

1st WFNS INTERNATIONAL GLOBAL NEUROSURGERY CONFERENCE
PESHAWAR, PAKISTAN
23rd – 25th February 2024

Report By Prof. Tariq Khan et al., Northwest School of Medicine (NWSM)

OVERVIEW

The 1st WFNS INTERNATIONAL GLOBAL NEUROSURGERY CONFERENCE commenced on February 23, 2024, in Peshawar, Pakistan. This ground-breaking event broadcasted an insightful scientific program, featuring seminars, workshops and courses, different plenary sessions, multiple scientific sessions, and discussions led by esteemed neurosurgical experts from around the globe. The conference proceedings were live telecasted on Neurosurgery TV.

PRE-CONFERENCE SEMINARS AND WORKSHOPS/COURSES

The day began with a public awareness seminar on prevention of neurotrauma held at Northwest School of Medicine (NWSM). Prof. Tariq Khan, Prof. Gail Rosseau, Prof. Franco Servadei, and Prof. Hamishi Shabani addressed critical aspects of neurotrauma prevention. The seminar included a head injury patient addressing the public, followed by expert personnel from the Rescue 1122 and the Traffic Police.

A roundtable meeting on the "Decolonization of Neurosurgery" was also held at NWSM, moderated by Franco Servadei and Gail Rosseau, and addressed by Ernest Barthelemy, Mario Ganau and Beverly Cheserem. The discussion explored decolonization, from defining the concept to exploring lived experiences and addressing post-colonial realities in Asia, Pan-Africanism and Anglophone/Francophone/Lusophone dialogues.

In the afternoon, public awareness seminar on the "Prevention of Spina Bifida and Folate Fortification" was held Prof. Sidra Jabbar, Dr. Pir Asad Aziz, Prof. Gail Rosseau and Prof. Kemel Ghotme shared valuable insights on preventing spina bifida. The remarkable aspect of the session was a parent addressing the public narrating their struggle and ordeal of living with a spina bifida child. The session concluded with closing remarks by Prof. Tariq Khan.



PARALLEL COURSES AND WORKSHOPS

The conference drew participation from a diverse audience of 800 professionals, with 150 in-training participants.

February 23, 2024:

Global Neuro-Nursing: The course took place at Northwest School of Medicine. The course featured lectures on various aspects of neurological surgery nursing, and an expert panel discussed the future of unified neurosurgical care. Presenters included Jenny Sacree, Alvina

Amin, M. Shahzad Shamim, Fozia Aftab, and Anum Moiz, attracting targeted participants like nurses, neuro-RN, physicians, and critical care nurses.

Neuromonitoring: The workshop at the Northwest School of Medicine covered intracranial pressure, cerebral compliance, and other monitoring techniques. The event included lectures, hands-on training, and practical demonstrations for neurosurgeons, residents, and critical care unit nurses. Presenters included Prof. Randall Chestnut, Prof. Naveed Ashraf, Prof. Robert J. Dempsey, Prof. Syed Shahzad Hussain, and Dr. Kashif Sultan.

Advances in Neuro-Oncology Workshop: This workshop at Rehman Medical Institute covered many topics, including brain tumor surgical planning, awake craniotomy, and stereotactic neurosurgery. The event, directed by Prof. Syed Ather Enam and Dr. Naveed Zaman, provided valuable insights for neurosurgeons and professionals interested in neuro-oncology advancements.

Dorsolumbar/Iliac Fixation & Osteotomy Techniques Workshop: This workshop at Khyber Medical College focused on hands-on training with cadavers, emphasizing techniques such as dorsal and lumbar transpedicular fixation, iliac screws, osteotomies, and deformity corrections. Directed by Prof. Salman Sharif, Prof. Joachim Ortel, and Prof. Shahid Ayub, the workshop attracted neurosurgeons and residents seeking practical expertise.

Hands-On Endoscopic Skull Base Workshop: This workshop at Ali Institute of Neurosciences, aimed to enhance skills in endoscopic skull base surgery. Directed by Prof. Mumtaz Ali and Prof. Lal Rehman, the workshop featured academic discussions and live surgery demonstrations, attracting neurosurgeons and healthcare professionals.

Neurorehabilitation Workshop: Conducted on February 25, 2024, at Northwest School of Medicine, this workshop explored neurorehabilitation strategies, community health, and interdisciplinary collaboration. With presenters like Maximillian Mehdorn and Shahzad Shamim, the event catered to neurosurgeons, physicians, physical therapists, rehabilitation personnel, and community health workers. Sponsored by the Gisela Hagemann Foundation, it aimed to advance neurosurgical care in the field of neurorehabilitation.



CONFERENCE DAY – 1: 24th FEBRUARY 2024

The 1st International WFNS Global Neurosurgery Conference in Peshawar marked its commencement with a grand inauguration ceremony with Prof. Tariq Khan, the Conference Chair, sharing his vision.

In the Plenary Session on the Global Neurosurgery Committee (GNC), chaired by Kenan Arnautovic, Gail Rosseau, Walt Johnson, Robert Dempsey, and Franco Servadei, distinguished speakers explored the evolution and challenges in global neurosurgery. Notable figures like Abdeslam El Khamlichi, Franco Servadei, Alistair Jenkins, and Salman Sharif contributed valuable insights into the development of global neurosurgery.

The Plenary Session on Neurotrauma and Rehabilitation, chaired by Corrado Iaccarino, Lynne Lucena, Mehmood Qureshi, Kee Park, Naveed Ashraf, and Maximillian Mehdorn, discussed unmet neurotrauma needs, comprehensive policy recommendations, TBI research output, and collaboration between high- and low-middle-income countries.

Scientific Session 1 featured parallel discussions on Neurotrauma and Rehabilitation, and Neuro-oncology/Miscellaneous. CREVICE Protocol for TBI management to initiatives in LMICs, giant pituitary macroadenoma, hydrostatic features of ICP, endoscopic brain tumor surgery, and clinical outcomes in awake and general anesthesia craniotomy were discussed.

Plenary Session on Spine, chaired by Nikolay Peev and Gushcha Artem, with Joachim Oertel, Salman Sharif, Nikolay Peev, and Zan Chen addressed acute spinal cord injuries, outcomes, injection techniques, and the prevention of chronic back pain.

The Plenary Session on Pediatrics & Congenital Anomalies, chaired by Graham Fieggen, Miroslav Vukic, and Abdessalam Khamlichi, covered pediatric neurosurgery topics. Discussions ranged from national guidelines for neonates with spinal issues to updates on the BELA-TRIPP Pediatric RCT, pediatric functional neurosurgery, and the management of spina bifida.

Scientific Session 2 focussed on Neuro-oncology/Miscellaneous and Vascular/Stroke and ICH. Ethical considerations in gene therapy, complex brain tumor management, genomic scalpels for brain tumor therapy, complications in cerebral bypass surgery, establishing endovascular services in Pakistan, and the ethics of gene therapy advocacy were explored.

CONFERENCE DAY – 2: 25th FEBRUARY 2024

The second day explored topics of neuro-oncology, chaired by Igor Trifonov, Lal Rehman, and William Couldwell. Policy recommendations, epilepsy surgery programs, and the judicious use of radiosurgery were explored by Kee Park, Raheel Ahmed. A panel discussion moderated by Ather Enam discussed brain tumor management.

The Plenary Session on Global Neurosurgery, chaired by Randall M. Chesnut, Rashid Jooma, and Khaleeq Uz Zaman, featured discussions on neurotechnology ethics, stroke updates in developing worlds, and the global perspective on neurosurgical training by Graham Fieggen, Walt Johnson, and Tariq Salahuddin.

Neurotrauma Session 2, chaired by Ahmed Ali Shah, Tariq Salahuddin, and Sirajeddin Belkhair, focused on neurotrauma outcomes, traumatic brain injury, and the increasing impact of trauma on morbidity and mortality.

Scientific Session 3, chaired by Imad Talahma and Riaz Ahmed Raja, discussed advancements in spine-related topics, such as posterior wiring for C2 fractures and challenges in establishing spine trauma care in LMICs.

Chaired by Muhammad Nadeem and Muhammad Jaweed, the neuro-oncology session covered AI in Glioma Management and surgical approaches for pineal lesions. Strategies for vision preservation in parasellar tumors and brain tumor guidelines from the GNO supplement were discussed.

In the spine/miscellaneous session, chaired by Russell Andrews, Corrado Iaccarino, and Naveed Ashraf, topics spanned neurosurgery and spinal care. The session included discussions on the trans-sinusal frontal approach, the prevalence of delayed cerebrospinal fluid leaks, Vagus Nerve Stimulation, and efforts in establishing neurosurgery societies in the Philippines.

Chaired by Yvan Zunon-Kipre and Shams Raza Brohi, the neurotrauma/miscellaneous session covered structural violence in neurotrauma, task sharing, surgical treatment of ruptured dural arteriovenous fistula and lumbar surgery under regional anesthesia in developing countries.

Scientific Session 4, focused on capacity building in neurosurgery in LMICs, featured Mahmood Qureshi's holistic model, Russell J. Andrews on global neurosurgery challenges, Laura Lippa on prehospital care impact on TBI care, and Ahmed Fawad on the current state of neurosurgery in Afghanistan.

Chaired by Mario Ganau, Ernest Barthelemy, and Attique Ahmed, the miscellaneous session covered topics such as open surgery in the era of AI, low-cost spinal fusion, MMA embolization, and photodynamic therapy of malignant tumors.

Scientific Session 5, chaired by Nadeem Akhtar, Abdul Hameed, and Bulent DUZ, delved into paediatrics and congenital anomalies. Topics included surgical outcomes in drug-resistant epilepsy, cerebral endoscopy techniques, neural tube defect impact in sub-Saharan Africa, and building an epilepsy surgery service.

The Plenary Session on Neurotrauma and Peripheral Nerves, chaired by Debora Gorozzo, Lukas Rasulic, and Damien Kuffler, covered brachial plexus palsies, redo surgery in peripheral nerves, nerve injuries of the lower limb, and a novel technique for restoring peripheral nerve function. Addressing the crucial intersection of public health and neurosurgery, Prof. Tariq Khan shed light on the concept of recognizing neurotrauma as a notifiable condition worldwide.

Professor Najia's video message for the conference was televised for the audience. She talked about the importance of the Global Neurosurgery Committee and this conference and was widely appreciated. Then Kenan Arnautovic spoke briefly appreciating the organisers and the speakers for the great content of the scientific program.

The conference concluded with a Plenary Session on the Future of Global Neurosurgery, featuring a panel moderated by Kee Park and including Franco Servadei, Walt Johnson, Robert Dempsey, Gail Rosseau, and Tariq Khan. The future trajectory, challenges, and innovations in global neurosurgery were discussed.

A heartfelt tribute to Prof. Franco Servadei, presented by Najia al Ebadi, Keenan Arnautovic, Gail Rosseau, and Kee Park, celebrated his exemplary contributions to neurosurgery. The conference ended with a vote of thanks by Dr. Naveed Zaman.



Link to the Full Conference Report: https://www.nwgh.pk/wp-content/uploads/2024/02/WFNS-1st-Global-Neurosurgery_Peshawar_CONFERENCE-REPORT_23-25_FEB_2024.pdf