centric prospective observational study
Daniele Valacchi, Laura Lippa, Francesco Iacoangeli, Davide Luglietto, Ludovica Cellini, Anna Vaiano, Giacomo Tiezzi, Barbara Batani, Vitaliano Francesco Muzii, Biagio Roberto Carangelo, Giuseppe Oliveri (Italy)
- h. 16.00** Minimally invasive surgery in traumatic hematomas
Wellingson Paiva (Brasil)
- h. 16.10** Discussion

ROOM SVEVA - PARALLEL SESSION #14

- 14.30 – 16.30** **HOW I DO IT: CRANIOPLASTY 2**
Chairmen: Reza Ghadirpour (Italy), M Sabouri (Iran)
- h. 14.30** Hydroxyapatite ceramic implants for cranioplasty in children: experience in Santobono-Pausilipon children's hospital of Naples, Italy
Pietro Spennato, Ferdinando Aliberti, Carmela Russo, Milena Lombardo, Claudio Ruggiero, Giuseppe Mirone, Raffaele Stefano Parlato, Giuseppe Cinalli (Italy)
- h. 14.40** Cranioplasty: our experience in the last 2 year with the cryopreservation,
Gianpaolo Petrella, Mario Lecce, Damiano Lisciani, Agazio Menniti, Alberto Delitala (Italy)
- h. 14.50** Autologous versus heterologous cranioplasty: which choice?
Marco Cancedda, Davide Drusiani, Vincenzo Fontana, Angelo Musumeci (Italy)
- h. 15.00** The sinking flap syndrome: who, when, why. Report of our experience in 44 cases and proposal of a new classification



- Alessandro Di Rienzo, Valentina Liverotti, Roberta Benigni, Davide Nasi, Maurizio Iacoangeli (Italy)**
h. 15.10 Cranioplasty using a hybrid (3D printed titanium mesh and calcium phosphate material) biocompatible custom made implant: preliminary experience in a series of six patients
Stefano Borsa, Giulio Bertani, Marco Locatelli, Daniele Nicoli, Mauro Pluderi, Paolo Rampini (Italy)
h. 15.20 Prospective observational study identifying the risk factors and findings in initial CT scan which predisposes for the development of hydrocephalus in patients with severe head injury
Sai Kiran Pattupogula, Gowtham Kuncha, Selva Muthu Kumaran Krishnamoorthy (India)
h. 15.30 Risk factors and treatment of post-traumatic hydrocephalus following decompressive craniectomy: please close the box!
Davide Nasi, Maurizio Iacoangeli, Alessandro Di Rienzo, Lucia Di Somma, Fabrizio Mancini, Roberta Benigni, Valentina Liverotti, Massimo Scerrati (Italy)
h. 15.40 Ultra-early bifrontal DC in patients with severe traumatic brain injury: Durotomy, without duroplasty and cisternostomy, our experience
Maria Blagia, Antonio Colamaria, Maria Teresa Bozzi, Mario De Robertis, Rossella Fasinella, Ignazio De Trizio (Italy)
h. 15.50 Treatment of postcraniectomy infected dural substitute and CSF leakage using free fascia lata
Giorgio Callovin, Andrea Bolognini, Tommaso Callovin, Giovanna Ricci, Roberto Gazzeri (Italy)
h. 16.00 Extensive dural ossification following decompressive posttraumatic craniectomy: a case report and review of the literature
Lelio Guida, Fabio Mazzoleni, Erik Sganzerla, Carlo Giussani (Italy)
h. 16.10 Discussion

ROOM S. LUCIA - PARALLEL SESSION #15

- 14.30 – 16.30 **CASE REPORTS**
Chairmen: Ferdinando Aliberti (Italy), Oreste de Divitiis (Italy)
- h. 14.30 Radiological evaluation of lumbar or thoracic trauma cases in young amateur footballers
Nikolaos Syrmos, Argyrios Mylonas, Georgios Gavridakis (Greece)
- h. 14.40 Post-traumatic acute myelopathy in giant calcified thoracic disc herniation: surgical approach and outcome considerations
Giuliano Maselli, Corrado Lucantoni, Danilo Lucantoni (Italy)
- h. 14.50 Vertex extradural hematomas: when to operate? Case report and literature review
Muhammad Azzam, Yunus Kuntawi Aji, Matteo Rasi, Tedy Apriawan, Abdul Hafid Bajamal (Indonesia)
- h. 15.00 Postoperative bilateral blindness in a 38 years old woman with post-traumatic chronic subdural hematoma: a case report
Riccardo Stanzani, Elisa Moriconi, Giorgio Casoli, Stavros Dimitriadis, Luc Mirabeau, Djoumessi Tiotsia, Giacomo Pavesi (Italy)
- h. 15.10 Asymptomatic vasospasm due to traumatic subarachnoid hemorrhage: a case report
Fitra Fitra, Tedy Apriawan, Nur Setiawan Suroto, Asra Al-fauzi, Abdul Hafid Bajamal (Indonesia)



- h. 15.20** Post-traumatic cavernous carotid fistula: about two cases
Fernand Imoumy, Hicham Sehli (Morocco)
- h. 15.30** Penetrating injury after gunshot: a case report and literature review
Christos Tsitsipanis, Ioannis Tsoukaras, Ioanna Papadimitriou, Dimitrios Karabetos, Panagiotis Simos, Antonios Vakis (Greece)
- h. 15.40** Immediate development of a contralateral acute delayed epidural hematoma evacuation: case report and literature review
Fabrizio Gregori, Giorgio Santoro, Cristina Mancarella, Manolo Piccirilli, Maurizio Domenicucci (Italy)
- h. 15.50** Sphenoid Sinus cerebrospinal fluid rhinorrhea
Maryam Jalessi, Mohammad Farhadi, Amin Jahanbakhshi (Iran)
- h. 16.00** Discussion

h. 14.30 – 16.30

POSTER SESSION #4 – EXHIBITION HALL

Chairmen: Antonio Bocchetti (Italy), Rossella Rispoli (Italy)

Hydroxiapatite cranioplasty: a significant improvement in patients with sinking flap syndrome

Francesco Franchina, Maria Cristina Lombardo, Giuseppe La Fata, Silvana Tumbiolo (Italy)

The decompressive craniectomy: use, complications and benefits

Danilo De Paulis, Alberto De Bellis, Francesco Rolando, Mario Muscari Tomajoli, Ettore Sannino, Vania Moriello, Marisa Gentile, Pasqualino De Marinis (Italy)

Poli-compartmental syndrome in severe multiple trauma: should the multi-compartmental monitoring include the brain?

Luigino Tosatto, Francesco Del Corso, Iliaria Minghetti, Ferdinando Avolio, Beatrice Benini, Emiliano Gamberini, Costanza Martino, Vanni Agnoletti (Italy)

Surgical positioning for CVJ

Claudio Schonauer, Enrico Tessitore, Rosario Barbato, Raffaele De Falco (Italy)

Prognostic value of neurophysiological evaluation in severe traumatic brain injury

Camillo Foresti, Rosalia Zangari, Paolo Gritti, Francesco Ferri, Francesco Biroli (Italy)

Talk-and-die: neuroworsening never gets anecdotal

Laura Lippa, Giacomo Tiezzi, Barbara Batani, Giuseppe Oliveri (Italy)

Risk Factors of in-hospital mortality in traumatic brain injury patients with or without polytrauma

Alberto Cadisco, Rosalia Zangari, Paolo Gritti, Davide Corbella, Francesco Biroli, Fabio Martorana, Marialuigia Dello Russo, Svetlana Martchenko, Maurizio Passoni, Cristina Pulinetti, Mariachiara Re, Lucia Zacchetti, Francesco Ferri, Ferdinando Luca Lorini (Italy)

Optic nerve sheath diameter ultrasonography for the assessment and prediction of intracranial hypertension in traumatic brain injured patients - a prospective observational study

Chiara Robba, Arianna Iachi, Joseph Donnelly, Danilo Cardim, Tamara Tajsic, Manuel Cabeleira, Peter Smielewski, Peter Hutchinson, David Menon, Marek Czosnyka (Italy)

Prospective observational study on outcome of patients with moderate/severe traumatic brain injury (TBI-PRO): a monocentric experience

Paolo Gritti, Rosalia Zangari, Luca Giovanni Longhi, Cristina Agostinis, Camillo Foresti, Stefano Magnone, Matteo Giuseppe Felice Vascello, Isabella Pellicoli,

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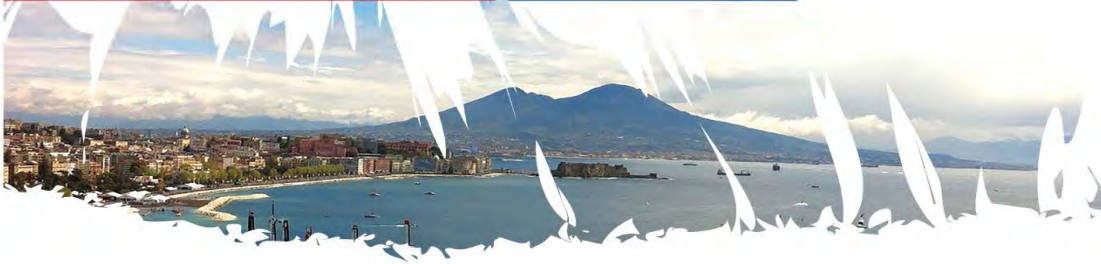
Honorary President

Franco Servadei *(Italy)*

Congress Chairmen

Paolo Cappabianca *(Italy)*

Corrado Iaccarino *(Italy)*



Alberto Cadisco, Luigi Alberto Andrea Lanterna, Francesco Ferri, Francesco Biroli (Italy)

Occipital and posterior cranial fossa epidural hematoma associated with skull fractures involving the transverse sinus

Giacomo Tiezzi, Francesco Iacoangeli, Anna Vaiano, Laura Lippa, Davide Luglietto, Ludovica Cellini, Barbara Batani, Giuseppe Oliveri (Italy)

Effect of antiplatelet therapy on long term outcome after traumatic brain injury

Cristina Mietto, Alessandra Lombardo, Valentina Salice, Valentina Cordolcini, Paola Fassini, Francesca Miriano, Danilo Radrizzani (Italy)

Complex cranio-maxillofacial gunshot trauma: surgical treatment and reconstruction

Anna Vaiano, Ludovica Cellini, Davide Luglietto, Francesco Iacoangeli, Giacomo Tiezzi, Laura Lippa, Giuseppe Oliveri, Barbara Batani, Giovanni Di Pietro (Italy)

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CONSENSUS CONFERENCE ON POST-TRAUMATIC CRANIOPLASTY

June 21, 2018

h. 14.30 – 16.30 Consensus Conference Experts' groups

ROOM CAPUANA - Indications & Technique

ROOM S. ELMO - Material

ROOM ANGIOINA - Timing

ROOM BORBONICA - Hydrocephalus

ROOM GIARDINO - Pediatrics

h. 16.30 – 19.30 *ROOM S. LUCIA*

h. 16.30 – 18.00 **Consensus Conference - Preparing statement for voting online**

h. 18.30 – 19.30 **Consensus Conference Experts' Voting System**