Synapse.

The official Newsletter of the Indian Society of Neuroanaesthesiology and Critical Care (ISNACC)



February, 2018

TABLE OF CONTENTS

1.	From the Secretarial Desk	3
2.	Presidential Message	6
3.	Message from the Past President	7
4.	Message from the Editor-in-Chief	8
5.	Remembering	9
6.	Report of the 19 th ISNACC Annual Conference	11
7.	Congratulations	20
8.	Conference Report: ENLS ,Indraprastha Apollo Hospitals, New Delhi	28
9.	Conference Report: Jaipur Neuromonitoring Workshop	30
10.	What's New ?	32
11.	Joining the Camp	37
12.	Announcements	38
13.	Office Bearers 2018	40
14.	Future Meetings	41

From the Secretarial Desk

Greetings from the secretariat !!

"To follow in the footsteps of those who are greater than oneself is the crown of one's strengths "

At the outset we would like to thank the past office bearers who have contributed immensely to the growth of our society and completing their tenure .Special thanks to Prof Shobha Purohit for serving as the President and guiding the society and Prof V J Ramesh and Dr M Radhakrishnan for their service as Secretary and treasurer, ISNACC.

Congratulations to our President Prof Shashi Srivastava under whose leadership we will strive to work hard for the continued growth of our society .Congratulations to the incoming President- Elect Dr H K Venkatesh , Vice President Prof Nidhi Panda and all EC members .

ISNACC2018 was a grand success and hearty congratulations to the whole organising committee for making the event a memorable one .

With the current training modules In Neuroanaesthesiology and Neurocritical Care which include the ISNACC PDF courses, DNB and the already established DM and Fellowship courses in various institutes ,the scope for practice of Neuroanaesthesiology and Neurocritical care as a subspecialty is going to expand . There is a pressing need that we create an environment where in health care organisations both public and private sectors recognise the importance of this subspecialty in improving the quality of care delivered and outcome of the patients . This will make way for establishment of Neuroanaesthesiology and Neurocritical care departments , establishment of sub Specialty Neuro ICUs and this will enable the future generation to establish their practice in this subspecialty with ease .

As the scope of practice particularly in Neurocritical care is evolving we are gaining a great opportunity to be a primary care giver rather than to play only a supportive role . Huge differences in patient outcomes are made with Neurocritical Care interventions . The scope of practice outside the OR /ICU is also expanding with we assuming the role Neuro Hospitalist . As team leaders we are in an advantageous position to lead the trauma , stroke and quality services owing to the presence of our team member round the clock in-house and having the knowledge and skills to coordinate and manage acute neurological illness in a timely manner .

Expert consensus statement and guidelines on various conditions to suite our practice are the need of the hour . Multidisciplinary collaborations and task force are essential to achieve this . We will continue and extend collaboration with other societies in the field of Neurosciences , critical care , Anaesthesiology , pain Management , Emergency medicine , ethical and legal bodies to achieve this task .

International Liaison with professional organisations with common interest will be continued and strengthened .

From the Secretarial Desk

"What you have clearly decided to do ,do it without hesitation and delay "

Establishment of educational modules including ISNACC Life support courses, Podcast, Webcast, PBLD and Interactive Clinical Case discussions are the upcoming needs and for this to happen we will be soon rolling out a faculty enrolment program. With out the active participation from member faculty this will not be possible and we request you all to actively participate and make this vision come true. Educational committee has a great task and infusing fresh blood with able senior leadership will no doubt make this task happen.

On more than several occasions it has been proved that the systems of care make a huge difference in outcomes of critically ill neurological patients. To this regard it's essential to train all the support staff involved in the care of critically ill neurological patients. ISNACC Training modules and CME for support staff including nurses are also the upcoming needs and we will have to support such endeavors for our own interest. Kindly encourage all Neurocritical Nurses to become associate members of the society and participate in the annual conference.

With gaining costs in healthcare it is essential we practice cost effective medicine and contribute to affordable health care for most of the needy population to get benefitted.

It's great to see Indian authors from our society contributing and editing text books in the field of Neuroanaesthesiology and Neurocritical care . Hope to see more of them in near future .

ISNACC2019 is going to be held at Gurgaon and no doubt it is going to be a grand event .

Hope you take quality time to spend with family and friends .

"*Listen to Wholesome Counsel however meager ; for out of it springs great good*" We are always open to suggestions and more importantly criticisms. Kindly pen your valuable opinions and thoughts .



V.Ponniah



Prasanna Bidkar

Enroll as ISNACC Member

Anybody who is practicing Neuroanaesthesia, Neurocritical care, or allied disciplines such as Neurosurgery, Neurology, and Neuroradiology can apply for enrollment as life - member of ISNACC.

For Details Visit

www.isnacc.org

Share with us your experiences, achievements, or any other story of success! Send us your entries at: <u>isnaccsecretary@gmail.com</u>

ISNACC SECRETARIAT

Department of Neuroanaesthesiology and Neurocritical Care Instituite of Neurosciences and Spinal Disorders, Gleneagles Global Health City 439, Cheran Nagar, Sholinaganallur-Medavakkam Road, Perumbakkam Chennai -600 100, Tamil Nadu, India Tel: +91 44 44777000 Ext: 1057 . Mobile: +91 8057022757 Email: isnaccsecretary@gmail.com Website: www.isnacc.org

Follow Us on ...

@ISNACCINDIA





@isnacc

Message From the ISNACC President

Dear members

Greetings

First of all , I humbly thank all the members of Indian society of Neuroanaesthesiology and Critical care for the honour bestowed upon me to hold the post of the President of this prestigious society for the year 2018. It gives me immense pleasure and sense of responsibility to serve this society . I express my sincere gratitude to the outgoing president and the executive members for their earnest efforts in upliftment of the society both financially and academically . I assure you that I will continue to encourage and try my best to complete all the tasks that my predecessors have initiated.

It gives me immense pleasure in mentioning that after the glorious 21 years of inception this society has attained a height where now we have international collaboration with apex international societies like SNACC, in which our esteemed faculty members are involved in various capacities. In NACCSGBI our past presidents have been invited to participate in scientific programmes in annual meetings. ISNACC members are regularly bringing laurels to the society by winning awards in their scientific presentations on the international platform.

At the national level, after running successful ISNACC affiliated post doctoral fellowship programme in Neuroanaesthesiology, now we have started fellowships in Neurocritical care in few hospitals which is a big support to all the post MD students who wish to have structured training for a year in these areas. Soon this year, we will have ISNACC accredited Neuroemergencies and Neurological life support course run by our own core faculty.

This year the thrust will be on promotion of research activities of the society by funding more number of research projects. I request members to send their completed projects for publication in JNACC. Need of the hour is to have our own database of brain trauma and other major neurosurgical cases.

Let us all pledge, that we all the members of ISNACC would contribute in the growth of this society by all means, big or small.

Thanks and best wishes Long live ISNACC

Sincerely

Shashi srivastava

Message From the ISNACC Past President

Dear Members,

It is with heartfelt gratitude that I acknowledge all the cooperation, guidance and affection showered throughout my tenure as the President of our esteemed Society. There are so many things that I would like to say and so many people I would like to thank that any sort of speech or mention would be found lacking in its aptness.

First of all I would like to thank God for providing me this opportunity to serve my country's people through such a noble profession. I am also grateful to all the esteemed members of this society for bestowing their faith in my ability to steer this society in what I hope was the right direction. I am positive that this society will continue growing through the goodwill expressed by its members as well as associates and continue making positive impact in the field of Neuroanesthesia. I hope that the courses and awards that this society has conceptualized will go a long way in benefitting as well as encouraging both its member personnel and hospitals. I would like to congratulate and convey my best wishes to my incoming successor, Dr Shashi Srivastava and hope that she along with Dr Ponniah Vanamoorthy and Dr Prasanna Bidker will help this society attain new heights and ensure that they carry on the successful legacy left behind my predecessors.

Thank you all once again,

Sincerely Shobha Purohit



Message From the Editor-in-Chief

My heartiest congratulations to the new office bearers of ISNACC. The Society which started with a handful of diehard Neuroanaesthesiologists has now blossomed to be a force to reckon with in the academic world. I am confident that under the stewardship of new office bearers the tempo of the Society built over the past decade and half will not slow down and the Society membership will continue its upward movement. I have no doubt about the capabilities of new office bearers and am pretty confident that the ISNACC will continue to grow by leaps and bounds under their guidance.

We are all aware of the change in publication house for our journal, JNACC. I request all the members of ISNACC to visit the new submission site (www.manuscriptmanager.net/jnacc) and open the author account. JNACC is as good as the research work it publishes! Hence, on behalf of the editorial board, I once again request you to submit your best research work to JNACC and be part of an academic success story.

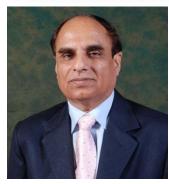
May Almighty shower the choicest blessings on ISNACC and JNACC.

Dr. Parmod K Bithal, MD



Remembering.....

Vinod Kumar Grover



(24th March 1951 - 11th December 2017)

"To die completely, a person must not only forget but be forgotten, and he who is not forgotten is not dead." Samuel Butler

Professor VKG was born on 24th March, 1951 at Ambala district, Haryana. He completed his primary education at his home town. He was a calm, curious and a bright student, who remained favourite of all the teachers. He is survived by his wife, son, daughter, daughter-in-law and two grandchildren.

He obtained MBBS degree from Pandit Bhagwat Dayal Sharma Postgraduate Institute of Medical Sciences, Rohtak in 1975. During his MBBS training, witnessing cardiopulmonary resuscitation in Anaesthesia department inspired him to chose Anaesthesia as a specialty for post-graduation. He joined Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, for residency in the Department of Anaesthesia and Intensive care and completed MD Degree in 1978. In 1982 he joined as faculty in PGIMER, Chandigarh.

In 1976, there was a India Vs Pakistan cricket match. One of the student fell from balcony while cheering for Indian cricket team and sustained head injury. He took avid care of him and that was the beginning of his neuroanaesthesia journey. While working with Prof. Y.S. Verma and Prof. Harivir Singh, his interest in Neuroanaesthesia specialty started flourishing. During his nearly 40 years of carrier in speciality of Anaesthesia and Intensive Care, he worked in all super-specialities of Anaesthesia with a main focus on Neuroanaesthesia. He initiated and finally started the DM in Neuroanaesthesia at PGIMER, Chandigarh in January 2013 (Figure-1). He emphasized on focused patient care, academics and research while grooming the DM Neuroanaesthesia course. He always encouraged the students to follow up the complicated patients to understand the disease course and outcomes. He got an opportunity to deliver Prof. Harivir Singh Oration during 15th National Conference of Indian Society of Neuroanaesthesiology and Critical Care, held on 31st January to 2nd February 2014 at Jaipur. The topic he chose was unique and interesting. It was based on "My Journey Through Neuroanaesthesia". During the impressive talk he dwell upon his unique experiences and challenges in his career. His attitude towards patients was quite appreciable. He believed that a strong will power is good enough to overcome even great difficulties. He not only used to motivate his patients prior to surgery but also handle them with empathy and practicality. He always used to teach his students that "NO PATIENT IS UNFIT FOR ANAESTHESIA", they might just need to be optimised. He is recognised as a warm-hearted mentor who used to guide his students both in professional and personal fronts. 9

Remembering.....

He was known for his excellency not only in India but in other countries too. He worked as visiting professor in various international hospitals including Salmaniya Medical Centre, Bahrain; Senior specialist and Head of the Department in a Secondary Care Hospital (Sur), Ministry of Health, Sultanate of Oman; Consultant & Coordinator, Department of Anaesthesia & Intensive Care, Apollo Hospitals, Dhaka, Bangla Desh; Neuro-anaesthesia services at Hamad Medical Corporation, Doha, Qatar; and Consultant & Coordinator to set up Neuro anaesthesia services & Neuro & surgical Intensive Care Unit at Square Hospitals, Dhaka, Bangladesh. He had been a pioneer in establishing Neuroanaesthesia and Neurointensive care setup at Dhaka, Bangla Desh.

He also participated in various academic and organisational activities at PGIMER. He managed the Adult Tetanus Care unit from 1982-1993. He was instrumental in preparing the road map for starting Day Care anaesthesia and surgical services at PGIMER, Chandigarh. He started DM Neuroanaesthesia in January 2013 with the support of Prof. Jyotsna Wig.

He had published around 120 papers in well reputed international and national journals and authored several chapters. His research area was not only confined to clinical field but he was also working on basic neurosciences project related to gene expression and proteomics.

On the inauspicious night of 11th December 2017, Prof Vinod Kumar Grover left for his heavenly abode. He was fighting with debilitating ulcerative colitis with many systemic manifestations. Despite his illness he used to keep his poise and was academically up-to-date.

We were saddened by his sudden departure. We are proud of him and will always remember him as an excellent teacher, a great anaesthesiologist and a person with golden heart.

Nidhi Panda



"ISNACC Past President Dr V K Grover was an active Neuroanaesthesiologist and has contributed immensely to the Indian society of Neuroanaesthesiology and Critical care. We, the members of ISNACC miss him a lot. We deeply mourn the sad demise of Dr V K Grover. We pray to god for his soul to rest in peace."

ISNACC 2018 was held in Mumbai from 18th Jan 2018 to 21st Jan 2018 at The Leela at Andheri Mumbai.

The Pre-Conference Workshops were held on the 18th Jan at 2 Venues.

Workshop 1 was Neurosimulation Workshop, the first of its kind to be held in the ISNACC conference and was held in the state of the art simulation lab at the Covedein Centre at Andheri. We had more than 50 delegates in this Neurosimulation Workshop

The faculty consisted of

Dr. P N Kakkar, Dr. Harsh Sapra, Dr. Gaurav Kakkar, Dr. Sudhindra from Lancashire University, UK, Dr. Sandeep Lakhani from Walton Centre, UK, Dr Hemanshu Prabhakar from AIIMS, Dr Amit Nagpal from D Y Patil University Mumbai, Dr. Rajashree Gandhe organised the workshop very competently.

Feedback of the audience was very positive.

The Faculty was also very appreciative of the delegates who they felt were very much upto the mark and participated with keenness and enthusiasm. Learning was the key point as per the audience feedback.





Worshop 2 was Multimodality Neuromonitoring held at The Leela in their main hall A The organisers were Dr. Anil Parakh, Dr. Joseph Monteiro from Mumbai and Dr. V Ponniah from Chennai.

The faculty comprised of International and National figures from various parts of the Country. IONM was headed by Dr. Antoun Koht, Dr. Suparna Bharadwaj and Dr. Poornima Shah, along with Mr. Ankit Arora from Medtronics guided the delegates through various modes of IONM.

Workshop 2 also addressed TCD, ICP, Cerebral Microdialysis, Cerebral Oximetry, Depth of anaesthesia monitoring and Ultra sound guided ONSD

The faculty guided the delegates through various theoretical and practical aspects of monitoring the vulnerable brain from its driving pressure, blood flow, oxygen delivery, metabolism and CNS function.

The feedback was very positive from the delegates, who were very appreciative of the faculty and the hands on learning which were to their satisfaction.

Workshop 3 was ENLS the collaboration of the NCS

This time the NCS leadership was by Michel Torbey

Shaheen Shaikh was the international coordinator for ISNACC 2018

The ENLS addressed the care which should be given in the critical first hours of a neurological emergency. This course is designated to address all healthcare professionals.

We had initially 54 registrations who were all given access to the NCS code.

The NCS allowed us to register more and finally we reached a figure of 104.

Shaheen Shaik, Abhijeet Lele, Letha Mathews and Richard Moser from the US all delivered lectures with audience interaction on various aspects of Neurological Emergencies.

The course received an excellent feedback from all delegates who participated.

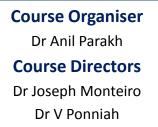
The delegates comprised of physician who were Anaesthesiologist, Intensivists Neurosurgeon, we also had Nurses and a Technician as well.





ISNACC 2018 Workshop on Multimodal Neuromonitoring



















Day 1

Friday Jan 19 Hall A Session

The first session dealt with Basic Physiology and addressed ICP Dynamics, Determinants of Cerebral Blood Flow, Brain Oxygenation and Metabolism by Anita Shetty, Hemant Bhagat and Ramamani M respectively.

Session B was a Symposium on Advances in Neuroanaesthesia Practice which addressed Advances in Airway in Neurosurgery, Advances in Ventilation in Neurosurgical cases by and Enhanced Recovery Protocols in Neurosurgery by Dr. Irene Osborn from USA, V Bhadrinarayan from NIMHANS, Lashmi Venkatraghavan from Canada respectively

Next the keynote lectures were given on 'Brain relaxation doing Craniotomy' by Adrian Gelb and on 'Update in Neuroprotection' by Padmaja Durga

The Dr. Malathi Memorial Oration was delivered to a captivated audience by Dr. Antoun Koht on 'Awake Craniotomy'

The Post lunch session comprised of a symposium on Newer Drugs / Tecniques, deliberating on Ultrasound and Doppler by Prassana Bidkar in Neuroanaesthesia, Novel anticoagulants and Energency Neurosurgery by Monica Tandon . An interesting talk on reversal of general anaesthesia GABA Antagonist was given by Dr. Paul Garcia.





A Session dealing with Special population followed. Cerebral Toxicity of Anaesthetics – Neonates was given by Venkatesh H K. Anaesthetics in Ageing or previously injured brain was discussed by Dilipkumar Kulkarni concluding with challenges faced by the patient undergoing Sphenoidal Pituitary surgery by Shobha Purohit.

The day ended with a lively panel discussion on Essential Monitoring in Neurology under Joseph Monteiro and Zulfikar Ali moderation. Panelists were Adrian Gelb, H H Dash, Bibhukalyani Das, V J Ramesh, Hemanshu Prabhakar, Nidhi Panda and Bharti Kondwilkar

Parallel sessions were conducted in Hall B in the afternoon.

Interesting PBLDs were arranged for delegates on SAH and Acute Ischemic Stroke by the experts from India - Hemanshu Prabhakar and Shaheen Shaikh USA delivered informative and satisfying lectures

Neuroanaesthesia Review Fun (Primary Round)., quiz conducted by Shobana Rajan from Cleveland Clinic USA was a great hit amongst Fellows and Post Graduates

This was followed by the Inaugration ceremony in the evening

Chief Guest was S K Pandya an Honoured and Revered Neurosurgeon He is Nationally Renowed for his services to the Neurosurgical Community in India.

S K Pandia and Shobha Purohit President of ISNACC, awarded the PDCC degree certificates to successful candidates and the ISNACC special awards to Bhibhukalyani Das and K J Choudhury

Day 2 Hall A

The Brain Monitoring session had 3 talks comprising of Depth of Anaesthesia Monitoring by Pragati Ganjoo. An upcoming Multimodality Anaesthesia Monitor CoNox was described by Manisha Katikar

This was followed by novel talk on "If we can stress the heart, why can't we stress the brain" by Lashmi Venkatraghavan. He described the similarities between heart and brain, the concept of cerebral reserve, its importance and methods to measure it.

The SNACC panel comprising of Antoun Koht, Martin Smith and Paul Garcia deliberated on Advancing Technologies of Using evoked potentials to improve perioperative outcomes, Using EEG to improve perioperative outcomes and Optical methods of Brain Monitoring: Cerebral Oximetry and Beyond to improve patient outcomes.

The symposium on Acute Ischemic Stroke consisted of Michel Torbey, Deepak Sharma and Manikandan discussing the medical and anaesthetic challenge in AIS, and also the Role of Anaesthesiologists' in Rehabilitation

Dr. LD Mishra delivered the Dr.Gode Oration on "Optimising Outcomes despite Diversity in Resources"

A symposium on Transformational Technologies looked at the Game Changers in Neurosciences pertaining to Anesthesia, Neuromonitoring, Neuromodulation, Neuroimaging and finally to the futuristic technology of Brain Machine Interface. It was addressed by National and International faculty by great repute and gave not only technological advances in the neurosciences but also took the audiences to the futuristic technology.

The session of Neurocritical Care gave the audience the perspective on the recent advances in SAH by Radhakrishnan, Targeted Temperature Management by Sriganesh and Delirium in ICU by Sandeep Lakhani.

An eminent panel of Neurointensivists discussed various issues in neuro critical care. The panel was led by V Ponniah and consisted of Farhad Kapadia, Arunkumar Gupta, Harsh Sapra, Surabh Anand, Abhijit Lele and B D Bande.

The day concluded with the ISNACC General Body Meeting.

The parallel session in Hall B started with 'Breakfast session' by a lecture on "ANI Monitor- A Novel Device to access pain" by E M Garcia.

Free papers selected for Podium Presentation were judge by Padmaja Durga and Letha Mathews.

A Lunch session followed consisting of panel discussion on "Optimising on unstable neurological patient" by moderator V Ponniah and Charu Mahajan with panelists Satish Kulkarni, Vasudha Singhal, Swagata Tripathy, Saurabh Bhargava, Arvind Arya and Ameya Panchwagh.

Problem based learning discussion in Hall B1 on multimodal Analgesia and enhanced recovery pathway in spine surgery by Shobana Rajan and Awake Craniotomy by Irene Osborn in Hall B. The Finals of the quiz concluded the session in Hall B generating great enthusiasm.





Day 3

The highlight of our meeting was International Neurotrauma Symposium. It addressed the Burden of Neuro Trauma in India, Traumatic brain Injury, Challenges in Traumatic Spine Surgeries by Batuk Diyora, Phuping Akavipat and Swagata Tripathy respectively.

Dr. Martin Smith discussed "Lactate and Injured Brain - Friend or Foe".

Issues regarding Neuroinflamation in TBI was addressed by Arunkumar Gupta.

A Lively analysis of Brain Trauma Federation Guidelines by Dr. Anthony Figaji, President of International Neurotaruma Society evoked an interesting audience interaction.

Dhaval Shukla discussed the outcome assessment by the intensivist after TBI.

Deepak Sharma delivered the Prof. Hariver Singh Oration Continuing the Neurotrauma theme giving the current practices in managing Anaesthesia for Neurotrauma.

An interesting case discussion of on "Separating Craniopagus Conjoined Twins - AIMS experience" by Girija Rath who put forth his experience.

The basics of TIVA/TCI was elucidated in the informative lecture by Gaurav Kakkar







A session on Complication Avoidance was very well received. It deliberated on the precautions to be taken to avoid Air Emboilism, Postoperative Visual Loss and Postoperative Cognitive Dysfunction by Vikas Karne, Jayati Ghosh and Sona Arora respectively.

The Scientific Programme concluded with the award winning papers being presented before the general audience and a short valedictory function ushering our new President Dr. Shashi Srivastav with the new ISNACC committee.

The Scientific Programme had the common thread of the theme "Integrating Technology, Enhancing Outrcomes" reviewing through it for all three days.

We had a total of 20 international faculties and more than 50 national Faculties who attended this conference. The total count of registration were 347 approx. Many more had registered for workshop alone and also the Neurotrauma Symposium on the 21st Jan as a single day registration.

The feedback from the international faculty was very positive and some have also said that they will be taking some ideas from us.

The national and Mumbai Faculty too had a good feedback

All in all the feedback from all delegates was very positive about the scientific content, the hospitality and the venue

Other special invited guest lectures delivered by Hitendra Mahajan, Harish Shetty and Jehangir Sorabjee were also very well appreciated.

Dr Rajshree Deopujari





Prof Bibhu Kalyani Das receiving ISNACC Distinguished Teacher Award 2017



Dr K J Choudhury Receiving ISNACC Distinguished Professional service Award 2017

20



ISNACC Past President Dr Anil Parakh, Received-"Indian Professional Health Award - Life Time Achievement Award" at New Delhi by Mr Haribhai Choudhari , State Minister , Government of India.

Dr Anil Parakh was Awarded "Excellence in Medicine" by Bharat Nirman Samiti- a NGO at 3rd Asiad Literature Festival on 23rd April, 2017 at the Nehru Centre, Mumbai





Best outgoing Student ISNACC PDF Neuroanaesthesia

Dr Hetal Rathod P D Hinduja Hospital Mumbai

JNACC Best Research Paper Award

Dr Sonia Bansal, NIMHANS, Bengaluru Dr Ranadhir Mitra, AIIMS, New Delhi

Podium Presentation:

1st Prize: Dr.Seelora Sahu Tata Hospital Jamshedpur 2nd Prize: Dr.Ruchi Jain LTMCH Mumbai

Quiz winners

1st Prize: Dr.Gauri Gangakhedkar,KEMH Mumbai /Dr.Kalyani Sathe,KD Ambani Hospital Mumbai,/Dr.Jayanth Seshan,Grant Medical College Mumbai

2nd prize:

Dr.Shwetashri,NIMHANS/ Dr.Kaustuv Dutta,NIMHANS /Dr.Manjunath L, NIMHANS Bengaluru

Poster presentations: Group A

1st Prize: Dr.Pavithra V MS Ramaiah Bengaluru 2nd Prize: Dr.Shalaka Nellore LTMCH Mumbai.

Group B

1st Prize: Dr.Joanna Rodrigues Hinduja Hospital Mumbai 1st Prize: Dr.Dona Saha SGPGI Lucknow

Group C

1st Prize: Dr.Divya GuptaSMS Jaipur.2nd Prize: Dr.Kaustuv DuttaNIMHANS Bengaluru

Group D

1st Prize: Dr.Amlan Swain PGI Chandigarh 2nd Prize: Dr.Pallavi Gaur KEMH Mumbai

The following candidates successfully completed their ISNACC Post-doctoral Fellowship (2017)

Dr.Ved Prakash Pandey Dr.RayeesNajib

Dr.KakdeAvinashSahebarav

Dr.SatheKalyaniAnand

Dr.JeyaGaneshVeerakumaran Dr.ParagJyotiDuarah

Dr.Raman Deep Kaur

Dr.Patel Dixit Dhirubhai Dr.Hitesh G. Nathani Dr.HetalDhirajlalRathod Dr.NeelakshiKalita Dr.MahendraBhavsingThakare

Dr. Prasanta Kumar Behara

Fortis Hospital, Noida-Sec-62 Fortis Memorial Research Institute **Gurgaon Haryana** KokilabenDhirubhaiAmbani Hospital Mumbai KokilabenDhirubhaiAmbani Hospital Mumbai. Park Clinic Kolkata Max Super Speciality Hospital Saket, New Delhi Max Super Speciality Hospital Saket, New Delhi PD Hinduja Hospital, Mumbai PD Hinduja Hospital, Mumbai PD Hinduja Hospital, Mumbai Park Clinic Kolkata Fortis Memorial Research Institute **Gurgaon Haryana** Institute of neurosciences kolkata

The following candidates successfully completed their DM in Neuroanaesthesia

Dr Nitasha Mishra Dr Vikas Chauhan Dr Gaurav Singh Tomatr Dr Asish Sahoo Dr Mukilan Dr Karan Ruby Lionel

Dr Gautam N S

Dr Bimal Kumar Sahoo AIIMS, New Delhi AIIMS, New Delhi AIIMS, New Delhi

PGIMER, Chandigarh PGIMER, CHandigarh SCTIMS, Thiruvananthapuram SCTIMS, Thiruvananthapuram SCTIMS, Thiruvananthapuram

The following candidates successfully completed their PDF in Neuroanaesthesia

Dr Anil Kumar Dr Deepti B S Dr Nagamoti Shilpa

NIMHANS, Bangalore NIMHANS, Bangalore SCTIMS, Tiruvananthapuram

The following candidates successfully completed their PDF in Neurocritical Care

Dr Anil Kumar Dr Deepti B S NIMHANS, Bangalore NIMHANS, Bangalore

The following candidates received the travel grant for the year 2017-2018

Dr Barkha Bindhu Dr Devika Bharadwaj Dr Ritumallik Dr Sriganesh

The following candidates received the research grant for the year 2017-2018.

Dr Sangeetha , NIMHANS

Report on the 1st Neurocritical Care, Emergency Neurological Life Support and Neurosimulation Refresher & Certificate Course, held at Indraprastha Apollo Hospitals, New Delhi

The "1st Neurocritical Care, Emergency Neurological Life Support and Neurosimulation Refresher & Certificate Course" was held at Indraprastha Apollo Hospitals, New Delhi, on 17th & 18th November 2017, followed by the Neurosimulation session at Medanta – The Medicity, Gurugram on 19th November 2017. The course was organised by the Department of Neuroanaesthesia and Neurocritical Care at the Indraprastha Apollo Hospitals, in collaboration with Medanta – The Medicity, Gurugram, with Dr. K.J. Choudhury as the Organising Chairperson and Dr. Nidhi Gupta as the Organizing Secretary. The course was endorsed by the Indian Society of Neuroanaesthesiology and Critical Care and the 'Brain STEM' (Brain Simulation Training to Enhance Patient Management) society, Medanta – The Medicity.

This course was exclusively designed for the young resident doctors, trainees and fellows in neuroanaesthesia and critical care to provide them the basic understanding of the varied acute neurological conditions along with their latest evidence-based management guidelines for emergent and on-going neurocritical care. Through this course, the students were provided the unique opportunity of applying the literary knowledge to actual clinical "decision-making" during the simulated neurological emergencies to enhance their skills and overall performance.

The course was conducted by the eminent faculty drawn from renowned academic institutions across the country, some of whom are ENLS instructors from Neurocritical Care Society (USA). The highlights of the course included lectures along with audio-visual presentations of various neuromonitoring modalities followed by skill stations for hand-on practice; problem-based learning discussions (PBLDs) on acute neurological injuries, and their clinical applications via "Neurosimulation Sessions".





Report on the 1st Neurocritical Care, Emergency Neurological Life Support and Neurosimulation Refresher & Certificate Course, held at Indraprastha Apollo Hospitals, New Delhi

It was attended by 30 delegates from varied institutions, pursuing their courses ranging from D.N.B Anaesthesia and M.D Anaesthesia to D.M Neuroanaesthesia and D.M Neurocritical Care/ Critical Care. The first day of the course commenced with a welcome and introductory note by Dr. K.J. Choudhury and Dr. Harsh Sapra. This was followed by the lectures on basics of neurological examination, neuropharmacology, neurocritical care, neuromonitoring and neuroradiological examination by experts including Dr. Charu Mahajan, Dr. Indu Kapoor, Dr. Vasudha Singhal, Dr. Ankur Luthra and Dr. Zulfiqar Ali. The post-lunch session included the problem-based learning and discussions woven around the interesting case scenarios from topics pertaining to intracranial hypertension, traumatic brain injury, acute stroke, subarachnoid hemorrhage and post cardiac arrest resuscitation. After a tea break, the day concluded with the hands-on training on multimodal neuromonitoring techniques (including intracranial pressure monitoring, cerebral oximetry and cerebral microdialysis) and the much-applauded workstation on "Transcranial Doppler" by Prof. Hemanshu Prabhakar.

Next day of the course started with lectures on basics of mechanical ventilation, metabolic and endocrine care, renal and gastrointestinal care and psychological care in neuro-critically ill patients by Dr. Prasanna Bidkar, Dr. Nidhi Gupta, Dr. Swagata Tripathy and Dr. Jaya Wanchoo, respectively. Post lunch sessions included the problem-based learning and discussions on topics including acute non-traumatic weakness, spinal cord injury, meningitis and encephalitis and status epilepticus. The day ended on a high note, with all the delegates brushing up their sonography skills on "Uses of Ultrasound in Neuroanaesthesia" and "Measuring Optic Nerve Sheath Diameter" workstations, conducted by Dr. Prasanna Bidkar and Dr. Jaya Wanchoo, respectively.

The last day of the event included the unique "Neurosimulation Sessions" on neuro-critical care emergencies conducted at the Neurosimualtion lab, Medanta – The Medicity, Gurugram, by a team of neuroanaesthesiologists, neurosurgeons, neuro-technicians and nurses, led by Dr. Harsh Sapra and Dr. Gaurav Kakkar. The sessions targeted not only the clinical performance of the students but also their "soft-skills" as clinicians, in terms of teamwork and leadership in critical situations.

Following high-tea, the course concluded with ending remarks and certificate distribution by Dr. K.J.Choudhury and Dr. Harsh Sapra.

Dr. Nidhi Gupta

Associate Professor and Consultant

Department of Neuroanaesthesia ,Indraprastha Apollo Hospital , Sarita Vihar, ,New Delhi, 110076

Report on Jaipur Neuromonitoring workshop 2017

A Neuromonitoring workshop was conducted in Jaipur on 24th September 2017, first time as a standalone event. It was organized under the aegis of ISNACC, JAAF (Jaipur Anesthesiologist Academic Forum) and JSA (Jaipur Society of Anesthesiologists).

The workshop was attended by close to 100 participants ranging from resident doctors to Consultant Anesthetists/Intensivists and Medical college faculty from all over Rajasthan. There were participants from Delhi, MP and Haryana too.

The enthusiastic audience appreciated the lectures and specially the hands-on sessions conducted by the team of Faculty led by Dr.Hemanshu Prabhakar.

The delegates were welcomed by the managing trustee of JAAF, Dr SP Sharma, followed by Dr Suresh Bhargava who welcomed and introduced the faculty.

Workshop commenced with Dr.Hemanshu Prabhakar (AIIMS, New Delhi) introducing the basic concepts of Neuromonitoring to the audience. The first lecture; on ICP monitoring; was delivered by Dr.Vasudha Singhal (Medanta Medicity, Gurgaon). This was followed by an elaborate talk on the technique and applications of TCD by Dr.Indu Kapoor (AIIMS, New Delhi). Dr.Ankur Luthra (PGIMER, Chandigarh), in his detailed lecture simplified the complex technique of Evoked potential monitoring and its applications

During the networking/tea break, the delegates and faculty engaged over the sessions and enhanced their understanding on the subjects discussed earlier.



Report on Jaipur Neuromonitoring workshop 2017

The break was followed by an exhaustive description of the technique and applications of Cerebral oximetry by Dr.Nidhi Gupta (Apollo Hospital, New Delhi). Dr.Charu Mahajan (AIIMS, New Delhi) then took up the topic of Cerebral Microdialysis and described in detail it's nuances. The last talk of the day was delivered by Dr.Jaya Wanchoo (Medanta Medicity, Gurgaon) who went into details of Optic nerve sheath Diameter and its practical applications in the ICU.

The lecture session was followed by Lamp lighting ceremony, Lunch and felicitation of the Faculty.

Post lunch, over the next 3 hrs, the Faculty demonstrated the application of various monitors, including insertion/ attachment and collection / analysis of information. For this purpose, workstations were created for demonstrating ICP, TCD, Evoked potentials, Microdialysis and Cerebral oximetry.

A vote of thanks was proposed by Dr Saurabh Bhargava.

This workshop was the first activity undertaken under the aegis of ISNACC after the national conference. It was well attended with excellent reviews from the participants. We plan to take this initiative further in the future.

Dr. Saurabh Bhargava, Dr. Shobha Purohit Dr. Suresh Bhargava Dr. Ravindra Sisodia Dr. Akhil Agarwal





Effect of General Anesthesia and Conscious Sedation During Endovascular Therapy on Infarct Growth and Clinical Outcomes in Acute Ischemic Stroke

A Randomized Clinical Trial

Claus Z. Simonsen, MD, PhD; Albert J. Yoo, MD, PhD; Leif H. Sørensen, MD3; et al Niels Juul, MD; Søren P. Johnsen, MD, PhD; Grethe Andersen, MD, DMSc; Mads Rasmussen, MD, PhD JAMA Neurol. Jan 16, 2018

For patients who underwent thrombectomy for acute ischemic stroke caused by large vessel occlusions in the anterior circulation, GA did not result in worse tissue or clinical outcomes compared with CS. General anesthesia does not result in more infarct growth compared with conscious sedation during endovascular therapy for stroke.

Angiotensin II for the Treatment of Vasodilatory Shock Ashish Khanna, M.D., Adam M. Deane, M.D.et al., for the ATHOS-3 Investigators* *N Engl J Med 2017; 377:419-430*

Angiotensin II effectively increased blood pressure in patients with vasodilatory shock that did not respond to high doses of conventional Vasopressors.

Ultrasonography Assessments of Optic Nerve Sheath Diameter as a Noninvasive and Dynamic Method of Detecting Changes in Intracranial Pressure

> Li-juan Wang, MD, PhD; Li-min Chen, MS; Ying Chen, MD JAMA Ophthalmol.February 1, 2018.

Optic nerve sheath diameter measured by ultrasound was strongly correlated with LP-measured intracranial pressure, and change in optic nerve sheath diameter was strongly correlated with the change in ICP. The dilated ONSDs decreased along with the elevated ICP reduction. Ultrasonographic ONSD measurements may be a useful, noninvasive tool for dynamically evaluating ICP. These findings suggest ultrasonographic optic nerve sheath diameter may be a useful, noninvasive tool for dynamically evaluating ICP.

AHA/ASA GUIDELINE

2018 Guidelines for the Early Management of Patients With Acute Ischemic Stroke: A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association

William J. Powers, Alejandro A. Rabinstein, Teri Ackerson, Opeolu M. Adeoye, Nicholas C. Bambakidis, Kyra Becker, José Biller, Michael Brown, Bart M. Demaerschalk, Brian Hoh, Edward C. Jauch, Chelsea S. Kidwell, Thabele M. Leslie-Mazwi, Bruce Ovbiagele, Phillip A. Scott, Kevin N. Sheth, Andrew M. Southerland, Deborah V. Summers, David L. Tirschwell, on behalf of the American Heart Association Stroke Council Stroke. January 24, 2018

key points :

These 2018 guidelines are an update to the 2013 guidelines, which were published prior to the six positive "early window" mechanical thrombectomy trials (MR CLEAN, ESCAPE, EXTEND-IA, REVASCAT, SWIFT PRIME, THRACE) that emerged in 2015 and 2016. In addition, in the last 3 months, two trials (DAWN and DEFUSE 3) showed a clear benefit of "extended window" mechanical thrombectomy for certain patients with large vessel occlusion who could be treated out to 16-24 hours.

The benefits of intravenous (IV) tissue plasminogen activator (tPA) are time-dependent, and treatment for eligible patients should be initiated as quickly as possible (even for patients who may also be candidates for mechanical thrombectomy).

IV tPA should be administered to all eligible acute stroke patients within 3 hours of last known normal and to a more selective group of eligible acute stroke patients (based on ECASS III exclusion criteria) within 4.5 hours of last known normal. Centers should attempt to achieve door-to-needle times of <60 minutes in ≥50% of stroke patients treated with IV tPA. Prior to initiation of IV tPA in most patients, a noncontrast head computed tomography (CT) and glucose are the only required tests. An international normalized ratio, partial thromboplastin time, and platelet count do not need to have resulted prior to IV tPA initiation if there is no suspicion for underlying coagulopathy. Centers should attempt to obtain a noncontrast head CT within 20 minutes of arrival in ≥50% of stroke patients who may be candidates for IV tPA or mechanical thrombectomy.

For patients who may be candidates for mechanical thrombectomy, an urgent CT angiogram or magnetic resonance (MR) angiogram (to look for large vessel occlusion) is recommended, but this study should not delay treatment with IV tPA if indicated.

Patients \geq 18 years should undergo mechanical thrombectomy with a stent retriever if they have minimal prestroke disability, have a causative occlusion of the internal carotid artery or proximal middle cerebral artery, have a National Institutes of Health stroke scale score of \geq 6, have a reassuring noncontrast head CT (ASPECT score of \geq 6), and if they can be treated within 6 houses of last known normal. No perfusion imaging (CT-P or MR-P) is required in these patients.

In selected acute stroke patients within 6-24 hours of last known normal who have evidence of a large vessel occlusion in the anterior circulation and would have been eligible for DAWN or DEFUSE 3, obtaining perfusion imaging (CT-P or MR-P) or an MRI with diffusion-weighted imaging (DWI) sequence is recommended to help determine whether the patient is a candidate for mechanical thrombectomy.

In selected acute stroke patients within 6-16 hours of last known normal who have a large vessel occlusion in the anterior circulation and meet other DAWN or DEFUSE 3 eligibility criteria, mechanical thrombectomy is recommended.

In selected acute stroke patients within 6-24 hours of last known normal who have large vessel occlusion in the anterior circulation and meet other DAWN eligibility criteria, mechanical thrombectomy with a stent retriever is reasonable.

As with IV tPA, treatment with mechanical thrombectomy should be initiated as quickly as possible.

Administration of aspirin is recommended in acute stroke patients within 24-48 hours after stroke onset. For patients treated with IV tPA, aspirin administration is generally delayed for 24 hours. Urgent anticoagulation (e.g., heparin drip) for most stroke patients is not indicated. The use of stroke units that incorporate rehabilitation is recommended for all acute stroke patients.

It remains unknown whether it would be beneficial for emergency medical services to bypass a closer IV tPA-capable hospital for a thrombectomy-capable hospital. While such an approach may delay IV tPA administration for patients who are and who are not mechanical thrombectomy candidates, this approach would expedite thrombectomy for those who are mechanical thrombectomy candidates.

Brain Oxygen Optimization in Severe Traumatic Brain Injury Phase-II: A Phase II Randomized Trial*

David O. Okonkwo; Lori A. Shutter; Carol Moore; Nancy R. Temkin; Ava M. Puccio; Christopher J. Madden; Norberto Andaluz; Randall M. Chesnut; M. Ross Bullock; Gerald A. Grant; John McGregor; Michael Weaver; Jack Jallo; Peter D. LeRoux; Dick Moberg; Jason Barber; Christos Lazaridis; Ramon R. Diaz-Arrastia *Critical Care Medicine.* 45(11):1907–1914, NOV 2017

Management of severe traumatic brain injury informed by multimodal intracranial pressure and brain tissue oxygenation monitoring reduced brain tissue hypoxia with a trend toward lower mortality and more favorable outcomes than intracranial pressure–only treatment. A Phase III randomized trial to assess impact on neurologic outcome of intracranial pressure plus brain tissue oxygenation–directed treatment of severe traumatic brain injury is warranted. ³⁴

Beta blockers in critically ill patients with traumatic brain injury: Results from a multicenter, prospective, observational American Association for the Surgery of Trauma study Ley, Eric J. MD; Leonard, Samuel D.et al The Beta Blockers TBI Study Group Collaborators Journal of Trauma and Acute Care Surgery: February 2018

Administration of beta blockers after TBI was associated with improved survival, before and after adjusting for the more severe injuries observed in the treatment cohort. This study provides a robust evaluation of the effects of beta blockers on TBI outcomes that supports the initiation of a multi-institutional randomized control trial.

Is early tracheostomy better for severe traumatic brain injury? A meta-analysis Lu Q, Xie Y, Qi X, Li X, Yang S, Wang Y World Neurosurg. Jan 11, 2018

Early tracheotomy (less than 10 days) may reduce the length of ICU and hospital stay, the duration of mechanical ventilation and the incidence of pneumonia in severe traumatic brain injury (TBI) patient. Early tracheotomy cannot influence the rate of mortality in severe TBI suffers, comparing to late tracheostomy or prolonged intubation. We suggest early tracheotomy be underwent for severe TBI patients.

Further well-designed randomized controlled trials comparing the outcome of early tracheotomy with late tracheostomy or prolonged intubation are needed to be designed. Available evidences suggest that early tracheotomy may reduce the ICU and hospital stay, the mechanical ventilation duration and the pneumonia incidence rate. Well-designed randomized controlled trials are needed to further confirm.

Want to Edit this section ? Write to

isnaccsecretary@gmail.com

Manuscripts invited for.....

Journal of Neuroanaesthesiology and Critical Care







Submission site: www.manuscriptmanager.net/jnacc

(minister)

Joining the Camp

LMB-55 Summit Dev Bloria LMK-59 Ketan Karsan Das Kataria LMK-60 **Rashim Kataria** LMP-53 Shashank Umesh Paliwal LMP-54 Shamik KR Paul LMR-45 Sanjukta Shyam Roy LMS-98 Sapna Sirohia Gaurav Kakkar LMK-61 Shekhar Babu LM B-56 LMK-62 Avinash Sahebarav Kakde LMP-55 Ved Prakash Pandey LMR-44 Ranganatha Praveen CS LMR-45 Sanjukta Shyam Roy LMV-13 Jeyaganesh Veerakumaran LMB-57 Suparna Bharadwaj LMN-16 **Rayees Najib** Mahendra Bhavsing Thakare LMT - 11 Ankush Arora LMA-26 LMB-58 Sagar Bandishte LMD-34 Supriya Lynette D'souza LMP-56 Astha kishor Palan LMS-101 Ardija Singh LMS-102 Kavu Devi S

Announcements

Travel/ Visit Grant

ISNACC provides Travel/ Visit Grant to suitable candidates to either visit one of the premier Neurosciences (Neuroanaesthesiology) Centers abroad or to present scientific paper(s) in an International forum. The last date for submission of application will be July 31 and December 31. A fixed sum of Rs.25,000/- (6 candidates per year) will be awarded to candidates who must fulfill the following criteria -

Should be a life-member for more than a year at the time of application.

He/she should not have availed the grant from ISNACC in the previous 2 years.

Must submit the abstract of the scientific work at the time of application.

Must submit the attendance and participation/presentation certificate within 15 days of attending the conference

Research Grant

ISNACC awards research grant to suitable candidates to carry out clinical research in the field of Neuroanaesthesia and Neurocritical Care in India. A fixed sum of Rs.50,000/- [2 candidates per year] will be awarded to candidates who fulfill the following criteria – Should be a life-member for more than a year at the time of application. He/she should not have availed the grant from ISNACC in previous 2 years

Should provide a copy of Ethics Committee approval and the protocol (both soft and hard copy) The candidate must provide the estimated expenditure details along with the application.

Financial assistance from other sources must be disclosed

The proposal would be scrutinized by the education committee of ISNACC and its decision would be final.

Should complete the study within 2 years of obtaining the grant and must produce the statement of expenditure.

Should present the results of the research in the Annual conference of ISNACC in the same year as completion of study or within one year of completing the study.

Should acknowledge ISNACC as the funding source in all forms of presentation / publication. Last date for submission of application is December 31.

Application form may be downloaded from the website (www.isnacc.org) Contact Secretariat for assistance Email: <u>isnaccsecretary@gmail.com</u>

Announcements

Educational Grant

Application form may be downloaded from the website (www.isnacc.org) Contact Secretariat for assistance Email: isnaccsecretary@gmail.com ISNACC society is pleased to announce a grant of Rs 25,000 to ISNACC members who conduct CME programme in Neuroanaesthesia and Neurocritical care in tier II cities. Two such grants will be awarded every year

> Application form may be downloaded from the website (www.isnacc.org) Contact Secretariat for assistance Email: <u>isnaccsecretary@gmail.com</u>

ISNACC Faculty Enrollment Program Enroll Yourself Write to isnaccsecretary@gmail.com

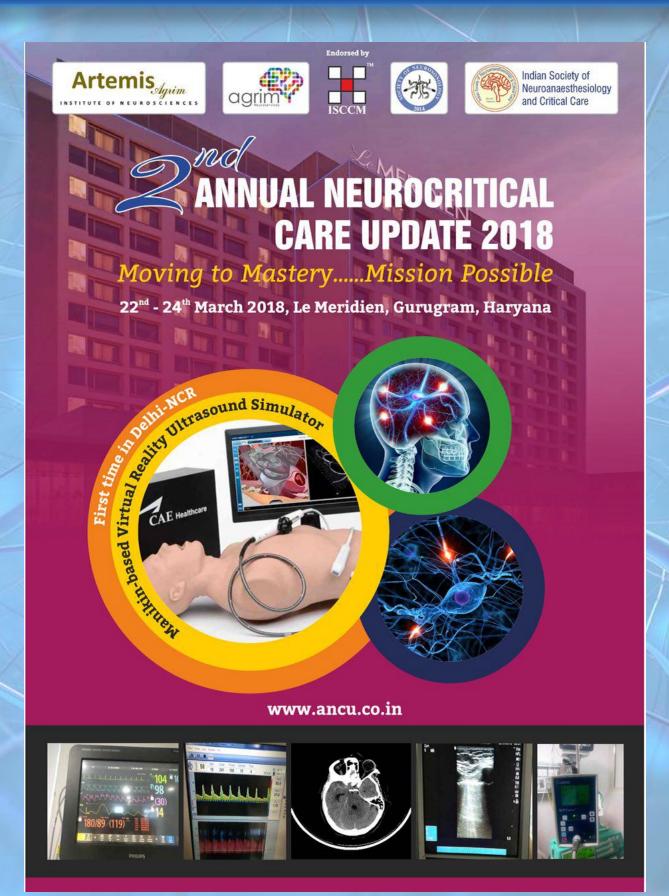
Office Bearers 2018

President President -Elect

- Vice President
- Secretary Treasurer
- Editor-in-Chief
- **Executive Members:**

- Sashi Shrivastava
- H K Venkatesh
- Nidhi Panda
- V Ponniah
- Prasanna Bidkar
 - Parmod K Bithal

Arvind Chaturvedi Hemangi Karnik Vasudha Singhal Sucharita Chakravarti Ramamani Mariappan Rajeev Kumar Dubey





Parallel Paediatric Neuroanaesthesia Network (PNAN) Meeting Thursday 10th May 2018

WORKSHOPS:

- Neurosimulation
- EEG Interpretation
- Wellbeing & Mentoring
- MRI Interpretation

TOPICS INCLUDING:

- Traumatic & devastating brain injury
- Acute stroke & neuroradiology
- Pain neuromodulation & cortical spreading depolarisation
- TIVA & MRI update
- Neurorehabilitation

Society Dinner at MShed Bristol - Thursday 10th May 2018



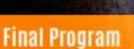


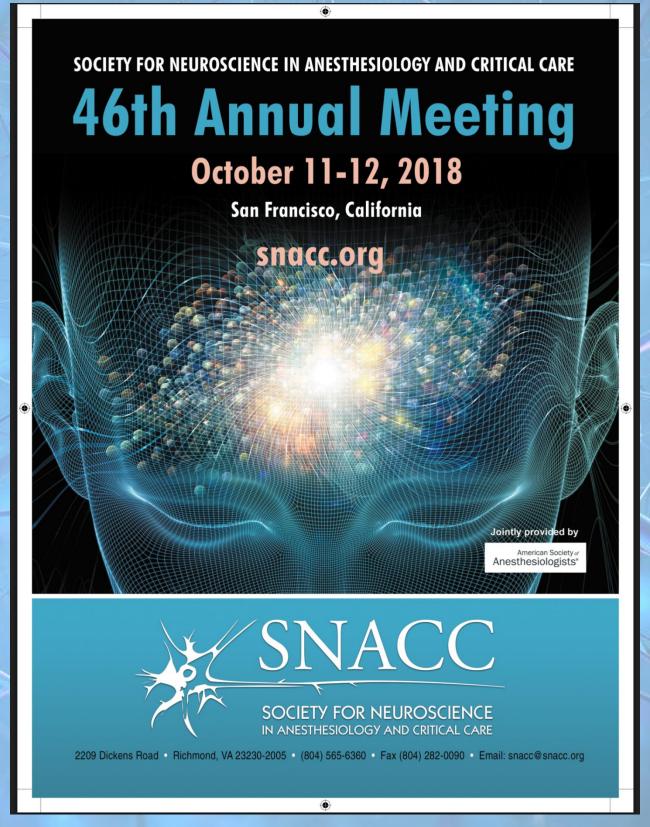
Director, Neuroanesthesia & Critical Care M: +91-9650898577 Email: harsh.sapra@medanta.org Room number 6, Medanta Institute of Neurosciences, Medanta - The Medicity, Gurgaon M: +91-9717413838 Email: medantaneurocriticalcare@gmail.com at Dr Gaurav Kakkar Organizing Secretary Sr. Consultant Neuroanesthesia & Critical Care M: +91-9717413838 Email: gaurav.kakkar@medanta.org

NCS 15TH ANNUAL MEETING

Hilton Walkoloa Village, Hawaii, the Big Island | October 10-13







BLOCK 13th & 14th YOUR DATE OCTOBER 2018

NEUROSCIENCES MASTER CLASS SERIES 4

段 www.globalneuromasterclass.in

NEURO EMERGENCIES

(Integrated Systems: Improved Outcomes)

13th & 14th October 2018

with

Pre-conference Workshop 12th October 2018

@ neuromasterclass

Venue ITC GRAND CHOLA Guindy, Chennai



Gleneagles Global Health City A PARKWAY PANTAI ENTERPRISE



Institute of Neurosciences and Spinal Disorders







AIIMS Neuroanaesthesia Update 2018

Date : 3rd - 4th November, 2018

Pre - conference workshop : 2nd November, 2018

Venue : JL Auditorium, AIIMS, New Delhi

Organised By

Department of Neuroanaesthesiology & Critical Care All India Institute of Medical Sciences, New Delhi

Secretariat

Dr. Gyaninder Pal Singh

Organising Secretary, AIIMS Neuroanaesthesia Update 2018 Department of Neuroanaesthesiology & Critical Care Neurosciences Centre, 7th Floor, Room No. 711, AIIMS, New Delhi - 110029, India Tel: 011 2659 4347 / 3474; Mobile: +91 98105 89220, 98683 98608 Email: aiims.nau@gmail.com Website: www.aiimsneuroanaesthesia.org



ISNACC 2019

20th ANNUAL CONFERENCE OF THE INDIAN SOCIETY OF NEUROANAESTHESIOLOGY AND CRITICAL CARE

Theme: Evolving Frontiers in Neuroanaesthesia and Neurocritical Care

15th - 17th February, 2019 Hotel Leela Ambience, Gurugram, Haryana, India



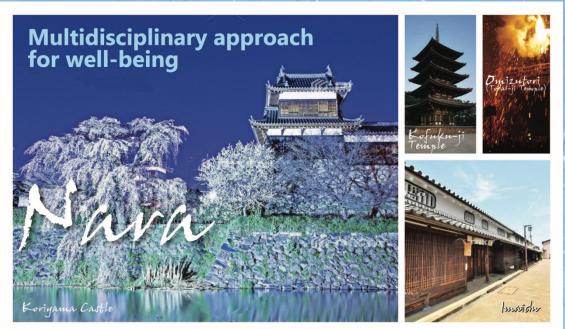
Dr Hari Hara Dash Organizing Chairman

M: +91 9871 153 470 E: dr.harihardash@gmail.com

Dr Virendra jain Organizing Secretary

M: +91 9999 848 485 E: drvirendrajain@gmail.com

Secretariat Address: Fortis Memorial Research Institute, Sector 44, Gurugram, Haryana, India



The 6th Congress of Asian Society of Neuroanaesthesia and Critical Care

