The Department of Neuroanaesthesiology and Critical Care at All India Institute of Medical Sciences (AIIMS) organised the 4th AIIMS Neuroanaesthesia Update 2016 from 30th September to 2nd October 2016 at JLN Auditorium, New Delhi. Prof. A. Chaturvedi and Dr. Girija Prasad Rath were the Organising Chairman and Organising Secretary, respectively, for the event. This year, it was organised for the 4th consecutive year in a row and has now become the annual event. The first Neuroanaesthesia Update was started in 2013 with the aim to provide an innovative and comprehensive overview of the latest research developments in the clinical arena. With well-designed scientific programme and participation of experienced faculty across India and abroad, it has become more and more popular with each passing year. This year, over 190 delegates participated from different parts of the country.

The Neuroanaesthesia Update started at 8.30 am on 30th September 2016, with the two preconference workshops. The first workshop was on neuromonitoring which was coordinated by Dr. Girija Prasad Rath and Dr. Gyaninder Pal Singh (AIIMS, New Delhi). Prof. Mary Abraham (New Delhi) introduced the topic to the participants. It was followed by short lectures and hands-on training on different modalities which included electroencephalography and electrocorticography by Dr. Surya K. Dube and Dr. Keshav Goyal (AIIMS, New Delhi), bispectral index and entropy by Dr. Bhavna Hooda (R & R Hospital, New Delhi) and Dr. Indu Kapoor (AIIMS, New Delhi), neurophysiological monitoring by Dr. Manish Marda (Fortis, Noida) and Dr. Priyanka Gupta (AIIMS, Rishikesh), intracranial pressure (ICP) monitoring by Dr. Varun Jain (Medanta Hospital, Gurgaon) and Dr. Navdeep Sokhal (AIIMS, New Delhi), near infrared spectroscopy and brain tissue oxygen monitoring by Dr. Ankur Luthra (PGIMER, Chandigarh) and Dr. Gyaninder Pal Singh (AIIMS, New Delhi), jugular venous oximetry by Dr. Hemant Bhagat (PGIMER, Chandigarh), optic nerve sheath diameter monitoring by Dr. Renu Bala (PGIMER, Rohtak) and Dr. Niraj Kumar (AIIMS, New Delhi), transcranial Doppler monitoring by Dr. Sujoy Banik (Medanta Hospital, Gurgaon) and Dr. Virendra Jain (Fortis Memorial Research Institute, Gurgaon) and microdialysis by Dr. Charu Mahajan and Dr. Ashish Bindra (AIIMS, New Delhi). The second workshop on ‘Designing a study protocol’ was conducted by Prof. Kameshwar Prasad (Head, Department of Neurology and Chief Neurosciences Centre, AIIMS, New Delhi), and Dr. Keshav Goyal (AIIMS, New Delhi) coordinated it.

The preconference workshops were followed by a formal inauguration ceremony in the evening. The event was presided by the Chief Guest Prof. M. C. Misra (Director, AIIMS, New Delhi). Other dignitaries present on the dais were Guests of Honour Prof. S. S. Saini (Director, Neuroanaesthesia, Paras Hospital, Gurgaon) and Prof. H. H. Dash (Director, Anaesthesia and Pain Management, Fortis Memorial Research Institute, Gurgaon) and Prof. Kameshwar Prasad (Chief, Neurosciences Centre, AIIMS, New Delhi), Prof. A. Chaturvedi (Organising Chairman) and Dr. Girija Prasad Rath (Organising Secretary). The ceremony started with lamp lightening and Saraswati Vandana. The speakers highlighted the growth of Department of Neuroanaesthesia at AIIMS and the contribution to teaching, training and research on this speciality. Dr. Vikas Chauhan (Senior Resident, Neuroanaesthesiology, AIIMS) was awarded the ‘Resident Award’ by the Chief Guest for his outstanding clinical and academic performance during the year. The meeting ended with proposal of vote of thanks by Dr. Girija Prasad Rath (Organising Secretary).

The next day (1st October 2016) began with live demonstration of neurosurgical procedure from the operating room (OR) at 8.30 am. It was coordinated by Dr. Ashish Bindra (AIIMS, New Delhi) from the OR while Dr. Virendra Jain (Fortis Memorial Research Institute, Gurgaon) and Dr. Bhavna Hooda (R and R Hospital, New Delhi) facilitated interactive discussion between the experts in OR and the audience. Management of three cases was relayed from neurosurgery OR which included awake craniotomy, spine surgery and robot-assisted pituitary tumour surgery in the brain suite. A panel of neurosurgeon named Prof. P. S. Chandra, Dr. Sumit Sinha
and Dr. Hitesh Gurjar operated these cases. The panel of experts in the OR was Prof. H. H. Dash (Fortis Memorial Research Institute, Gurgaon), Prof. Sergio D. Bergese (Division Chief, Neuroanaesthesia at Ohio State University, USA) and Prof. G. Parameshwara (Manipal Hospital, Bengaluru). There was active participation from the audience in the discussion on various aspects of management in these patients with another panel of experts (Dr. K. J. Choudhury, Dr. Mary Abraham, Dr. Pragati Ganjoo, New Delhi).

The post-lunch session started with ‘CME in Neuroanaesthesia’ which was chaired by Dr. K. J. Choudhury (Indraprastha Apollo Hospital, New Delhi) and Dr. Amna Goswami (Sr. Consultant, Neuroanaesthesia, Park Clinic, Kolkata). During this session, Dr. Zulfiquar Ali (SKIMS, Srinagar) discussed the ‘Anaesthesia for craniosynostosis repair’, Dr. Prasanna Bidkar (JIPMER, Puducherry) discussed on ‘USG in Neuroanaesthesia and Neurocritical Care’ and Dr. H. H. Venkatesh (Apollo Hospital, Bengaluru) talked on ‘Anaesthesia for aneurysmal clipping: What’s new?’ The subsequent session was on ‘Crisis management in Neuroanaesthesia’. This session was chaired by Prof. L. D. Mishra (BHU, Varanasi) and Dr. Ratan Chelani (PD Hinduja Hospital, Mumbai).

Various speakers discussed how to manage the different crisis situations in neuroanaesthesia such as ‘Increased airway pressure with patient in prone position’ by Dr. M. Srilata (NIMS, Hyderabad), ‘Intra-procedural rupture of aneurysm inside neuroradiological suite’ by Dr. K. Sandhu (Max Super Speciality Hospital, New Delhi), ‘Extubation failure in acromegalic patients with difficult airway and HOCM’ by Prof. V. Bhadrinarayan (NIMHANS, Bengaluru) and ‘Massive blood loss with acute hypotension during excision of intracranial meningioma’ by Prof. D. Padmaja (NIMS, Hyderabad). The last session of the day was on ‘Simulation in Neuroanaesthesia’ which was chaired by Prof. Poonam Mahalotra (Cardiac Anaesthesia, AIIMS, New Delhi). Dr. Sudhindra Kulkarni (Manchester, United Kingdom) and his team elaborated on the role of ‘Simulation-based teaching in neuroanaesthesia’ and demonstrated step-wise management of refractory ICP in the Intensive Care Unit (ICU) with the help of a small skit. It was liked and very well appreciated by the audience. The day ended with Gala dinner and light music.

The 3rd day (2nd November 2016) began with a session on ‘Advances in Neuroanaesthesia and Neurointensive Care’ at 8.30 am. Prof. A. Trikha and Prof. A. Chaturvedi (AIIMS, New Delhi) chaired this session. Three very important topics were discussed by the renowned faculty in the field of neuroanaesthesia. Prof. H. H. Dash (Fortis Memorial Research Institute, Gurgaon) highlighted on ‘Researches in Neuroanaesthesia: Boon or bane?’, Prof. Sergio D. Bergese (Ohio, USA) discussed on ‘Guidelines-based anaesthetic management of ischemic stroke’ while Prof. M. P. Pandia (New Delhi) talked on ‘Bringing evidence-based practice to neurosurgery operating rooms’. This session was followed by a panel discussion on ‘Adherence to guidelines-based care in severe TBI’. The panel of experts included a neuroanaesthesiologist Prof. Rajiv Chawala (GIPMER, New Delhi); a neurointensivist Dr. V. Ponniyah (Global Hospital, Chennai) and a neurosurgeon Dr. Sumit Sinha (AIIMS, New Delhi). The discussion was moderated by Prof. Dilip Kulkarni (NIMS, Hyderabad). This was followed by a session on ‘Practical issues’ in neuroanaesthesia, chaired by Prof. Sobha Purohit (SMS Medical College, Jaipur) and Prof. Aloka Samantaray (SVIMS, Tirupati). Prof. S Manikandan (SCTIMST, Trivandrum) elaborated on ‘Pre-operative investigation for elective neurosurgery: What test to order?’ Prof. Monica Tandon (GIPMER, New Delhi) discussed practical issues in ‘Transfusion practice during elective neurosurgery’ and Dr. M. Radhakrishnan (NIMHANS, Bengaluru) highlighted on ‘Intravenous fluids during neurosurgery: Practical issues’. The last session before lunch was a ‘CME in Neurointensive Care’. Chairpersons for this session were Prof. G. Parameshwara (Manipal Hospital, Bengaluru) and Prof. Pragati Ganjoo (GIPMER, New Delhi). Prof. V. J. Ramesh (NIMHANS, Bengaluru), Dr. V. Ponniyah (Global Hospital, Chennai) and Dr. Tumul Chowdhury (Winnipeg, Canada) discussed on ‘Management of Cerebral vasospasm: Current scenario’, weaning from ventilator in patients with ‘Guillain–Barré syndrome’ and ‘TCR: The fatal attraction between brain and heart’, respectively.

The poster session was commenced during the lunch time where the delegates from different parts of the country presented their research work. Thirty E-posters were presented on three different screens and this session was coordinated by Dr. Shailendra Kumar and Dr. Niraj Kumar (AIIMS, New Delhi). Judges for posters session included Dr. Nidhi Panda (PGIMER, Chandigarh), Dr. Mukul Jain (IHBAS, New Delhi) and Dr. Prasanna Bidkar (JIPMER, Puducherry) for screen I, Prof. V. Bhadrinarayan (NIMHANS, Bengaluru), Dr. Tumul Chowdhury (Winnipeg, Canada) and Dr. Charu Mahajan (AIIMS, New Delhi) for screen II and Prof. Mary Abraham (New Delhi), Prof. H. K. Venkatesh (Bengaluru) and Prof. D. Padmaja (Hyderabad) for screen III, respectively. Three best papers were selected for awards and the awardees were Dr. R. M. Nilima (SCTIMST, Trivandrum), Dr. S. Manikandan (SCTIMST, Trivandrum) and Dr. Vikas Chauhan (AIIMS, New Delhi).

In the post-lunch session, there were two ‘Pros and Cons’ sessions on controversial aspects of neuroanaesthesia and neurocritical care. The first session was chaired by Prof. A. K. Bhatla (AIIMS, New Delhi),
Dr. M. Radhakrishnan (NIMHANS, Bengaluru) and Dr. Arvind Arya (IHBAS, New Delhi). Dr. Jaya Wanchoo (Medanta Hospital, Gurgaon) and Dr. Swagata Tripathy (AIIMS, Bhubaneshwar) spoke in favour and against of ‘Dedicated Neuro-ICU is a necessity for the management of neurologically injured patients’, respectively. Dr. Nidhi Gupta (Indraprastha Hospital, New Delhi) talked for ‘Sedative pre-medications is contraindicated for children posted for elective neurosurgery’ whereas Dr. Vasudha Singhal (Medanta Hospital, Gurgaon) argued against it. ‘CVP line is unnecessary for elective neurosurgery’ was supported by Dr. Ashish Bindra (AIIMS, New Delhi) while Dr. Devendra Gupta (SGPGIMS, Lucknow) refuted it. The second ‘Pros and Cons’ session was chaired by Dr. R. S. Chouhan (AIIMS, New Delhi), Prof. V. J. Ramesh (NIMHANS, Bengaluru) and Dr. Manish Jagia (BLK Hospital, New Delhi). The first topic for debate was ‘Hypertonic saline is better than mannitol for intraoperative brain relaxation’. Dr. Harsh Sapra (Medanta Hospital, Gurgaon) and Dr. Prashant Kumar (PGIMS, Rohtak) spoke in favour and against, respectively. Dr. Saurabh Anand (Artemis Hospital, Gurgaon) and Dr. Kiran Jangra (PGIMER, Chandigarh), respectively, supported and opposed the statement on ‘TIVA is better than volatile agents for maintenance of anaesthesia’. Dr. Rahul Yadav (R & R Hospital, New Delhi) debated in favour of yet another important topic ‘Sitting position is no more relevant during neurosurgery’ whereas Dr. Ajai Chandra (Chandigarh) debated against it.

The meeting concluded with the valedictory function. The winners of the poster session were awarded the first, second, and third prizes for their research work presentation. The delegates shared their experiences about the event and congratulated the organisers for organising a great academic feast. Dr. Girija Prasad Rath (Organising Secretary), on behalf of his team, thanked everyone for their active participation during the conference. The event ended with cheers and applauds for the host and everyone wished to have another great event next year.

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**Conflicts of interest**

There are no conflicts of interest.

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