INDIAN ASSOCIATION OF PAEDIATRIC ANAESTHESIOLOGISTS

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INDIAN ASSOCIATION OF PAEDIATRIC ANAESTHESIOLOGISTS

From the Editor's desk

Dr. Vibhavari Naik
Editor - in - Chief
IAPA Newsletter
Hyderabad

Dear IAPA Members

It is with great enthusiasm that I step into the role of editor for this esteemed newsletter. I am both honoured and excited to continue the legacy of providing an enriching content for our members.

Firstly, I wish to express my sincere gratitude to Dr Elsa Varghese and Dr Ekta Rai, the former editors of the IAPA newsletter, for their dedication, vision, and diligent efforts in shaping this newsletter into what it is today. Their work has left an indelible mark, and I hope to build upon the strong foundation they have laid. My memory takes me back to the first IAPA e-newsletter that was released eight years ago during the Presidentship of Dr Pradnya Sawant, with Dr Elsa Varghese leading the editorial team. It was my privilege to have worked closely with her in the editorial team and gained insights into the nuances of editorship.

This 18th issue of newsletter features reflections from Dr Neerja and Dr Nandini on the conclusion of a successful term. Dr Lakshmi provides an insightful narrative on the benefits of paediatric anaesthesia fellowship training in a comprehensive multidisciplinary centre. Dr Rakhee, drawing from personal experience, elucidates the importance of multicentre research and elaborates on the nitty-gritties. Dr Zainab and Dr Poonam discuss the safety and emerging role of Sugammadex in paediatric anaesthesia. Dr Sujata explores the benefits and challenges of teleconsultation, a technological advancement that was essential during COVID-19 pandemic, but has the potential to revolutionise anaesthesia care. I thank Dr Sunidhara and Dr Shilpa for compiling a quiz for the readers. I also wish to express my appreciation to my IAPA newsletter team – Dr Ekta Rai, Dr Ranju, Dr Anisha, Dr Gayatri and Dr Sunidhara for their assistance in compiling this issue.

As we embark on this journey together, my goal is to ensure that this newsletter remains a dynamic platform for creative content keeping our community informed and inspired. We will continue to bring you well-researched articles, expert opinions, perspectives and the latest updates relevant to our field, while also exploring new ways to enhance our content and engage with you, our valued readers.

I invite you all to be an active part of this journey. Your thoughts, suggestions, and engagement will make this newsletter a success. Let's continue this tradition of excellence together!

With appreciation and excitement,

Thank You.

INSIDE THIS ISSUE

A Change Of Guard - Reflections On Our Tenure

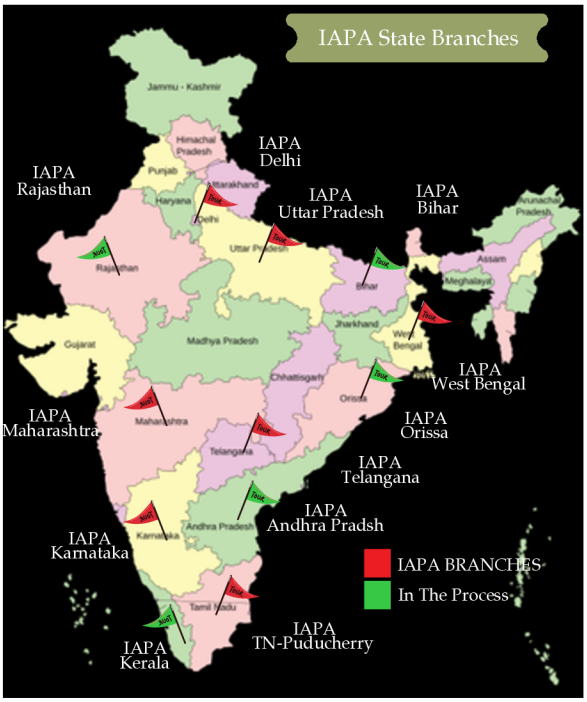
Dr. Neerja Bhardwaj – President
(February 2022 - February 2025)

Dr. Nandini Dave – Vice President
(February 2022 - February 2025)

Dear IAPA family,

Warm wishes to one and all for a happy, healthy and peaceful new year!

The time has come to welcome the new and say goodbye to the old. With our 3-year tenure drawing to a close, it is a time for reflection and reminiscing. The journey has been filled with bittersweet moments – new milestones, victories, and some failures.



We had a challenging task of living up to the standards set by our predecessors Dr. Elsa Varghese and Dr. MSRC Murthy who had been instrumental in taking IAPA to new heights. Our vision for the association was to carry their excellent work forward as well as to bring in new research initiatives and collaborations. It was also our endeavor to enable IAPA with an international presence and collaboration.

Established in 2006, the IAPA is now a robust association stepping outside her 'teens'. In the 20th year, with over 1100 members and several state branches, the IAPA is growing from strength to strength. From 2022 till date new state branches have been registered in Delhi, Tamil Nadu & Pondicherry, Karnataka and Uttar Pradesh, with Kerala soon following suit – taking our presence to 7 + 1 state branches.

A multicentric study on obesity prevalence has been initiated and is a good start for further research collaborations. IAPA is also actively participating in formulating difficult airway guidelines for children with the All India Difficult Airway Association.

The 'Fellowship Course in Paediatric Anaesthesia' under the aegis of IAPA was launched in 2014 after formulating guidelines for accreditation of participating hospitals as well as designing the course curriculum. The new executive committee took a step further to streamline, as well as reaccredit the institutes running this course. New institutes enrolled for the IAPA fellowship courses and previously accredited hospitals expressed their interest in increasing the number of fellowship positions. At present IAPA is conducting the course in 12 locations nationally with a common exit examination twice a year during the national conference. The committee has also modified the examination pattern and format in 2024 to better test the candidates' knowledge and application of the same to paediatric anaesthesia practice. Two gold medals (Dr. Rajani Sundar gold medal and Late Dr. Indrani Mitra gold medal) are being conferred to the highest scoring candidate during each exit examination. To honour our members who have made significant contributions to our association and to recognize their experience and merit, we will be awarding 'IAPA Honorary Fellowship' to select senior faculty.

In an effort to promote knowledge dissemination and bring all the fellows onto a common platform for discussions and experience sharing, IAPA Academics was launched in 2022. Regular online academic sessions are conducted bi-monthly, moderated by experienced and committed senior faculty from across institutes. The sessions have been very well received, and the feedback garnered has prompted us to modify the format of the sessions, including case discussions and journal reviews, thereby encouraging active participation. These teaching-learning sessions have helped fellows immensely, not only in preparing for the fellowship examinations, but also in conduct of cases. It is a testament to the utility of these classes, that past fellows and senior faculty from across institutions attend and participate with enthusiasm. We are grateful and indebted to our faculty who have offered their time, experience and expertise to these teaching sessions. To acknowledge their contribution, we are conferring certificates of appreciation to all faculty who have been actively involved in this endeavour. These certificates will be awarded at the IAPA National Conference in February 2025.

We have had our failures too – the most important one being the launch of a course for training in neonatal care and initial stabilization in congenital surgical conditions. Being a country with a high neonatal mortality, our vision was to train anaesthesiologists in small towns and cities in basic resuscitation skills for neonates so that they can be referred to large institutes for definitive surgery. However, the concept was not received enthusiastically by many members and was therefore temporarily shelved. Another setback for the association has been the closure of 'Wake Up Safe' initiative (which had been launched with great enthusiasm) due to multiple unavoidable reasons. The membership of ' Anaesthesia' journal offered to all IAPA members at a highly subsidized cost had very few takers. To continue providing this membership to select interested members, the association has had to contribute a big chunk of money to keep the membership active. It is our humble request to all members to avail this opportunity as a means to update your knowledge of paediatric anaesthesia.

The hallmark of our tenure was the excellent camaraderie and comradeship we shared with each other and the executive committee. Together, truly we were able to achieve so much. As our term concludes, we look back with satisfaction at the work done and the milestones achieved. We look forward to the new executive committee taking our association to even greater heights and we wish them the very best.

Long live IAPA!

We welcome the incoming IAPA Office Bearers

President - Dr. M. Subrahmanyam

Vice President - Dr. MSRC Murthy

Executive Members

Dr. Sailaja K **Dr. Poonam Motiani**

Dr. Narendra C Tajne **Dr. Prem Raj Singh**

Answers to quiz - 1- c , 2- c, 3- d, 4- d, 5- c, 6- b, 7- c,8- a, 9- c, 10- d

Paediatric Anaesthesia Training in Multidisciplinary Centre – My Reflections

Dr. Lakshmi Kumar Kochi

Non-operating room anaesthesia (NORA) training in paediatric anaesthesia is an exciting proposal for young anaesthesiologist! There is an opportunity to overcome apprehensions of tiny patients, small airways and difficult intubations! Anaesthesia has advanced significantly in the last decade and caring for the "little ones" gives one joy along with learning under the able tutelage of experienced seniors. Trainees can progress in airway expertise from using newer equipment like videoscope for intubation to learning to maintaining spontaneous respiration in infants under conscious sedation during complex ENT procedures such as aryepiglottoplasty. Ultrasound has certainly changed the way we practice regional anaesthesia and vascular access by improving safety and introducing a new skill set for trainee paediatric anaesthesiologists to acquire. Beyond the fundamental knowledge and techniques of paediatric anaesthesia, the training experience is further enriched by exposure to and involvement in a diverse range of surgical procedures.

Is there an advantage to train in centres that are multidisciplinary tertiary care centres over dedicated paediatric hospitals? In multidisciplinary centres, the trainee can navigate through a broad range of specialty work from the neonatal gastrointestinal emergencies, urological and thoracic surgeries whilst learning the management of scoliosis and intricacies of spinal cord function monitoring. Paediatric neuroanaesthesia brings in issues with airway management and major blood losses in an infant and neonate. Centres specializing in transplants, open doorways to a challenging paediatric anaesthesia practice. Learning to manage fluids and electrolytes in children with end-organ dysfunction, management of coagulation, use of renal assist devices and extra-corporeal circuits are highlights in advanced paediatric anaesthesia and perioperative care. Dedicated intensive care units provide learning advanced modes of ventilation in a neonate with diaphragmatic hernia and observing the fine art of weaning of a child with a respiratory condition, and these are learning opportunities of a lifetime! Larger centres provide the opportunity to manage non-operating room anaesthesia (NORA) at various locations and this truly tests the skills of an anaesthesiologist! The anaesthesiologist must manage anaesthesia away from the comfort of an OT setting amidst strange gadgets and machinery and probably undergoes a primer in aerobics as well while managing these cases! NORA encompasses MRI for children, endoscopy suite procedures, audiology, ophthalmic procedures and dental procedures in the out-patient settings. An anaesthesiologist at the end of his/her training will have the confidence to plan what may be needed, monitor and also know when to seek help at the correct time. In centres with cancer services, one may have the opportunity to provide vascular access for chemotherapy in children. In cardiac units, although paediatric cardiac anaesthesia may necessitate a separate training pathway, one encounters several children with congenital heart disease, treated or palliated undergoing non-cardiac surgery

To summarise, comprehensive multi-disciplinary tertiary care hospitals offer the scope of training in paediatric anaesthesia across multiple specialties that may or may not be available in dedicated paediatric hospitals. While paediatric hospitals may be able to offer the trainee advanced management in certain areas but may miss out on an all-round exposure to other specialties. Here's to welcoming the budding paediatric anaesthesiologists as they embark on their journey to excellence and hoping that you enjoy every moment in your professional journey!!

Sugammadex in paediatric anaesthesia: from a newcomer to an emerging contender

Dr. Poonam Motiani
Noida

Dr. Zainab Ahmad
Bhopal

Sugammadex, a novel synthetic γ-cyclodextrin is classified as the first selective neuromuscular relaxant binding agent. It reverses neuromuscular blockade by selectively binding to and encapsulating amino-steroidal neuromuscular blocking agents (NMBAs) like rocuronium and vecuronium, thereby preventing the NMBAs from interacting with the acetylcholine receptors on the neuromuscular junction. It binds tightly to the NMBA in a 1:1 ratio with a high binding and low dissociation rate and a higher affinity for rocuronium. There is no direct action of sugammadex on the neuromuscular junction, hence obviating the need for anti-cholinergics during reversal. It was introduced in India in early 2022 after Central Drugs Standard Control Organization (CDSCO) approval for adult use. data as well as data from the Indian subcontinent, remains limited. This review highlights key considerations for its use focusing on paediatric population.

a. Efficacy, postoperative outcomes and perioperative efficiency

Sugammadex provides rapid and reliable reversal, even for profound neuromuscular blockade. Based on limited data, dosage recommendations (Table 1) align with adults, although assessing the depth of blockade in children can be challenging.[1] A recent meta-analysis involving 18 studies (1065 patients) reported that though the quality of evidence is low, sugammadex achieves significantly faster neuromuscular recovery with fewer adverse effects (nausea & vomiting, bradycardia and dry mouth) compared to neostigmine.[2] Another review in children under 2 years of age supported the safe and efficacious use of sugammadex for these patients.[3] Sugammadex demonstrates a better safety profile than neostigmine, particularly for patients with risk factors for postoperative pulmonary complications such as those with congenital heart disease or undergoing thoracic surgeries.[4] However, evidence on its impact on postoperative outcomes, hospital stays, and treatment costs remain inconclusive. Some studies report faster operating room turnover, but cost benefits are offset by the drug's high price. In India, a 200 mg vial costs between ₹1,500 and ₹2,300, compared to less than ₹100 for neostigmine and glycopyrrolate.

b. Safety and regulatory concerns

Sugammadex has been approved in Europe since 2008 and by the USFDA in 2015 for adults, with approval (ages 2–17) granted in 2022. Its use in neonates remains off-label and is not recommended in patients with severe renal, hepatic, or cardiopulmonary impairment due to limited safety data. In severe renal impairment, delayed elimination may interfere with subsequent NMBA doses. Recent publications have highlighted significant adverse effects including broncho and laryngospasm, anaphylaxis apart from bradycardia and rarely even asystole necessitating adrenaline and cardiopulmonary resuscitation.[5] It is important to note that, some reports also highlight the possibility of residual blockade and recurarisation up to an hour after administration especially in patients of younger age, lower body weight and those administered vecuronium and lower than recommended doses of sugammadex.

c. Emerging applications

Use of sugammadex is being explored to facilitate urgent neurological examination in the emergency department and during spinal surgeries. Many case reports on reversal of rocuronium induced anaphylaxis by sugammadex have been published but it's role remains unproven and is still unlicensed for this purpose. The controversy regarding its use is that it may interfere with the action of hydrocortisone and may itself cause anaphylaxis.

Conclusion

Sugammadex is a promising advancement in reversing neuromuscular blockade, offering fast and effective recovery. While it may reduce residual blockade and improve perioperative efficiency, more literature would help establish safety in children particularly the smallest ones. Also, the higher costs and potentially serious adverse effects, call for cautious use and further research especially in patients of younger age groups.

Table

Dose of sugammadex based on depth of neuromuscular blockade

Depth of neuromuscular blockade	Dose of sugammadex
Moderate block (on reappearance of T2 on Train-of-four stimulation (TOF))	2 mg/kg
Deep block (1-2 post-tetanic count, no twitch on TOF)	4 mg/kg
Immediate (after loading dose of NMBA)	16 mg/kg

References continued in Pg.no 8

Multicenter research - collaborate and conquer

Dr. Rakhee Goyal
New Delhi

A multicenter study is a research collaboration of multiple centers who have a common aim, and follow a common format of data input, compilation, and analysis of the results in a coordinated manner within a preset timeline. As clinicians, we rely on data available in the literature and most of our decisions are based on this evidence. Information regarding clinical scenarios or diseases that are not common cannot be often obtained from single centers. For the same reason, some of the 'big data', typically related to incidence and pattern of adverse events gets derived from large multicenter trials that often span countries and continents such as GAS, PANDA, APRICOT, CRICKET (ongoing), BIG APPLE (ongoing) studies pertaining to paediatric anaesthesiai.

Multicenter research plays an important role in the clinical field and addresses complex questions that cannot be answered by single center research. It covers diverse patient population, recruits participants faster, and in larger numbers. The sample size that can be achieved by multiple centers over a period cannot be compared to single centers. The power of a study rests in adequate sample size and multicenter studies score high in this regard. Besides, different centers across a diverse geographical, economic, cultural, and social areas can share resources and expertise, and there is a big opportunity for networking for them. However, collaboration of multiple centers can be a challenging task and would require coordination in terms of selecting appropriate centers and investigators, finding common relevance to the research topic, working across different timelines, laying same rules for everyone yet accommodating variations, and finally attributing credit to individual stakeholder when the study sees light in the form of a publication or presentation.

Indian Council of Medical Research (ICMR) has laid down detailed guidelines for common ethics review of multicentric researchii. It elaborates on the purpose, scope and the process of conducting the common ethical review through the Designated Ethics Committee (DEC) and ethics committees of the participating centers (PECs). These guidelines aim to ensure timely review by good coordination and contribution by all centers without compromising the quality and autonomy of individual PEC.

There are specific criteria of eligibility for the DEC of the coordinating center and its Primary Investigator (PI). Their responsibilities are well defined and include initial review of study proposal, ensure adequate participation of PECs in the deliberations of the final proposal, to be transparent, sensitive, competent, and accountable, to review policy for publication and data sharing, to review adverse events or protocol deviations, to process and maintain all necessary documentation, etc. A 'Letter of Agreement'/'Letter of Understanding' should be signed between PI of DEC and PECs with the agreed roles and responsibilities of each party along with the communication and publication plans.

Individual centers are required to get ethics approval from their respective ethics committees and share with the DEC. Registration of the study should collectively be done by the Principal Invastigator of the DEC with Clinical Trial Registry of India (CTRI) before commencement of recruitment of study patients. However, if the study includes data sharing with other countries, permission is required to be sought from Health Ministry's Screening Committee operated by Department of Health Research/ICMR.

Multicenter research can be successful if the methodology is robust. The following points must be adhered to:

1. The study design should be well planned with a relevant research question that is more generalisable and relatable to all participating centers.
2. There should be strict standardization of study protocol, data collection, data compilation. The implementation of uniform methodology and monitoring of the same is the key to valid outcomes.
3. Data collection must be high quality and accurate. Bias and traps within the data should be identified and managed.
4. Timelines should be followed by all centers diligently.
5. Transparency and autonomy should not be compromised.
6. Communication amongst centers should be always open and two ways.
7. Coordination by the PI of the DEC with the centers at each stage transforms the momentum and the success of a multicenter study.

To summarize, multicentric studies may be challenging, labor intensive and time consuming but the quality of evidence it can bring to the table would remain unparallel. They should be supported at all levels, necessary training should be offered to the clinicians, and the concept of collaboration must be encouraged.

References continued in Pg.no 10

Dr. Sujata Rawlani
Mumbai

Connected Care: Exploring Teleconsultation in Paediatric Anaesthesia – Benefits and Challenges

In the age of digitalization, the COVID-19 pandemic highlighted telemedicine's potential for safer, remote consultations. Introduced in the U.S. in 2004, anaesthesia teleconsultation (ATLC) has shown promise in improving access, outcomes, and care delivery.[1] However, its use in anaesthesia, particularly in s, remains underutilized. Its application requires careful consideration of practical challenges, ethical concerns, and its true impact on patient outcomes to realize its full potential.

Teleconsultation includes real-time (synchronous) sessions via video conferencing for history-taking, visual exams, and airway assessments; and store-and-forward (asynchronous) methods where medical records are shared for later review.[2]

An often-asked question remains: can technology replace the human eye and touch? Advances like blood pressure monitors, glucometers, electronic stethoscopes, smartphone apps, and wearable sensors support remote examinations.[3] While promising, their integration into routine practice must ensure they complement, not compromise, clinical assessments

Phases of Care: Telemedicine Applications

Telemedicine can play a pivotal role at every stage of anaesthesia care. In the preoperative phase, Tele-PAC (Tele-preanaesthesia check) proves to be both cost-effective and highly satisfactory for patients and providers. While it facilitates efficient preliminary assessments, detailed physical and airway evaluations remain challenging. Tele-PAC excels as a platform for parental counseling in cases, addressing caregiver concerns alongside patient needs. It allows for thorough history-taking, review of investigations, and recommendations for additional tests if necessary. Pre-operative fasting guidelines can be clearly explained, minimizing prolonged fasting, while detailed discussions of anaesthesia options—regional, general, or combined—help reduce parental anxiety. Tele-PAC also aids in rapport-building with older children and their parents, fostering trust and preparedness before surgery. Performing a Tele-PAC requires telemedicine software (Figure 1), such as DocPulse or EyeSmart, integrated with an EMR (Electronic medical records) to streamline workflows and avoid record duplication. Patients opting for teleconsultation must agree to a disclaimer presented on the virtual platform before the session. Obtaining and documenting informed consent—whether via video, audio, or text—is mandatory and should align with institutional protocols. This consent also clarifies that the teleconsultation serves as a preliminary evaluation, and final fitness for surgery will only be determined after an in-person examination.

Intraoperatively, telemedicine shows promise despite limited applications. For instance, liver transplants at Narayana Hospital utilized remote anesthesiology guidance via GotoMeeting, demonstrating its potential in complex cases.[4] However, a stable, high-speed internet is critical to avoid disruptions that could have serious consequences.

Postoperatively, telemedicine enables virtual ICU monitoring, recovery tracking, pain management, and follow-up for day-care surgeries.[5] Streamlining care across these phases, telemedicine holds great potential to enhance anaesthesia practices.

Opportunities and Obstacles

Telemedicine offers remote consultations, reducing travel costs and enabling preoperative counseling to prepare families. It enhances record-keeping and supports continuing medical education while minimizing disease transmission risks during outbreaks. The 2020 Telemedicine Practice Guidelines ensure legal safeguards with protocols for patient-doctor identification, consent, ethical practices, and data privacy.[6]

Challenges include reliance on robust technology, where network interruptions can disrupt communication and impact patient safety. Limitations such as poor lighting, restricted phone camera views, inability to perform physical exams, and typing instead of writing further complicate its utility, potentially hindering assessment accuracy and consultation efficiency.

Looking Ahead

Telemedicine is set to transform anaesthesia care, enhancing ERAS protocols and chronic pain management. In anaesthesia, it provides accessible options but presents challenges, especially for younger patients who require in-person evaluations. While practical for older children, telemedicine serves as a valuable tool for preliminary assessments, aiding anaesthesiologists in better anaesthesia planning. As the healthcare landscape becomes increasingly digital and paperless, it's crucial for anaesthesiologists to stay ahead by adapting quickly to these innovations. The future of healthcare is digital, and our ability to embrace and integrate these changes will shape the care we provide and ensure we remain at the forefront of patient care.

Disclaimer – Neither the author nor IAPA has financial interests in any of the products mentioned in this article.

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Figure 1. Some EMR compatible telemedicine software options

Figure 2. Tele-consultation room at Shantilal Sanghvi Eye Institute. (The image displayed on the monitor features a fellow colleague, not a patient, ensuring no patient identity or information is disclosed.)

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Severe bradycardia in infant during lipomeningocele surgery - case report

Dr. Falguni Naregal
Vadodara

Introduction

Lipomeningocele is a type of spina bifida where skin over the lesion is intact and subcutaneous lipoma extends through the defect and is incorporated into neural elements. The aim of neurosurgeon is to excise as much lipomatous tissue as possible, whilst preserving the nerve roots. Additionally, surgeon detethers neural elements from tissues to which they are pathologically attached.[1] Goal is to reduce the stretching on the spinal cord as the child grows. Commonest location of lipomeningocele is lumbosacral region. It can be associated with VACTERL syndrome (vertebral anomalies, anal atresia, cardiac defect, trachea-oesophageal fistula, renal and limb defects). anaesthesia for the repair can be challenging as surgery is carried out in prone position and age of the child is usually less than a year.

Case report

An eight-month-old male child weighing 7 kg presented with a fatty pad in the lumbar region was clinically diagnosed as lipomeningocele . Diagnosis was confirmed with magnetic resonance imaging (MRI), which revealed a fatty mass in lumbosacral area with tethering of cord. Patient was a full term healthy baby and clinically asymptomatic with normal strength in lower extremities. His heart rate (HR) was 120/min and blood pressure (BP) was 90/60 mmHg. His haemogram and serum electrolytes were within the normal range. The child was scheduled for debulking of lipomatous mass and detethering of the cord. After preoxygenation, general anaesthesia was given with fentanyl 10 mcg, midazolam 0.7 mg , propofol 20 mg and atracurium 4 mg. Trachea intubated with 4.5 size uncuffed endotracheal tube. Patient was placed in prone position and anaesthesia was maintained with oxygen, nitrous oxide and sevoflurane 2%.

After resection was complete and duroplasty was being done, patient developed sudden bradycardia with hypotension (HR 55/min and BP 50/28). Injection atropine in the dose of 0.14 mg iv was given. However, bradycardia did not improve, which then was followed by asystole. Promptly patient was made supine and resuscitated with chest compressions, 10 ml/kg bolus of lactated Ringers and intravenous adrenaline 0.07 mg. Sinus rhythm was achieved within 40 seconds and haemodynamic parameters got stabilized. Hypoxia and blood loss as cause for this episode were ruled out. Surgery was quickly completed in semi-prone position. Patient was extubated uneventfully and shifted to surgical intensive care unit for further postoperative care.

Discussion

Lipomeningocele is a type of neural tube defect. Majority of the patients are infants who are at a higher risk for anaesthesia, and prone position required for surgery further adds to this risk.[2] Hemodynamic alterations may occur in these cases due to vagal stimulation during manipulation of neural tissue and blood loss.[3] Careful positioning of the infant during induction of anaesthesia is important as direct pressure on the exposed neural placode may lead to increase in intracranial pressure. Singh et al report two cases of intraoperative cardiac arrest during meningomyelocele surgery: one during induction due to herniation and second during closure secondary to hyperkalemia and acute renal failure[3]. In our case, cause of hypotension and bradycardia may be attributed to loss of cerebrospinal fluid from the sac, leading to increased craniospinal pressure gradient and thence, brain herniation. Blood loss at the time of hemodynamic instability in our case was minimal and does not appear to be a contributing factor.

Figure 1. MRI spine depicting lipomeningocele with tethering of cord

In conclusion, anaesthesiologists need to be cognizant of various causes of hemodynamic instability in children undergoing meningocele repair and be prepared to manage it. Sudden loss of CSF from the sac could lead to bradycardia, hypotension and cardiac arrest secondary to brainstem compression due to coning. The importance of vigilance during the procedure and preparedness for managing complications cannot be overemphasised.

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IAPA NEWSLETTER TEAM

IAPA Midterm CME 2024 Report

Dr. Sailaja Kamabathula
Hyderabad

The IAPA Midterm CME 2024, hosted by the Telangana State chapter of the Indian Association of Paediatric Anaesthesiologists (IAPA), was concluded successfully on August 10th and 11th 2024, at Hotel The Plaza, Hyderabad. The event witnessed an active participation and enthusiastic engagement from delegates, faculty, and organizers.

Themed "The Paediatric Anaesthesia Connect," the event provided a platform for knowledge-sharing and discussions tailored for both occasional and seasoned anaesthesiologists. It featured thought-provoking presentations, dynamic panel discussions, and interactive workshops that highlighted practical insights into neonatal resuscitation, airway management, simulation and emerging trends in anaesthesia.

Key Highlights:

Workshops: Hands-on sessions on "Neonatal Resuscitation & Airway Management" and immersive "Simwars" attracted strong participation. These workshops offered an invaluable experiential learning opportunity to attendees. As a part of capacity building for the ongoing ASPA PPLS (Asian Society of Paediatric Anaesthesia Paediatric Perioperative Life Support) course that IAPA conducts year-round, Train the Trainer program (ASPA IAPA PPLS TTT) was conducted that trained 20 faculty from India and one from Vietnam.

Scientific Program: The CME included expert talks on topics such as neuraxial techniques, perioperative fluid management, one-lung ventilation in s, and handling difficult airway challenges. The sessions sparked engaging discussions among attendees. Critical events in anaesthesia were examined in depth during an interactive panel session, fostering collaborative problem-solving.

Networking and Fun: Participants also enjoyed networking opportunities, exhibits of innovative products, energizing morning walk and a vibrant gala dinner, which provided a relaxed setting for further engagement.

We thank everyone who joined us and made this event a resounding success.

QUIZ TIME

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1

What is the first sign of inhalational induction in a child:
a) Disappearance of eyelash reflex
b) Shallow, rapid breathing
c) Appearance of nystagmus
d) Patient does not react to verbal stimuli

2

Delay in surgery for 24 to 48 hours for preoperative stabilisation and preparation is acceptable in each of the following neonatal conditions except:
a) Congenital diaphragmatic hernia
b) Tracheo-oesophageal fistula
c) Myelomeningocele
d) Pyloric stenosis

3

In an infant, spinal anaesthesia to a sensory level of T8 is achieved with heavy bupivacaine administered at L3–L4 interspace. Compared to spinal anaesthesia at a similar sensory level in an adult, for an infant it is associated with:
a) Higher risk for systemic toxicity
b) Lower risk for spinal cord injury
c) More significant decrease in BP
d) Shorter duration of action

4

During induction of anaesthesia for emergency appendectomy in a child, which of the following is TRUE?
a) Cricoid pressure needs to be applied
b) Rapid sequence induction is practiced
c) No role of Ryle's tube insertion in intestinal obstruction
d) Gentle ventilations can be given before intubation

5

Compared to a normal adult, which of the following characteristics of neonates best explains their more rapid inhalational induction?
a) Greater cardiac index
b) Greater perfusion of vessel-rich tissues
c) Greater ratio of alveolar ventilation to functional residual capacity
d) Less lean body mass

6

Regarding foetal surgery, all are true except:
a) Hypothalamic response to noxious stimuli can be present as early as 18 weeks in foetus
b) Magnesium sulphate is the preferred tocolytic for foetal procedures
c) Foetal oxygen saturation ranges between 50–70%
d) Foetal mixture of opioid, non-depolarizing blocker & atropine is used to reduce stress response and achieve immobility during surgery

7

Regarding blood transfusion in paediatrics, all are true except:
a) 15 ml/kg of packed red blood cells increases haemoglobin by 3 g/dL
b) Prolonged APTT is normal in neonates and preterm babies
c) Fibrinogen is the last factor to reduce in massive blood loss
d) Thromboelastography can be used to guide transfusions

8

A parturient receives ketamine 2 mg/kg and succinylcholine 1.5 mg/kg for induction prior to elective caesarean delivery. Which of the following is most likely to be present in the newborn infant:
a) Normal musculoskeletal tone
b) Bradycardia
c) Respiratory depression
d) Seizures

9

Which of the following statements concerning foetal haemoglobin (Hb) is true:
a) It makes up less than 50% of total Hb in the full-term newborn
b) It binds with greater affinity to 2,3-DPG than adult Hb
c) It shifts the oxyhaemoglobin dissociation curve to the left
d) It has a P50 of 27 mm of Hg

10

A newborn infant is undergoing repair of gastroschisis. During closure of the abdominal wall, ventilatory pressures and central venous pressure rises markedly. The appropriate management is to:
a) Administer bronchodilator
b) Decrease TV & Increase RR
c) Increase the neuromuscular block
d) Ask surgeon to reopen the abdomen