Report of 43rd Annual Meeting of Society for Neuroscience in Anesthesiology and Critical Care

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The beautiful city of San Diego, California, hosted the 43rd Society for Neuroscience in Anesthesiology and Critical Care (SNACC) annual meeting at the Manchester Grand Hyatt hotel on 22nd and 23rd of October 2015. The venue was near the harbour and offered a scenic view of the ocean, docked yachts and ships and flying seagulls which radiated tranquillity.

This year’s meeting was organised by George Alexander Mashour M.D, Ph.D., currently Professor of Anaesthesiology at University of Michigan known for his work on mechanisms of consciousness during anaesthesia and sleep. On 22nd following the board of directors meeting, the afternoon session started with three parallel symposiums.

The first of this was a mentoring session chaired by 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) labelled as ‘getting ready for tomorrow - transition from training to practice’ took place between 12:00 noon and 5:00 pm. The session started with honouring women engaged in field of neuroanaesthesia. Then, it focused on one of the less discussed topic of how to plan after residency (by Lauryn Renee Rochlen, Clinical Lecturer, University of Michigan, Ann Arbor), academic mentoring by Dr. Martin Smith (Director of Surgical Intensive Therapy Unit, Tavistock Neurosurgical and Neurocritical Care, University College London Hospitals, Past President of SNACC and Neuroanaesthesia Society of Great Britain and Ireland, with interest in vascular brain injury and non-neurological complications of brain injury), how to wade through the difficult deadline oriented issue of publications for time bound promotions (by David S. Warner, Chief Division of Basic Science, Duke University School of Medicine) and ending the session with how to maintain a harmony between personal and professional life while enjoying the academic flavour associated by Dr. Kathryn K. Lauer (Professor of Anaesthesiology at Froedtert Hospital, West Wisconsin, Milwaukee). The idea of the session was to put in place a working model and inspiration for producing SNACC leaders for the future.

The first academic symposium for clinical care started in parallel to the mentoring session around 1:00 pm. The moderator of the session was Irene Osborn (Division Director for the Department of Anaesthesiology Neuroanaesthesia Division, Icahn School of Medicine at Mount Sinai with expertise in airway management) and it centred on chronic pain in the neurosurgical patients and the current problems and trends in management. This engaging session started with Dr. Chad M. Brummett (Assistant Professor of Anaesthesiology, University of Michigan, Ann Arbor, with special interest in complex regional pain syndrome, spinal pain and post-surgical pain) taking about fibromyalgia and spinal phenotype and scoring systems to delineate into categories for treatment purpose. Next, Dr. Irene Osborn delivered on awake craniotomy and scalp blocks enumerating her own experience even to the extent of using blocks on herself to get the stereotactic head frame attached to her head. The final talk of the clinical care symposium was delivered by Paul E. Hiliard (Assistant Professor of Anaesthesiology and Pain Management, University of Michigan with special areas of interest in ambulatory anaesthesia, nerve blocks and acute or chronic pain management) on high dose opioid exposure and methods of tapering the same with his personal experience in pain clinic. The interventions can be applied throughout the perioperative period.

At the same time, around there was a symposium on basic science drawing attention to anaesthesia induced neurotoxicity in young and elderly patients which is one of the most debated about topic in our field. The moderator was Deborah C. Culley (Associate Professor of Anaesthesia, Brigham and Women’s Hospital Harvard Medical School, with interest and research in perioperative cognitive function and anaesthesia induced neurotoxicity) the current SNACC president.
The introduction to basic physiology of neurotoxicity and neuronal damage was well presented by Dr. Piyush Patel (Professor of Anaesthesiology, UC San Diego School of Medicine, California), especially RhoA activation, actin depolymerisation and collapse of neuronal growth cones leading to loss of synapses. The pre-clinical studies on anaesthetic neurotoxicity was presented by Ansgar Brambrink (Professor of Anaesthesiology and Perioperative Medicine at Oregon Health and Science University, Portland, with active interest in pre-conditioning, neuronal regeneration and plasticity following ischemic stroke) that was undertaken in neonatal rats, chick embryos and non-human primates showing neuronal degeneration, growth inhibition and loss of synapses. The clinical studies were presented by Barbara Sinner (Vice-chair, Department of Anaesthesiology, University of Regensburg, Germany, with interest in anaesthesia induced neurotoxicity especially in paediatric population) where she described how pre-clinical studies did not necessarily translate into clinical studies (limited in being retrospective) due to difference in timing of development of brain, frequency, duration and dosage of exposure. The results of the general anaesthesia spinal, mayo anaesthesia safety in kids and paediatric anaesthesia neuro-development assessment trials will further shed light on the issue. This was followed by an interactive question and answer session where the experts quelled doubts regarding neurotoxicity. The final dinner symposium was preceded by the welcome address by Deborah Culley and the introduction to the session was made by Martin Smith. Along with the delicious dinner, the delegates were explained about the basics and advances in multimodal monitoring of brain. The brain tissue oxygen monitoring by Peter Le Roux (Neurosurgeon at Brain and Spine Center at Lankenau Medical Center, Pennsylvania), cerebral microdialysis by Claudia Robertson (Professor, Neurosurgery, Baylor College of Medicine, Houston, Texas, and has done pioneering work in cerebral perfusion pressure in traumatic brain injury) and, finally, use of near infra-red technology for monitoring the brain by Andrew Kofke (Professor of Anaesthesiology and Critical Care at the Hospital of the University of Pennsylvania).

On the final day, i.e., on 23rd October, the morning began with a delectable continental breakfast followed by the welcome address by the president Deborah Culley. In 2014, the Maurice Albin keynote lecture was started and was taken up again in 2015 with the topic being ‘consciousness and anaesthesia’ delivered by Michael T. Alkire (Associate Professor of Anaesthesiology, School of Medicine B.S., University of Oregon). This is followed by the first mini-symposium on ‘Neurological complications in perioperative period’ the importance of which cannot be more stressed upon. This was presented by three presenters: Laurel Moore, Jacqueline Leung and Lori Lee about peri-operative stroke, post-operative delirium and visual loss, respectively. The practical aspects and preventive measures were discussed to the benefit of residents and practitioners.

The much-awaited poster presentation started from 10:45 am to 12 noon. Members of the ISNACC who presented their work were Dr. Mihir Prakash Pandia (Perioperative Factors and Complications in Elderly Patients Undergoing Intracranial Surgery), Dr. Hemanshu Prabhakar (Inhalation versus Intravenous Technique for Rapid Emergence from Anaesthesia in Patients Undergoing Brain Tumour Surgery), Dr. Sujoy Banik (Intracranial Pressure Monitoring in Children with Severe Traumatic Brain Injury), Dr. Ranadhir Mitra (Factors Affecting the Outcome of Patients Undergoing Surgery for Craniohypophyngioma), Dr. Vikas Chauhan (Anesthetic Management of Children with Traumatic Brain Injury; A Retrospective Study) from All India Institute of Medical Sciences, New Delhi, Dr. Seelora Sahu (Optic Nerve Sheath Diameter Measured by Ultrasonomography is an Accurate Alternative to that Measured by Magnetic Resonance Imaging”), Dr. Amlan Swain (“A Cinfluoroscopic Assessment of Cervical Spine Motion During Orotracheal Intubation: ILMA Guided Flexible Bronchoscopic Intubation versus Video Laryngoscopy”) and Dr. Kiran Jangra (“Study of Pattern of Perioperative ECG and Echocardiographic Changes in the Patients with Aneurysmal Subarachnoid Hemorrhage”) from PGI, Chandigarh.

This subsequent business lunch session saw William Armstead awarding of the Michenfelder Award to Nan Lin (from Beijing Tiantan Hospital, Beijing, China) for her paper, ‘Mild Sedation Exacerbates or Unmasks Focal Neurologic Function in Neurosurgical Patients with Supratentorial Brain Mass Lesion in a Drug Specific Manner.’ This only served to underline the importance that this meeting of the society pays to perioperative complications such as cognitive dysfunction.

The second mini-symposium was on ‘the unconscious patient’ chaired by Max Kelz and the speakers David McDonagh, Robert Stevens and Patrick Purdon focusing on clinical approach, neuro-imaging and electroencephalogram in the unconscious patient. This second poster session soon followed it. The third and final mini-symposium was a pro-con debate on ‘perioperative home and neurosurgical patients’ chaired by Gregory Crosby (Associate Professor of Anaesthesia at Harvard Medical School) and Zeev Kain (Professor and Chair Associate Dean for Clinical Operations, University of California) saw a lot of fireworks with people taking sides. The session ended on the note of agreement on preservation of the sub-speciality of neuroanaesthesia for only anaesthesiologists.
After the closing remarks by Deborah Culley, the delegates and the organisers mingled at the wine and cheese reception. This brought us to the end of 43rd annual meeting of SNACC, which saw a wider team of delegates, new members, 119 posters, newly forged friendships, exchange of ideas with the promise of further growth in years to come. As we fly towards Delhi, the cherished memories of beautiful San Diego with its world famous water world, zoo, harbour, most importantly, the gracious and gentle people will stay forever.

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Conflicts of interest
There are no conflicts of interest.