## ISNACC/Conference/Meeting Report

# Report of the 44th Annual Meeting of Society for Neuroscience in Anaesthesiology and Critical Care

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The 44<sup>th</sup> Annual Meeting of Society for Neuroscience in Anaesthesiology and Critical Care (SNACC) was held on 20 and 21 October, at the InterContinental Chicago Magnificent Mile, Illinois, located at the Midwest venue on Lake Michigan giving us a glimpse of the windy city of Chicago with its skyline skyscrapers.

The Program Planning Committee was led by Dr. Jeff Pasternak, currently Associate Professor of Anesthesiology, Mayo Clinic in Rochester, MN who had succeeded in creating a program that was interesting for both clinicians and neuroscientists. The key highlights of the first day of the annual meeting were the Emergency Neurological Life Support (ENLS) workshop, SNACC hands-on airway workshop and two mini-symposiums on traumatic brain injury (TBI).

The morning session on Thursday, October 20 began with ENLS Workshop from 12 to 5 p.m. with certification in ENLS led by Dr. Ienes Koerner, Dr. Abhijit Lele and Dr. Micheal L. James which has a key objective of evidence-based and protocolised management of patients with acute and critical neurologic injuries. It was accompanied by hands-on airway workshop from 1 to 5 p.m. led by Dr. Lauren C. Berkow (Associate Professor for the Division of Neuroanesthesia and Director of Anesthesia Supplies and Equipment, past board of Director of Airway Education at Johns Hopkins) and Dr. Rafi Avistan (Associate Professor of

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Anesthesiology at Cleveland Clinic Lerner College of Medicine, Cleveland, Ohio, Secretary and Treasurer of the SNACC, with academic interest is mostly in brain tumours, anaesthetic methods for seizure surgery, brain protection and outcomes of spine surgery as well as difficult airway management). The workshop was specific to considerations in airway management in neurosurgical and cervical spine patients. They also reviewed strategies to manage elective and emergent airway scenarios in the neurosurgical patient, and a variety of airway devices to facilitate airway management in neurosurgical patients.

The first academic session included two mini-symposiums on 'Neuroinflammation following traumatic brain injury' and 'Update on traumatic brain injury' chaired by Dr. Kristin R. Engelhard (Professor, Department of Anesthesiology, University Medical Center, Johannes) and Dr. Jeffrey Pasternak (Associate Professor of Anaesthesiology, Mayo Clinic, Rochester) from 1 to 5 p.m. The session began with Dr. Dorian McGavern (Senior Investigator, National Institutes of Health (NIH), National Institute of Neurological Disorders and Stroke (NINDS), Bethesda, with special interest in molecular neuroscience and immune responses in acute and persistent infection of central nervous system and TBI) taking about 'Consequences of Inflammations Following TBI'. Next, Dr. Sergio Thal (Clinical Associate Professor, Medicine, CWRU School of Medicine) spoke on the role of corticosteroids in TBI. The session ended with Dr. Alan I. Faden (Director, Center for Shock, Trauma and Anesthesiology Research, present research focusses on the pathobiology and treatment of traumatic brain and spinal cord injuries, mechanisms of cell death, neuroinflammation, central pain and drug discovery) talking about 'Nonsteroidal Therapeutic Targets in TBI'.

The second clinical session on 'Update on traumatic brain injury' began with Dr. Julian Bales (Chairman of the Department of Neurosurgery and Co-director of the NorthShore Neurological Institute, special areas of interest include sports-related brain concussion and chronic traumatic encephalopathy) talking about 'Sports Related TBI'. Dr. Deepak Sharma (Professor of Anesthesiology and Pain Medicine and Neurological Surgery, Division Chief of Neuroanesthesiology and Perioperative Neurosciences, Program Director, Neuroanesthesiology Fellowship, Neuroanesthesiology Education Director, University of Washington, Seattle) next spoke on 'Intraoperative Strategies That Can Improve Outcome'. The clinical academic session was finally concluded by Professor Martin Smith (Consultant and Honorary Professor in Neuroanaesthesia and Neurocritical Care

NHNN, University College London Hospitals, Past President of SNACC and Neuroanaesthesia Society of Great Britain and Ireland, key areas of research include development and application of novel optical methods and multimodality monitoring for the injured brain) talking about 'Beyond the Bolt - The Role of Multimodal Monitoring in TBI'. The talk gave an insight into the evidence-based strategies in the care of the patients of TBI.

At the same time, around there was a career development workshop led by Dr. William M. Armstead (Research Professor of Anesthesiology and Critical Care, Member Institute of Neurological Sciences, University of Pennsylvania, Member Cardiovascular Institute, University of Pennsylvania with research interests in control of cerebral haemodynamics during physiologic and pathologic conditions) and Dr. Chanannait Paisansathan (Associate Professor of Anaesthesiology, University of Illinois at Chicago, with interest in identifying molecular targets for brain protection in acute stroke and subarachnoid haemorrhage) focussing on how to craft a successful grant proposal. Dr. Patrick S. F. Bellgowan (Program Director NIH/NINDS, Bethesda) gave a talk on NIH funding opportunities and challenges. This was followed by an interactive panel discussion by Dr. William M. Armstead, Dr. Patrick S. F. Bellgowan, Dr. Michael M. Todd (Professor Emeritus, University of Iowa, Principal Investigator of Intraoperative Hypothermia for Aneurysm Surgery trial) and Dr. Monica S. Vavilala (Professor and Vice Chair Clinical Research, Anesthesiology and Pain Medicine, Professor, Pediatrics, Anesthesiology and Pain Medicine). The experts discussed developing a formal technique to critically assess specific aims for research proposal and how to enhance research grant proposals.

Thursday evening ended with a traditional dinner symposium providing an excellent opportunity to catch up with old friends and interact with the eminent personalities in the field of neurosciences. The welcome note was addressed by Dr. W. Andrew Kofke (Professor of Anesthesiology and Critical Care at the Hospital of the University of Pennsylvania). The sumptuous dinner was accompanied with an academic feast while discussing current developments in epilepsy and epilepsy surgery, organised by Dr. Rafi Avitsian.

The second and final day of the annual symposium i.e., 21 October began with a delectable continental breakfast which was followed by the Maurice Albin Keynote Lecture on 'Novel applications for Optical-based Brain monitoring technologies' given by Dr. Clare Elwell (Professor of Medical Physics and Director of Near Infrared Spectroscopy Group, Biomedical Optics Research Laboratory University College, London). The lecture

was followed by a mini-symposium on 'Anesthetic Neurotoxicity in Kids - Update on the Evidence' chaired by Dr. Sulpicio G. Soriano. Ansgar Brambrink (Professor of Anaesthesiology and Perioperative Medicine at Oregon Health and Science University, Portland, with an active interest in preconditioning, neuronal regeneration and plasticity following ischaemic stroke) presented the preclinical data that were undertaken in neonatal rats, chick embryos and non-human primates showing neuronal degeneration, growth inhibition and loss of synapses. The two speakers: Dr. Lena S. Sun (Chief of Division of Pediatric Anesthesiology at Columbia University Medical Center) and Dr. Andrew Davidson (Medical Director of the Melbourne Children's Trials Centre) spoke on Pediatric anaesthesia neurodevelopment assessment (PANDA) and General Anaesthesia study (GAS) trials while 'Future Data and Future Directions' was presented by Dr. David O. Warner (Professor, Mayo Clinic, Rochester, interests include outcomes after anaesthesia, tobacco control in surgical patients, effects of anaesthesia and surgery on the development of children's brains).

The proceedings were then followed by a coffee break and finally the much awaited poster session. A total of 120 posters were presented in the morning and the evening session. Members of the Indian Society of Neuroanaesthesiology and Critical Care who presented their work were Dr. Himanshu Prabhakar (effect of nitrous oxide on bispectral index values at equi-minimum alveolar concentration of sevoflurane and desflurane; A comparative study between intra-operative low-dose ketamine and dexmedetomidine, as anaesthetic adjuvant in lumbar spine instrumentation surgery for post-operative analgesia requirement), Dr. Surya K. Dube (incidence and predictors of post-operative pulmonary complications in patients undergoing craniotomy and excision of posterior fossa tumours), Dr. R. Mishra (comparison of full outline of unresponsiveness score and the conventional scores in predicting outcome in aneurysmal subarachnoid haemorrhage patients), Dr. Gourav Tomar (mechanical chest physiotherapy technique is superior to manual percussion method in TBI patients on ventilator: A crossover trial) from All India Institute of Medical Sciences, New Delhi, Dr. Sonia Kapil (comparison of 'No Touch' technique with conventional technique for extubation to assess the quality of emergence in patients undergoing transsphenoidal pituitary surgery) from Postgraduate Institute of Medical Education and Research, Chandigarh, Dr. Renu Bala (validity of ultrasonographic measurement of optic nerve sheath diameter for detecting raised intracranial pressure in the Intensive Care Unit patient) from PGI, Rohtak and Dr. Saikat Mitra (post-operative analgesia after wound infiltration with tramadol and dexmedetomidine as

an adjuvant to ropivacaine for lumbar discectomies: A randomised controlled clinical trial) from SMS, Jaipur.

During the subsequent business lunch annual, SNACC awards were presented. Dr. Markus Luedi (Bern University Hospital, Switzerland) was awarded the John D. Michenfelder Award for his study on 'A Dexamethasone-regulated Gene Signature is Prognostic for Poor Survival in Glioblastoma Patients' and the prestigious teacher if the year award was given to Dr. Pirjo H. Manninen (Associate Professor, Department of Anesthesia, University of Toronto). The special lunch session includes 'Neuroanesthesiology Topics Review' for trainees by Dr. Chanannait Paisansathan and Dr. Jeffrey J. Pasternak. The second mini-symposium was dedicated to the topic of 'Novel Developments in Neuropharmacology' moderated by Dr. Dhanesh Gupta. The two speakers - Dr. Arvind Palanisamy (Associate Director, Division of Obstetric Anesthesia, Brigham and Women's Hospital) and Dr. James W. Sleigh spoke on the role of magnesium and ketamine in neuroprotection. Dr. Ken Solt (Associate Professor of Anaesthesia, Harvard Medical School) presented 'General Anesthesia Reversal with Methylphenidate'. The Third mini-symposium was an interesting clinically oriented discussion on clinical curveballs in neuroanaesthesia and involved electronic audience participation. Finally, the closing remarks were given by Dr. W. Andrew Kofke, and the event came to an end with wine and cheese reception. The 2 days academic feast thus came to an end with renewed knowledge and learning.

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### Conflicts of interest

There are no conflicts of interest.

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