

Malaysian Society of Anaesthesiologists &
College of Anaesthesiologists, AMM

ANNUAL SCIENTIFIC CONGRESS 2025

MyAnaesthesia 2025:
Advancing Perioperative Safety:
everyone, every time, everywhere
ABSTRACT BOOK

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MESSAGES

THE ORGANISING CHAIRPERSON

Dato' Dr Yong Chow Yen

*President, Malaysian Society of Anaesthesiologists
Organising Chairperson, MSA and CoA Annual Scientific Congress 2025*

It is with great pleasure that I welcome you to MyAnaesthesia 2025, the Annual Scientific Congress of the Malaysian Society of Anaesthesiologists (MSA) and College of Anaesthesiologists, Academy of Medicine of Malaysia. On behalf of the Organising Committee and the Executive Committee Members of MSA, I extend a warm greeting to all delegates, speakers, facilitators, sponsors, and partners. Whether you have travelled from across Malaysia or abroad, your presence is deeply appreciated and contributes to the strength of this congress.

Our theme this year, “Advancing Perioperative Safety: everyone, every time, everywhere”, captures the essence of our professional identity and responsibility. In anaesthesia and perioperative care, safety is not merely a guideline: it is a mindset, a core value, and a commitment we uphold every day. Regardless of setting, whether in a high-tech operating theatre in Kuala Lumpur or a resource-limited hospital in Sabah, the expectation for patient safety must remain constant.

We live in a time of increasing complexity in surgical care, driven by an ageing population, rising patient comorbidities, and escalating expectations for outcomes. In this context, perioperative safety is no longer just an aspiration—it is a professional and moral imperative. This congress invites us to re-examine how we define and deliver safe care across every stage of the perioperative journey. It challenges us to look beyond the actions of individual clinicians and to reflect critically on the systems, teamwork, and culture that shape patient outcomes. “Everyone” in the theme also reminds us that safety begins with ourselves—our own wellbeing is essential if we are to care effectively for others.

We are especially honoured to welcome an outstanding faculty of local and international speakers, each bringing valuable expertise and unique perspectives. To our international delegates and guests, we say “Selamat Datang” — “Welcome”. Your participation is not only a sign of global collaboration but also a testament to our shared commitment to advancing safety and quality in perioperative medicine.

We hope your time in Malaysia will be both professionally enriching and personally memorable.

Our scientific programme, put together by a team led by the energetic Associate Professor Dr Samuel Tsan, has been thoughtfully curated to offer a comprehensive and forward-looking educational experience. Sessions will cover a wide range of topics, including advanced airway management, regional anaesthesia, critical care, enhanced recovery protocols, patient-centred pain management, crisis resource management, human factors, and medicolegal issues. From plenary sessions, symposiums, breakfast sessions to workshops and abstract presentations, there is something for everyone—trainees, consultants, educators, and allied health professionals alike. Beyond the scientific sessions, this congress offers an opportunity to celebrate individual achievements and foster meaningful conversations and connections that will continue to strengthen our profession long after it concludes.

None of this would be possible without the tireless work of the Congress Organising Committee, Scientific Committee, Secretariat, volunteers, and support teams. Your dedication, attention to detail, and unwavering commitment have brought this congress to life. To all our speakers, facilitators and presenters: thank you for sharing your expertise. And to our delegates, thank you for investing your time and energy in professional development and patient care.

We are also pleased to acknowledge and thank our industry partners and sponsors. Your continued support makes it possible for us to organise high-quality educational events and to bring together the latest in science, technology, and clinical practice. We value this partnership and your commitment to the advancement of healthcare in Malaysia.

As anaesthesiologists, we are entrusted with our patients' most vulnerable moments. Every anaesthetic or procedure we give represents not just medical and technical expertise, but a deep trust and moral obligation. Let us use this congress as a space for reflection and discovery to honour that trust: for everyone, every time, everywhere.

Thank you once again for joining us. We wish you a productive, engaging, and meaningful congress experience.

THE CO-ORGANISING CHAIRPERSON

Professor Dr Ina Ismiarti Shariffuddin

*President, College of Anaesthesiologists, Academy of Medicine of Malaysia
Organising Co-Chairperson, MSA and CoA Annual Scientific Congress 2025*

On behalf of the College of Anaesthesiologists, Academy of Medicine of Malaysia, it is my great pleasure to warmly welcome you to *MyAnaesthesia 2025*, the 62nd Annual Scientific Congress of the Malaysian Society of Anaesthesiologists and College of Anaesthesiologists, Academy of Medicine of Malaysia. I would like to extend our heartfelt thanks to YB Datuk Seri Dr Dzulkefly Ahmad, Minister of Health Malaysia, for graciously officiating at the opening ceremony of this Congress. Yang Berhormat's presence is a great honour and a testament to the importance of perioperative safety in the national healthcare agenda.

This year's theme, "Advancing Perioperative Safety: everyone, every time, everywhere", reflects our deep and ongoing commitment to delivering safe, high-quality care for every patient across all settings and systems. It calls on us to be bold, collaborative, and forward-thinking as we strive to raise standards and close safety gaps in perioperative care. This applies both globally and, especially, here in Malaysia.

I am especially proud of the great spirit of collaboration that continues to flourish between the two organising bodies, which has once again made this flagship event a reality. A heartfelt thank you to the Scientific Committee, ably led by Associate Professor Dr Samuel Tsan Ern Hung, for curating a programme that is both thought-provoking and impactful. This programme truly showcases the breadth of innovation, research, and leadership that defines our profession.

MyAnaesthesia 2025 brings together a diverse community of anaesthesiologists, intensivists, perioperative teams, and allied healthcare professionals from across the nation and the region. A very warm welcome to our esteemed speakers and delegates from overseas. We are truly honoured by your presence. We hope you will take this opportunity not only to engage in the rich academic exchanges, but also to explore the warmth, hospitality, and cultural richness of Malaysia. I would also like to express my sincere gratitude to all our faculty members, for your generosity in sharing your time, expertise, and wisdom. Over the next few days, we will learn, connect, reflect, and reimagine what safer perioperative care can truly look like when delivered equitably and consistently.

To all delegates, thank you for being part of this journey. Your presence fuels our progress. Let us seize this opportunity together to grow, to challenge ourselves, and to reaffirm our shared vision to advance perioperative safety for everyone, every time, everywhere. When the Congress draws to a close, I am confident that each of you will return home with renewed energy, practical insights, and pertinent points to bring into your own practice, and reflect on how new evidence can reshape and refine how we deliver anaesthesia care.

I would also like to extend my sincere appreciation to all our biomedical industry partners and sponsors. Your steadfast support continues to enhance the quality and reach of our scientific activities, and I look forward to your continued collaboration in the years ahead. Lastly, I would like to sincerely thank the organising committee and our wonderful secretariat team for their dedication, tireless effort, and behind-the-scenes work that have made this event a reality.

Wishing you a rewarding and memorable Congress.

THE SCIENTIFIC CHAIRPERSON

Associate Professor Dr Samuel Tsan Ern Hung

Scientific Chairperson, MSA and CoA Annual Scientific Congress 2025

As the Scientific Chairperson of *MyAnaesthesia 2025*, the 62nd Annual Scientific Congress of the Malaysian Society of Anaesthesiologists (MSA) and the College of Anaesthesiologists, Academy of Medicine of Malaysia, it is my great pleasure to welcome you to Kuala Lumpur from August 1–3 2025. Join us for three inspiring days filled with learning, collaboration, and a touch of fun as we advance the field of anaesthesia and critical care together!

This year's congress is a vibrant gathering of over 1,000 anaesthesiologists, intensivists, trainees, medical officers, researchers, allied healthcare professionals, and industry partners, all united by a shared passion for improving patient care. Our theme, rooted in innovation and progress, encourages us to explore the latest developments in anaesthesia, critical care, and pain management while fostering connections that will shape the future of our specialty. Whether you're a seasoned practitioner, a curious trainee, or an innovator showcasing cutting-edge technology, *MyAnaesthesia 2025* is your platform to learn, share, and grow.

Our scientific programme is packed with seven plenary sessions, 20 symposia, and five in-congress workshops, divided across four parallel tracks, designed to spark curiosity and enhance your skills. Dive into practical topics like managing high-risk airways, using frontal EEG for pharmacologic decisions, and adopting strategies to support well-being in our high-pressure field. Our keynote speakers, drawn from global leaders in anaesthesia, will share insights to inspire new approaches to patient care. Hands-on workshops offer a chance to refine techniques—perhaps even mastering the art of the perfect intubation while feeling like a pro. For those who love a challenge, our case discussions and interactive sessions will keep you engaged and thinking on your feet.

Beyond the science, *MyAnaesthesia 2025* is about building community. Expect to share a laugh over coffee as we swap stories about the chaos of tangled monitor cables or the triumph of a perfectly timed procedure. Our networking events and industry exhibition will connect you with the latest tools and the brilliant minds behind them, from advanced monitoring systems to novel pain management solutions. These interactions are where ideas are born, collaborations are forged, and friendships are strengthened—because in anaesthesia, we're all part of the same team keeping patients safe.

A special shout-out to our young investigators: your fresh perspectives drive our field forward. The MSA-CoA Young Investigator Award and abstract prizes are your chance to shine, so bring your best ideas and take the stage. We can't wait to see the innovation and energy you'll bring to this congress.

As we gather in the dynamic city of Kuala Lumpur, let's embrace the spirit of *MyAnaesthesia 2025*: to learn, to connect, and to have a bit of fun while advancing our practice. Whether you're here for the science, the camaraderie, or the chance to explore Malaysia's vibrant culture, this congress promises to be a memorable experience. Thank you for joining us on this journey to elevate anaesthesia and improve lives. Here's to three days of inspiration, collaboration, and just the right dose of humour!

MSA & MSA YOUNG INVESTIGATOR AWARDS

ID 26

THE ASSOCIATION BETWEEN MUSCLE LOSS AND HAND GRIP STRENGTH IN CRITICALLY ILL PATIENTS IN SASMEC @IIUM

Noor Diyana AR¹, Mohd Basri MN^{1,2}, Muhammad Rasydan AG^{1,2}

¹Department of Anaesthesiology and Intensive Care, Sultan Haji Ahmad Shah Medical Centre (SASMEC) @IIUM Kuantan, Pahang, Malaysia; ²Kulliyyah of Medicine IIUM Kuantan, Pahang, Malaysia

Introduction

Skeletal muscle wasting occurs rapidly within the first week of ICU admission. Early detection of muscle loss is essential to guide rehabilitation and nutritional therapy. Ultrasound-derived quadriceps muscle layer thickness (QMLT) provides an objective bedside measure of muscle mass, while hand grip strength (HGS) reflects global muscle function. This study aimed to determine the association between muscle loss and HGS in critically ill patients in SASMEC @ IIUM.

Methods

An observational study was conducted in the ICU, SASMEC @ IIUM from July 2024 to February 2025. Adult patients requiring at least 48 hours of ventilation and cooperative for HGS testing were included. QMLT was measured using ultrasound on Day 1 and between Days 4–7 of ICU stay, while HGS was assessed using a digital hand dynamometer on extubation. Data were analysed using IBM SPSS v27.

Results

A total of 111 patients were analysed. The mean percentage of muscle loss during the first week was 5.87%, and the mean HGS was 6.46 kg. There was a significant association between muscle loss and HGS ($p < 0.05$). Each 1% increase in muscle loss corresponded to a 0.19 kg decrease in HGS. Gender differences were significant, with females exhibiting 3.47 kg lower HGS than males.

Conclusion

Hand grip strength correlates strongly with ultrasound-measured muscle loss in ICU patients. HGS is a simple, bedside tool that can serve as a surrogate marker for early muscle wasting and should be incorporated into routine ICU assessments.

ID 35**SAFE SURGERY SAVES LIVES (SSSL), CAN ANAESTHESIOLOGY TEAM BE THE GATEKEEPERS OF PATIENT'S SAFETY? AN AUDIT IN HOSPITAL SEBERANG JAYA****CK Gan**, Brendy Lim XE ZS Lee, I Ainaa¹*Department of Anaesthesiology, Seberang Jaya Hospital, Ministry of Health Malaysia, Penang, Malaysia***Introduction**

Safe Surgery Saves Lives (SSSL) is a global initiative launched by the World Health Organization (WHO) in 2008 to reduce surgical deaths and complications worldwide. The aim is to improve communication and teamwork among surgical teams, including anaesthesiology and ensure essential safety steps are followed before, during, and after surgery.

Method

We conduct an audit in Hospital Seberang Jaya in 2024, over a 2-month period. We evaluate adherence to critical safety protocols in operative settings in a total of 183 cases. Evaluate key components include time-out practices, patient identification, site marking, instrument counts and team participations. Descriptive statistics were used to calculate compliance rates across metrics, while qualitative comments were analysed to identify common issues. Data entry and analysis were done using Microsoft Excel and summarized into visual formats- bar charts for presentation purposes.

Results

Our findings show strong compliance in conducting time-outs (98.36%) and patient identification (98.91%), reflecting the effective adherence to the essential safety procedures. However, only 64.21% of applicable cases had proper site marking, suggesting area of improvement. Out of the time-outs done, 30% noted partial involvement or distractions. Overall, while compliance to safety protocol is high, consistent execution and environmental controls are essential to enhance the surgical safety standards and foster a stronger culture of procedure accountability.

Conclusion

We, as anaesthesiology team can act as a gatekeeper to improve adherence to Safe Surgery Saves Lives (SSSL). We recommend targeted interventions, particularly in lower-performing departments, for instance importance of reinforcing standard of operating procedures, enhancing team training and instituting 'quiet zones' during critical safety phases.

ID 47**NUTRITIONAL RISK ASSESSMENT AND PROGNOSIS PREDICTION OF HEPATO-PANCREATOBILIARY PATIENTS IN INTENSIVE CARE UNIT, HOSPITAL CANCELOR TUANKU MUKHRIZ**

Intan Farhana Ramli¹, Cheah Saw Kian², Nadia Md Nor², Mohammad Nizam Mokhtar², Azarinah Izaham², Ahamd Fairuz Abdul Shokri³, Siti Nidzwani Mohammad Mahdi²

¹Department of Anaesthesiology and Intensive Care, Hospital Sultanah Nur Zahirah, Kuala Terengganu, Malaysia; ²Department of Anaesthesiology and Intensive Care, Faculty of Medicine, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia; ³Department of Anaesthesiology & Intensive Care, Hospital Canselor Tuanku Muhriz, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia

Introduction

The Modified Nutritional Risk in the Critically Ill (mNUTRIC) score evaluates the nutritional risk of patients in intensive care units (ICUs). This study aimed to assess nutritional risk and identify predictive factors associated with outcomes in hepatopancreatobiliary (HPB) ICU patients using mNUTRIC score.

Methods

This retrospective observational study was conducted at Hospital Canselor Tuanku Muhriz, Universiti Kebangsaan Malaysia from January 2014 to December 2019, following ethical approval. Hepatopancreatobiliary patients aged ≥ 18 years, admitted to the ICU for more than 24 hours following hepatic, biliary, or pancreatic surgical procedures were included. Data collected included patient demographics, type of oxygen therapy, nutritional support, duration of mechanical ventilation, length of ICU stay, and variables required for the mNUTRIC score. Patients with mNUTRIC score of ≥ 5 were classified as being high nutritional risk. The primary outcomes were ICU length of stay and in-hospital mortality.

Results

The data of 107 patients were analysed. Seventy-six (71.0%) patients were identified as being at high nutritional risk. The ICU length of stay was significantly longer in the high nutritional risk group [5 days (2.0-8.5)] compared to the low nutritional risk group [2 days (1-4)], $p = 0.011$. In-hospital mortality was also significantly higher among patients with high nutritional risk (87.5%) compared to those with low nutritional risk group (12.5%), $p = 0.001$. Logistic regression analysis revealed that patients with a high nutritional risk had 3.33 times higher odds of mortality compared to those with low nutritional risk patients (adjusted OR: 3.333, 95% CI: 1.121-9.909, $p = 0.030$).

Conclusion

Patients with high nutritional risk demonstrated significantly higher in-hospital mortality and length of ICU stays. The mNUTRIC appears to be an appropriate tool for assessing nutritional risk and predicting prognosis in HPB ICU patients.

ID 84**DELAYED GRAFT FUNCTION AND PERIOPERATIVE FLUID PRACTICES IN KIDNEY TRANSPLANTATION: A RETROSPECTIVE STUDY SINGLE-CENTRE**

Elia Mazni Mazlan², Prof Karis Misiran¹, Isqandar Adnan¹, Fauziah Ahmad¹, Afifah Samsudin¹

¹Faculty of Medicine, Universiti Teknologi Mara (UiTM), Sungai Buloh, Selangor, Malaysia; ²Hospital Al-Sultan Abdullah (UiTM,) Puncak Alam, Selangor, Malaysia

Objectives

To determine the prevalence of delayed graft function (DGF) and assess its association with intraoperative fluid type and volume as well as other perioperative factors.

Methods

This retrospective study reviewed 136 renal transplant recipients at Hospital Kuala Lumpur from 2019–2022. The variables analysed included intraoperative fluid type and volume, surgical duration, cold ischemia time (CIT), donor renal function, vasopressor use, and intraoperative urine output.

Result

DGF occurred in 8.1% of patients. Balanced crystalloids (Sterofundin) were more frequently used than normal saline, with no significant association between fluid type and DGF. Intraoperative fluid volume and fluid rate were significantly lower in patients who developed DGF ($p = 0.027$ and $p = 0.002$, respectively). Prolonged surgical duration, higher donor serum creatinine, and longer cold ischemia time (CIT) were also significantly associated with DGF. Vasopressor use showed no significant relationship with DGF. Patients with DGF had substantially reduced intraoperative urine output.

Conclusion

A lower intraoperative fluid rate (~15 mL/kg/hr) may be sufficient to reduce risk of DGF compared to the higher rates permitted by current protocols. Key risk factors for DGF identified in this study also include prolonged surgical duration, elevated donor creatinine, and longer cold ischemia time.

ID 104**BRIDGING THE GAP IN PAEDIATRIC ANAESTHESIA TOOLS: USABILITY ASSESSMENT OF THE *MYPAEDSANAESTH* APP IN A TERTIARY TEACHING HOSPITAL**

Muhammad Hafidz Hasan^{1,2}, Zawiah Kassim^{1,2}, Karis Misiran^{1,2}, Afifah Samsudin^{1,2}, Asmah Azizeh^{1,2}, Samantha Rampal Hardyal Rampal³

¹*Hospital Al-Sultan Abdullah (UiTM), Puncak Alam, Selangor, Malaysia;* ²*Faculty of Medicine, Universiti Teknologi MARA, Sungai Buloh, Selangor, Malaysia;* ³*Hospital Pulau Pinang, Georgetown, Pulau Pinang, Malaysia*

Objectives

Mobile health applications are increasingly utilised to support clinical decision-making and improve workflow efficiency. However, there is a lack of paediatric anaesthesia apps tailored to the Malaysian healthcare context. The study evaluated the usability of *MyPaedsAnaesth*, a mobile application developed to aid anaesthetic providers in managing paediatric patients perioperatively. It also explored existing referencing practices before app use and gathered user feedback for improvement.

Methods

A cross-sectional study was conducted among 27 anaesthetic providers (26% specialists, 74% medical officers) at Hospital Al-Sultan Abdullah, Universiti Teknologi MARA (UiTM) who had used the app for at least two months and in a minimum of three paediatric cases. Usability was assessed using the validated 21-item Mobile Health Application Usability Questionnaire (MAUQ), which evaluates three components: Ease of Use & Satisfaction, System Information Arrangement, and Usefulness. Responses were recorded on a 7-point Likert scale via an online survey. The Kaiser-Meyer-Olkin (KMO) and Bartlett's tests were used to assess sampling adequacy and data suitability for factor analysis.

Results

The overall MAUQ score was 6.00 ± 0.37 out of 7, indicating high usability. Component-specific mean scores were 6.28 ± 0.88 for Ease of Use & Satisfaction, 5.97 ± 0.92 for System Information Arrangement, and 5.71 ± 1.05 for Usefulness. KMO value was 0.653, and Bartlett's test was significant ($p < 0.001$). Before using the app, 40.7% of participants relied on personal notes, 25.9% referred to printed textbooks or guidelines, and 37.0% used electronic resources. Thematic analysis highlighted positive user experience and identified areas for enhancement, including requests for printable outputs, antibiotic calculators, and interface customisation.

Conclusion

MyPaedsAnaesth demonstrated strong usability and was well received by anaesthetic providers. It effectively addressed key clinical workflow needs, particularly in referencing and paediatric dose calculation. Incorporating user feedback will guide future improvements, potentially supporting wider adoption in paediatric anaesthesia practice.

ID 112**MENTAL HEALTH AND QUALITY OF LIFE AMONG POSTGRADUATE TRAINEES OF ANAESTHESIOLOGY & CRITICAL CARE IN MALAYSIA**

Kasturi Krishnan¹, Chian Yong Liu¹, Siti Nidzwani Mohamad Mahdi¹, Azlina Masdar¹, Joanna Su Min Ooi¹, Omar Bin Sulaiman², Hanizah Mohamed², Mohammad Nizam Mokhtar¹

¹*Department of Anaesthesiology & Critical Care, Faculty of Medicine, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia;* ²*Department of Anaesthesiology & Critical Care, Hospital Sultanah Aminah, Johor Bahru, Malaysia*

Introduction

Anaesthesiology and critical care is a high-stress specialty, with extreme working hours, high risk patients and situations, and increasingly complex working environments. Postgraduate training is particularly a vulnerable phase, as trainees often face numerous challenges and stressful experiences.

Method

A cross-sectional online survey was conducted on 252 trainees. Their depression, anxiety and stress levels were measured using the 21-item Depression, Anxiety and Stress Scale (DAAS-21), and the 26-item World Health Organization Quality of Life Scale (WHOQOL-BREF) was used to assess their quality of life (QoL).

Results

The mean scores for depression, anxiety and stress were 10.48 ± 8.74 , 8.76 ± 7.76 , and 12.60 ± 8.48 , respectively. A significant proportion of trainees reported severe to extremely severe symptoms: 10.3% for depression, 16.2% for anxiety, and 7.2% for stress. The mean scores for physical health, psychological health, social relationship and environmental health were 64.85 ± 15.27 , 56.66 ± 15.93 , 62.67 ± 18.72 , and 59.97 ± 14.89 respectively. The prevalence of trainees with poor or very poor QoL was 6.8% for physical health, 14.7% for psychological health, 9.9% for social relationship, and 7.9% for environmental health. A significant and negative correlation was found between all mental health subscales and QoL domains, with the strongest correlation observed between depression and psychological quality of life (coef: -0.715; $p < 0.001$).

Conclusion

A significant burden of mental health issues exists among anaesthesiology and critical care trainees in Malaysia, which adversely affects their QoL. These findings highlight the critical need for targeted interventions to support trainee well-being, which is fundamental for ensuring a resilient, effective, and safe healthcare workforce.

E-POSTER (RESEARCH CATEGORY) PRESENTATIONS

ID 31

VALIDATION OF THIOPENTONE ASSISTED INTERVIEW USING BISPECTRAL INDEX, IN YOUNG ADULT VOLUNTEERS: A PILOT STUDY FOR NARCOANALYSIS

Umesh Kumar Bhadani¹, Nikhil Goel², Binay Kumar²

¹Department of Anaesthesiology, All India Institute of Medical Sciences, Patna, India;

²Forensic Medicine & Toxicology, All India Institute of Medical Sciences, Patna, India

Introduction

Narcoanalysis is an interrogation technique in which drugs are administered to induce a hypnotic or semi-conscious state in a subject. Traditionally, the confirmation of this hypnotic state has been subjective, relying on a psychoanalyst's assessment. This study explores the use of the Bispectral Index (BIS) as an objective parameter for monitoring hypnotic states during narcoanalysis.

Methods

BIS monitoring is a standard tool for assessing levels of consciousness during anaesthesia. It can similarly be used to confirm hypnotic states in narcoanalysis. A BIS score 100 indicates full consciousness, whereas a score between 50 and 60 signifies deep anaesthesia. Before its application in narcoanalysis, a pilot study was conducted to determine the BIS level associated with a hypnotic state.

The study involved young male subjects scheduled for routine surgery under general anaesthesia. Ethical approval was obtained, and informed consent was secured. The procedure was explained to participants, and intravenous Thiopentone was administered gradually by a trained anaesthesiologist until a hypnotic state was reached. Confirmation of this state was performed in the presence of a psychoanalyst and forensic psychiatrist.

Results

A questionnaire consisting of ten innocuous questions, designed to respect privacy, was used. Subjects' responses were recorded, and BIS levels were found to range between 73 and 77 during hypnosis. A follow-up was conducted 24 hours later to verify responses and assess recollection of the procedure. Subjects confirmed the truthfulness of their answers and reported complete amnesia regarding the interrogation.

Conclusion

BIS monitoring appears to be a valuable tool for objectively assessing appropriate hypnosis levels during narcoanalysis.

ID 39**COMPARING THE EFFECTIVENESS OF PRE-EMPTIVE ANALGESIA WITH DIFFERENT LOADING DOSE OF CELECOXIB WITH PARACETAMOL IN PATIENTS UNDERGOING LAPAROSCOPIC ABDOMINAL SURGERY**

PW Ng, CY Liu, Rufinah Teo, Aliza Mohamad Yusof, Muhammad Maaya, Siti Nidzwani Mohamad Mahdi

Department of Anaesthesiology & Intensive Care, Hospital Canselor Tuanku Muhriz, Faculty of Medicine, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia

Introduction

Pre-emptive analgesia, including nonsteroidal anti-inflammatory drugs, paracetamol, local anaesthetics, and opioids were effective in reducing postoperative pain. This study aims to compare the effect of pre-emptive analgesia with different loading doses of celecoxib with paracetamol on postoperative pain relief in patients undergoing laparoscopic abdominal surgery.

Methods

This randomised double-blind controlled study was conducted in a tertiary hospital from January to December 2024. Patients aged 18 to 60 years with American Society of Anaesthesiologists class I or II scheduled for elective laparoscopic abdominal surgery (inguinal hernia repair, cholecystectomy, cystectomy) under general anaesthesia within 150 minutes duration, were recruited. Patients were randomised into Group A (oral paracetamol 1 g and celecoxib 200 mg) or Group B (oral paracetamol 1 g and celecoxib 400 mg) at 60 minutes preoperatively. Intraoperatively, all patients received intravenous morphine 0.05 mg/kg and 0.5% ropivacaine wound infiltration 1 mg/kg for analgesia. Postoperatively, all patients received paracetamol 1 g 6 hourly up to 24 hours and celecoxib 200 mg after 24 hours. Rescue analgesia requirement and numerical pain rating score (NRS) were recorded at 30 minutes, 60 minutes, and 24 hours postoperatively. Postoperative satisfaction score and dyspepsia were recorded.

Results

Thirty-two and 29 patients were randomised into Group A and B, respectively. There were no significant differences in NRS between the groups postoperatively at 30 minutes ($p = 0.374$), at 60 minutes ($p = 0.284$) and in the ward up to 24 hours ($p > 0.05$). There were no significant differences in rescue analgesia requirements between both groups intraoperatively ($p = 0.148$), postoperatively at 30 minutes ($p > 0.182$) and in the ward ($p > 0.950$). None required rescue analgesia at 60 minutes postoperatively. Both groups had high patient satisfaction score ($p = 0.852$) with no dyspepsia reported.

Conclusion

Pre-emptive administration of celecoxib, either 200 mg or 400 mg, combined with paracetamol, was comparable in providing postoperative analgesia following laparoscopic abdominal surgery.

ID 45**THE ROLE OF PREOPERATIVE ORAL CARBOHYDRATE LOADING ON POSTOPERATIVE NAUSEA AND VOMITING: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMISED CONTROLLED TRIALS****KT Ng¹, Wei En Lim², Wan Yi Teoh¹, Mohd Fitry Zainal Abidin¹***¹Department of Anaesthesiology, University of Malaya, Kuala Lumpur, Malaysia; ² Department of Anaesthesiology, University of Glasgow, Scotland, United Kingdom***Background**

To minimise the risk of pulmonary aspiration during anaesthesia, surgical patients have been instructed to undergo overnight fasting in the past centuries. In recent years, preoperative oral carbohydrate loading is believed to improve patient comfort preoperatively and reduce postoperative nausea and vomiting (PONV) without increasing the risk of pulmonary aspiration. The primary objective of this meta-analysis was to investigate the benefit of preoperative carbohydrate loading in the reduction of PONV in adults undergoing elective surgery.

Methods

MEDLINE, EMBASE and CENTRAL were systematically searched from their inception until 26 January 2025 for randomized clinical trials comparing preoperative carbohydrate loading versus placebo in adults undergoing surgery.

Results

Pooled analysis showed that the preoperative oral carbohydrate loading group was associated with lower incidence of PONV ($n = 1709$ patients, OR 0.64, 95% CI 0.51-0.81, $p = 0.002$) as compared to the control group. The oral carbohydrate groups were also reported to have significant lower sensation of preoperative hunger (OR -1.17, 95% CI -1.66- -0.68, $p < 0.0001$) and thirst (OR -1.4, 95% CI -1.99- -0.81, $p < 0.0001$) than the control group. No significant differences were noted in the residual gastric volume (SMD 0.2, 95% CI -0.08 – 0.48, $p = 0.17$) and postoperative glucose concentrations (SMD -0.16, 95% CI -0.33- 0.0, $p = 0.06$).

Conclusions

This systematic review and meta-analysis highlights the potential benefits of preoperative carbohydrate loading in adults undergoing surgery without adverse effects of carbohydrate.

ID 52**THE EFFECT OF THE NOSTRIL SIDE ON EPISTAXIS DURING NASOTRACHEAL INTUBATION****Jiwon Lee¹, Jung-Man Lee²**

¹Yonsei University College of Medicine, Gangnam Severance Hospital, Seoul, Republic of Korea; ²Seoul National University College of Medicine, Seoul Metropolitan Government, Seoul National University, Boramae Medical Center, Seoul, Republic of Korea

Background

Epistaxis is the most common complication of nasotracheal intubation. Even though some previous studies had evaluated the incidence of epistaxis according to the nostril side, which was used for nasotracheal intubation, there was no concrete consensus on the issue. The object of the study was to evaluate the incidence of epistaxis according to the nostril side during nasotracheal intubation.

Methods

This prospective two-centre randomized controlled study was approved by the institutional review boards of the two institutions. Patients scheduled to receive general anaesthesia requiring nasotracheal intubation were recruited for the study. After obtaining written informed consent, the patients were randomly assigned to the left nostril side (L) group or the right nostril group (R) group. After induction of anaesthesia, the cotton sticks soaked with epinephrine solution were inserted into both nasal cavities to constrict nasal mucosa. Next, a standing anaesthesiologist inserted a RAE tube, which was thermo-softened and applied with sterile jelly, to the nasal cavity via a nostril assigned. After completion of nasotracheal intubation, an investigator evaluated epistaxis or nasopharyngeal bleeding with a fiberoptic bronchoscope.

Results

A total 105 patients completed this trial (55 in the L group, 50 in the R group). 7 patients were excluded from this study because of impossibility of randomization due to difference in the patency of nasal cavity. Epistaxis occurred in 11 of 55 patients in the L group and in 15 of 50 patients in the R group ($p = 0.236$). The severity (none/blood-tinged/mild/severe) of epistaxis was not different between the two groups (43/9/3/0 vs. 35/7/8/0, $p = 0.209$).

Conclusion

There was no difference in epistaxis between the left and right nostril for nasotracheal intubation. Therefore, clinicians should be aware of that and advance a tracheal tube to the oral cavity more gently to prevent epistaxis during nasotracheal intubation.

ID 75**BAHASA MALAYSIA TRANSLATION AND VALIDATION OF THE PEDIATRIC ANAESTHESIA PARENTS SATISFACTION (PAPS) QUESTIONNAIRE**

Shirlene Yeoh¹, Nik Rowina Nik Mohammed², Collins Chong², Nurul Najwa Mohd Noor²

¹*Hospital Sultan Idris Shah, Selangor, Malaysia;* ²*Universiti Putra Malaysia, Selangor, Malaysia*

Introduction

Patient satisfaction with anaesthesia services serves as an important indicator of a centre's quality of care. Several tools have been developed to assess parental satisfaction, one of which is the Paediatric Anaesthesia Parents Satisfaction (PAPS) questionnaire. This study aimed to translate the PAPS questionnaire into Bahasa Malaysia, ensuring cultural and linguistic appropriateness, and to evaluate its validity and reliability.

Methods

This study used a descriptive-analytic method with a cross-sectional design and is a questionnaire-based study. The PAPS Questionnaire was translated into Bahasa Malaysia version by (1) establishing expert committee, (2) forward translation, (3) preliminary pilot testing, (4) expert committee review, and (5) backward translation. The final translated questionnaire obtained was then subjected to validity and reliability testing. Pearson's correlation and exploratory factor analysis (EFA) were used for the validity test. Sampling measurement before EFA was carried out with Kaiser-Meyer-Olkin (KMO) and Bartlett's test. Reliability testing was done with Cronbach's alpha.

Results

A total of 62 participants were recruited according to the inclusion and exclusion criteria. Pearson correlation coefficients ranged from $r = 0.295$ – 0.841 ($p < 0.05$), confirming validity. The KMO value of 0.703 indicated moderate sampling adequacy, and Bartlett's test was statistically significant. EFA supported the presence of three factors explaining 0.67 of the total variance, demonstrating good construct validity. Communality values ranged from 0.616–0.885, indicating that the relationship between the questions have low to high communality. Cronbach's alpha was 0.935, reflecting reliability with excellent internal consistency.

Conclusion

The Bahasa Malaysia version of the PAPS questionnaire is valid and reliable for assessing parental satisfaction with anaesthesia services received by their children.

ID 111**THE LOOP-4 FRAMEWORK: BRIDGING CRITICAL INCIDENTS AND CLINICAL EDUCATION**

Vanessa Premnitha Francis¹, Chaw Sook Hui¹, Kevin Ng Wei Shan¹ Ina Ismiarti Shariffuddin¹ Noor Ifitah AR²

¹*University of Malaya, Kuala Lumpur, Malaysia;* ²*University Malaya Medical Centre, Kuala Lumpur, Malaysia*

Background

Human error is inevitable, yet the duty to “do no harm” can be challenging for anaesthesia trainees. Grounded in Kolb’s experiential learning theory, the LOOP-4 framework guides them through a cycle of reflective-conceptual learning, using real-time incidents as learning anchors. This study evaluates the role of the LOOP-4 framework in linking incident reporting to clinical education through its impact on reducing critical incidents in our centre.

Methods

Monthly audits of paediatric anaesthesia cases were conducted over 24 months, encompassing 2,000 cases. The framework was applied as follows: **L** (Look): Reflective analysis of critical incidents to identify clinical pitfalls. **O** (Observe): Identification of gaps in knowledge, judgement, or skill. **O** (Orient): Resolution of these gaps through literature review, student-led teaching, and group discussion. **P** (Pre/post-test): Structured assessments were used to objectively measure knowledge gains and consolidate learning. Incident rates before and after the intervention were compared using incident rate ratios (IRRs), with Poisson regression and an offset to account for variation in case load.

Results

Respiratory-related complications accounted for the largest proportion of critical incidents (38.4%), followed closely by cardiovascular-related complications at 29.5%. A time-series analysis demonstrated a sustained reduction in critical incidents post-intervention. Poisson regression showed a 57% reduction in respiratory-related incidents (IRR 0.43; 95% CI 0.20–0.92; $p = 0.031$) and a 76% reduction in cardiovascular-related incidents (IRR 0.24; 95% CI 0.12–0.49; $p = 0.00007$), both statistically significant.

Conclusion

The LOOP-4 framework offers a replicable model for postgraduate training that builds clinical confidence through structured experiential learning while advancing patient safety.

SELECTED ABSTRACTS FOR BEST CASE REPORT

ID 50:

CASE REPORT: CUTTING THE THYROID & THE RISK- THE USE OF SUPERFICIAL CERVICAL PLEXUS BLOCK FOR ISTHMECTOMY OF THE THYROID GLAND

Lyngaran Ravindran, Mohaann Raj Rajakumar, Saiful Aizar Kesut

Hospital Tuanku Ja'afar, Seremban, Malaysia

Case

The superficial cervical plexus block (SCPB) is a regional anaesthesia technique frequently utilised as analgesia in neck surgeries, including thyroid surgery. It has the ability to provide effective sensory blockade to the anterior and lateral neck. This report highlights the application of SCPB in a 41-year-old obese female with risk of malignant hyperthermia undergoing an isthmectomy for a colloid goitre.

The patient had multiple comorbidities, including hyperinsulinemia, dyslipidaemia, possible mitochondrial disease and bilateral sensorineural hearing loss. She presented with a progressively enlarging benign colloid goitre diagnosed by fine needle aspiration. After discussion with the patient, SCPB was selected to minimize risks associated with general anaesthesia and malignant hyperthermia.

The SCPB was administered injecting 7mls of 0.75% ropivacaine on each side posterior to the sternocleidomastoid muscle under ultrasound guidance. Sensory blockade was tested with loss of sensation to cold & blunt needle tip. Intraoperative sedation was maintained with dexmedetomidine (0.5mg/kg loading over 20 minutes with maintenance 0.4-0.6mcg/kg/hr.) and intravenous bolus of ketamine 10mg. The surgery was uneventful, with minimal blood loss and stable intraoperative haemodynamics. The patient recovered without complications, and the block provided effective postoperative analgesia. She was discharged on postoperative day 1. Histopathology confirmed a benign nodular goitre with no malignancy.

Learning Point

This case demonstrates that SCPB can be a safe and effective anaesthetic option for thyroid surgery, particularly in patients with multiple comorbidities or contraindications to general anaesthesia.

Conclusion

The successful use of SCPB in this case supports its value in selected patients undergoing thyroid surgery. It offers effective analgesia, reduces perioperative risk, and contributes to enhanced recovery protocols.

ID 80**INCORPORATING FIBRYGA IN THE MANAGEMENT OF MASSIVE POSTPARTUM HAEMORRHAGE: OUR EXPERIENCE**

YN Sanjeevi, R Abdul Rahim, JH Liew, BWL Voon, NA Dintan, T Abdul Razak

¹Hospital Tunku Azizah, Kuala Lumpur, Malaysia

Introduction

Post-partum haemorrhage (PPH) is one of the leading causes of maternal mortality in Malaysia. Effective resuscitation and bleeding control are critical components in managing PPH and rely on massive transfusion protocol (MTP). Our current practice consists of packed cells, fresh frozen plasma, platelet and cryoprecipitate transfusion in a ratio of 4:4:4:4. Hypofibrinogenemia (plasma fibrinogen level < 200 mg/dL) is associated with increased severity and progression of PPH. Fibrinogen replenishment is achieved by cryoprecipitate or fibrinogen concentrate (Fibryga®) administration. We report our experience of incorporating fibrinogen concentrate in PPH management protocol in our hospital.

Case description

This case series includes four parturients: 75% presented at preterm (< 37 weeks of gestation) with risk factors of PPH (previous Caesarian section, prior PPH or placenta praevia major). Three patients were delivered by C-section, one patient was delivered vaginally. All patients developed severe PPH (median estimated blood loss: 5200 mL) with hypovolemic shock. Hypofibrinogenemia was confirmed by Clauss fibrinogen assay and thromboelastography (TEG) results (median fibrinogen level: 166 mg/dL). In addition, with MTP, all patients received 2 grams of Fibryga® to increase plasma fibrinogen level above 200 mg/dL. Fibrinogen level after fibrinogen concentrate administration improved (median fibrinogen level: 341.5 mg/dL). Two parturients need hysterectomy due to placenta accreta diagnosis. All the four patients were extubated within 24 hours and were discharged from ICU within 48 hours.

Learning point

Cryoprecipitate is recognized to increase the fibrinogen level; however, fibrinogen concentrate has emerged as an alternative in the management of PPH.

Conclusion

Early diagnosis and correction of hypofibrinogenemia are keys in PPH and contribute to a rapid correction of coagulopathy and favourable outcomes achievement. Fibrinogen concentrate helped to increase plasma fibrinogen in addition to cryoprecipitate. Further studies are warranted to determine whether early administration of fibrinogen concentrate may reduce the need for blood product transfusion.

ID 101**RISK PROFILES OF PATIENTS PRESENTING FOR MECHANICAL THROMBECTOMY IN SARAWAK GENERAL HOSPITAL: AN AUDIT OF CLINICAL PRACTICE**

Alaric Ding Tian Ang¹, Emeline Yian Ling Lee¹, Jiann Shyang Tay², Bibi Sadaqat Rahim³, Shu Ching Teo¹, Samuel Ern Hung Tsan⁴

¹Department of Anaesthesiology and Intensive Care, Sarawak General Hospital, Ministry of Health Malaysia, Sarawak, Malaysia; ²Neurology Unit, Internal Medicine Department, Sarawak General Hospital, Ministry of Health Malaysia, Sarawak, Malaysia; ³Department of Radiology, Sarawak General Hospital, Ministry of Health Malaysia, Sarawak, Malaysia; ⁴Faculty of Medicine and Health Sciences, University of Malaysia Sarawak, Sarawak, Malaysia

Introduction

Mechanical thrombectomy (MT) is a high-stakes intervention for acute ischemic stroke. Accurate preprocedural risk stratification is essential for guiding decision-making and predicting outcomes in patients undergoing MT. This audit aimed to evaluate the risk profiles of MT patients at Sarawak General Hospital.

Methodology

The MT service commenced in November 2023, and a total of 44 cases were performed from November 2023 to April 2025. Thirty-two patients were included in this audit. Baseline data, including NIHSS, modified Rankin Scale (mRS) score, and ASPECTS score, were manually traced from the record unit. Preprocedural risk scoring systems ASA physical status classification system, P-POSSUM, and Surgical Outcome Risk Tool (SORT) were then calculated for these patients. Stroke severity was stratified based on NIHSS scores. Good functional status was defined as mRS score 0-2.

Results

The mean age of MT patients was 58.8±13.9 years; 65.6% were male and 56.3% were Malay. The prevalence of hypertension, dyslipidaemia, and diabetes mellitus were 75.0%, 50.0%, and 31.3%, respectively. The majority (74.2%) presented with moderate/severe to severe strokes (median NIHSS score 20 [IQR 8]). The median ASPECT score was 7 (IQR 4), indicating moderate ischemic burden. All patients were ASA 4 by definition. The median P-POSSUM mortality risk was 3.72% (IQR 9.54%), with a trend toward higher mortality risk in moderate/severe and severe strokes (6.59% vs. minor and moderate strokes 2.68%, $p = 0.067$). In contrast, SORT estimated a median 30-day perioperative mortality risk of 14.82% (IQR 11.95%) with no significant difference across stroke severities ($p = 0.636$).

Conclusion

There are many challenges in the perioperative management of MT patients, including advanced age, multiple comorbidities, emergency procedures and remote anaesthesia. The best risk scoring system for these patients at this time remains unknown. More research is required to accurately understand the risk profiles of these patients.

OTHER ACCEPTED ABSTRACTS

ID 2

PERIOPERATIVE MANAGEMENT OF A CHILD WITH GLYCOGEN STORAGE DISEASE

1A: A CASE REPORT

KS Yeoh, JH Lee

Sabah Women and Children Hospital, Kota Kinabalu, Malaysia

Introduction

Glycogen storage disease (GSD) is a rare, autosomal recessive disorder of glycogen metabolism with an annual incidence of approximately 1/100,000. Deficiency of enzymes involved in glycogen metabolism lead to poor fasting tolerance and metabolic derangements such as hyperlipidaemia, hyperuricemia and raised lactate levels, increasing peri-operative risks of hypoglycaemia and lactic acidosis. In GSD Type 1, also known as von Gierke disease, deficiency of enzyme glucose-6-phosphatase leads to glycogen accumulation in the liver and kidney, subjecting affected patients to higher risk of deranged liver function and development of fatty liver disease and liver failure later in life.

Case description

In this report, we describe the peri-operative journey of a ten-year-old boy with glycogen storage disease type 1a with resultant fatty liver disease, impaired liver function, truncal obesity, obstructive sleep apnoea (OSA) and hyperuricemia, who was electively listed for adenotonsillectomy and circumcision. After an uneventful trial of fasting with glucose-containing solution by paediatric team, the child was listed first in the elective list to minimize fasting hours. He was fasted with dextrose-containing solution with no hypoglycaemic episodes. General anaesthesia with endotracheal intubation was performed, and analgesia was achieved with multimodal techniques. Surgery was uneventful with no hypoglycaemia and lactic acidosis intra-operatively. He was successfully extubated and discharged without complications.

Learning point

- Risk of perioperative hypoglycaemia can be mitigated with minimizing fasting time, maintenance with dextrose-containing solutions, fasting period and meticulous monitoring of blood glucose levels.
- Anaesthetists should maintain high vigilance for hypoglycaemia and lactic acidosis.

Conclusion

Children with glycogen storage disease impose greater peri-operative risks. Advanced planning and multidisciplinary collaboration are vital in ensuring smooth perioperative journeys.

ID 3**IMPROVING INFORMED CONSENT VIA TELEMEDICINE IN MALAYSIAN ICUS:
BRIDGING LEGAL GAPS WITH PRACTICAL SOLUTIONS**

Tioh Beng Siong,^{1,2} Sia Chin Chin²

¹Department of Anaesthesiology and Intensive Care, Hospital Duchess of Kent, Sandakan, Sabah; Malaysia; ²School of Law and Governance, Taylor's University, Subang Jaya, Selangor, Malaysia

Introduction

The COVID-19 pandemic markedly changed healthcare delivery, especially in Intensive Care Units (ICUs), where visitor restrictions accelerated the use of telemedicine for family communication and obtaining informed consent. This shift created a dilemma for anaesthesiologists and intensivists regarding the legal validity of remote tele-consent. In Malaysia, the practice operates within a legal vacuum: the Telemedicine Act 1997 is outdated and has never been enforced, failing to address modern digital healthcare realities and ICU scenarios. Regulatory guidelines from the Malaysian Medical Council (MMC) also lack legal enforceability. The aim of this research is to examine these legal ambiguities and practical challenges inherent in tele-consent and to propose practical, legally sound solutions for Malaysian ICUs.

Methods

This study utilised a legal-analysis approach, examining foundational Malaysian consent principles. The analysis focused on the limitations of applying common-law principles to remote communication in high-stakes ICU contexts where patients are often incapacitated. International guidelines were reviewed, drawing lessons from the UK eConsent model, which emphasises technology-neutral principles and patient autonomy to inform best practices.

Results

The analysis confirms a substantial gap between clinical need and legal certainty, raising critical questions about the validity and documentation of tele-consent. To mitigate legal risks and protect patient autonomy, a structured, step-by-step tele-consent framework is proposed. Key recommendations include prioritising video over audio for verification and applying the “4 Cs”: Confirm Identity, Confirm Capacity, Confirm Consent, and Corroborate & Document. The framework mandates meticulous documentation and secure follow-up written confirmation.

Conclusion

Tele-consent is a clinical reality requiring immediate action. Clinicians must implement structured tele-consent protocols now to protect patients and mitigate legal risk for practitioners. Furthermore, professional societies and regulatory bodies must advocate for long-term solutions aligned with international best practices. This will establish a patient-centred and legally robust tele-consent system within Malaysian healthcare.

ID 5**ASSOCIATION OF FRAILTY AND SARCOPENIA WITH INTRAOPERATIVE HYPOTENSION RELATED TO TRENDLENBURG POSITION IN OLDER PATIENTS UNDERGOING LAPAROSCOPIC CHOLECYSTECTOMY**

Hyun Jung Lee, Ji Seon Chae, Youn Jin Kim, Jae Hee Woo, Hye-Won Oh, Sang-Mee An, Myungsoo Jang

Department of Anaesthesiology and Pain Medicine, College of Medicine, Ewha Woman University, Seoul, Republic of Korea

Introduction

With the growing elderly population, the number of older patients undergoing general anaesthesia is increasing. Frailty in older patients is strongly associated with intraoperative hemodynamic instability, which adversely affects postoperative outcomes. In particular, the risk of hypotension increases during general anaesthesia when patients are positioned in the Trendelenburg position, and such hypotension can be especially fatal in older adults. Therefore, the importance of preoperative frailty assessment is emphasized. This study aimed to investigate the association of frailty and sarcopenia with intraoperative hypotension and postoperative complications in older patients.

Methods

We retrospectively reviewed anaesthesia records of patients aged ≥ 65 years who underwent laparoscopic cholecystectomy under general anaesthesia at Ewha Womans University Seoul Hospital between 2019 and 2023. (Ethics approval: SEUMC 2023-02-012) Preoperative frailty was assessed using a questionnaire based on the Reported Edmonton Frail Scale. Sarcopenia was diagnosed based on skeletal muscle index (SMI), calculated from computed tomography (CT) at the L3 vertebral level. Sarcopenia was defined as an SMI of $<52.4 \text{ cm}^2/\text{m}^2$ for men and $<38.5 \text{ cm}^2/\text{m}^2$ for women. Intraoperative hypotension was assessed within the first 20 minutes after surgery began, including after transitioning to the Trendelenburg position. Hypotension was defined as a mean arterial pressure $<65 \text{ mmHg}$ or $\geq 20\%$ decrease from baseline.

Results

A total of 138 patients (mean age 71.3 years) were included. The overall incidence of hypotension was 82.2%; 75.3% in non-frail, 81.6% in pre-frail, and 97.3% in frail patients. Independent risk factors for hypotension were CT-defined sarcopenia (OR, 6.45; 95% CI, 2.47–21.73) and frailty (OR, 3.45; 95% CI, 1.93–18.27). Predictive power was greater when both factors were considered together (AUC 0.83 [0.71–0.89]) than frailty alone (AUC 0.65 [0.45–0.72], $p = 0.02$).

Conclusion

Assessment of CT-defined sarcopenia and frailty may enhance identification of older patients at risk for intraoperative hypotension, particularly following the Trendelenburg position.

ID 6**THE IMPACT OF SAFE HANDLING OF MEDICINES IN OPERATION THEATRE AND NON-OPERATING ROOM ANAESTHESIA PROJECT ON MEDICATION ERROR CASES IN UNIVERSITI MALAYA MEDICAL CENTRE: A CLINICAL AUDIT AND QUALITY IMPROVEMENT PROJECT**

CJ Mak, Rafidah Binti Atan, Nabilah Binti Abdul Ghani

University of Malaya, Kuala Lumpur, Malaysia

Background

Medication errors, as defined by WHO, are preventable events that can lead to inappropriate medication use or harm. To address this, in 2023, Universiti Malaya Medical Centre (UMMC) implemented a safe handling of medicines guideline to foster better medication safety practices. In order to evaluate medication safety practices in accordance with the guideline among Anaesthesiology medical officers and to assess their compliance with new standardized guidelines, a clinical audit and quality improvement project was implemented.

Methods

This single-centre audit in UMMC involved 162 Anaesthesiology medical officers audited over a 4-month period from July 2024 until October 2024. We employed a structured approach which included (i) a pre-audit education to enhance awareness, (ii) baseline surveys to measure initial knowledge, (iii) continuous monitoring and auditing by Medication Safety Officers and (iv) post-audit feedback to refine future practices. Compliance rates were analysed across seniority levels, and all medication errors or near misses were documented. Primary outcome includes the combined rate of medication errors and near misses. Secondary outcome is the rate of compliance of Anaesthesiology medical officers to the guideline.

Results

We demonstrated that only one near miss was recorded during the audit, translating to a remarkably low incidence rate of 0.019 errors per 1,000 audit-years. Statistical analysis revealed both junior and senior officers demonstrated strong compliance to guidelines, with no significant difference in adherence. The implementation of standardized Standard Operating Procedures (SOPs) in our guidelines significantly reduced medication errors. The adherence rates highlight that training, awareness, and enforcement of these guidelines are effective across all levels of experience.

Conclusion

Our initiative underscores the transformative potential of well-designed guidelines coupled with consistent training and feedback. With expanded implementation, these measures could significantly enhance patient safety in diverse healthcare settings.

ID 7**FATAL INTRAOPERATIVE PULMONARY EMBOLISM: A CASE REPORT**

Yoke Theng Leung, Pei Fern Lim, Asmah Mohd Ghazali

Hospital Selayang, Selangor, Malaysia

Introduction

Pulmonary embolism (PE) is a rare but life-threatening perioperative complication, particularly in trauma patients with prolonged immobilization. Additionally, non-steroidal anti-inflammatory drugs (NSAIDs), particularly selective COX-2 inhibitors, have been associated with an increased risk of thromboembolic events. This case highlights challenges in early recognition and underscores the need for vigilant perioperative assessment and prompt recognition.

Case description

A 42-year-old female with no prior medical conditions sustained multiple orthopaedic injuries following a motorcycle-versus-car accident. She underwent wound debridement and external fixation of the left humerus and wrist under general anaesthesia (GA) with an uneventful perioperative course. Postoperatively, she received IV antibiotics, multimodal analgesia including celecoxib and intermittent deep vein thrombosis (DVT) prophylaxis, which was temporarily interrupted perioperatively. During a second-stage orthopaedic procedure ten days later, she developed progressive intraoperative hypoxia, followed by sudden desaturation, hypotension, and raised airway pressures. Despite vasopressor support, she deteriorated rapidly, prompting surgical abandonment and ICU transfer. Arterial blood gas analysis revealed severe respiratory and metabolic acidosis. In the ICU, bedside echocardiography demonstrated a D-sign, indicative of right ventricular strain. Despite thrombolysis with IV Alteplase, she developed refractory acidosis and hemodynamic collapse, succumbing seven hours post-admission despite maximal resuscitation.

Learning point

This case underscores the importance of maintaining a high index of suspicion for PE in trauma patients presenting with unexplained intraoperative hypoxia and hypotension. Interruption of pharmacologic thromboprophylaxis during the perioperative period may significantly increase thromboembolic risk. The use of point-of-care ultrasound (POCUS) in unstable patients allows rapid bedside assessment when definitive imaging is not feasible. In cases with strong clinical suspicion and suggestive echocardiographic findings, early thrombolysis may improve outcomes. An anticipatory, multidisciplinary approach is vital in managing high-risk patients.

Conclusion

Vigilance in intraoperative monitoring, continuous thromboprophylaxis, and early echocardiographic assessment are vital in improving outcomes in suspected perioperative PE. Multidisciplinary preparedness may prevent catastrophic complications.

ID 8**CASE REPORT: ANAESTHETIC MANAGEMENT OF A PREGNANT PATIENT WITH MAPLE SYRUP URINE DISEASE UNDERGOING LOWER SEGMENT CAESAREAN SECTION (LSCS)**

N Abd Manan¹, N Razak²

¹Hospital Sultanah Nur Zahirah, Terengganu, Malaysia; ² Hospital Sultanah Nur Zahirah, Terengganu, Malaysia

Introduction

Maple Syrup Urine Disease (MSUD) is a rare autosomal recessive metabolic disorder characterized by defective branched-chain amino acid (BCAA) metabolism, leading to the accumulation of toxic metabolites. Pregnancy in MSUD patients poses significant metabolic and anaesthetic challenges, particularly during emergency surgical interventions such as Lower Segment Caesarean Section (LSCS). Careful perioperative management is essential to prevent metabolic decompensation and ensure optimal maternal and neonatal outcomes.

Case description

We report the case of a 23-year-old, late-booked, unmarried woman with classic MSUD, diagnosed in infancy, who presented at 36 weeks and 2 days of gestation with preterm rupture of membranes and a suspicious cardiotocography (CTG) in labour. She also had mild intellectual disability, requiring her mother as her primary caretaker and decision-maker. Despite maintaining stable metabolic control on a low-protein diet and medical formula supplementation, the need for emergency LSCS necessitated urgent multidisciplinary intervention. Preoperatively, intravenous glucose infusion was initiated to prevent catabolism. Given her lack of cooperation, general anaesthesia was chosen to facilitate surgery and nasopharyngeal tube placement for postoperative feeding. Intraoperative monitoring included an intra-arterial line for frequent blood gas and glucose assessments. A healthy baby girl was delivered with good Apgar scores, and the surgery was completed uneventfully. Postoperatively, she was managed in a high-dependency unit, receiving intravenous glucose, stepwise reintroduction of medical formula, and multimodal analgesia for optimal pain control.

Learning point

This case highlights the complexities of managing pregnancy and emergency LSCS in MSUD patients, emphasizing the need for early recognition of metabolic risks, meticulous perioperative planning, and individualized anaesthetic strategies to prevent metabolic crises.

Conclusion

A multidisciplinary approach involving metabolic specialists, obstetricians, anaesthesiologists, and neonatologists is crucial for optimizing both maternal and neonatal outcomes.

ID 9**CASE REPORT: POST-OPERATIVE RECURARIZATION FOLLOWING EXTRAVASCULAR INJECTION OF ROCURONIUM BROMIDE AFTER SUCCESSFUL REVERSAL WITH SUGAMMADEX**

Puteri Nurul Diyana AA, Agnes Wong FF, Jamaidah J, Teo SC

Hospital Umum Sarawak, Kuching, Sarawak, Malaysia

Introduction

The effect of extravascular injection of rocuronium is unpredictable.

Case description

A 44-year-old gentleman with underlying heart failure and chronic kidney disease had silicon catheter fractured following formalization of nephrostomy tube insertion under local anaesthesia. His case was then posted for emergency operation: open exploration, removal and reinsertion of left nephrostomy tube.

The patient had difficult intravenous (IV) access. New IV access was established in operation theatre under ultrasound guidance. However, the induction drugs (IV Fentanyl 100 mcg, IV Propofol 150 mg and IV Rocuronium 50 mg (0.7 mg/kg)) were accidentally administered extravascularly. It was only noticed when patient still remained spontaneous breathing with (Train of four) TOF count 4 and swollen at branula site. Another dose of IV Propofol 50mg and IV Rocuronium 50 mg was given via new IV line and proceeded with intubation at TOF count 0. No further rocuronium was given and operation lasted for 55 minutes. End of operation, the TOF count was unstable, ranging -/0 to 142/4. IV Sugammadex 150 mg was given (2 mg/kg) and the patient was successfully extubated.

In recovery, he was alert, vital sign was stable and saturating under room air. After 50 minutes, patient desaturated and become unresponsive. Arterial blood gas (ABG) shows carbon dioxide (CO₂) narcosis. He was reintubated with IV Propofol 100 mg and IV Suxamethonium 100 mg. Patient was then kept ventilated and sedated in post anaesthesia care unit (PACU). TOF count at 10 minutes later was 22/4. Another dose of IV Sugammadex 150 mg (2 mg/kg) was administered. Subsequent readings of TOF count were 55/4 and 100/4. Sedation was weaned off and he was safely extubated once the ABG normalized.

Learning point and conclusion

For safety, patient should be monitored minimum 4- 5 hours in PACU with intermittent acceleromyography measurement if extravascular rocuronium injection is suspected as recurarization can occur.

ID 10**PERIOPERATIVE MANAGEMENT FOR PAEDIATRIC THORACOTOMY WITH ONE LUNG VENTILATION USING DOUBLE-LUMEN ENDOTRACHEAL TUBE (DLT): A CASE SERIES****KS Yeoh, Samantha Xin Yui***Sabah Women and Children Hospital, Kota Kinabalu, Malaysia***Introduction**

One lung ventilation (OLV) in paediatric thoracic surgery presents notable anaesthetic challenges due to smaller airway diameters, lesser physiological reserves and higher technical difficulties. Various techniques may be employed to achieve OLV including double-lumen endotracheal tube (DLT), use of bronchial blockers (BB), or single lung intubation.

Case description

In this case series, we present six paediatric thoracotomies performed in our centre from January 2024 to February 2025. Averaging 14.3 years of age, all six patients underwent thoracotomy and nodulectomy for underlying metastatic cancer disease, which required intra-operative lung isolation. General anaesthesia was administered with DLT intubation, confirming placement with flexible optical bronchoscope (FOB). Adequate lung isolation was achieved intra-operatively for all patients. Lung protective ventilation strategies were employed intra-operatively, aiming tidal volume 4-6ml/kg, peak airway pressure less than 35cmH₂O and allowing permissive hypercapnia. Multimodal analgesia was provided including remifentanyl infusion and regional blocks such as erector spinae plane block and intercostal nerve block.

Post-operatively all patients were extubated on same day of surgery and monitored in Paediatric Surgery Intensive Care Unit (ICU). Post-surgery chest radiographs showed good lung expansion. Patient-controlled analgesia (PCA) was provided in addition to oral analgesics.

All patients were subsequently discharged from hospital with average length of ICU stay of one day and length of hospital stay of 6.6 days.

Learning points

Selection of DLT size is crucial to achieving optimal placement and adequate lung isolation. Size of DLT may be estimated based on height and gender, or directly measured from computed tomography (CT) scan.

Regional techniques reduce peri-operative opioid consumption and aid in early mobilization, enhancing recovery.

Conclusion

One lung ventilation with DLT in paediatric patients undergoing thoracotomy can be challenging for anaesthetists. Multi-disciplinary collaboration is vital in ensuring optimal peri-operative outcome.

ID 12**OPTIMUM DOSE OF REMIFENTANIL FOR ENDOTRACHEAL INTUBATION USING VIDEOLARYNGOSCOPE WITHOUT MUSCLE RELAXANT IN ADOLESCENT SCOLIOSIS SURGERY****NR Halim**, SN Yunus, MS Hasan*Department of Anaesthesiology, Faculty of Medicine, Universiti Malaya, Kuala Lumpur, Malaysia***Background**

Neuromuscular blocking agents (NMBAs) are commonly used during endotracheal intubation to facilitate conditions and reduce the risk of airway trauma or failed attempts. However, their use must be avoided in scenarios requiring intraoperative neuromonitoring, such as adolescent idiopathic scoliosis (AIS) surgery, where NMBAs can interfere with transcranial motor evoked potentials (TcMEP). This study aims to determine the effective dose (ED₅₀ and ED₉₅) of remifentanyl for achieving clinically acceptable intubation conditions in adolescents undergoing scoliosis surgery, both with and without intravenous lignocaine as an adjunct.

Methods

A prospective, up-down sequential allocation study was conducted with 63 adolescent patients undergoing elective scoliosis surgery, divided into two groups: Group R (remifentanyl alone, n = 29) and Group RL (remifentanyl with lignocaine, n = 34). In Group R, patients received target-controlled infusion (TCI) remifentanyl, while Group RL received 1.5 mg/kg intravenous lignocaine before intubation. Intubation conditions were assessed using a videolaryngoscope, with a target to achieve clinically acceptable conditions without the use of neuromuscular blocking agents. The Dixon-Massey method was used to determine optimal remifentanyl doses.

Results

The ED₅₀ of TCI remifentanyl required for acceptable intubation conditions was 4.5 ng/mL in Group R and 3.7 ng/mL in Group RL. The ED₉₅ values were 5.7 ng/mL and 4.7 ng/mL, respectively. The addition of lignocaine significantly reduced the required remifentanyl dose ($P = 0.008$). Adverse events were minimal, with no complications related to mask ventilation or muscle rigidity, and no instances of arrhythmias or desaturation occurred.

Conclusion

The ED_{50} of TCI remifentanyl for acceptable intubation conditions without NMBA in adolescents was 4.5 ng/mL, which decreased to 3.7 ng/mL with intravenous lignocaine. Lignocaine significantly reduced the remifentanyl requirement, offering a strategy to improve intubation conditions without interfering with neuromonitoring during scoliosis surgery.

ID 13**A PATIENT WITH CRITICAL CORONARY ARTERY DISEASE AND SEVERE FACTOR VII DEFICIENCY WITH PROLONGED INTERNATIONAL NORMALISED RATIO: TO DO CORONARY ARTERY BYPASS SURGERY OR NOT, THAT'S THE QUESTION !****Goh PK¹, Ko CS¹, Lim TC¹, Vijay V¹***KPJ Ipoh Specialist Hospital, Ipoh, Perak, Malaysia***Introduction**

Cancellation of cardiac surgery due to prolonged international normalised ratio (INR) is inevitable, especially in cases with coexisting rare bleeding disorder. We reported a case of Factor VII deficiency (FVIID) who needed coronary artery bypass surgery (CABG) after failed medical therapy.

Case

A 52-year-old Indian woman was presented with acute myocardial infarction. Angiogram showed critical left main stem stenosis and severe triple vessels disease. She has iron deficiency anaemia, diabetes mellitus, hypertension, dyslipidaemia, left lacunar stroke and mild renal impairment. Preoperative INR was 2.66. Factor VII activity (FVIIC) was 4% (severe by classification). Clinically spontaneous bleeding was mild. CABG was proceeded uneventfully with packed cell transfusion similar to standard care. Coagulant support was with fresh frozen plasma (FFP). Due to transfusion reaction, prothrombin complex concentrate (Octaplex) was subsequently used. Her INR was consistently above 2 upon discharge and on follow up without any issue.

Learning point

With case report reference, clinician exercises its judgement, both on the replacement option and regimen, as well as arbitrary safe level of FVIIC in cardiac surgery.

- Selected patient can safely undergo CABG without the need of preoperative INR normalisation. Similarly, the FVII:C activity level.
- In predicting surgical bleeding risk, clinical history of bleeding manifestations is important.
- Intraoperatively, surgical details, with attention to microbleed, option and number of grafts and techniques, bypass time, are relevant in guiding the replacement therapy.
- Postoperatively, it is guided clinically on critical period and anticipated procedural threat, rather than empirical or laboratory test driven.
- FFP remains cheap, freely available and effective option. Pharmacological alternative is useful. Combination or multimodal is worth a consideration.

- In CABG, broader factors replacement option is better than strategy that replaced only with factor that is deficient.
- Single antiplatelet with Clopidogrel is safe postoperatively and on follow-up.

Conclusion

CABG is doable safely in this scenario.

ID 18**INCIDENCE OF NEUROLOGICAL COMPLICATIONS OF IN PATIENTS WHO HAD UNDERGONE SURGERY WITH PERIPHERAL NERVE BLOCK IN A MAJOR CENTER LOCATED IN MALAYSIA: A RETROSPECTIVE STUDY**

Hoo Jun Ting¹, Wan Nabilah Binti Nik Nabil¹, Azrin Bin Mohd Azidin¹, Yeoh Jie Cong²

¹*Department of Anaesthesiology and Critical Care, Hospital Kuala Lumpur, Malaysia;*

²*Department of Anaesthesiology and Critical Care, Hospital Sungai Buloh, Malaysia*

Background

Hospital Kuala Lumpur is the largest and most established centre for peripheral nerve block (PNB) service in Malaysia. It has the largest number of cases undergoing PNBs annually. We aimed to report the incidence of persistent postoperative neurological symptoms (PONS) and to identify potential factors associated with the complications.

Methods

A retrospective analysis of patient records who had undergone surgery with PNBs in Kuala Lumpur Hospital from 1st Jan 2019 to 31th Dec 2023. Inclusion criteria encompassed all patients ≥ 18 years who underwent surgery with PNB. Data was collected by reviewing the acute pain service (APS) form and medical records of each patient.

Results

During the study period, 11,193 blocks were performed on 8,653 patients. Of the 8,653 patients in the cohort, 14 cases (1.6 per 1000, 95% CI 0.9 to 2.7 per 1000) of new PONS were identified. After reviewing the presenting symptoms, neurophysiological and imaging findings, and the assessments of the consulting physicians involved in the work-up, six patients were deemed to have a block-related neuropathy (0.6 per 1000, 95% CI 0.3 to 1.5 per 1000), four patients were deemed to have a surgery-related neuropathy. One patient had a pre-existing radial nerve neuropathy attributable to the primary condition. The remaining three patients were classified as having non-block related neuropathic symptoms. Baseline characteristics of patients with PONS were identified. All six patients with block related PONS achieve full recovery. One patient with surgery-related neuropathy had partial resolution at the end of follow-up period.

Conclusion

This retrospective review concluded the incidence of block-related neuropathy following PNB is uncommon (0.6 per 1000). Etiological assessment of PONS remains complex and necessitate multidisciplinary approach.

ID 19**A COMPARISON BETWEEN PALONOSETRON VERSUS GRANISETRON AS POST-OPERATIVE NAUSEA AND VOMITING PROPHYLAXIS IN IDIOPATHIC SCOLIOSIS SURGERY: A RANDOMISED TRIAL**

Nantni Kumaran¹, Siti Nadzrah Yunus², KL Liew¹, Mohd Shahnaz Hasan²

¹Department of Anaesthesiology, University Malaya Medical Centre, Kuala Lumpur, Malaysia; ²Department of Anaesthesiology, University Malaya, Kuala Lumpur, Malaysia

Background

Postoperative nausea and vomiting (PONV) is a frequent complication following posterior spinal fusion (PSF) in patients with idiopathic scoliosis (IS). Despite various antiemetic options, the optimal prophylactic strategy remains uncertain. Syed et al. highlighted the lack of high-quality trials focusing on PONV as a primary outcome in this population. Building on prior research comparing Ondansetron and Palonosetron, this study aimed to compare the efficacy of Palonosetron versus Granisetron in preventing PONV in IS patients undergoing PSF under total intravenous anaesthesia (TIVA).

Methods

In this randomised, double-blind trial, 82 IS patients (43 adults, 39 adolescents) undergoing elective PSF were assigned to receive either Palonosetron (n = 41) or Granisetron (n = 41). Standardised anaesthetic, surgical, and postoperative protocols were applied. The primary outcome was the incidence and severity of PONV over 48 hours. Secondary outcomes included rescue antiemetic use, adverse effects, return of bowel function, and patient satisfaction. Statistical significance was set at $p < 0.05$.

Results

Granisetron was associated with a significantly lower incidence and severity of delayed-onset nausea (4–12 hours) compared to Palonosetron (incidence: 36.6% vs. 46.3%; severe: 13.3% vs. 52.6%; $p = 0.041$), along with reduced rescue antiemetic use during this period (42.1% vs. 58.6%; $p = 0.031$). Early and overall PONV rates were similar between groups ($p = 0.364$ and $p = 0.481$, respectively). However, Palonosetron has earlier return of bowel function (24h vs. 30h; $p = 0.037$). Palonosetron was associated with earlier return of bowel function (24 h vs. 30 h; $p = 0.037$). No significant difference in PONV incidence was found between adult and adolescent subgroups ($p > 0.05$). Adverse effects were mild and comparable in both groups.

Conclusion

Both Palonosetron and Granisetron are effective for PONV prophylaxis in IS patients undergoing PSF under TIVA. Granisetron offers better control of delayed-onset nausea, while Palonosetron may promote earlier gastrointestinal recovery.

ID 20**CRITICAL CARE CHALLENGES IN RHEUMATIC HEART DISEASE FOLLOWING SPONTANEOUS VAGINAL DELIVERY: A DISTRICT EXPERIENCE**

YK Choo, SY Lee, CT Teoh¹, A Jalwati

Hospital Teluk Intan, Perak, Malaysia

Abstract

Rheumatic heart disease is the predominant cause of valvular lesions in pregnant women and carries significant mortality and morbidity.

A 38-year-old female, Gravida 3 Para 1+1, presented in active labour at 38th weeks of gestation. Her Antenatal history was uneventful. Intramuscular Syntometrine was administered following spontaneous vaginal birth. She immediately complained of dyspnoea and became pulseless 30 minutes after delivery. Cardiopulmonary resuscitation commenced, with the restoration of spontaneous circulation after 5 minutes. She was intubated for airway protection, and copious pink frothy secretion was observed. The respiratory examination revealed widespread crepitations with arterial blood gas analysis demonstrated type 2 respiratory failure. Following intubation, she received hemodynamic support with dual inotropes, necessitating higher ventilator settings, and was subsequently transported to the ICU. The electrocardiogram showed sinus tachycardia with left axis deviation, while Chest X-ray revealed bilateral batwing opacities, Kerley B lines and cardiothoracic ratio of 0.7. CTPA revealed bilateral central ground glass appearance without evidence of embolism. Echocardiogram confirmed substantial mitral stenosis characterized by a calcified posterior mitral valve leaflet and severe aortic regurgitation, with ejection fraction of 62% and no regional wall motion abnormalities. She was diagnosed with acute pulmonary oedema, likely due to underlying rheumatic valvular heart disease and responded well with diuretics. She was extubated on day 3 of admission and was referred for valve replacement surgery.

The surge of preload during uterine involution is poorly tolerated in parturient with stenotic lesions. Adequate afterload maintenance, pulse and rhythm control, and meticulous fluid administration is the key to manage the hemodynamic changes. Ergometrine use is associated with increased risk of pulmonary oedema.

A multidisciplinary approach is necessary in managing parturient with valvular disease, from perinatal optimisation to labour analgesia and treating acute complications.

ID 21**ANAESTHETIC MANAGEMENT OF A PARTURIENT WITH CHRONIC TRANSVERSE MYELITIS UNDERGOING ELECTIVE CESAREAN SECTION UNDER EPIDURAL ANAESTHESIA: A CASE REPORT**

N Aqilah SA, Noraslawati R, N Syuhada Y, NN Syahira NMR

¹Anaesthesiology and Critical Care Department, HSNZ, Terengganu, Malaysia

Introduction

Chronic transverse myelitis (TM) is a rare neuroinflammatory condition involving segmental spinal cord demyelination. Anaesthetic management of patients with TM is challenging due to the potential for autonomic dysregulation, impaired sensory and motor functions particularly in obstetrics. We reported a case of chronic TM extensive long cord involvement from lower part of medulla oblongata until T1 underwent caesarean section under regional anaesthesia.

Case Description

A 30-year-old G1P0 at 36 weeks with chronic TM since 2014 was admitted for elective caesarean section and bilateral tubal ligation. She had paraplegia with neurogenic bladder and bowel incontinence. Operation proceeded under epidural anaesthesia. Perioperative was uneventful.

Learning Point

This case highlights the importance of individualized anaesthetic planning in parturients with spinal cord pathology. There are potential anaesthetic concerns with mode of anaesthesia including autonomic dysregulation, airway management, use of muscle relaxants, and local anaesthetic induce neurotoxicity.

Conclusion

Epidural anaesthesia can be a safe and effective option in obstetrics with TM. Multi-disciplinary involvement and preparedness remain vital in managing such high-risk obstetric cases.

ID 22**CASE REPORT: BALANCED ANAESTHESIA FOR RIGID BRONCHOSCOPY IN AIRWAY OBSTRUCTION SECONDARY TO THYROID MALIGNANCY****SSY Tsen¹, MM Low², TT Lim²***¹Universiti Malaya, Kuala Lumpur, Malaysia; ² Hospital Queen Elizabeth, Kota Kinabalu, Malaysia***Introduction**

Patients with airway obstruction presents significant anaesthetic challenges, especially during procedures involving shared airway access. Failure to maintain airway patency during anaesthesia can lead to catastrophic outcomes, making pre-operative assessment and planning essential.

Case Description

We report a case of a patient with retrosternal goitre, scheduled for rigid bronchoscopy and possible airway stenting under general anaesthesia. Preoperative assessment found soft inspiratory stridor, with cervical lymphadenopathy. Computed tomography of the neck showed a right thyroid mass with retrosternal extension, infiltrating the trachea, causing luminal stenosis with the narrowest portion of airway measuring 0.4 cm in diameter. Pre-operatively, a multidisciplinary team meeting was conducted to plan airway management. Anaesthetic goals focused on maintaining oxygenation and avoiding complete airway obstruction. General anaesthesia was induced and maintained using total intravenous anaesthesia with propofol and remifentanyl. Neuromuscular blocking agents were avoided to preserve spontaneous ventilation. Rigid bronchoscope was the primary method for oxygenation. The procedure completed uneventfully. Post-operatively patient was transferred back to the acute cubicle in the ward and had an uneventful recovery.

Learning Points

In patients with risk of airway obstruction, thoughtful planning and individualized airway management strategy is crucial, guided by comprehensive airway assessment and multidisciplinary team discussion. Key considerations include preserving spontaneous ventilation, avoiding neuromuscular blockade, and preparing rescue strategies should the primary management fails. Rigid bronchoscope, typically used as a rescue tool for airway obstruction, served here as the primary oxygenation method. The lack of access to surgical airway and absence of extracorporeal support further reinforced the importance of using reversible, rapidly titratable anaesthetic agents.

Conclusion

Airway management in patients with airway obstruction requires a patient-specific approach. In this case, rigid bronchoscope serves both diagnostic and therapeutic roles, ensuring oxygenation while allow obtaining of tissue samples. Thorough planning and effective communication are critical to prevent mortality and morbidity.

ID 23**PREOPERATIVE 3D AIRWAY MODELLING AS A GAME-CHANGER IN AIRWAY MANAGEMENT FOR GOLDENHAR SYNDROME**

Che Ainun Nasihah Ismail, Muhammad Haziq Hasbullah Zainal Abidin, Nur Fariza Ramly

International Islamic University Malaysia, Kuantan, Malaysia

Abstract

Goldenhar syndrome is a congenital condition involving craniofacial malformations that can complicate airway management. Early identification and personalised planning are essential in these patients, especially when standard approaches such as laryngoscopy are not feasible.

A 22-year-old male with recently diagnosed Goldenhar syndrome was scheduled for corrective facial surgery, including Le Fort 1 osteotomy, bilateral sagittal split osteotomy, and genioplasty. He had left midface deficiency, right hemifacial microsomia, large alveolar cleft, and reported difficulty chewing and nasal regurgitation during swimming. Despite prior surgeries under general anaesthesia in infancy, no previous airway difficulties have been documented.

Direct laryngoscopy was impossible in this patient due to craniofacial anatomy, and awake fiberoptic nasal intubation (AFOI) was planned. Based on history and external examination, the right nostril appeared more patent. Unfortunately, AFOI attempts via the right nostril failed to advance due to internal anatomical obstruction. At that point, the oral and maxillofacial surgeon presented the patient's 3D-printed facial bone model, originally prepared to assist with the surgical planning. The model revealed severe narrowing of the right nasal passage and a slightly patent left nostril. A subsequent fiberoptic attempt via the left nostril was successful using a smaller endotracheal tube.

This case highlights how 3D airway modelling can bridge the gap between external examination and actual internal airway anatomy, particularly in complex airways like Goldenhar syndrome that demand individualised planning. The model can aid in selecting the optimal nostril for intubation, anticipating anatomical challenges, and estimating appropriate endotracheal tube size. Integrating patient-specific 3D models into preoperative planning of abnormal airway cases enhances airway safety, facilitates interdisciplinary decision-making, and enables personalised airway management.

ID 25**SUPPORTING SURGICAL INNOVATION WITH PATIENT-CENTERED ANESTHESIA:
EXPERIENCE WITH TOETVA****Noor Diyana AR¹, Muhammad Zulhilmi Z¹, Nurul Izyan R¹, Muhammad Rasydan AG^{1,2}***¹Department of Anaesthesiology and Intensive Care, Sultan Haji Ahmad Shah Medical Centre (SASMEC) @IIUM Kuantan, Pahang, Malaysia; ² Kulliyyah of Medicine IIUM Kuantan, Pahang, Malaysia***Abstract**

With the evolution of minimally invasive and scarless surgical techniques, transoral endoscopic thyroidectomy via vestibular approach (TOETVA) offers superior cosmetic results without compromising surgical safety. However, it introduces unique anaesthetic challenges involving airway management, positioning, and perioperative care.

We share a case report of a 53-year-old woman with a right-dominant multinodular goitre, clinically euthyroid, electively plan for TOETVA for its cosmetic benefit. Anaesthesia was induced and maintained with sevoflurane and neuromuscular blockade. Nasotracheal intubation done facilitated by phenylephrine 0.5% and lignocaine 4% delivered via mucosal atomization device (MAD) to achieve mucosal vasoconstriction and anaesthesia, ensuring an atraumatic approach. The patient was positioned supine with neck extension, and pressure points and eyes were protected. Surgery was performed through three small vestibular incisions with CO₂ insufflation. The right thyroid lobe was resected safely with preservation of the recurrent laryngeal nerve and parathyroid glands.

TOETVA demands an individualized anaesthetic plan emphasizing meticulous airway preparation, careful positioning, and adherence to enhanced recovery after surgery (ERAS) principles. Multimodal analgesia minimized opioid use, enhanced postoperative comfort, and supported early oral intake and mobilization.

This case highlights the vital role of anaesthesiologists in advancing surgical innovation. A patient-centred, tailored anaesthetic approach ensures the success of TOETVA by optimizing safety, comfort, and recovery. TOETVA is a safe and cosmetically superior thyroidectomy option when supported by well-coordinated multidisciplinary perioperative care.

ID 27**INTRAOPERATIVE TUMOR LYSIS SYNDROME DUE TO UNDIAGNOSED BURKITT LYMPHOMA PRESENTING WITH LIFE-THREATENING REFRACTORY HYPERKALEMIA****SSY Tsen¹, YX Wong¹, PYS Chua¹, KWS Ng¹***¹University of Malaya, Kuala Lumpur, Malaysia***Introduction**

Tumour lysis syndrome (TLS), caused by rapid tumour cell breakdown, manifests as metabolic derangement and life-threatening electrolyte imbalances. Prompt recognition and management are crucial to prevent mortality.

Case description

An 11-year-old, boy presented with a week history of abdominal distension and night sweats. Examination revealed left supraclavicular lymphadenopathy, right pleural effusion and ascites, raising suspicion of Burkitt lymphoma. PET scan showed widespread hypermetabolic deposits. Supraclavicular lymph node biopsy for tissue diagnosis and chemoport insertion were performed under general anaesthesia. Induction of anaesthesia was uneventful with no corticosteroids administered. Post-induction, he developed fever, hypercarbia, hypoglycaemia and mild lactic acidosis. During chemoport insertion, patient had broad complex bradycardia with hypotension. Arterial blood gas analysis revealed severe lactic acidosis and hyperkalaemia (8.8 mmol/L). Immediate treatment administered include intravenous calcium gluconate, insulin, dextrose, sodium bicarbonate, furosemide, inhaled salbutamol, adrenaline infusion and fluid resuscitation. He was transferred to the paediatric intensive care unit with a potassium level of 7.3 mmol/L. Further investigations confirmed TLS. After three days of continuous venovenous haemodialysis, mechanical ventilation and inotropic support, metabolic and electrolyte abnormalities resolved. He was then transferred to the oncology ward for chemotherapy.

Learning points

TLS can occur spontaneously intra-operatively, even in patients who did not receive chemotherapy or corticosteroids. As typical symptoms of TLS may be masked under general anaesthesia, vigilant ECG and biochemical monitoring for life-threatening hyperkalaemia is crucial. Treatment for TLS includes correction of electrolyte imbalances, aggressive hydration and promotion of uric acid excretion. Early identification of high-risk patients and risk stratification pre-operatively allows initiation of prophylactic therapy prior to surgery.

Conclusions

Cardiovascular complications from intraoperative TLS require early recognition, aggressive management. Effective communication among surgical, paediatrics and anaesthesia team is crucial to reduce morbidity and mortality.

ID 28**CONTINUOUS-INFUSION CARBAPENEM THERAPY IN A PAEDIATRIC CASE OF LEPTOSPIROSIS-MELIOIDOSIS CO-INFECTION PRESENTING WITH NEUROLOGICAL INVOLVEMENT**

Joshua En Sheng Ling,¹ Shamene Banduringgu,¹ Bo Kheng Yau,² Beng Siong Tioh¹

¹*Department of Anaesthesiology & Intensive Care, Hospital Duchess of Kent, Sandakan, Sabah; Malaysia;* ²*Department of Pharmacy, Hospital Duchess of Kent, Sandakan, Sabah, Malaysia*

Introduction

Leptospirosis and melioidosis are tropical infectious diseases with overlapping clinical features caused by microorganisms found in contaminated water and moist soil. Leptospirosis-melioidosis co-infections, though rare, can occur and are usually treated with broad spectrum beta-lactam antibiotics such as carbapenems. This case highlights the complexities of treatment in a paediatric patient with refractory septic shock that remain unresponsive to conventional carbapenem therapy, which required pharmacokinetic optimisation.

Case description

A 15-year-old boy presented to our centre in severe septic shock with a history of swimming in a river, warranting intubation, intensive care unit (ICU) admission and renal replacement therapy (SLED). His initial screening was positive for *Leptospira*-IgM, hence was treated with short-term infusion (STI) of meropenem (4-hour infusion, three times daily) and doxycycline. When his blood culture tested positive for melioidosis on day 4 of admission, his meropenem dose was doubled in suspicion of neuromelioidosis. Despite more than a week of therapy, he failed to yield clinical improvement, evidenced by persistent fever and positive cultures. Therefore, his meropenem therapy was revised to a continuous-infusion (CI) regime (8-hour infusion, three times daily). Following this transition, the patient improved and was successfully extubated by Day 12, then discharged from the ICU on Day 15.

Learning point

Our patient's clinical decline despite targeted antibiotic therapy highlights the imperative for heightened clinical vigilance for achieving therapeutic drug concentration in cases presenting with augmented renal clearance. A standard STI antibiotics may prove inadequate to achieve therapeutic drug exposure. This may necessitate CI antibiotic regime to surmount pharmacokinetic barriers especially in critically ill cases.

Conclusion

This case highlights the potential clinical benefits of CI carbapenem therapy in the management of severe paediatric leptospirosis-melioidosis co-infection, particularly those with central nervous system involvement. It also calls for further research into an evidence-based approach to optimal treatment strategies in the future.

ID 29**THE RELATIONSHIP BETWEEN CHANGES IN CEREBRAL OXYGEN SATURATION AND POSTOPERATIVE COGNITIVE DYSFUNCTION IN ELDERLY PATIENTS UNDERGOING NON-CARDIAC SURGERY UNDER GENERAL ANAESTHESIA: A RANDOMISED-CONTROLLED TRIAL**

Teh Ping Xuan¹, Chan Weng Ken², Siti Nidzwani Mohamad Mahdi¹, Ahmad Fairuz Abdul Shokri², Syarifah Noor Nazihah Sayed Masri², Suriati Mohamed³, Muhammad Maaya¹

¹Department of Anaesthesiology & Intensive Care, Faculty of Medicine, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia; ²Department of Anaesthesiology & Intensive Care, Hospital Canselor Tuanku Muhriz, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia; ³Department of Psychiatry, Faculty of Medicine, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia

Introduction

Postoperative cognitive dysfunction (POCD) is common yet poorly understood in elderly patients undergoing non-cardiac surgery. We investigated the relationship between intraoperative changes in regional cerebral oxygen saturation (rSO₂) and POCD.

Methods

This double-blinded, randomised-controlled trial recruited 100 patients ≥65 years with American Society of Anesthesiologists status I–III, who underwent non-cardiac surgery under general anaesthesia. Exclusion criteria were existing neuropsychiatric conditions, electrolyte imbalances, benzodiazepine use, planned postoperative ventilation, and surgeries anticipated to affect either Montreal Cognitive Assessment Blind (MoCA-BLIND) assessment or application of intraoperative forehead monitoring. Preoperative MoCA-BLIND were taken as baseline value, with scores <19 indicated cognitive dysfunction. Patients were equally randomised into Groups I and II. All patients received standard plus depth of anaesthesia monitoring using Patient State Index maintained at 25–50 intraoperatively. Group II patients had additional rSO₂ monitoring. The MoCA-BLIND was repeated on postoperative Day 10.

Results

There were no statistically significant differences for the demographic data, clinical frailty score (Group I: 2.82 ± 0.80 vs. Group II: 2.83 ± 0.67 ; $p = 0.930$) and baseline MoCA-BLIND scores between both groups (Group I: 20.22 ± 0.71 vs. Group II: 20.20 ± 0.81 ; $p = 0.896$). Ten and 11 patients either had inadvertent postoperative ventilation or were unreachable for Day 10 assessment, respectively. There were no statistically significant differences for those who completed the Day 10 MoCA-BLIND assessment (Group I: 19.74 ± 0.89 vs. Group II: 19.90 ± 0.80 ; $p = 0.387$). In Group II, three out of 41 patients experienced $rSO_2 > 20\%$ reduction from baseline, with lower Day 10 MoCA-BLIND scores, which was not statistically significant ($20.00 [19.00-21.00]$ vs. $18.00 [19.00-NA]$, $p = 0.120$).

Conclusion

While this study did not establish a significant overall association between intraoperative rSO_2 changes and POCD, the subgroup analysis suggests maintaining stable rSO_2 levels may support better postoperative cognitive function.

ID 30**NAVIGATING THE AIRWAY GAUNTLET: MANAGEMENT IN A MORBIDLY OBESE PARTURIENT WITH SEVERE PRE-ECLAMPSIA AND THROMBOCYTOPAENIA**

Nurul Shazlyiana Husin Jamal, Rammya Thamotharan, Beng Siong Tioh

Department of Anaesthesiology and Intensive Care, Hospital Duchess of Kent, Sandakan, Sabah, Malaysia

Introduction

The management of high-risk obstetric patients with complex issues presents notable challenges to anaesthesiologists. This case outlines the airway management for a morbidly obese grand multipara with severe pre-eclampsia and haematological abnormalities undergoing a Category 2 emergency lower segment caesarean section (EMLSCS), where central neuraxial anaesthesia was contraindicated.

Case Description

A 30-year-old gravida 5 para 4 at 32 weeks gestation presented in labour with severe pre-eclampsia, requiring an emergency caesarean section. The patient was morbidly obese (BMI of 45 kg/m²) and displayed multiple predictors of a difficult airway, including Mallampati Class IV, a short neck, receding chin (thyromental distance of 2 finger breadth), and large breasts. She had a declining platelet trend, reaching 25 x 10⁹/L prior to surgery, and was being investigated for a possible autoimmune disorder, making central neuraxial blockade contraindicated. Given the high risk and anticipated difficulty of asleep intubation, awake fiberoptic intubation (AFOI) was chosen as the safest option. Airway topicalisation was achieved using nebulised and atomised lignocaine, complemented by the Spray-As-You-Go (SAYGO) method. Sedation involved a loading dose of IV dexmedetomidine, allowing the patient to remain calm and cooperative. An armoured tracheal tube (ID 6.5 mm) was successfully inserted on the first attempt. Anaesthesia was maintained with sevoflurane and IV dexmedetomidine (0.1 to 0.2 mcg/kg/hour) as part of an opioid-free anaesthesia (OFA) strategy. The patient was admitted to the intensive care unit (ICU) post-operatively and was successfully extubated 10 hours after surgery.

Learning Point

Airway complications are significantly more common during tracheal intubation in obstetric general anaesthesia (1 in 500 GAs) compared to the general population (1 in 20,000 GAs), with a maternal mortality rate of 1% after failed intubation. This patient's risk was compounded by pregnancy-related changes, morbid obesity, thrombocytopaenia, and a high suspicion of autoimmune disorder with potential atlanto-axial joint instability. AFOI is the safest option in these circumstances to guarantee both good maternal and foetal outcomes. Dexmedetomidine was utilised as the sedative agent because it facilitates cooperative sedation and better procedural tolerance without causing respiratory depression, while also being associated with lesser maternal hypotension and a reduced need for neonatal resuscitative manoeuvres.

Conclusion

This case highlights the complexity of anaesthetic decision-making in obstetric airway management when co-morbidities render conventional techniques unsuitable. A proactive approach using AFOI and OFA is crucial for ensuring maternal and foetal safety in complex, high-risk scenarios.

ID 33**AMNIOTIC FLUID EMBOLISM: A CASE REPORT FOLLOWING CAESAREAN SECTION**

N Lee, TW Wong

Lyell McEwin Hospital, South Australia, Australia

Abstract

Amniotic fluid embolism (AFE) remains a rare but catastrophic obstetric emergency, carrying a high mortality rate despite increased awareness within the medical community. This report presents a case of AFE that occurred during a caesarean section performed for prolonged labour.

A 35-year-old primigravida was undergoing a caesarean section when she developed signs of amniotic fluid embolism immediately following the delivery of the baby. She experienced sudden maternal collapse and required immediate resuscitation. Despite initial stabilization, uterine atony persisted, necessitating a lifesaving hysterectomy.

Key challenges in this case included rapid recognition of AFE, urgent mobilization and administration of specific blood products, and overall management of the evolving coagulopathy. Rotational thromboelastometry (ROTEM) was utilized to guide targeted transfusion therapy. Notably, ROTEM demonstrated undetectable A5 values on both FIBTEM and EXTEM, which gradually improved following the administration of cryoprecipitate, fibrinogen concentrate, and fresh frozen plasma.

An important pathological finding post-hysterectomy was the presence of multiple uterine vessels containing intravascular embolic squamous epithelial cells with associated fibrin—histological features consistent with amniotic fluid embolism.

This case underscores the importance of rapid recognition and coordinated management of amniotic fluid embolism, with ROTEM playing a key role in guiding transfusion. Despite survival, the patient sustained long-term neurological deficits. The case has led to the implementation of an emergency response checklist in our local health network to enhance readiness for obstetric crises.

ID 34**EXTRAMEDULLARY SPINAL TUMOUR WITH CAUDA EQUINA SYNDROME IN PREGNANCY: PERIOPERATIVE ANAESTHETIC MANAGEMENT**

Amirul Hazwan MN, Farah Syaza R, Noraslawati R

Hospital Sultanah Nur Zahirah, Kuala Terengganu, Malaysia

Introduction

Primary spinal cord tumour can cause severe neurological disabilities and even death if left untreated. In pregnant ladies, it is common to have bilateral lower limb discomfort which is usually due to sciatica. Here, we present a case report of a pregnant lady who was initially considered to have sciatica, but was finally diagnosed with extramedullary spinal tumour when she came back with cauda equina syndrome. The patient underwent emergency excision of tumour and lower segment caesarean section in the same setting.

Case Description

A 28-year-old, gravida 2 para 1 at 31 weeks, presented with left lower limb numbness associated with shooting pain. She was diagnosed as sciatica possible disc pathology with radiculopathy and was discharged home. One week later, patient came back with urinary retention and bowel incontinence, with bilateral lower limb numbness suggestive of cauda equina syndrome. Urgent MRI done shown to have extramedullary lesion at T11/12 compressing onto cauda equina roots. Emergency lower segment caesarean section and T11-12 laminectomy and tumour excision done on the same setting.

Learning points

- High index of suspicion in pregnant ladies presenting with sciatica
- Timing of surgical interventions
- Perioperative obstetric and neuroanaesthesia management for emergency caesarean section and tumour excision.

Conclusions

Primary spinal tumour in pregnancy is rare but can cause severe neurological disability to patients. A multidisciplinary involvement and meticulous timely management are vital in the management of these cases.

ID 36**PERIOPERATIVE ANALGESIC PRACTICES AMONG ANAESTHETISTS IN THE PAEDI-
ATRIC TONSILLECTOMY PATIENTS IN UMMC: A PROSPECTIVE OBSERVATIONAL
STUDY**

Ee Leen Lee, Kevin Wei Shan Ng, Chun Hong Yeap

University of Malaya, Kuala Lumpur, Malaysia

Introduction

Pain management post tonsillectomy/adenotonsillectomy among the paediatrics age group is still a challenge today. The PROSPECT group and The European Society for Paediatric Anaesthesiology (ESPA) group formulated recommendations for pain management in this group of patients. This study aimed to evaluate current perioperative analgesic practices among anaesthetists at University of Malaya Medical Centre (UMMC), compare them with international recommendations, assess the incidence of postoperative nausea and vomiting (PONV), and determine parental satisfaction with pain management.

Methodology

A prospective observational study was conducted among paediatric patients undergoing elective tonsillectomy or adenotonsillectomy at UMMC. Pain scores were assessed using the Wong-Baker FACES Pain Rating Scale at 30 minutes, 6 hours, and 24 hours postoperatively. Data on perioperative analgesics, surgical technique, time to oral intake, and first verbalization were collected from electronic medical records. Statistical analysis, including regression analysis, was performed using SPSS.

Results

There were no statistically significant differences in postoperative pain scores or PONV incidence among patients managed under PROSPECT, ESPA, or other analgesic protocols. NSAID use was associated with a reduced need for rescue analgesia, reinforcing its value in multimodal analgesia. Conversely, ketamine did not improve pain scores and was linked to a higher need for rescue analgesia. Despite the variability in analgesic regimens, parental satisfaction remained high, indicating effective communication and individualized patient care.

Conclusion

This study highlights the gap between local practice at UMMC and evidence-based international guidelines for paediatric tonsillectomy analgesia. Use of NSAIDs should be included into the pain management while ketamine is reserved for additional analgesic if required. While guidelines provide a valuable framework, patient-specific factors and clinical judgment play a critical role in outcomes. Establishing a standardized, locally adapted analgesic protocol that includes validated assessment tools and promotes multidisciplinary collaboration may enhance consistency, improve outcomes, and sustain high levels of parental satisfaction.

ID 40**INVOLUNTARY PEDALLING: A CASE OF SPINAL MYOCLONUS POST SPINAL ANAESTHESIA**

Syahirah Zafirah Sukardi, Nor Farhana Hamzah, Martha A/P Aridiasamy, Wan Siti Sarah Wan Kairuddin

Department of Anaesthesiology and Intensive Care, Hospital Enche' Besar Hajjah Khalsom, Kluang, Johor, Malaysia

Introduction

Spinal myoclonus (SM) is a rare movement disorder characterized by involuntary, brief rhythmic muscle contractions after spinal anaesthesia block (SAB), often resembling bicycle pedalling. We report a case of SM following neuraxial block in a patient with previous uneventful SAB.

Case Description

Mrs. R, a 46-year-old woman with Type 2 diabetes mellitus, underwent elective hysteroscopy and curettage under SAB for abnormal uterine bleeding. She had a prior uneventful SAB for emergency caesarean section in 2001. Spinal anaesthesia was administered in a single attempt using a 27G Pencan needle, delivering 15 mcg fentanyl and 11 mg 0.5% heavy marcaine, achieving a T10 sensory block.

Three hours post-procedure, she developed brief, rhythmic, bilateral lower limb movements triggered by passive or active movement and pain. Each episode lasted less than a minute and was reproducible with stimuli. Her vital signs remained stable and consciousness was preserved. Arterial blood gases, serum electrolytes, and ECG were normal. Blood glucose was 13.5 mmol/L on insulin infusion. She had reduced sensation to L5 with Bromage Score one. A clinical diagnosis of spinal myoclonus was made. Intravenous midazolam (2 mg total) was administered, resulting in gradual resolution. Neurological examination was normal. Brain NECT showed no abnormalities. She was monitored in ICU, then discharged without recurrence.

Learning Point

Spinal myoclonus may mimic seizures, requiring prompt recognition and exclusion of other causes. Though often self-limiting, symptoms can be distressing. Benzodiazepines like midazolam provide relief. Its unclear pathophysiology may involve local anaesthetic-induced disruption of spinal cord function.

Conclusion

The rarity of SM following SAB likely contributed to the difficulty in establishing a prompt diagnosis. Further research is needed to elucidate the underlying mechanisms and identify potential risk factors. In the meantime, obtaining a detailed anaesthetic history remains essential to guide individualized anaesthetic planning and ensure patient safety.

ID 41**UNMASKING FACTOR VII DEFICIENCY DURING PREOPERATIVE ASSESSMENT: IMPORTANCE OF INVESTIGATING ISOLATED PT PROLONGATION**

Christine Audrey, Noorjahan Haneem binti Md Hashim, Wei Yen Yeoh, Pea Cheng Lee, Ching Yong Ong, Ina Ismiarti Shariffuddin

Department of Anaesthesiology, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia

Introduction

Factor VII deficiency is a rare bleeding disorder, affecting approximately 1 in 500,000 individuals. It may be inherited or acquired, and can be associated with deficiencies of other vitamin K-dependent factors. Clinical severity ranges from asymptomatic to life-threatening bleeding. It is typically suspected when isolated prolongation of prothrombin time (PT) occurs with a normal activated partial thromboplastin time (aPTT).

Case description

A 33-year-old man with no significant medical or family history was referred for preoperative assessment for laparoscopic nephrectomy for renal cell carcinoma (RCC). Initial findings included anaemia (Hb 7.8 g/dL), thrombocytosis, isolated PT prolongation (16.6 s, INR 1.46), normal aPTT, and normal liver function. Further investigations showed microcytic hypochromic anaemia, elevated CRP (145.76 mg/L), iron deficiency with high ferritin, and persistently prolonged PT/INR. A coagulation factor assay confirmed reduced FVII activity (39.8%) with an ISTH BAT score of 0. Haematology recommended 4 units of fresh frozen plasma (FFP) 30 minutes preoperatively for factor replacement, given mild transaminitis and concern for broader clotting factor deficiencies. FFP was selected for its availability and low transfusion-associated circulatory overload (TACO) risk. Contingency plans included recombinant factor VIIa (Novoseven, 30 mcg/kg) as first-line and prothrombin complex concentrate (PCC, 25–50 mcg/kg) as second-line therapy. The anaesthetic plan was adapted to include advanced hemodynamic monitoring, packed cells on standby, and PACU backup.

Discussion

This case underscores that isolated PT prolongation, even in asymptomatic individuals, may signal rare coagulopathies such as FVII deficiency. Early recognition during preoperative assessment supports risk mitigation and informed perioperative planning. When available, tools like rotational thromboelastometry (ROTEM) can guide transfusion and factor replacement more effectively than conventional testing.

Conclusion

Preoperative anaesthesia assessments play a critical role in uncovering rare coagulopathies like FVII deficiency. Timely diagnosis in asymptomatic individuals facilitates safe, multidisciplinary perioperative care and helps prevent potentially serious bleeding complications.

ID 42**COVID-19 INFECTION IN PREGNANCY: OUTCOME OF PREGNANT LADY WITH COVID-19 INFECTION IN INTENSIVE CARE UNIT, PENANG GENERAL HOSPITAL FROM AUGUST TO DECEMBER 2021****SY Teh**, Meng-Li Lee, Chew Har Lim*Penang General Hospital, Penang, Malaysia***Abstract**

COVID-19 infection landed in Malaysia since March 2020 causing national emergency and overwhelmed burden in health care services. There is growing evidence that pregnant women may be at increased risk of severe illness from COVID-19 compared with non-pregnant women, particularly in the third trimester. This study aims to comprehensively investigate outcome of pregnant lady with COVID-19 infection in Intensive Care Unit, Penang General Hospital from August to December 2021. This retrospective study records demographic characteristics of study population and percentage of vaccinated and unvaccinated pregnant lady with COVID-19 infection. Outcomes such as mortality rate, length of hospital and ICU stay, percentage of intubation and acute kidney injury are analysed between these two groups. The study revealed that a majority (87.5) required mechanical ventilation with intubation rate higher in unvaccinated group (58.3%). Rate of acute kidney injury higher in unvaccinated group with 20.8% versus 4.2% in vaccinated group. Alarming, the mortality rate is four times higher in unvaccinated group. From the data collected, it showed that vaccinated patients have longer ICU stay as they survived the initial impact of COVID-19 and continued managed in ICU for secondary complications. This study highlights a trend toward improved clinical outcomes among COVID-19 vaccinated individuals. Although statistical significance was not achieved due to limited sample size, the observed reduction in absolute risk suggest that vaccination confer a meaningful clinical protection against severe disease manifestations. These findings reinforce the importance of vaccination as a critical tool in mitigating the impact of COVID-19.

The Delta variant seems to be associated with more severe disease and ICU admission increased noticeably during Delta wave, especially for pregnant women. Pregnant lady has reduced functional residual capacity due to gravid uterus and are more likely to develop acute respiratory distress syndrome. Data from Centre for Disease Control and Prevention (CDC) revealed that pregnant women at higher risk of ICU admission and mechanical ventilation than non-pregnant women. Since the introduction of COVID-19 vaccine, worldwide COVID cases have reduced dramatically. There is evidence to show that vaccinated has less severe infection compared to unvaccinated patient. As such, Malaysia Ministry of Health strongly recommending vaccination

and providing free vaccines to everyone, especially prioritizing pregnant women. It is shown to be safe during pregnancy and breastfeeding period. In this research study, a retrospective cross-sectional study was carried out to describe the demographic characteristics and clinical characteristics of pregnant lady with COVID-19 infection in Intensive Care Unit of Penang General Hospital from August to December 2021. Patients are divided into two groups, namely vaccinated and unvaccinated groups. Outcomes and complication during ICU stay were recorded and compared between these two groups, which include rate of mortality, incidence of acute kidney injury, incidence of intubation, incidence of pulmonary embolism, length of ICU and hospital admission.

ID 43**THE USE OF NALBUPHINE AS POSTOPERATIVE ANALGESIA: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMISED CONTROLLED TRIALS****Ka Ting Ng¹, Wei En Lim², Min Yie Lim¹, Ken-Yi Lui¹***¹Department of Anaesthesiology, University of Malaya, Kuala Lumpur, Malaysia; ²Department of Anaesthesiology, University of Glasgow, Scotland, United Kingdom***Background**

Nalbuphine (nalbuphine sebacate) is mixed kappa agonist/mu antagonist opioid for perioperative pain control. Dinabuphine, a long-acting formulation, may offer extended analgesia and reduce opioid rescue requirements. This primary objective of this meta-analysis was to examine the effects of intramuscular nalbuphine/dinabuphine on the need for rescue analgesia and postoperative pain score in adults undergoing surgery.

Methods

Databases of MEDLINE, EMBASE, and CENTRAL were searched from its inception date till November 2024. Randomized clinical trials comparing intramuscular nalbuphine/dinabuphine and control in adults undergoing surgery were included.

Results

Twenty-two trials (n = 1615 patients) were included in this meta-analysis. Pooled analysis showed that the intramuscular nalbuphine/dinabuphine group was associated with significantly lower number of patients requiring rescue analgesia postoperatively (OR: 0.60, 95% CI: 0.38 to 0.95, p=0.03). Patients who received intramuscular nalbuphine/dinabuphine was associated with lower postoperative pain score (MD: -0.16, 95% CI: -0.31 to -0.02, p= 0.03). However, intramuscular nalbuphine/dinabuphine group was associated with high risk of injection soreness (OR: 4.24, 95% CI: 1.67 to 10.79, p= 0.002) and incidence of dizziness (OR: 2.45, 95% CI: 1.57 to 3.84, p < 0.0001). No significant differences were noted in the incidence of headache (OR: 1.19, 95% CI: 0.51 to 2.80, p = 0.68) and incidence postoperative nausea and vomiting (OR: 1.19, 95% CI: 0.50 to 2.80, p = 0.69).

Conclusions

Intramuscular nalbuphine/dinabuphine provided superior postoperative analgesia and reduced the need for rescue analgesics as compared to control group. It may serve as an effective long-acting opioid option in the enhanced recovery protocols.

ID 44**THE ANALGESIC EFFECTS OF INTRAVENOUS LIDOCAINE IN LAPAROSCOPIC SURGERY: A SYSTEMATIC REVIEW AND META-ANALYSIS WITH TRIAL SEQUENTIAL ANALYSIS****Ka Ting Ng¹**, Wei En Lim², Wan Yi Teoh¹, Mohd Fitry Zainal Abidin¹*¹Department of Anaesthesiology, University of Malaya, Kuala Lumpur, Malaysia; ²Department of Anaesthesiology, University of Glasgow, Scotland, United Kingdom***Background**

Recent studies have showed that intravenous lidocaine is associated with the reduction of postoperative pain. However, the mechanism of action of intravenous lidocaine as a part of multi-modal analgesic regimen on patients undergoing laparoscopic surgery remains unclear. The primary aim was to demonstrate the effects of intravenous lidocaine on postoperative pain score in adults undergoing laparoscopic surgery.

Methods

Databases of MEDLINE, EMBASE, and CENTRAL were searched since 1947 until May 2023. Randomized clinical trials comparing intravenous lidocaine and placebo in adults undergoing surgery were included.

Results

Forty-five trials (n = 2,599) were included in this meta-analysis. Pooled analysis showed that the intravenous lidocaine group was associated with significantly lower postoperative pain scores at rest (MD: -0.27, 95% CI: -0.45 to -0.08, p = 0.005) at the 24-hour after surgery and during movement (MD: -0.58, 95% CI: -0.89 to -0.27, p < 0.001). Intravenous lidocaine significantly decreased fentanyl consumption (MD: -14.46, 95% CI: -18.11 to -10.81, p < 0.001), postoperative morphine consumption (MD: -3.63, 95% CI: -5.12 to -2.13, p < 0.001) and incidence of nausea and vomiting (RR: 0.66, 95% CI: 0.54 to 0.81, p < 0.001).

Conclusions

This systematic review reinforces the potential role of adding intravenous lidocaine as part of multimodal analgesia in the reduction of postoperative pain, opioid consumption and incidence of nausea and vomiting.

ID 46**PROCALCITONIN LEVEL FOR PREDICTION OF EARLY INFECTION POST ELECTIVE CARDIOPULMONARY BYPASS SURGERY IN CARDIAC INTENSIVE CARE UNIT**

U Mokhtar¹, P Seevaunnamtum¹, AM Mokhtar¹, SE Chong²

¹Universiti Sains Malaysia, Kelantan, Malaysia; ²KPJ Penang Specialist Hospital, Kuala Lumpur, Malaysia

Background

Procalcitonin (PCT) is a reliable diagnostic marker to diagnose infectious systemic inflammatory response syndrome (SIRS) after coronary pulmonary bypass (CPB).

Objective

This study aimed to evaluate the value of a single PCT level on day one post-elective CPB as a predictor of infection and the relationship between PCT values and antibiotic duration.

Methods

A cross-sectional study was conducted from March 2023 to January 2024. Post-CPB patients who met the criteria were recruited, and serum procalcitonin (PCT) levels and blood cultures were measured within 24 hours of CPB. The duration of antibiotic use was recorded, and patients were divided into positive and negative blood culture groups based on evidence of bacteraemia. Logistic regression analysis was used to assess the relationship between PCT levels as a predictor of infection indicated by positive blood culture. Spearman rank correlation coefficient was used to examine the relationship between the serum PCT level and duration of antibiotic treatment.

Results

The study involved 54 patients, with a median serum PCT level of 0.5 ng/mL on the first day post-CPB. PCT levels did not demonstrate a significant predictive value for postoperative infections based on positive blood culture evidence ($P = 0.658$). Additionally, there was no significant correlation between serum PCT and antibiotic treatment duration in both groups ($r = -0.062$, $P = 0.512$).

Conclusion

A single cut off value for PCT is insufficient in accurately distinguishing between infectious and non-infectious SIRS Post CPB, and it does not show a significant relationship with the duration of antibiotic therapy.

ID 48**RUPTURED LUNG EMPYEMA INTRA-OPERATIVE AND PERI-OPERATIVE CHALLENGES**

AG Ghazali, M Hanafi, AJ Jusmidar, MY Maseeda

Unit Cardiothoracic Anaesthesia and Perfusion, Hospital Pulau Pinang

Introduction

Lung empyema is the accumulation of pus, debris, and bacteria in the pleural space. It is usually treated medically but may be resistant and unresponsive to antibiotics. Surgical decortication via video-assisted thoracoscopic surgery (VATS) can be performed to debride the empyema. Single-lung isolation techniques are essential to provide anaesthesia and optimise surgical access during the procedure. Additionally, isolating the lungs helps prevent soiling of the contralateral lung.

Case description

A 62-year-old man with multiple comorbidities and frequent hospital admissions was treated with various antibiotics and multiple chest drainages. The right lung empyema persisted and increased in size to 12 cm x 11 cm x 17 cm, with worsening chest symptoms. He underwent VATS for decortication, but due to thick empyema layers and dense adhesions, the procedure was converted to open thoracotomy. Intraoperatively, the empyema ruptured, releasing ~1.5 L of yellowish pus into adjacent structures. This led to septic showers, ventilatory challenges, and risk of contaminating the contralateral lung.

Learning points

For anaesthetists, anticipating perioperative complications is essential to overcome potential challenges. Key considerations include large bore cannula (for transfusion, if needed), central venous access (for inotropes), difficult airway management due to tracheal distortion, double-lumen tube for lung isolation and preventing contamination, ventilator strategies, antibiotics escalations, analgesia, postoperative management of septic shock, renal support, multidisciplinary teamwork in CICU.

Conclusion

Thorough preoperative evaluation and multidisciplinary discussion are crucial for optimizing patient outcomes. Collaboration between the surgical and anaesthesia teams ensures the best possible care for complex empyema cases.

ID 49**CASE STUDY: EXIT PROCEDURE – A DETAILED ACCOUNT FROM AN ANAESTHESIA POINT OF VIEW**

YM Tan¹, JH Liew ², MR Zainal Abidin¹, CP Lee ¹, R Isa¹, N Krisnamurthy¹, M Paul Samy¹

¹*Hospital Tengku Ampuan Rahimah, Klang, Malaysia;* ²*Hospital Tengku Azizah, Kuala Lumpur, Malaysia*

Introduction

The Caesarean delivery combined with the ex-utero intrapartum treatment (EXIT) procedure is performed in cases where foetal airway obstruction is anticipated. This approach facilitates foetal airway management while preserving uteroplacental circulation. This case study presents the anaesthesia perspective of the first successful EXIT procedure performed at Hospital Tengku Ampuan Rahimah, Klang.

Case Description

A 28-year-old primigravida at 36+2 weeks presented with a foetal neck lymphangioma, measuring 6.6 × 8.4 × 2.5 cm, prompted a multidisciplinary EXIT procedure to secure the foetal airway during delivery. Anaesthetic preparation included adequate IV access, invasive arterial line monitoring, use of BIS and neuromuscular monitoring. General anaesthesia was induced by modified rapid-sequence induction using propofol, remifentanyl, suxamethonium, and maintained with sevoflurane at a MAC of 1.5–2.0 to ensure adequate uterine relaxation. The foetal head and right hand were delivered, allowing foetal intubation and IV access within six minutes. The EXIT procedure was completed in 20 minutes. The neonate remained intubated for 14 days postoperatively and received sirolimus treatment for venolymphatic malformation.

Learning Point

The anaesthetic approach for EXIT procedures requires a balance between uterine relaxation (higher MAC) and maternal haemodynamic stability (vasopressors), demanding meticulous coordination, timing and monitoring.

Conclusion

This case demonstrates that EXIT procedures can be performed safely and effectively in a tertiary centre with comprehensive planning, multidisciplinary collaboration, and careful anaesthetic management. It highlights the procedure's value in managing foetal airway obstructions, with favourable outcomes for both mother and neonate.

ID 51**A CASE OF FOOT DROP FOLLOWING SPINAL ANAESTHESIA**

Nora Azura Dintan, Liew Jian Han, Billy Voon Wei Loong, Rahimah Abdul Rahim, Thohiroh Abdul Razak

Department of Anaesthesiology & Intensive Care, Hospital Tunku Azizah, Kuala Lumpur, Malaysia

Introduction

Foot drop is a rare but distressing complication of spinal anaesthesia, typically resulting from injury to the nerve root or peripheral nerves such as the deep peroneal nerve. The incidence of transient neurological symptoms ranges from 1:1,000 to 1:100,000, with permanent damage being even less frequent. Risk factors include direct trauma, ischaemia, malposition, or anatomical variation.

Case Description

A 35-year-old gravida 6 para 3+2; obese woman at 37 weeks gestation, with significant polyhydramnios underwent emergency Caesarean section for foetal bradycardia following artificial rupture of membranes. Spinal anaesthesia was attempted thrice by a junior doctor before successful administration at L3-L4 by a specialist using a 27G pencil-point needle. No paraesthesia or blood was noted. Eighteen hours post-operatively, she developed right lower limb numbness and progressive weakness, culminating in complete foot drop. MRI revealed lumbar spondylosis, a small L4-L5 annular tear, and soft tissue oedema from L1-L3. Nerve conduction studies showed mild reduction in right common peroneal CMAP, suggestive of early neuropraxia. She was started on vitamin B complex and referred for neuro-rehabilitation. Motor recovery began by Day 4, and by three weeks, she ambulated independently with residual sensory deficit over the S1 dermatome.

Learning Point

Spinal anaesthesia may cause nerve injury even without procedural pain or paraesthesia. In obese patients, landmark-based techniques using Tuffier's line may overestimate vertebral level, increasing the risk of high puncture. Ultrasound guidance improves accuracy but is not routinely used in emergencies. MRI and nerve conduction studies are complementary but may miss subtle injuries if performed too early.

Conclusion

Foot drop post-spinal anaesthesia is rare but serious. High puncture levels and multiple attempts may contribute to nerve injury. Ultrasound guidance, careful technique, and early multidisciplinary involvement are key. MRI and NCS are useful tools for diagnosis and monitoring.

ID 53**EMERGENCY THORACOTOMY WITH ONE LUNG VENTILATION FOR RARE INTERCOSTAL ARTERY AND LUNG PARENCHYMAL INJURY DUE TO CHEST TUBE INSERTION AT A DISTRICT HOSPITAL: A CASE REPORT**

Low Ren Geng, Mohamad Faiz bin Azis, Shalani a/p Rajandran, Fatin Amira bt Ibrahim, Suzaliatun binti Kasbolah

Hospital Pakar Sultanah Fatimah, Muar, Johor, Malaysia

Background

Intercostal artery injury is a rare but catastrophic complication of pleural procedures. The injury might be surgically repaired via thoracotomy with one-lung ventilation anaesthesia which is a challenge for a district hospital.

Case description

A 15-year-old male sustained traumatic liver injury and bilateral pneumothorax. Right chest tube was attempted with open method at bedside by surgical team. However, the patient developed hypovolemic shock with suspected intercostal artery injury. Surgeon decided to proceed with emergency thoracotomy to explore and repair the injury. In the operative theatre, the patient was intubated with double lumen tube size 35 French, levelled at 28 cm. Left one-lung ventilation was achieved. Open Thoracotomy, intercostal artery ligation and lung parenchymal laceration suturing was done by the general surgeons. Throughout the surgery, the patient has not encountered ventilation problems while hemodynamic improved with fluid resuscitation.

Learning Points

Intercostal artery injury is rare with incidence of less than 1% after thoracentesis. One lung ventilation is an anaesthetic technique to isolate a single lung and its indication in this case was to assist surgical view. This is commonly achieved by double lumen tubes.

Challenges faced in this case at our centre include:

- Rare but life-threatening complications of chest tube insertion in a setting lacks service of thoracic surgery and interventional radiology.
- Open thoracotomy by general surgeon due to its urgency
- Unfamiliarity of one lung ventilation among junior anaesthesia doctors and assistants.

Conclusion

Thoracotomy might be required urgently for intercostal artery injury which is a rare but life-threatening complication of chest tube insertion. Anaesthetists should be familiar with one-lung ventilation with double lumen tube as this technique might be required in emergencies irrespective of level of institution.

ID 54**CHEST TRAUMA PAIN MANAGEMENT WITH ERECTOR SPINAE PLANE CATHETER:
A CASE SERIES**

TKG Chan¹, MF Zainal Abidin²

¹Department of Anaesthesiology, Hospital Queen Elizabeth, Sabah, Malaysia; ²Department of Anaesthesiology, Hospital Shah Alam, Selangor, Malaysia

Abstract

There are about 567,516 cases of road traffic accident in Malaysia per year and showing an increment of cases every year. It is a health care burden and globally chest injuries in trauma cases accounted for 10%. Part of the challenges include management of chest trauma analgesia which has detrimental effect if it is not managed properly. Patient selection for intervention is paramount as we need to optimise the use of resources for maximal benefit. We present 2 cases of trauma involving motor vehicle accident.

A 57-year-old ASA 2 (DM, HPT) with no chronic respiratory illness patient, chest injuries left side 3rd to 5th posterior rib fracture with no frail segment or displacement. Arrival SpO₂ 88% with highest requirement of oxygen high flow mask 15 L/min. He is not on any anticoagulant or antiplatelet upon presentation. Other injuries including acute left parietal and interhemispheric subdural bleed with no intra-abdominal injuries. STUMBL 15

A 76-year-old ASA 2 (HPT) with no chronic respiratory illness patient, chest injuries right side 3rd-7th, 9th rib posterior rib fracture with frail segment at 4th, 5th, 7th or displacement. Arrival SpO₂ 89% with highest requirement of oxygen High flow nasal cannula 0.8/60 L/min. He is not on any anticoagulant or antiplatelet upon presentation. Other injuries including lung contusion with large hemopneumothorax, no intrabdominal injuries and intracranial bleeding. STUMBL 35

We are proposing to use STUMBL score to stratify and identify the management group the patient falls into: conservative, aggressive, or emergent. Both patients benefited from ESP catheter insertion for pain control.

ID 57**MODIFIED THORACOABDOMINAL NERVE BLOCK CATHETER AS A RESCUE METHOD FOR SEVERE POSTOPERATIVE PAIN IN POST ESOPHAGECTOMY WITH UPPER MIDLINE ABDOMINAL WOUND: A CASE REPORT**

TKG Chan¹, MF Zainal Abidin²

¹Department of Anaesthesiology, Hospital Queen Elizabeth, Sabah, Malaysia; ²Department of Anaesthesiology, Hospital Shah Alam, Selangor, Malaysia

Introduction

The modified thoracoabdominal nerve block (M-TAPA) block was defined by Tulgar et al. in 2019 for analgesia in abdominal surgery. This technique requires local anaesthetic administered to the lower chondrium surface, which results in blocking a large area, including the T5 and T11-12 dermatome levels. This block offers a few advantages: large coverage compared to other blocks, ability to be performed in a supine position, and a role in opioid-sparing analgesia.

Case Description

We present a case of an ASA2 patient with a diagnosis of Siewert II COJ adenocarcinoma for thoracoscopic Mc Keown esophagectomy, laparoscopic gastric mobilization, cervical anastomosis, and feeding jejunostomy. Prior to induction, an epidural catheter anchor was inserted at 10 cm with catheter in space 5 cm at T6-T7. Intra-operative analgesia total 2 mg morphine with epidural infusion 5-7 ml/hour (ropivacaine 0.2% + fentanyl 2 mcg/ml). Due to dense desmoplastic tissue and difficulty in mobilizing tissue and dissection, operation proceed with upper midline laparotomy. The surgery lasted 12 hours and the patient was admitted to ICU for postoperative care.

Learning Points

After optimization, the patient was extubated, and epidural catheter was removed in view of suspected malposition. He complained of severe pain (8-9/10) at the upper abdomen which affecting his respiration despite started on PCA fentanyl with background infusion. He was deteriorating in terms of increasing oxygen requirement, atelectasis on chest radiography, and increased sympathetic response due to pain.

Conclusion

A diagnostic block with M-TAPA was performed with immediate reduction of pain score to 2. Catheter was placed bilaterally and started on ropivacaine infusion 8 ml/h each side. The patient's condition improved.

ID 59**PRESSURE IN RELIEVING THE PRESSURE**

Nik Rowina Nik Mohammed¹, Uthaya Chandriga Davindren², Nurul Najwa Mohd Noor¹, Siti Aznida Ab Karim¹

¹Universiti Putra Malaysia, Selangor, Malaysia; ²Hospital Sultan Abdul Aziz Shah, Selangor, Malaysia

Introduction

Idiopathic intracranial hypertension (IIH) also known as pseudotumor cerebri is a rare disorder characterized by raised intracranial pressure (ICP) without an underlying mass lesion or hydrocephalus. It often affects obese women of childbearing age and characterized by symptoms such as headache, papilledema and visual disturbances.

Case Description

We report a case of a 31-year-old women G2P1 at 40 weeks gestation with BMI of 39 who presented to the hospital in labour. She had history of IIH with bilateral papilledema and headache, diagnosed in November 2023 treated with tablet acetazolamide but discontinued during pregnancy. On further history, she claimed to be well with no neurological deficit or increased in ICP symptoms. Given the history, spinal anaesthesia was chosen with careful consideration to avoid hypotension in order to maintain the cerebral perfusion pressure. Subarachnoid block was performed at L3-L4 level allowing 15 drops of CSF to flow before injecting a total of 1.9mls of 0.5% hyperbaric bupivacaine + 15 mcg of fentanyl + 0.1 mg of morphine into the intrathecal space. Intraoperatively her vital signs were stable and caesarean delivery was uneventful. She was discharged to Post Anaesthetic Care Unit and made an uneventful recovery.

Learning points

Neuraxial anaesthesia remains a safe option in patients with IIH due to the uniform distribution of cerebral oedema, which mitigates the risk of herniation. This technique allows CSF drainage and the use of small volumes of local anaesthetic to reduce the abrupt rise of intracranial pressure. The goal of management is to reduce hypotension secondary to spinal anaesthesia and maintain cerebral perfusion pressure.

Conclusion

Management of IIH during delivery presents unique challenges to the anaesthetist due to the concerns regarding foetal safety and haemodynamic fluctuations intra-operatively. The physiological demand during labour necessitates multidisciplinary team discussion and careful preoperative planning to ensure optimal maternal neurological safety and favourable perinatal outcome.

ID 60

PRECISION OVER TRANSFUSION: A PATIENT-CENTRED PERIOPERATIVE PATIENT BLOOD MANAGEMENT STRATEGY IN HEREDITARY SPHEROCYTOSIS

Huey Nee Ng¹, Jia Hui Ng¹, Wei Sheng Tan¹, Anand Sanmugam^{1,2}, Ina Ismiarti Shariffuddin^{1,2}

¹Universiti Malaya Medical Centre, Kuala Lumpur, Malaysia; ²Universiti Malaya, Kuala Lumpur, Malaysia

Introduction

Hereditary spherocytosis (HS) is a common autosomal dominant haemolytic anaemia characterised by membrane-defective, spherical red blood cells prematurely destroyed by the spleen. We present a transfusion-dependent adolescent with HS who successfully underwent laparoscopic splenectomy and cholecystectomy using a patient-centred, guideline-driven perioperative blood management strategy.

Case Description

A 16-year-old girl with transfusion-dependent HS presented with anaemia (haemoglobin 9.0 g/dL), thrombocytopaenia ($76 \times 10^9/L$), hyperbilirubinaemia, and hepatic iron overload despite chelation therapy. Anaesthetic goals focused on preventing haemolytic crisis through meticulous monitoring and the avoidance of hypoxia, hypothermia, and acidosis. A restrictive transfusion strategy was adopted in line with established paediatric guidelines (Hb threshold 7 g/dL; platelet threshold $50 \times 10^9/L$). Rotational thromboelastometry (ROTEM) was kept on standby for potential goal-directed transfusion. Intraoperative measures included hypotensive anaesthesia, antifibrinolytic administration (tranexamic acid), and a meticulous laparoscopic surgical approach. The 7-hour procedure, with estimated blood loss of 250 mL, was completed without the need for intraoperative or immediate postoperative blood product transfusion. The patient was discharged on postoperative day 3 with improved haemoglobin (11.0 g/dL). ROTEM was not ultimately required.

Learning Points

Our multidisciplinary laparoscopic approach guided by perioperative PBM principles, achieved a transfusion-free outcome and early recovery in this patient with low platelet count. This was accomplished by optimising erythropoiesis, minimising blood loss with hypotensive anaesthesia, tranexamic acid, meticulous haemostasis, and normothermia. Anaemia was well tolerated under stable conditions. ROTEM was prepared but not required as the blood loss was small. Post-splenectomy, haemolysis resolved, and haemoglobin rebounded. However, vigilance for thrombocytosis, thrombosis, and infection remains vital.

Conclusion

This case highlights that major laparoscopic surgery in transfusion-dependent HS can be safely performed without allogeneic transfusion when all three pillars of patient blood management are thoughtfully implemented.

ID 61**AIRWAY ADVENTURES, THYROID IN MY MOUTH: A CASE REPORT****NI Rahmat¹, SY Cheong¹, MRA Ghani^{1,2}, M Nadarajan¹, YL Oh¹**

¹Department of Anaesthesiology and Intensive Care, Sultan Haji Ahmad Shah Medical Centre (SASMEC) @IIUM Kuantan, Pahang, Malaysia; ² Kulliyah of Medicine IIUM, Kuantan, Pahang, Malaysia

Introduction

Lingual thyroid is a rare congenital anomaly resulting from the embryonic failure of normal thyroid tissue to descend from the foramen cecum area of the tongue base to its typical location. It may present with a wide range of symptoms from being asymptomatic to life threatening upper airway obstruction posing a critical challenge in airway management during anaesthesia.

Case description

A 40-year-old lady with hypothyroidism presented with worsening hoarseness of voice, dysphagia and compressive symptoms. Clinical examination and flexible naso-endoscopy revealed a large mass at the base of tongue causing almost 90% laryngopharyngeal obstruction. Computed tomography (CT) imaging confirmed the above findings along with absence of orthotopic thyroid.

A multidisciplinary airway plan was established in view of high risk of airway compromise. An airway simulation was done prior to managing the real patient. We opted for awake videolaryngoscopy-assisted flexible intubation (VAFI) as the initial airway strategy with Otorhinolaryngology (ORL) team to standby. The airway was topicalized with lignocaine over the nasal cavities, nasopharynx and oropharynx. We attempted using video laryngoscope (VL); however, despite lifting the vallecula using hyper-angulated VL, we were unable to visualize the glottic opening (anticipated) for awake tracheal intubation. Awake tracheal intubation was then successfully performed via flexible bronchoscopy alone through the left nasal cavity. Endotracheal tube (ETT) position was confirmed with bronchoscopy. A surgical tracheostomy was subsequently performed by ORL team. To avoid the loss of the airway and to provide route for oxygenation in the event of airway crisis, a Cook airway exchange catheter was introduced before withdrawing the ETT to facilitate tracheostomy placement.

Learning point

This case highlights the importance of early recognition and individualized anaesthetic planning in patients with lingual thyroid.

Conclusion

Successful tracheal intubation in complex cases require meticulous preparation, interdisciplinary coordination and proactive airway management to ensure patients' safety.

ID 62**KEEPING LITTLE HEARTS STRONG: INSTITUT JANTUNG NEGARA'S ONE-HOUR CLEAR FLUID PROTOCOL TRANSFORMS PEDIATRIC CARDIAC CARE**

NH Mohd Noor, Z Ma'zam, NA Abdul Jalil

Institut Jantung Negara, Kuala Lumpur, Malaysia

Introduction

Previous traditional 2-hour clear fluid preoperative fasting often translates into extended fasting in children undergoing surgeries which impact patients' hydration, increase irritability, and make cannulation access challenging¹. Our initial pilot survey in Institut Jantung Negara (IJN) reveals only 13% adhered to 2-hour fasting, whereas others are extensively fasted for more than 6 hours. Main objective is to evaluate our innovative one-hour clear fluid protocol to enhance preoperative comfort whilst maintaining good safety standards.

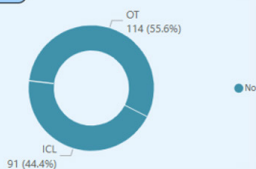
Methods

We conducted a plan-do-study-act (PDSA) approach protocol in our paediatric cardiac surgical patients allowing clear fluid intake (up to 5ml/kg) once nil-by-mouth time started and encourage patients (via their parents) to take regular clear fluid (CF) intake until patient are called to the operating theatre (OT) or interventional catheter laboratory (ICL). Educational briefing on the protocol conducted widely via regular CMEs at various departments and nurses, through brochures and posters for parents to enhance awareness.

Post-protocol audit conducted from August 2024 until March 2025 with responses collected from the nurses, caregiver and the anaesthetists. Data included time from last clear fluid intake, parents' satisfaction, crying response of the child during fasting time, aspiration event, fluid responsiveness and fluid bolus requirement. Total of 325 patients were included in the audit, age > 6 months till 16 years old. Exclusion criteria were intubated patients, GERD, oesophageal atresia, and tracheoesophageal fistula.

Results

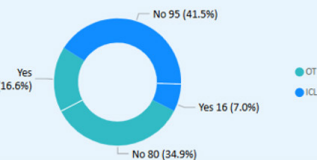
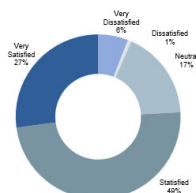
Improvement of 75.3% patients drank clear fluid within 1-6 hours of fasting time. 25.1% patients are more compliant with 1-hour clear fluid prior to anaesthesia induction. Zero aspiration event detected. 76.4% patients did not require any fluid bolus during cannulation. Majority of parents and patients were satisfied and less irritable, respectively.

C3: Airway aspiration**C5: Fluid responsiveness**

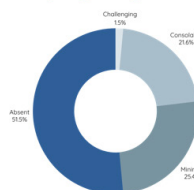
Procedure Location Responsiveness	ICL		OT		Total	
	No	Percent (%)	No	Percent (%)	No	Percent (%)
No	1	8.3%			1	2.1%
Yes	11	91.7%	36	100.0%	47	97.9%
Total	12	100.0%	36	100.0%	48	100.0%

C4: IV fluid bolus

Procedure Location Requirement	ICL		OT		Total	
	N	Percent (%)	N	Percent (%)	N	Percent (%)
a) Not Required	95	85.6%	80	67.8%	175	76.4%
b) <5ml/kg bolus	11	9.9%	17	14.4%	28	12.2%
c) >5ml/kg bolus	3	2.7%	15	12.7%	18	7.9%
d) >10ml/kg bolus	2	1.8%	6	5.1%	8	3.5%
Total	111	100.0%	118	100.0%	229	100.0%

**Parent Satisfaction****B3a: Parent satisfaction**

Procedure Location Parent Satisfaction	ICL		OT		Total	
	N	Percent (%)	N	Percent (%)	N	Percent (%)
Very Dissatisfied	6	2.2%	10	3.7%	16	5.9%
Dissatisfied	1	0.4%	1	0.4%	2	0.7%
Neutral	19	7.1%	28	10.4%	47	17.5%
Satisfied	51	19.0%	80	29.7%	131	48.7%
Very Satisfied	34	12.6%	39	14.5%	73	27.1%
Total	111	41.3%	158	58.7%	269	100.0%

Crying response**B3b: Crying response**

Procedure Location Crying response	ICL		OT		Total	
	N	Percent (%)	N	Percent (%)	N	Percent (%)
Challenging			4	1.5%	4	1.5%
Consolable	22	8.2%	36	13.4%	58	21.6%
Minimal	24	9.0%	44	16.4%	68	25.4%
Absent	65	24.3%	73	27.2%	138	51.5%
Total	111	41.4%	157	58.6%	268	100.0%

Conclusions

As per APAGBI² endorsement, our protocol minimized prolonged fasting and ensures safe clear fluid intake 1-hour preoperatively.

References

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ID 63**COMPARISON BETWEEN THE C-MAC STYLET VERSUS D-BLADE STYLET IN A SIMULATED DIFFICULT AIRWAY MANIKIN**

Mohamad Akhtar Zhafar Zulkifli, Nadia Md Nor, Rufinah Teo, Siti Nidzwani
Mohamed Mahdi, Maryam Budiman, Mohammad Nizam Mokhtar, Azarinah Izaham

*Department of Anaesthesiology & Intensive Care, Hospital Canselor Tuanku Muhriz,
Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia*

Introduction

Endotracheal tube (ETT) insertion can be challenging despite achieving optimum glottic view with the hyperangulated C-MAC®D-blade during anticipated difficult intubation. The D-blade stylet (DS) is a conventional malleable intubating stylet, pre-shaped against the D-blade curvature. We compared the standard C-MAC stylet (CS) versus the DS in terms of intubation time, success rate, and ease of use and removal of stylet, in a simulated difficult airway.

Methodology

This was a prospective, randomised, cross-over study conducted among anaesthesiology medical officers. Participants were randomised to intubate a simulated difficult airway manikin using both the CS and DS consecutively, with the C-MAC®D-blade. The ETT with the DS was pre-shaped using a standardised 3D mould to ensure uniformity, which conformed to the D-blade curvature. Each participant was allowed to first familiarise themselves with both stylets on a normal airway manikin, before proceeding with the study on a simulated difficult airway manikin with a hard-cervical collar applied. During the study, intubation time, number of attempts, and success rate were recorded. Participants rated ease of intubation and stylet removal using a 5-point Likert scale.

Results

A total of 43 participants completed the study. Intubation with the DS was faster, $P = 0.038$ Likert score was significantly higher for ease of intubation and stylet removal with the DS compared than with the CS, $P = 0.001$ and $P \leq 0.01$, respectively. However further analysis showed only easier stylet removal with the DS, $P = 0.031$.

Conclusion

The DS stylet was superior to the CS stylet in terms of intubation time, and increased ease of intubation and stylet removal, in limited cervical movement using the C-MAC® D-blade.

ID 66

SEQUENTIAL COMBINED SPINAL EPIDURAL ANESTHESIA IN GERIATRIC PATIENT WITH UNSTABLE ANGINA COMPLICATED WITH LEFT VENTRICULAR DYSFUNCTION FOR NON-CARDIAC SURGERY: CASE REPORT

Amira Salwa Abdullah¹, Abdul Karim Othman², Ahmad Tahir Awang¹, Ahmad Amirul Syazwan Shamsul Kamal Rujan¹, Nurul Nadzua Mohd Noor¹, Nur Najmi Salim¹, Aiman Liyana Mohamad Supi¹

¹*Hospital Sultan Zainal Abidin, Universiti Sultan Zainal Abidin, Terengganu, Malaysia;*

²*Faculty of Medicine, Universiti Sultan Zainal Abidin, Terengganu, Malaysia*

Abstract

Sequential combined spinal-epidural anaesthesia (CSEA) offers the benefits of spinal anaesthesia while minimizing its disadvantages and complications, making it a valuable technique in hemodynamically unstable patients.

Case description

A 63-year-old gentleman with medical history of diabetes mellitus, hypertension, hyperlipidaemia, and a heavy smoker recently diagnosed with unstable angina. Pre-operative cardiac assessment revealed an ejection fraction of 37%. ECG showed T inversion at anterolateral leads, ST depression over leads II, III, and aVF. The patient was classified as NYHA class 3, METS of 1 – 4, and ASA IV. He was scheduled for reversal of transverse colostomy under sequential CSEA. A subarachnoid block was administered at L3L4 using 1.0 mL of 0.5% heavy bupivacaine combined with 25 mcg fentanyl. Epidural anaesthesia was subsequently performed at L1L2 using a titrated dose of 6.0 mL of epidural cocktail, consisting of a mixture of equal volume of 0.75% ropivacaine and 2% lignocaine.

Result

The highest sensory block was achieved at the T6 dermatome level, 10 minutes after administration of epidural cocktail. The highest motor block corresponding to a Bromage score of 0, was also observed 10 minutes following the epidural injection. Throughout the 120-minute duration of surgery, the patient remained hemodynamically stable and did not require any rescue analgesia. To maintain stable hemodynamic parameters and ensure adequate coronary perfusion, minimal doses of inotropic and vasopressor agents specifically low dose dobutamine and noradrenaline were administered. The whole operation was completed uneventfully, with stable hemodynamic conditions, excellent analgesia, and optimal muscle relaxation at the surgical site. Light sedation was achieved using dexmedetomidine infusion at 0.3 mcg/kg/hr, without a loading dose.

Conclusion

Sequential CSEA utilizing a low-dose subarachnoid block supplemented with a titrated epidural cocktail, provides superior hemodynamic stability along with excellent analgesia and anaesthesia especially among the geriatric population with significant cardiac comorbidities undergoing non-cardiac surgery.

ID 67**PREVENTION OF POSTOPERATIVE NAUSEA AND VOMITING USING SUB-ANESTHETIC PROPOFOL INFUSION DURING VOLATILE ANESTHESIA IN PATIENT WITH A PREVIOUS HISTORY OF POSTOPERATIVE NAUSEA AND VOMITING**

Nurul Nadzua Mohd Noor¹, Abdul Karim Othman², Amira Salwa Abdullah¹, Aiman Liyana Mohamad Supi¹, Nabil Ali¹, Muhamad Syukri Ahmad¹, Wan Ahmad Fahmi Wan Abdullah¹

¹*Hospital Sultan Zainal Abidin, UniSZA, Kuala Terengganu, Malaysia;* ²*Faculty of Medicine, Universiti Sultan Zainal Abidin, Terengganu, Malaysia*

Introduction

The goal of our case study is to prevent the incidence of PONV, especially in patients with a history of PONV, through the co-administration of a sub-anaesthetic propofol infusion (30–60 mcg/kg/min) with volatile anaesthesia and intraoperative non-opioid analgesia.

Case Description

A 53-year-old lady, ASA II with hypertension, hyperlipidaemia, allergic rhinitis and history of mild CVA was planned to undergo left URS and RIRS under general anaesthesia. Having a previous history of severe PONV, her main concern was experiencing another episode. Preoperative risk assessment for PONV using the Apfel score resulted in 2 points, corresponding to a 40% risk of developing PONV with the current anaesthesia plan. After induction with intravenous fentanyl, propofol and rocuronium, inhalational anaesthesia was maintained at a MAC of 0.9 to 1.0. Intraoperatively, the patient received a sub-anaesthetic propofol infusion (30–60 mcg/kg/min) combined with volatile anaesthesia and non-opioid intravenous analgesia, consisting of 1 gram of paracetamol and 40 mg of parecoxib. The operation lasted for one and a half hours and was reversed using intravenous sugammadex.

Result

The Postoperative Nausea Vomiting (PONV) Intensity scale:

	1 st 6 hours	2 nd 6 hours	3 rd 6 hours	4 th 6 hours
Score	4	0	0	0

As the score did not exceed 50, it is concluded that our patient did not have clinically significant PONV.

Rescue antiemetic in PACU = Nil. Rescue antiemetic in ward = Nil

Conclusion

By minimising all potential risk factors for developing PONV and adding a sub-anaesthetic propofol infusion during volatile anaesthesia, we were able to significantly prevent our patient from experiencing PONV or motion sickness, both in the PACU and in the ward, despite her history of severe PONV during previous anaesthesia.

ID 68**SUBMENTAL INTUBATION IN MAXILLOFACIAL FRACTURE SURGERY: A RETROSPECTIVE STUDY**

S Peter¹, KK Sinniah², **JY Keong**¹, JA Johari²

¹Department of Oral and Maxillofacial Surgery, Hospital Teluk Intan, Perak, Malaysia;

²Department of Anaesthesiology, Hospital Teluk Intan, Perak, Malaysia

Introduction

Submental intubation is a preferred alternative in maxillofacial fracture surgery when oral and nasal intubation are contraindicated. A major advantage of submental intubation is that it allows dental occlusion which is necessary for proper alignment of fractured bone fragments. It is relatively simple, minimally invasive, time-efficient and associated with minimal complication. Limited research has been done on submental intubation in Malaysia and there are not many anaesthetists with adequate training in the technique of submental intubation. Therefore, this study aimed to investigate the type of maxillofacial fracture, indication and complication of using submental intubation.

Methods

This is a retrospective study using census sampling technique. 11 patients who underwent submental intubation in Hospital Teluk Intan from January 2022 to March 2025 were identified from the operation theatre list. Their clinical record, computed tomography report and surgery note were reviewed.

Results

Data from 11 patients (mean age of 27 years; 9 males and 2 females; 8 Malays, 1 Chinese, and 2 Indians) was analysed. Three patients (27.3%) presented with midface fracture, one patient (9.1%) with mandibular fracture, whereas seven patients (63.6%) sustained both midface and mandibular fracture. Seven patients (63.6%) presented with nasal bone and/or septum fracture, two patients (18.2%) with base of skull fracture and two patients (18.2%) with fracture of all the nasal bone, septum, and base of skull. One patient (9.1%) developed skin abscess on postoperative day 3 and hypertrophic scarring on postoperative two weeks, whereas the remaining ten patients (90.9%) recovered with no complication.

Conclusion

Submental intubation remains a preferred alternative in maxillofacial fracture surgery with a minimal rate of complication.

ID 69**FLUID-SPARING YET EFFECTIVE: A CASE OF DIABETIC KETOACIDOSIS IN A FLUID-RESTRICTED CRITICALLY ILL PATIENT USING ALBUMIN-CRYSTALLOID SYNERGY**

Muhamad Rafiqi Hehsan^{1, 2}, Muhamad Syukri Ahmad¹, Nur Najmi Salim¹, Abdul Karim Othman^{1, 2}

¹Department of Anaesthesiology and Intensive Care, Hospital Sultan Zainal Abidin, Universiti Sultan Zainal Abidin, Kampus Gong Badak, Kuala Nerus, Terengganu Darul Iman, Malaysia; ²Faculty of Medicine, Universiti Sultan Zainal Abidin, Medical Campus, Jalan Sultan Mahmud, Kuala Terengganu, Terengganu Darul Iman, Malaysia

Introduction

diabetic ketoacidosis (DKA) represents a critical endocrine emergency necessitating rapid fluid resuscitation, insulin therapy, and correction of metabolic derangements. Standard management requires aggressive fluid resuscitation. However, patients with significant fluid restrictions due to comorbidities such as heart failure and chronic kidney disease (CKD) pose a therapeutic dilemma. These patients present a unique therapeutic challenge where the standard protocol may exacerbate fluid overload, leading to pulmonary oedema and cardiovascular deterioration.

Case description

we present a complex case of DKA in a 62-year-old male with type 2 diabetes mellitus, heart failure with reduced ejection fraction (HFrEF), and CKD stage V. Owing to his strict fluid limitation, a strategic combination of colloid (5% human albumin) and limited crystalloid (Sterofundin) was administered. This targeted, low-volume resuscitation resulted in successful resolution of DKA without precipitating fluid overload or worsening cardiac function.

Learning point

this case underscores the feasibility and efficacy of a fluid-sparing approach to DKA management in high-risk, fluid-restricted patients. The synergistic use of albumin and crystalloid represents a novel, safe, effective strategy and alternative to traditional high-volume strategies warranting further investigation.

Conclusion

this case highlights the importance of individualised fluid therapy guided by real-time haemodynamic and metabolic response. This tailored approach not only minimises the risk of complications but also promotes better overall patient outcomes. Future studies should aim to validate these findings and explore the broader applicability of fluid-sparing strategies in diverse patient populations.

ID 72**KEEPING THE AIRWAY SAFE: SEDATION MANAGEMENT IN CORNELIA DE LANGE SYNDROME WITH CRANIOFACIAL DYSMORPHISM UNDERGOING EMERGENCY SURGERY**

Muhamad Rafiqi Hehsan¹, Muhammad Hafzi Abdul Hamid^{2,3}, Khadijah Nurjannah Mohamad Habibullah³, Muhammad Habibullah Zakaria³

¹Faculty of Medicine, Universiti Sultan Zainal Abidin, Medical Campus, Jalan Sultan Mahmud, Kuala Terengganu, Terengganu Darul Iman, Malaysia; ²Hospital Pakar Universiti Sains Malaysia, Jln Raja Perempuan Zainab II, Kubang Kerian, Kota Bharu, Kelantan, Malaysia; ³Hospital Sultanah Nur Zahirah, Jalan Sultan Mahmud, Kuala Terengganu, Terengganu, Malaysia

Introduction

Cornelia de Lange Syndrome (CdLS) is a rare genetic disorder associated with characteristic craniofacial dysmorphism, cognitive impairment, limb abnormalities and multisystem involvement. Anaesthetic management in these patients is particularly challenging due to difficult airway anatomy, increased aspiration risk, and potential sensitivity to sedative agents. These risks are amplified in emergency surgical settings where limited preparation time and physiological instability further complicate airway management.

Case description

We report the case of a 6-year-old girl with CdLS who presented with a progressively enlarging left-sided neck abscess and underwent emergency surgical drainage after the failure of antibiotic treatment. Pre-anaesthetic evaluation revealed multiple craniofacial features suggestive of a difficult airway. Monitored sedation anaesthesia with target-controlled infusion (TCI) of ketofol was chosen to maintain spontaneous ventilation. The procedure was completed uneventfully with stable haemodynamics and no airway compromise.

Learning point

This case illustrates the safety and efficacy of a carefully titrated sedation-based anaesthetic technique in a paediatric patient with complex airway anatomy. The combination use of propofol and ketamine enabled optimal surgical conditions while avoiding airway instrumentation.

Conclusion

We advocate for the consideration of such sedation strategies in selected high-risk paediatric patients, especially those with syndromic craniofacial dysmorphism where airway control is uncertain. Multidisciplinary planning and vigilant intraoperative monitoring are paramount to achieving safe outcomes in these challenging scenarios.

ID 73**HEALING FROM WITHIN: LONG-TERM PAIN RELIEF WITH PLATELET-RICH PLASMA IN AN UNUSUAL CASE OF MORTON'S NEUROMA**

Muhamad Rafiqi Hehsan^{1,2}, Kamaruddin Ibrahim², Shamsul Kamalrujan Hassan¹

¹Faculty of Medicine, Universiti Sultan Zainal Abidin, Medical Campus, Jalan Sultan Mahmud, 20400 Kuala Terengganu, Terengganu Darul Iman, Malaysia; ²Department of Anaesthesiology and Critical Care, School of Medical Sciences, Health Campus, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia

Introduction

Morton's neuroma is a painful condition caused by perineural fibrosis and nerve entrapment, typically affecting the interdigital nerves of the foot. Conventional treatments, such as corticosteroid injections, orthotics, and surgery, often provide inconsistent or temporary relief. This case report explores the efficacy of platelet-rich plasma (PRP) as a regenerative alternative for long-term pain relief in an atypical presentation of Morton's neuroma.

Case description

We present a case of a 26-year-old woman with chronic neuropathic pain due to Morton's neuroma in the fourth intermetatarsal space: an uncommon anatomical site. She underwent PRP therapy after failing multiple conservative treatments. A PRP injection was administered twice, and the patient was monitored over a 12-month follow-up period to assess pain relief, functional recovery, and symptom recurrence. Following PRP administration, the patient reported a significant reduction in pain, with a Visual Analogue Scale (VAS) score improvement from 9/10 to 1/10. Functional mobility improved, and there was no recurrence of symptoms throughout the follow-up period.

Learning point

PRP's regenerative properties likely contributed to nerve healing and neuromodulation, offering prolonged pain relief compared to conventional therapies.

Conclusion

PRP therapy provided substantial and sustained pain relief in an atypical case of Morton's neuroma, highlighting its potential as a minimally invasive, regenerative treatment alternative. Compared to corticosteroid injections and other conventional therapies, PRP addresses the underlying pathology rather than merely suppressing inflammation, making it a promising option for refractory and atypical cases of Morton's neuroma.

ID 74**TOTAL INTRAVENOUS ANAESTHESIA IN OSTEOPENIA IMPERFECTA: CLINICAL PRUDENCE OR OVER-CAUTION?**

Nurul Najwa Mohd Noor, Nik Rowina Nik Mohammed

Universiti Putra Malaysia, Selangor, Malaysia

Introduction

Osteopenia Imperfecta (OI) or more commonly known as “brittle bone disease” is a genetic disease that results in a decrease in type 1 collagen and an abnormal collagen cross-linking. Commonly characterized by an increase in bone fragility, anaesthesia for patients with OI pose significant challenges owing to potential difficult airway, risks of cervical vertebra fracture during airway manipulation and reported incidence of temperature elevation in several case reports. although the association with malignant hyperthermia (MH) remains unproven.

Case Description

We present the case of a 6-year-old girl, diagnosed with OI at the age of 1 month old following femur fracture after immunization. Subsequently she had multiple history of fractures in the absence of trauma including a humerus fracture and multiple compression fractures involving C4-C7, T2, and L4-L5 spine fracture, all of which were managed conservatively. On this occasion, she presented with left femur fracture following a fall.

Although association between OI and MH is not proven, we opted for total intravenous anaesthesia (TIVA) using propofol and remifentanyl, aiming for smoother airway management and gentle emergence and less risks for postoperative nausea and vomiting (PONV). Intubation was performed with video laryngoscopy. Surgery was uneventful and she was discharged to general paediatrics ward with morphine infusion for postoperative analgesia.

Learning point

In OI, although inhalational agents are not contraindicated, TIVA offers advantages by minimizing vigorous movement such as coughing, bucking, and retching during induction and emergence in this highly fracture-prone group. It also avoids volatile agents and succinylcholine, which are theoretically linked to hyperthermic reactions. Reports of intraoperative temperature spikes warrant cautious planning. Careful positioning, manual in-line stabilization during airway management, and adequate pain control remain key perioperative considerations.

Conclusion

The use of TIVA in OI serves as a safer alternative while also conferring several added benefits.

ID 76**SUPERFICIAL CERVICAL PLEXUS BLOCK FOR SUPRACLAVICULAR NODE BIOSPY IN A HIGH-RISK AIRWAY: A SAFE ALTERNATIVE TO GENERAL ANESTHESIA**

A MNor, NA Zulkapli

Hospital Kuala Lipis, Pahang, Malaysia

Introduction

Superficial cervical plexus block (SCPB) is one of the regional anaesthesia techniques. It provides anaesthesia to the skin of the anterolateral neck, ear, clavicle and shoulder region. “The aim of the ultrasound-guided SCPB technique is to deliver local anaesthetic near the sensory branches of the C2, C3, and C4 nerve roots.

Case description

A 52-years-old Malay female with newly diagnosed endobronchial mass causing left lung collapse was electively admitted for excision biopsy of deep-seated supraclavicular lymph node. She had a 6-month history of productive cough associated with constitutional symptoms. Chest x-ray showed heterogeneous opacity of the left lung, and CT thorax revealed lobulated intraluminal mass (6.1cm x 6.3cm x 7.2 cm) in left main bronchus with associated lung collapse. An irregular spiculated mass (6.8cmx7cmx8.4cm) with necrotic components was also identified. In this case report, a right SCPB was performed under aseptic technique using a linear probe ultrasound. A total of 5 ml of 0.5% ropivacaine was administered, along with TCI remifentanyl ranging 1.5–2 ng/ml. The patient was supported with high-flow nasal cannula throughout the procedure. The procedure was successfully done without compromising the airway and she was discharged well on the same day.

Learning Points

A true SCPB carries almost nil risks of phrenic nerve palsy, recurrent laryngeal nerve palsy or Horner’s syndrome.

Conclusions

In most cases, general anaesthesia is performed in patients without significant airway risk. However, in this case, this patient is at risk of airway obstruction and difficult ventilation due to the presence of endobronchial mass and lung malignancy. Alternatively, SCPB helps to avoid airway manipulation and maintaining spontaneous breathing while providing safe anaesthesia to high airway risk patients.

ID 77**AWAKE TRACHEAL INTUBATION USING A C-MAC VIDEO LARYNGOSCOPE WITH A FACE-TO-FACE APPROACH**

KN Khalid, A MNor, AH Mohamed

Hospital Kuala Lipis, Pahang, Malaysia

Introduction

C-MAC video laryngoscope with a face-to-face approach is one of the techniques of awake tracheal intubation (ATI). This method can be done for management of the anticipated difficult airway, while maintaining spontaneous breathing.

Case description

A 39-year-old Orang Asli woman, weighing 46 kg with no known medical illness, was electively admitted for total thyroidectomy due to a multinodular goitre. She had a 20-year history of anterior neck swelling that had gradually increased in size. Clinically, she was euthyroid with no sign and symptoms of airway or compression complications. On examination of the anterior neck, mass size right thyroid measure 6cm x 10 cm while left thyroid measure 8cm x 10 cm. Prior to intubation, nebulization using lignocaine 1% and intravenous glycopyrrolate 200mcg was administered. The patient was positioned in a propped-up position. High-flow nasal cannula therapy was initiated. A target-controlled infusion of remifentanyl was initiated at 0.5-1 ng/ml and gradually titrated up to 3.5ng/ml. Airway topicalization was performed using co-phenylcaine spray. The spray was applied to the bilateral posterior pillar, base of tongue, vallecula, vocal cords, and just beyond vocal cords. Single-attempt intubation was performed with a C-MAC D-blade video laryngoscope and a size 7.0 armoured endotracheal tube.

Learning Points

Awake C-MAC intubation is a viable and often more accessible alternative when fibre-optic scopes are inconvenient.

Conclusion

ATI using the C-MAC video laryngoscope is a safe, effective, and practical technique in patients with anticipated difficult airways. It provides excellent visualization of the glottis, maintains spontaneous ventilation, and allows for successful intubation with minimal haemodynamic disturbance when combined with adequate topicalization and appropriate sedation.

ID 78**NAVIGATING THE ANAESTHETIC CHALLENGES OF SEVERE KYPHOSCOLIOSIS WITH SEVERE RESTRICTIVE LUNG DISEASE: A MULTIMODAL REGIONAL APPROACH**

Mohd Syafiq Shokery, Malarvilee Paul Samy, Mohd Rohisham Zainal Abidin

Hospital Tengku Ampuan Rahimah, Klang, Malaysia

Introduction

Severe kyphoscoliosis with restrictive lung disease poses significant anaesthetic challenges, especially in patients with other health issues. General anaesthesia for these patients carries substantial risks for respiratory and cardiovascular problems. This case illustrates the successful application of a multimodal regional anaesthesia strategy to safely manage a high-risk patient undergoing lower limb orthopaedic surgery.

Case description

A 50-year-old woman with severe kyphoscoliosis (Cobb angle over 50°), very severe restrictive lung disease, moderate pulmonary hypertension, prior stroke, a recent type II myocardial infarction, hospital acquired pneumonia, and spinal issues came in for distal femur fracture fixation. General anaesthesia was considered high risk. Plan A involved an ultrasound guided combined spinal epidural (CSE), but the spinal attempts were unsuccessful; however, an epidural catheter was successfully inserted. Plan B involved an epidural titration of lignocaine, which produced motor block but insufficient sensory coverage. Proceeded with plan C which were femoral, sciatic, and supra-inguinal fascia iliaca blocks with catheter placement. Sedation was maintained with dexmedetomidine, remifentanyl, and low dose midazolam, without causing respiratory compromise. Intraoperative pain relief was managed with intermittent epidural and peripheral nerve block boluses. Vital signs remained stable, monitored through arterial blood pressure. Oxygenation was maintained with only nasal cannula oxygen supplementation.

Learning Points

In patients with complex spinal deformities and severe pulmonary issues alongside other comorbidities, a carefully customized regional anaesthetic approach can effectively prevent the need for general anaesthesia and its associated risks.

Conclusion

This case showed the feasibility and safety of a tailored multimodal regional anaesthesia strategy in a high-risk surgical patient. Despite facing technical challenges, the patient had a successful surgery and was discharged to the ward in good condition. This supports the need for individualized planning and ultrasound-guided techniques in treating patients with significant anatomical and physiological challenges.

ID 79**A RARE PRESENTATION OF BILATERAL TENSION PNEUMOTHORAX WITH CARDIAC ARREST IN A YOUNG ADULT WITH VAPING ASSOCIATED PULMONARY LANGERHANS CELL HISTIOCYTOSIS**

Mohd Syafiq Shokery, Lee See Pheng, Malarvilee Paul Samy, Mohd Rohisham Zainal Abidin

Hospital Tengku Ampuan Rahimah, Klang, Malaysia

Introduction

Pulmonary Langerhans Cell Histiocytosis (PLCH) is a rare, smoking related interstitial lung disease increasingly observed in young individuals with a history of vaping. While cigarette smoking has long been associated with PLCH, vaping often perceived as a safer alternative. However, it has now emerged as a growing contributor. With more cases presenting to healthcare settings in various severe forms, including spontaneous pneumothorax and respiratory failure, the long-term complications of vaping remain underrecognized and underexplored.

Case Description

A previously healthy male in his mid-20's was found collapsed at home and was brought to the Emergency Department in cardiac arrest. On assessment, he was found to be profoundly hypoxic with clinical signs of bilateral tension pneumothorax. Emergency decompression and chest tube insertion were performed, and return of spontaneous circulation (ROSC) was achieved after nearly 30 minutes of CPR. He had a 4-year history of cigarette smoking followed by 4 years of vaping. A prior hospital admission for bilateral pneumothorax had led to a diagnosis of PLCH. Despite intensive neuroprotective efforts, he suffered severe hypoxic ischemic encephalopathy, ultimately succumbed to the profound effects of the brain injury.

Learning Point

This case highlights the increasingly severe and diverse presentations of vaping related lung injury. Vaping, though relatively new, is clearly not harmless and may lead to irreversible and fatal complications in young individuals.

Conclusion

The evolving landscape of vaping associated lung disease warrants urgent attention. As more young adults present with serious complications, including PLCH and life-threatening pneumothoraxes, further research is essential to understand the long term impact of vaping. Preventive strategies and stronger public health education and awareness must be implemented to combat the rising tide of vaping related morbidity and mortality.

ID 81**TRAPPED IN SILENCE: NAVIGATING ANAESTHESIA IN A NON-VERBAL, HIGH-RISK PATIENT**

Fauziah Ahmad, Asmah Azizeh

Faculty of Medicine, Universiti Teknologi Mara (UiTM), Sungai Buloh, Selangor, Malaysia

Introduction

This case highlights perioperative considerations in managing a nonverbal young adult with global developmental delay and complex medical history undergoing saucerization for a left gluteal carbuncle

Case description

A 30-year-old male with a complex neurological background of nonverbal global developmental delay, refractory epilepsy, spastic quadriplegia and chronic aspiration was scheduled for saucerization of a gluteal abscess. A vagus nerve stimulation (VNS) device implanted since childhood to help control his seizure frequency. He was on multiple antiepileptic medications including levetiracetam, lamotrigine, and oxcarbazepine. He also had significant multiple comorbidities included a hiatal hernia, gastroesophageal reflux, recurrent pulmonary aspiration and chronic pulmonary changes. The procedure was conducted under total intravenous anaesthesia with bispectral index (BIS) monitoring to ensure adequate depth of anaesthesia and minimise perioperative seizure trigger and hemodynamic instability. Special attention was given to the presence of the VNS device which was deactivated preoperatively to avert complications associated with inadvertent vagal stimulation. The Bipolar diathermy was used intraoperatively to reduce the risk of VNS activity interference and device damage.

The patient was extubated in the postoperative care unit and observed closely for several hours before being safely transferred to the general ward.

Learning points

In nonverbal patients with complex comorbidities, tailored anaesthetic strategies and early multidisciplinary input are essential for optimizing safety and outcomes.

Conclusion

In this high-risk neurological patient, anaesthetic safety was achieved through vigilant monitoring, seizure prevention strategies and careful intraoperative handling of the VNS device. The case emphasized the value of comprehensive preoperative planning in patients with significant communication barriers and comorbidities.

ID 82**CAESAREAN UNDER PRESSURE: ANAESTHETIC STRATEGIES FOR A PARTURIENT WITH RECURRENT SUPRAVENTRICULAR TACHYCARDIA****Fauziah Ahmad^{1,2}, Afifah Samsudin^{1,2}, Aliah Farhah Azlan²***¹Faculty of Medicine, Universiti Teknologi Mara (UiTM), Sungai Buloh, Selangor, Malaysia; ²Hospital Al-Sultan Abdullah (UiTM,) Puncak Alam, Selangor, Malaysia***Introduction**

Recurrent supraventricular tachycardia (SVT) in pregnancy poses unique anaesthetic challenges, particularly during the caesarean section, where both maternal and foetal safety must be considered. The combination of sympathetic stimulation, cardiovascular changes of pregnancy and potential for haemodynamic instability makes vigilant perioperative planning essential.

Case Description

We present the anaesthetic management of a 38-year-old G3P2 at 38 weeks gestation, scheduled for elective lower segment caesarean section (ELLSCS) for maternal indication of recurrent SVT. Given her prior diagnosis of probable atrioventricular nodal re-entrant tachycardia (AVNRT) during her second pregnancy, the patient was referred to the anaesthesia clinic for early preoperative assessment. In the current pregnancy, she experienced monthly brief episodes of SVT, often triggered by postural changes and terminated with self-administered vagal manoeuvres. At 10 weeks gestation, she had a prolonged episode requiring adenosine for reversion. She was maintained on oral propranolol 20 mg BD with good rate control and reported no syncopal or pre-syncopal symptoms, nor evidence of cardiac failure. Cardiac evaluation revealed a normal echocardiogram (EF 66%) with no structural abnormalities, and low ectopic burden (0.001%) without significant arrhythmia or QT prolongation on Holter recording.

Anticipatory measures included invasive haemodynamic monitoring and readiness for external cardioversion if required. The surgery was performed under combined spinal-epidural anaesthesia. A phenylephrine infusion was initiated pre-emptively and maintained intraoperatively to maintain stable haemodynamics and prevent reflex tachycardia, which could precipitate SVT. The surgery was uneventful, and the patient was monitored in the maternal high-dependency unit postoperatively, where she remained clinically stable.

Learning points

Early anticipation of complications and effective multidisciplinary planning involving obstetricians, anaesthesiologists, and cardiologists are essential to ensure optimal maternal and foetal outcomes in parturients with recurrent SVT.

Conclusion

Neuraxial anaesthesia, particularly CSE, combined with proactive planning and haemodynamic optimisation, is a suitable and safe approach in parturients with recurrent SVT.

ID 83**ANAESTHETIC MANAGEMENT OF A PAEDIATRIC PATIENT WITH PRADER-WILLI SYNDROME: NAVIGATING AIRWAY CHALLENGES AND HEIGHTENED SENSITIVITY TO ANAESTHETIC AGENTS – A CASE REPORT**

Nuralia Sakinah Y, Tiara M, Noorfidah AR, Zayuah M, Muhammad Rizal AR

Department of Anaesthesia and Intensive Care, Hospital Sultan Haji Ahmad Shah, Temerloh, Pahang, Malaysia

Introduction

Prader–Willi syndrome (PWS) is a complex genetic disorder characterised by central hypotonia, craniofacial abnormalities, and recurrent respiratory infections. These features present major anaesthetic challenges, including difficult airway management, heightened sensitivity to sedatives and opioids, and an increased risk of perioperative respiratory compromise. Understanding these factors is essential to ensure patient safety and optimise perioperative outcomes.

Case Report

A 1-year 7-month-old boy with suspected PWS presented with central hypotonia, recurrent pneumonia and upper airway anomalies, including laryngomalacia and redundant arytenoid tissue. He had multiple previous Intensive Care Unit (ICU) admissions requiring bi-level positive airway pressure ventilation, continuous positive airway pressure (CPAP) ventilation and high-flow nasal cannula (HFNC) support. The child was scheduled for elective examination under anaesthesia, direct laryngoscopy, bronchoscopy, and adenoidectomy. Anaesthesia was maintained with target-controlled infusions of remifentanyl and propofol. During the procedure, he developed multiple desaturation episodes despite adequate ventilation, raising concern for opioid-induced respiratory depression. Bronchoscopy revealed thick secretions, an omega-shaped epiglottis, and redundant supraglottic tissue, without evidence of subglottic stenosis. However, dynamic airway collapse was observed during spontaneous respiration. Post-extubation, he developed positional stridor and intermittent desaturation, necessitating HFNC and ICU observation.

Learning Points

This case presented unique perioperative challenges due to syndromic airway features, respiratory vulnerability, and heightened drug sensitivity. Micrognathia, obesity, and hypotonia increase the risk of difficult ventilation and dynamic airway collapse, necessitating careful preoperative planning and experienced airway management. Anaesthetic agents, particularly opioids and sedatives, should be titrated cautiously to minimise respiratory depression. Postoperatively, close monitoring and

opioid-sparing strategies help reduce the risk of hypoventilation. A multidisciplinary approach is essential to anticipate complications and optimise patient outcomes.

Conclusion

Anaesthetic management in children with PWS requires meticulous airway planning, careful drug titration, and vigilant postoperative monitoring. Effective multidisciplinary coordination is a key in achieving safe and complication-free perioperative care.

ID 86**PERIPHERAL NERVE BLOCKS FOR UPPER AND LOWER LIMB SURGERIES:
A STUDY ON PATIENT SATISFACTION AND PERIOPERATIVE EXPERIENCE**

Muhammad Hafiz Abd Ghani^{1,2}, Adlin Dasima Abdul Kadir^{1,2}, Karis Misiran^{1,2}, Wan Salwanis Wan Ismail³, Afifah Samsudin^{1,2}, Fauziah Ahmad^{1,2}

¹*Department of Anaesthesiology & Intensive Care, Faculty of Medicine, Universiti Teknologi MARA, Sungai Buloh, Selangor, Malaysia;* ²*Department of Anaesthesiology & Intensive Care, Hospital Al-Sultan Abdullah, Universiti Teknologi MARA, Puncak Alam, Selangor, Malaysia;* ³*Department of Anaesthesiology & Critical Care, Hospital Raja Permaisuri Bainun, Ipoh, Perak, Malaysia*

Introduction

Peripheral nerve blocks (PNB) are increasingly employed as the primary anaesthetic technique for upper and lower limb surgeries. Their ability to provide effective analgesia with a low complication rate makes them a preferred choice in many centres. Beyond clinical efficacy, patient satisfaction serves as an important indicator of quality of care. This study aimed to evaluate patient satisfaction with PNB and their willingness to choose the same technique for future procedures.

Methods

A cross-sectional study was conducted among 127 adult patients who underwent upper or lower limb surgeries under PNB at two tertiary hospitals in Malaysia. Data were collected using a structured questionnaire assessing several domains: explanation of the procedure, adequacy of information, attentiveness to discomfort, responsiveness to questions, and postoperative pain relief. Additional outcomes included postoperative pain scores and patients' willingness to undergo PNB again in the future.

Results

High satisfaction levels were observed across all domains. For procedural explanation, 78.7% were very satisfied and 19.6% satisfied. Regarding information provided, 78.0% were very satisfied and 21.3% satisfied. For attentiveness to discomfort, 79.5% were very satisfied and 20.5% satisfied. Similarly, 76.4% were very satisfied and 22.0% satisfied with responsiveness to questions. For postoperative pain control, 77.2% were very satisfied and 21.3% satisfied. Most patients reported minimal postoperative pain: 48.0% had no pain, 45.7% mild pain, and 6.3% moderate pain, with no cases of severe pain. Overall, 80.9% were willing to undergo PNB again, 14.2% were unsure, and 4.9% declined.

Conclusion

PNB provides excellent patient satisfaction and effective postoperative analgesia. Clear communication, reassurance, and attentiveness contribute significantly to positive patient experiences. These findings support the continued use of PNB and underscore the importance of enhancing patient education to sustain high satisfaction levels.

D 88

OUTCOMES OF MECHANICAL THROMBECTOMY SERVICE IN SARAWAK GENERAL HOSPITAL: AN AUDIT OF CLINICAL PRACTICE

Alaric Ding Tian Ang¹, Emeline Yian Ling Lee ¹, Jiann Shyang Tay², Bibi Sadaqat Rahim³, Shu Ching Teo¹, Samuel Ern Hung Tsan⁴

¹Anesthesiology and Intensive Care Department, Sarawak General Hospital, Ministry of Health Malaysia, Sarawak, Malaysia; ²Neurology Unit, Internal Medicine Department, Sarawak General Hospital, Ministry of Health Malaysia, Sarawak, Malaysia; ³ Department of Radiology, Sarawak General Hospital, Ministry of Health Malaysia, Sarawak, Malaysia; ⁴Faculty of Medicine and Health Sciences, University of Malaysia Sarawak, Sarawak, Malaysia

Introduction

Mechanical thrombectomy aims to provide rapid recanalisation endovascularly in stroke patients and has revolutionised the treatment of acute ischemic stroke. An audit of the new mechanical thrombectomy (MT) service at Sarawak General Hospital (SGH) was conducted to investigate patient outcomes and complications.

Methodology

The MT service in SGH commenced in November 2023, with close collaboration among the Emergency Medicine, Neurology, Anaesthesiology, and Interventional Radiology disciplines. A total of 44 cases were performed from November 2023 to April 2025. Patients' baseline, procedural and outcome data were retrieved manually from the record unit. Outcome parameters were the success of reperfusion, modified Rankin Scale (mRS) score, and death at 30 days. Complications during hospitalisation were also investigated.

Results

Thirty-two cases were included in this audit. Patients presenting for MT had a mean age of 58.8 years, were predominantly male (65.6%), and were of Malay (56.3%) descent. The median (IQR) NIHSS score on admission was 20 (8). Of all MT cases, 81.3% were performed during office hours. The median door-to-groin time was 111.5 minutes (IQR 69.5 minutes). Monitored anaesthetic care was performed in 54.8% of cases, with an anaesthetic consultant present in most cases (90.3%). Successful reperfusion, as evidenced by an mTICI score of 2b or higher, was achieved in 78.2% of cases. A good functional outcome at 30 days and 90 days, defined as an mRS score of 0 to 2, occurred in 50% and 51.8% of patients, respectively. Death at 30 days occurred in 25% of patients who underwent MT. Major complications during hospitalisation occurred in 40.6% of patients, while haemorrhagic transformation of ischaemic stroke occurred in 6.3% of patients.

Conclusion

The MT service in SGH has improved the care of stroke patients. Our outcomes are comparable to international centres. However, there are still areas of care that can be improved.

ID 89**ACUTE PULMONARY EMBOLISM IMMEDIATELY AFTER CAESAREAN SECTION: A CASE DISCUSSION**

S. Subramaniam, Z Zulkifli

Hospital Tengku Permaisuri Norashikin, Kajang (HTPN), Selangor, Malaysia

Introduction

Compared with vaginal delivery, caesarean section has almost double the risk of pulmonary embolism which can be potentially fatal cardiovascular complications contributing to maternal mortality. Here we encountered a case of pulmonary embolism (PE) immediately after caesarean section.

Case Description

A 23-year-old female presented to hospital with history of 1 previous scar in labour. She refused trial of scar and underwent emergency caesarean section under regional anaesthesia. It was uneventful. About 4 hours in the post operative ward, patient was tachypnic with haemodynamics of 149/103 mmHg and heart rate of 140bpm. Blood gases revealed pH 7.33/ pco₂ 38/ pO₂ 51/ HCO₃ 20.0/lactate 1.6. ECG noted sinus tachycardia, no S1, Q3, T3 pattern seen.

Patient was intubated for respiratory failure and admitted to ICU. CT Pulmonary angiogram subsequently showed filling defects at right superior trunk in keeping with PE. Multidisciplinary team involving anaesthesia, obstetrics and medical team was done. Subcutaneous clexane 60 mg (1 mg/kg bodyweight) BD was initiated. Oxygen therapy was titrated aiming Spo₂ >90%. Low tidal volume mechanical ventilation with low PEEP was applied. ECHO and lower limb doppler ultrasound were normal after 20 hours of invasive ventilation, patient was extubated to Venturi mask 60%. Patient was discharged to ward after 3 days on anticoagulant therapy.

Learning Points

Early suspicion and recognition of PE in post caesarean patient are important. Anti-coagulation should be initiated with close monitoring for bleeding involving multidisciplinary care. When mechanical ventilation is required, care should be taken to limit its adverse haemodynamic effects.

Conclusion

Acute PE is potentially a life-threatening condition that occurs during peripartum period. Prompt recognition and accurate multidisciplinary management are vital to prevent morbidity and mortality.

ID 90**AWAKE VIDEOLARYNGOSCOPY SALVAGE FOLLOWING FAILED FIBREOPTIC INTUBATION IN RAPID MALIGNANT AIRWAY COLLAPSE**

Mohd Syazwan Shahdan¹, Afifah Samsudin^{1,2}, Adlin Dasima Abdul Kadir^{1,2}, Fauziah Ahmad^{1,2}, Nurafza Ahmad Hisham¹

¹Hospital Al-Sultan Abdullah (UiTM), Puncak Alam, Selangor, Malaysia; ²Faculty of Medicine, Universiti Teknologi MARA, Sungai Buloh, Selangor, Malaysia

Introduction

Airway obstruction secondary to thoracic malignancy can rapidly progress from mild symptoms to a life-threatening crisis. Awake fibreoptic intubation (AFOI) remains the traditional gold standard for managing anticipated difficult airways. This case illustrates successful awake videolaryngoscopy (VL) following failed AFOI in a patient with malignant airway collapse, demonstrating adaptability in modern airway management.

Case Description

A 59-year-old chronic smoker with no other comorbidities presented with haemoptysis. CT thorax revealed a right apical lung mass compressing the trachea with mediastinal lymphadenopathy. Initial bronchoscopic biopsy was inconclusive. He was later re-admitted with worsening dyspnoea, orthopnoea, hoarseness, and stridor. Repeat imaging showed rapid tumour progression (4.6×8.2×6.6cm), with significant mid-tracheal compression, leftward deviation, and tumour thrombus in the brachiocephalic vein. He was brought to the theatre for emergency airway intervention.

A structured multidisciplinary airway plan was executed with ENT on standby for surgical airway. Plan A - AFOI under topical anaesthesia and TCI remifentanyl- failed due to obscured visualisation from bloody secretions and desaturation to 75%. Plan B - awake VL endotracheal intubation - was promptly performed, successfully securing the airway without neuromuscular blockade. Post-intubation bronchoscopy confirmed crescentic tracheal narrowing and guided tube repositioning, bypassing compressed segment. Given the tumour's rapid progression, a surgical tracheostomy (Plan C) was performed for long-term airway access.

Learning Point

Awake tracheal intubation remains the cornerstone for anticipated difficult airways. When fibreoptic views are compromised by bleeding or secretions, awake VL serves as an effective salvage option. This case highlights the importance of flexibility, structured airway planning, preservation of spontaneous ventilation, and multidisciplinary coordination to ensure safe management.

Conclusion

Awake videolaryngoscopy can successfully rescue failed fiberoptic attempts in malignant airway collapse when applied within a flexible, well-planned, multidisciplinary awake intubation strategy.

ID 91**HEMODYNAMIC MANAGEMENT IN A PULMONARY HYPERTENSION PATIENT UNDERGOING EMERGENCY LAPAROSCOPIC APPENDICECTOMY: A CASE REPORT**

Norhanisah Abdullah, I Ahmad Faris Elias, Ina Ismiarti Shariffuddin

¹University of Malaya, Kuala Lumpur, Malaysia

Introduction

Managing patients with severe pulmonary hypertension (PH) during surgery presents notable hemodynamic challenges, primarily due to increased pulmonary vascular resistance and the risk of right ventricular (RV) failure. These risks are further heightened by the physiological effects of pneumoperitoneum and positive pressure ventilation.

Case Description

We describe a 39-year-old woman (body mass index 60) with obstructive sleep apnea and severe PH who required emergency laparoscopic appendicectomy. Given her high risk of intraoperative hemodynamic instability, advanced haemodynamic monitoring was instituted with the utilization of FloTrac™ and intraoperative transthoracic echocardiography (TOE). These modalities facilitate real-time evaluation of cardiac function and continuous monitoring of changes in the pulmonary artery pressures, thus enabling us to maintain the patient in a stable hemodynamic state. Intraoperatively, TOE was also useful to identify lung atelectasis, resulting in optimization of PEEP for recruitment of collapsed alveoli. The surgery proceeded smoothly and subsequently the patient was managed in the intensive care unit and was discharged well.

Learning Point

Intraoperative TOE allows for dynamic evaluation of RV function and pulmonary artery pressures. This enables individualised adjustment of ventilatory and haemodynamic parameters. Continuous data from FloTrac™ on stroke volume variation and systemic vascular resistance provides real-time information to guide fluid and vasopressor management, thus enabling the anaesthetic team to achieve optimal RV preload and afterload for optimization of RV function. The perioperative plan included the potential escalation to pulmonary artery catheterization and initiation of inotropic or pulmonary vasodilator therapy (such as milrinone or inhaled nitric oxide) in the event of refractory RV dysfunction.

Conclusion

This case highlights the value of advanced haemodynamic monitoring, particularly intraoperative TOE, in the perioperative care of patients with severe PH undergoing emergency laparoscopic surgery. A tailored, physiology-driven and goal-directed approach can reduce perioperative morbidity and support favourable outcomes in these patients.

ID 92

PERIMORTEM CAESAREAN DELIVERY IN MALAYSIA: HOW MUCH ARE WE DOING?

M Rohisham Zainal Abidin, **Yan Qian Au**, M Azfar Sabihin

Hospital Tengku Ampuan Rahimah, Selangor, Malaysia

Abstract

Perimortem caesarean delivery (PMCD) is a vital intervention in maternal advanced cardiovascular life support (ACLS). It plays a crucial role in the resuscitation of pregnant patients experiencing cardiac arrest, with the dual objective of enhancing both maternal and foetal survival outcomes. According to the American Heart Association's maternal ACLS guidelines, PMCD should be initiated if return of spontaneous circulation is not achieved within 4 minutes of resuscitation efforts. A review of our Confidential Enquiry into Maternal Deaths reports from 2012-2014 revealed that only 23% of PMCD were performed during this period. This indicates that 77% of PMCD were not performed despite being clinically indicated. Among the 15 PMCD cases documented, only 4 had recorded delivery times, while timing data was unavailable for the remainder. Notably, 3 neonates survived despite the timing of delivery exceeding the recommended 5-minute window. Various factors can contribute to delays in performing PMCD, underscoring the importance of a multidisciplinary team approach to optimize resuscitation quality and outcomes. However, comprehensive national data on PMCD frequency and associated maternal and foetal outcomes in Malaysia during 2012-2014 remain insufficient. This highlights the urgent need for improved data collection and policy initiatives to better understand the prevalence and outcomes of PMCD in Malaysia.

ID 93**MANAGEMENT OF IDIOPATHIC INTRACRANIAL HYPERTENSION IN PREGNANCY: A CASE REPORT**

Sonia Miranda¹, Nabilah Abdul Ghani¹, Intan Syafiqah Ikram Shah², Nur Azreen Hussain²

¹Universiti Malaya, Kuala Lumpur, Malaysia; ²Universiti Malaya Medical Centre, Kuala Lumpur, Malaysia

Abstract

Idiopathic intracranial hypertension (IIH) poses unique anaesthetic and obstetric challenges in pregnancy, especially in patients with coexisting systemic diseases.

We report a case of a 29-year-old primigravida with known IIH and systemic lupus erythematosus on oral hydroxychloroquine 200 mg twice daily, emphasising the importance of multidisciplinary coordination.

She was diagnosed with IIH in June 2024 following symptoms of visual disturbance. Neurological evaluation showed an elevated lumbar puncture (LP) opening pressure of 29 cmH₂O, with unremarkable CT and MRI brain imaging. She responded well to oral acetazolamide 250 mg twice daily, discontinued upon confirmation of pregnancy. At 30 weeks' gestation, she presented with recurrent headaches and visual symptoms. Acetazolamide was reintroduced at a reduced dose of 125 mg daily, limited by peripheral paraesthesia. A therapeutic LP was offered but patient declined. A multidisciplinary team discussion concluded that there was no contraindication for vaginal delivery with a shortened second stage or spinal anaesthesia for caesarean section.

At 33 weeks, with abnormal foetal Doppler findings, she underwent an emergency caesarean section under spinal anaesthesia. An LP performed in the sitting position at L3/L4 interspace using a 25G Pencan needle, showed an opening pressure of 37.5 cmH₂O. As opening pressures are ideally measured in supine position, a corrected value of 21cmH₂O was calculated by subtracting the vertical distance between T4 and L3 puncture level. A total of 2.6 mL of intrathecal morphine, fentanyl, and 0.5% heavy marcaine was administered uneventfully. Postoperatively, she remained stable with no worsening of symptoms.

This case highlights the safe and potential therapeutic use of neuraxial anaesthesia in parturients with IIH when guided by careful multidisciplinary planning. LP opening pressures measured during spinal anaesthesia may offer valuable diagnostic and clinical insights. Our experience supports the feasibility of individualised, collaborative management of IIH in pregnancy.

ID 94**WHEN REVASCULARISATION IS NOT AN OPTION: LUMBAR SYMPATHETIC RFA AS A PALLIATIVE PAIN STRATEGY****M Low**, KY Lui*University of Malaya, Kuala Lumpur, Malaysia***Introduction**

Acute lower limb ischaemia presents a major clinical challenge, often necessitating urgent surgical intervention. However, in patients who are poor surgical candidates, pain control becomes paramount. Lumbar sympathetic plexus radiofrequency ablation (RFA) offers a minimally invasive, targeted option for pain relief and may support perfusion through sympathetic blockade.

Case Description

We report a 97-year-old bedbound woman with a recent ischaemic stroke who developed acute right anterior thigh and leg pain with distal cyanosis. On examination, the limb below the knee was cold, pulseless, and mottled. CT angiography revealed severe atherosclerosis with non-opacification of the right common iliac artery and downstream vessels. Due to advanced age, frailty, and comorbidities, surgical or endovascular options were deemed unsuitable, and conservative management was initiated. Despite optimized pharmacologic analgesia, the patient experienced persistent, severe ischaemic pain. A diagnostic lumbar sympathetic block at L3 with local anaesthetic and steroids achieved > 70% pain relief for 48 hours. Subsequently, she underwent right-sided lumbar sympathetic RFA under monitored anaesthesia care. The procedure was well tolerated and resulted in sustained pain relief (> 50%) with ongoing follow up planned.

Learning Point

This case underscores the value of lumbar sympathetic neurolysis with RFA in managing acute ischaemic limb pain in non-surgical patients. The technique provides focused sympathetic denervation with minimal systemic risk. A positive response to a diagnostic block is essential for patient selection and predicting treatment success.

Conclusion

Lumbar sympathetic RFA is a safe, effective interventional strategy for palliating severe ischaemic limb pain in patients unfit for surgery. Pain physicians should consider its role within multidisciplinary conservative care plans for acute limb ischaemia.

ID 95

BEYOND THE SCOPE: AIRWAY CHALLENGES WHEN PREOPERATIVE ENDOSCOPE IS NOT ENOUGH

Ruth Chiew¹, SY Cheong¹, MRA Ghani^{1,2}, Rhena Fernando¹, Ronald Lim¹, Shahir Asraf Abdul Rahim^{1,2}

¹Department of Anaesthesiology and Intensive Care, Sultan Haji Ahmad Shah Medical Centre (SASMEC) @IIUM Kuantan, Pahang, Malaysia; ²Kulliyah of Medicine IIUM, Kuantan, Pahang, Malaysia

Introduction

Airway management for thyroid surgery for Grave's disease is crucial and often poses challenges. Meticulous preoperative airway assessment including endoscopic evaluation is essential in predicting potential difficult airway.

Case description

A 34-year-old woman with hyperthyroidism secondary to Grave's disease was scheduled for elective total thyroidectomy. Preoperative airway assessment including flexible nasopharyngolaryngoscopy (FNPLS) and computed tomography (CT) scan, revealed a diffuse goitre without retrosternal extension and a normal-appearing airway.

Despite reassuring findings, unexpected difficult intubation occurred during induction. Videolaryngoscopy revealed a limited glottic view (POGO 25%) and failed advancement of the endotracheal tube (ETT). A second attempt using a hyperangulated videolaryngoscope also failed. Successful intubation was eventually achieved with bougie assistance. Retrospective assessment revealed a significantly anterior glottis, which had not been appreciated during FNPLS.

Surgery proceeded without intraoperative complications. The patient was monitored in the intensive care unit (ICU) due to airway oedema and high-risk extubation.

Learning Point

This case highlights the limitations of preoperative FNPLS in reliably predicting difficult intubation, particularly in patients with thyroid enlargement. Although FNPLS is valuable for assessing supraglottic structures, it is typically performed in a sitting position using a flexible scope that can navigate curved anatomy. In contrast, videolaryngoscopy relies on a more linear, aligned visual axis and is performed in the supine position. FNPLS does not replicate the anatomical and dynamic changes that occur during induction- including neck extension, loss of muscle tone, and altered airway axis alignment. As such, physical airway assessments remain essential components of comprehensive airway evaluation.

Conclusion

We recommend a multimodal airway assessment strategy, combining clinical scoring systems, point-of-care ultrasound, and simulated positioning-such as supine or extended-neck endoscopy to improve the accuracy of airway prediction and preparedness for unanticipated challenges.

ID 96

THORACIC INTRATHECAL MORPHINE: A SAFE AND EFFECTIVE ALTERNATIVE TO THORACIC EPIDURAL IN UPPER ABDOMINAL SURGERY

Lim VKY, Haidar Khan MHK

Sarawak General Hospital, Kuching, Malaysia

Background

Thoracic epidural analgesia (TEA) remains the gold standard for post-operative analgesia in patients undergoing upper abdominal surgeries. Intrathecal morphine (ITM) offers a simpler alternative, being integrated in many enhanced recovery programs. In this retrospective cohort study, we looked at the application of thoracic spinal anaesthesia, which has been reviewed by Le Roux Johannes, to deliver ITM at the thoracic level to improve intra- and post-operative analgesia. Main objective is to evaluate the analgesic efficacy of thoracic ITM in patients undergoing upper abdominal surgery.

Methods

A retrospective cohort study, involving patients who underwent open upper abdominal surgery in 2024 who received thoracic ITM in Sarawak General Hospital. Thoracic ITM was inserted between T6-T9 levels, with a volume of 1 ml, consisting of varying doses of ITM mixed with isobaric levobupivacaine 0.25%. All patients received oral paracetamol 1 g QID and oral tramadol 50 mg TDS for post-operative analgesia. Post-operative pain score, and complications were collected via Ministry of Health acute pain service (APS) forms.

Results

Age	53	55	75	65	52	54	77
ASA	2	2	3	3	2	3	3
Diagnosis	Gastric Outlet Obstruction Post Whipple Procedure	Acute Calculous CHolecystitis	Small Bowel Obstruction secondary Strictures	Ampulary Carcinoma	Acute Calculous CHolecystitis	Hilar Cholangiocarcinoma 3B	Obstructed Antral Tumor
Procedure	Relaparotomy, adhesiolysis, Distal Gastrectomy and Roux En Y Gastrojejunostomy Reconstruction	Open CHolecystectomy + On Table Cholangiogram	Exploratory Laparotomy, Segmental Small Bowel Resection and Primary Anastomosis	Whipple's Procedure	Open CHolecystectomy + On Table Cholangiogram	Laparotomy, Periportal with Hilar Dissection & CHolecystectomy	Open Subtotal Gastrectomy and Roux en Y Reconstruction
ITM level/Dose	T8/T9 200mcg	T7/T8, 100mcg	T7/T8, 50mcg	T7/T8 200mcg	T7/T8, 100mcg	T7/T8 200mcg	T7/T8, 100mcg
PS @ Day 1 (at rest, on movement)	0,1	0,2	0,2	0,0	0,2	0,2	0,2
Complication/ Side Effect	Nil	Nil	Nil	Mild nausea, No Pruritus, No Respiratory depression	Nil	Nil	Nil
Need of Opiod Rescue	No	No	No	No	No	No	No

Six patients received thoracic ITM during the data collection period. No patients required opioid rescue analgesia intra-operatively and postoperatively. All patients reported a pain score of < 4 on postoperative Day 1. Only 1 patient developed mild nausea.

In our center's experience, ITM inserted at lumbar levels did not consistently confer effective analgesia intra- and post-operatively for patients having upper abdominal surgeries. Hence, thoracic rather than lumbar ITM was posited to confer more effective analgesia, as shown by our findings. A study by Abdel-Kader et al³, lumbar-inserted ITM, with local anaesthetic, for open liver resection, noted an opioid-sparing effect intra- and postoperatively. In our study, no patients required additional intra-operative analgesia

Conclusion

Thoracic ITM is a promising alternative to TEA for upper abdominal surgeries. Further studies are needed to compare intra-operative and post-operative outcomes to improve patients' recovery.

D 97**DIAGNOSTIC CHALLENGES AND MANAGEMENT OF PLEURAL TUBERCULOSIS WITH EMPYEMA THORACIS IN REMOTE ICU SETTING: A CASE REPORT**

Nur Dini Athirah Mohd Sakry, Nik Nabihah 'Adros, Mohd Hafiz Abd Razak

Hospital Besut, Terengganu, Malaysia

Introduction

Diagnosing pleural tuberculosis presents several challenges due to its subtle and nonspecific clinical and radiological features. A combination of high clinical suspicion, imaging and pleural fluid analysis is required to prompt early diagnosis.

Case Description

We report a case of a 48-year-old gentleman with no known medical illness and a history of substance abuse who presented with right sided pleuritic chest pain, shortness of breath and cough for 3 days. He was septic on presentation with HR 112 bpm, WCC 26, and CRP 426. CXR showed homogenous opacity over right hemithorax until midzone with pleural thickening.

In ICU, we decided for early intubation anticipating further deterioration. He was given broad-spectrum antibiotic. Bedside ultrasound scan revealed moderate multi-septations right pleural effusion. Hence, thoracocentesis drained sedimented straw colour pleural fluid. Thoracis empyema considered as differential diagnosis. As CT scan was not readily available here, we proceed with formal ultrasound thorax, revealed moderate effusion with moving echogenic debris and multiple septations suggestive of right thoracis empyema. Pleural fluid analysis showed exudative features with negative AFB smear. Due to high index of suspicion, pleural fluid for adenosine deaminase (ADA) test was outsourced. Right pigtail was inserted where only 2 sets were available per year in our hospital. A BD dosing of intrapleural streptokinase was given for 3 days. Subsequently, his ventilation and septic parameters both improved, WCC 13 and CRP 58. He was extubated on day 6 of ICU stay. His HIV test was negative, while the ADA test came out earlier than expected which turned out as positive (72.1, suggestive of pleural TB). The anti TB (Akurit 4) was started, and he was discharged home well with oral Cefuroxime for 4 weeks.

Conclusion

In conclusion, while pleural fluid ADA, TB PCR, and pleural biopsy improve diagnostic accuracy, these are often unavailable in remote or resource-limited settings. In such cases, outsourcing samples to centralised or reference laboratories can facilitate access to essential diagnostic tests thus expedite the diagnosis and initiation of treatment.

ID 98**OUT-OF-HOURS AIRWAY CRISIS IN A CHILD WITH DOWN SYNDROME: MULTIDISCIPLINARY MANAGEMENT OF IMPENDING COMPLETE AIRWAY OBSTRUCTION**

Afifah Samsudin^{1,2}, Aliah Farhah Azlan², Adlin Dasima Abdul Kadir^{1,2}

¹*Faculty of Medicine, Universiti Teknologi MARA, Sungai Buloh, Selangor, Malaysia;*

²*Hospital Al-Sultan Abdullah (UiTM), Puncak Alam, Selangor, Malaysia*

Introduction

Airway obstruction due to foreign body aspiration may rapidly progress to a life-threatening event, particularly in high-risk paediatric patients. We report the successful out-of-hours management of impending complete airway obstruction in a child with Down syndrome, achieved through a well-coordinated and timely multidisciplinary response.

Case Description

A 4-year-old girl with Down syndrome was brought unresponsive to the emergency department at midnight following suspected foreign body aspiration. On arrival, she was obtunded (GCS E4V2M2), centrally cyanotic, with stridor and SpO₂ 50% on room air. Immediate resuscitation included high-flow oxygen (improving SpO₂ to 100%) and intravenous fluid administration. Bedside removal attempts, including back blows and Heimlich manoeuvres, were unsuccessful. Further attempts were deferred to prevent worsening distress and risking complete airway collapse.

Recognising the risk of impending complete obstruction, the team proceeded urgently to operating theatre. A structured airway plan was implemented, with ENT support for foreign body removal, and if required, emergency tracheostomy. Inhalational induction with sevoflurane was used to preserve spontaneous ventilation and respiratory effort. Intravenous induction and neuromuscular blockade were avoided. The foreign body, an intact rambutan pulp lodged at the hypopharynx, was successfully removed using Magill forceps. Tracheoscopy confirmed no residual foreign body. Endotracheal intubation was subsequently performed using videolaryngoscopy. The patient was admitted to PICU and extubated the following day with full neurological recovery.

Learning Point

This case demonstrates the importance of preserving spontaneous ventilation, avoiding neuromuscular blockade, and minimising interventions that could worsen a partially obstructed airway. Timely escalation and coordinated multidisciplinary effort were essential. Effective communication among multidisciplinary teams and readiness for surgical airway access enabled safe and successful airway control.

Conclusion

Foreign body aspiration in high-risk paediatric patients requires prompt recognition and decisive multidisciplinary management. Surgical readiness, careful airway strategy, and preservation of ventilation are critical to achieving safe outcomes under time-sensitive conditions.

ID 99**THE IMPACT OF POST-CAESAREAN SECTION PAIN ON DAILY LIFE****PCP Low¹, A Masdar¹, KW Tan¹, SN Mahdi¹, MN Mokhtar¹, NW Wagimon²**

¹Department of Anaesthesiology and Intensive Care, Hospital Canselor Tuanku Muhriz, Universiti Kebangsaan Malaysia, Cheras, Kuala Lumpur, Malaysia; ²Department of Obstetrics and Gynaecology, Hospital Canselor Tuanku Muhriz, Universiti Kebangsaan Malaysia, Cheras, Kuala Lumpur, Malaysia

Background

The caesarean section (CS) rate in Malaysia has increased from 25.3% to 28.0% in recent years; however, there remains a paucity of data regarding post-CS pain among the local population. Inadequately managed acute post-CS pain may progress to chronic pain, which can negatively affect daily life.

Methods

This prospective cross-sectional study was conducted from March to September 2024 among post-CS patients at Hospital Canselor Tuanku Muhriz Universiti Kebangsaan Malaysia. Patients' pain scores were assessed at 24 and 48 hours postoperatively. A self-administered questionnaire was given after 3 months to assess the impact of pain on daily activities. Chi-square tests assessed associations between chronic pain and daily activities. Regression analyses identified risk factors for acute and chronic post-CS pain.

Results

A total of 238 patients completed the questionnaire. At 24 hours postoperatively, the incidence of moderate to severe pain was reported in 28.2% of patients at rest and 23.1% during movement. At 48 hours, it had increased to 65.1% and 61.3% respectively, with 18.1% of them later developed chronic pain. Pain score at rest during 24 hours with mean of 3.05 ($\pm$ 2.4 SD) was significantly associated with chronic pain (AOR 1.17, 95% CI 1.02-1.34, p = 0.024). General anaesthesia was significantly associated with higher acute pain scores (p = 0.003), while lower scores were observed in Chinese ethnicity (p < 0.001) and in patients who requested for CS (p = 0.005). Prolonged sitting (p = 0.045), carrying baby (p = 0.001), working (p = 0.002) and sports activity (p = 0.001) significantly affect chronic pain patients.

Conclusions

Patients with higher pain scores following CS were significantly associated with chronic pain. Effective management of acute post-CS pain reduced the risk of chronic pain and its adverse impact on daily functioning.

ID 100**CASE REPORT: UVULA NECROSIS**

Nurul Nadia RA, Siti Khadijah K

¹Department of Anaesthesia and Critical Care Unit, Hospital Cyberjaya, Selangor, Malaysia

Introduction

Postoperative sore throat is common after endotracheal intubation and usually self-limiting. However, persistent or worsening symptoms may indicate complications such as uvular necrosis—a rare but preventable condition caused by ischemic injury from mechanical compression of the uvula during airway manipulation.

Case Description

A 27-year-old woman underwent elective fixation of a left distal radius fracture under general anaesthesia with endotracheal intubation. Intubation was smooth using a size 7.0 cuffed PVC tube, secured at the right corner of the mouth. The procedure lasted two hours and twenty-three minutes. During surgery, the table was rotated 90 degrees, and low-pressure oral suctioning was performed before extubation.

Shortly after extubation, the patient developed urticaria and tachycardia following administration of sugammadex, which resolved with intravenous hydrocortisone and bronchodilator therapy. She initially reported mild throat discomfort, which worsened by the third post-operative day, accompanied by odynophagia. Examination by the ENT team revealed a well-demarcated necrotic slough involving the inferior one-third of the uvula, consistent with Grade 3 uvular necrosis. The patient was managed conservatively with antiseptic mouthwash and oral analgesics. Three weeks later, symptoms had completely resolved, and the necrotic tip had auto-amputated.

Learning Points

Persistent postoperative sore throat warrants thorough assessment to exclude uvular necrosis. Risk factors include uvular compression from airway devices, patient repositioning, and excessive suctioning. Allergic airway oedema may also predispose to injury. Most cases recover fully with conservative care.

Conclusion

Uvula necrosis is an uncommon yet important cause of prolonged post-intubation sore throat. Early recognition and conservative management lead to excellent outcomes. Preventive strategies include careful airway manipulation, minimising tube pressure, gentle suctioning, and maintaining awareness of this rare complication to ensure patient safety and optimal recovery.

ID 102**AWAKE RIGID BRONCHOSCOPY IN AN AIRWAY OBSTRUCTION BY ANAPLASTIC THYROID CANCER: A CASE REPORT**

Emeline Yian Ling Lee¹, Samuel Ern Hung Tsan², Shamina Sara Moses³, Sze Shyang Kho⁴, Shu Ching Teo¹

¹Department of Anaesthesiology and Intensive Care, Sarawak General Hospital, Ministry of Health Malaysia, Sarawak, Malaysia; ²Faculty of Medicine and Health Sciences, University of Malaysia Sarawak, Sarawak, Malaysia; ³Department of Otorhinolaryngology, Sarawak General Hospital, Ministry of Health Malaysia, , Sarawak, Malaysia; ⁴Division of Respiratory Medicine, Department of Medicine, Sarawak General Hospital, Ministry of Health Malaysia, Sarawak, Malaysia

Introduction

Rigid bronchoscopy has regained its popularity in the management of central airway obstructions. Typically, it is performed under deep sedation or general anaesthesia with muscle paralysis due to its high stimulating nature to reduce patient pain and distress.

Case Report

A 70-year-old lady presented with respiratory distress and impending airway collapse due to severe airway obstruction caused by anaplastic thyroid cancer. It was a challenging airway resulting from a combination of anterior neck mass with unilateral vocal cord paralysis, tracheal invasion and external compression on the trachea caused by the tumour, and the presence of a lung mass at the right upper lobe. A multidisciplinary approach was then carried out involving the anaesthesiology, pulmonology and otorhinolaryngology teams. Adequate airway anaesthesia was performed with bilateral superior laryngeal nerve block and airway topicalization. Oxygenation was maintained using a high-flow nasal oxygenation device. We successfully secured the airway via awake rigid bronchoscopy under light sedation targeting anxiolysis. The obstruction was then definitively bypassed by performing an awake rigid bronchoscopy-guided tracheostomy.

Discussion

As the tracheal stenosis was caused by the intra and extraluminal tumour, the safest method to secure the airway was by rigid bronchoscopy. However, general anaesthesia and deep sedation were contraindicated due to the risk of total airway occlusion and subsequent “cannot intubate, cannot ventilate” scenario. Adequate airway anaesthesia for awake rigid bronchoscopy can be achieved by bilateral superior laryngeal nerve blocks and airway topicalization. From a human-factor perspective, there was exceptional teamwork and constant interdisciplinary communication.

Conclusion

The awake rigid bronchoscopy procedure is feasible, and as anaesthesiologists become more familiar with this procedure, it may be incorporated into difficult airway management guidelines. More research is needed to study the efficacy and complications of this procedure.

ID 103**AN ANALYSIS OF ICU AND ANAESTHESIA REFERRALS IN A SECONDARY-LEVEL HOSPITAL**

MY Lim, JY Tan, SS Shahidan, Z Zulkifli, N Ismail

¹Department of Anaesthesia and Intensive Care, Hospital Tengku Permaisuri Norashikin, Kajang, Malaysia

Background

Intensive care unit (ICU) and critical care resources place a significant burden on healthcare costs. This study aims to analyse the demographics and patterns of ICU and anaesthesia referrals in a secondary-level hospital from January to December 2024.

Methods

This is a retrospective study of ICU and anaesthesia consults conducted between January and December 2024 at Tengku Permaisuri Norashikin Hospital. Variables included patients' demographics, referring department, ICU admissions, SOFA scores, and outcomes. Data were analysed descriptively.

Results

A total of 1,656 referrals were recorded, with 988 (59.7%) being male. The 41-50 age group accounted for the highest number of referrals at 272 (16.4%). Most patients were referred to by the medical department (1,206; 72.9%), followed by the surgical department (273; 16.5%). Initial patient contact was predominantly through the emergency department, involving 1,128 cases (68.1%). The initial working diagnoses and reasons for referral were heterogeneous. Patients' initial condition was assessed using the SOFA score. Although most patients had a low initial SOFA score, 196 (11.8%) had a score of 10 or above. A total of 363 (21.9%) referred patients were admitted to the ICU. The main reason for non-admission was bed unavailability, accounting for 592 cases (45.7%). There were 71 deaths (19.6%) among patients admitted to the ICU, compared to 395 deaths (30.5%) among those not admitted.

Conclusion

Nearly one in five patients presented with significant illness severity due to comorbidities and their presenting condition. ICU admission was limited to just over one-fifth of referrals, with bed unavailability being the primary barrier. The higher mortality rate among non-ICU patients highlights the impact of resource constraints on patient outcomes. These findings underscore the need for strategies to optimise ICU access, capacity, and critical care resource allocation.

ID 106**WHEN LIFE HANDS YOU GOLDENHAR: AIRWAY SPARING ANALGESIA FOR FERTILITY-PRESERVING UTERINE ARTERY EMBOLISATION**

Asmah Azizeh^{1,2}, Istihana Mohamed Kamal^{1,2}, Zawiah Kassim^{1,2}

¹Department of Anaesthesiology and Intensive Care, Faculty of Medicine, Universiti Teknologi MARA (UiTM), Selangor, Malaysia; ²Hospital Al-Sultan Abdullah, Puncak Alam, Selangor, Malaysia

Introduction

Uterine artery embolisation (UAE) is a minimally invasive procedure used to treat symptomatic uterine fibroids by occluding their blood supply, causing ischemia and necrosis. Monitored anaesthesia care (MAC) with conscious sedation is typically used. We present a case of a woman with Goldenhar syndrome and severe obstructive sleep apnoea (OSA), where conventional anaesthesia posed high risks, prompting the use of an alternative approach.

Case Descriptions

A reproductive-aged woman with Goldenhar syndrome was scheduled for UAE to treat recurrent multiple uterine fibroids. She declined hysterectomy to preserve fertility. Preoperative assessment revealed a difficult airway and severe OSA with an apnoea-hypopnea index (AHI) of 48. Due to anticipated severe pain and difficult intubation, regional anaesthesia using programmed intermittent epidural bolus (PIEB) and patient-controlled epidural analgesia (PCEA) was chosen. A lumbar epidural catheter was placed at L3/L4. Before the procedure, boluses of 0.1% ropivacaine with fentanyl 2 mcg/ml were administered. PIEB was set at 10 ml bolus per hour without background infusion, and PCEA at 10 ml per bolus with a 10-minute lockout. The total epidural volume used was 70 ml. The four-hour procedure proceeded with stable haemodynamics. The embolisation was successful, and post-procedure PIEB was continued to manage post-embolisation syndrome (PES). The patient reported a pain score of zero throughout and up to 24 hours postoperatively, expressing high satisfaction.

Learning Points

This case underscores the challenges of managing pain in patients with difficult airways and severe OSA. Careful planning and communication between anaesthesiology and interventional radiology teams are vital for safe and effective anaesthesia.

Conclusion

Lumbar epidural anaesthesia with PIEB and PCEA is a safe and effective alternative for patients with difficult airways undergoing UAE, providing excellent pain control and enhancing patient satisfaction.

ID 107**TRANSIENT APHONIA IN A POSTPARTUM PATIENT: A RARE NEURAXIAL ANAESTHESIA COMPLICATION****MY Lim, ZA Abdul Rahman***Department of Anaesthesiology and Intensive Care, Hospital Tengku Permaisuri Nora-shikin, Kajang, Malaysia***Introduction**

Dysphonia and aphonia are well-recognised complications following general anaesthesia and intubation, typically resulting from vocal cord trauma or paralysis. However, these symptoms are rare after neuraxial (spinal or epidural) anaesthesia. This report describes a case of transient aphonia following spinal anaesthesia in a parturient undergoing emergency lower-segment caesarean section (LSCS).

Case Description

A 30-year-old primigravida with an ibuprofen allergy and no other significant medical history underwent an emergency LSCS for foetal distress. Preoperative medications included IV metoclopramide, pantoprazole, and oral sodium citrate. She had normal preoperative vitals and investigations, with a BMI of 26.3. Spinal anaesthesia was administered with 0.5% hyperbaric bupivacaine (1.8 mL), fentanyl (15 mcg), and morphine (0.1 mg), achieving a T5 sensory level. The surgery proceeded uneventfully, and she received intravenous cefazolin, dexamethasone, oxytocin, granisetron, and paracetamol intraoperatively. Approximately four hours postoperatively, the patient experienced sudden onset aphonia without signs of anaphylaxis, airway obstruction, post-dural puncture headache, or local anaesthetic toxicity. She had transient desaturation (SpO₂ 83% on room air) but was otherwise neurologically intact. Management included face mask oxygen, IV hydrocortisone, chlorphenamine, and nebulized adrenaline, followed by a one-day course of steroids and antihistamines. Her voice returned within hours, and she was discharged in stable condition two days later. At one-month follow-up via teleconsultation, she remained asymptomatic.

Discussion

The likely mechanism was rostral spread of intrathecal opioids (particularly fentanyl) affecting cranial nerves or speech centres. This phenomenon is transient, resolving as the drug clears from the cerebrospinal fluid. Immediate management was to recognise adverse complications that may compromise airway or cause neurological impairment and cardiorespiratory collapse.

Conclusion

Though rare, aphonia can occur following spinal anaesthesia. Anaesthetists should be aware of this complication to ensure timely evaluation, exclusion of serious causes, and appropriate supportive management.

ID 108**SAFE USE OF HIGH-PRESSURE CENTRAL VENOUS LINES FOR CONTRAST-ENHANCED CT IN CRITICALLY ILL ICU PATIENTS: A CASE SERIES**

Nurul Izzah Azmi, Muhammad Arief Hamdi Yazlan¹, Mohd Nazree Zaki

¹*Hospital Tuanku Ja'afar Seremban, Negeri Sembilan, Malaysia*

Introduction

Central venous lines (CVLs) are routinely used in ICU, however, their application for CECT has traditionally been limited due to concerns about pressure tolerance and insufficient flow rates, especially for arterial phase imaging. Critically ill patients often present with poor peripheral access, complicating contrast delivery. This case series describes the successful use of high-pressure (power injectable) CVLs for contrast administration in three ICU patients with limited peripheral access.

Case description

Case 1: A 55-year-old woman with septic shock secondary to intra-abdominal sepsis. Peripheral access was precluded by bilateral upper limb lymphedema. A right internal jugular vein (IJV) high-pressure CVL enabled CECT abdomen.

Case 2: An 85-year-old post-cardiac arrest patient with suspected mesenteric ischemia and poor peripheral circulation underwent urgent CT using left IJV high-pressure CVL, which was also used for total parenteral nutrition (TPN). No bloodstream infections were reported during his six-days of ICU stay.

Case 3: A 74-year-old woman with an iatrogenic arterial line in the right femoral artery, required CT angiography. A right IJV CVL provided inotropic support and contrast access. The catheter remained in place for nine days without complications.

In all cases, we used power-injectable lines that tolerated pressures up to 300 psi and flow rates up to 10 mL/sec. All scans were diagnostic, with no catheter malfunction, image artefacts, or contrast-related adverse events.

Learning Point

1. Power-injectable CVLs provide a safe and practical alternative for contrast delivery in ICU patients with poor venous access. Dedicated lumens minimize infection risk and avoid the need for additional peripheral cannulations.
2. Institutional protocols and staff training between ICU and radiology teams are essential to ensure standardized, safe implementation.

Conclusions

High-pressure CVLs allow timely, diagnostic-quality imaging in critically ill patients while minimizing additional cannulations and infection risk. Their judicious use can improve ICU workflow and patient outcomes.

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ID 109**PUTRA HEIGHTS INFERNO: THE INVISIBLE WOUNDS BEYOND THE FLAMES AND AESTHETIC REFLECTIONS ON MASS BURN CASUALTY MANAGEMENT**

Tharani Ponnusamy, Suliyana Abd Ghani, Durga Shanmuganathan

¹Hospital Putrajaya, Wilayah Persekutuan Putrajaya, Malaysia

Abstract

The recent massive gas pipeline explosion in the residential neighbourhood of Putra Heights, (1st April 2025) has caused over 150 casualties seeking medical care across both government and private medical facilities. Hospital Putrajaya managed 32 of the burn victims, most of whom sustained first- and second-degree burns. Fortunately, none of the seventeen patients admitted required ICU care but many underwent multiple surgical interventions.

The Department of Anaesthesiology played a significant role in facilitating surgeries for these patients. An ad hoc operating theatre was established over a month to accommodate repeated surgical procedures under regional and general anaesthesia. Anaesthetic services were also extended to ward based procedural sedation, daycare procedural sedation and acute pain management. While the clinical aspects of anaesthetic care for these patients were routine and uneventful, the psychological and emotional trauma layered beneath was profound, which surfaced during preoperative assessment & perioperative care. Many patients expressed fear, anxiety, grief and uncertainty during preoperative assessments.

All patients were referred to the psychiatric and psychological counselling unit to address and manage acute stress reactions and to provide psycho-emotional support. This highlights the importance of a multidisciplinary approach in delivering trauma-informed perioperative care.

As anaesthetists, we are often among the first to engage with patients prior to surgery. This gives us an opportunity to offer consistency, reassurance, compassion and provide the first step toward healing. This experience highlights the importance of recognizing the psychological aspects and the value of trauma-informed anaesthetic care especially in mass casualty events.

ID 110**TRANS-TRACHEAL BLOCK IN SUPPLEMENTING TOPICAL ANAESTHESIA FOR AWAKE ENDOTRACHEAL INTUBATION IN VALLECULAR MASS**

SP Ng, Charuni SokOne

Penang General Hospital, Pulau Pinang, Malaysia

Introduction

Vallecular mass remains a challenging task for anaesthetists due to its anticipated difficult airway risk and its short margin of safety as well as potential legal implications.

Case Description

This case report follows the medical journey of a 54-year-old gentleman with pre-morbid history of hypertension and ischaemic heart disease who presented with a 6-month history of dysphagia, hoarseness, and obstructive symptoms. Initial CT scan showed a cystic lesion with largest diameter of 5.2 cm situated at epiglottic region which causes significant luminal narrowing. A bedside flexible scope revealed a lobulated mass that has obstructed his laryngeal inlet with poor direct airway visualisation beyond the mass. In view of impending airway obstruction, the patient electively underwent examination under anaesthesia, direct laryngoscopy and marsupialisation. Pre-induction, a combination of anti-sialogogues, trans-tracheal block, topical anaesthesia including lignocaine nebulisers and mucosal atomisation device directed at peri-tonsillar area with monitored sedation were utilised to allow blunting of airways reflexes to ease endotracheal intubation via video laryngoscope without initial paralysis given. Post operatively, the patient was extubated to minimal pain and manage to successfully avoid tracheostomy.

Learning Point

This case highlighted the benefit of combining different techniques of airway blocks, topical anaesthesia and monitored sedation in improving the success rate of endotracheal intubation.

Conclusion

Thorough preoperative counselling with good communication and soft skills during induction are extremely essential in ensuring a cooperative patient to minimise potential complications.

ID 113**REGIONAL ANAESTHESIA IN A 128 CM PARTURIENT WITH COVID-19: NAVIGATING NEURAXIAL CHALLENGES IN CAESAREAN DELIVERY****Mohd Syafiq Shokery**, Mohd Rohisham Zainal Abidin, Malarvilee Paul Samy*¹Hospital Tengku Ampuan Rahimah, Klang, Malaysia***Introduction**

Anaesthetic management of extremely short statured patients poses significant challenges due to anatomical variations, risk of high neuraxial block, and lack of dosing guidelines. These complexities are further compounded in parturients, where physiological changes of pregnancy further influence anaesthetic spread.

Case Description

A 28-year-old primigravida at 36 weeks' gestation (height 128 cm, weight 44 kg) presented in labour with breech presentation. She was diagnosed with Category 2 COVID-19 (Day 1). Emergency caesarean section was planned. Examination showed proportionate short stature with no features of achondroplasia. Due to concerns over unpredictable spread with spinal anaesthesia and the need to avoid general anaesthesia in view of her COVID-19 infection, an ultrasound guided epidural was chosen. Spinal sonography revealed narrowed interlaminar spaces and small bony landmarks, indicating a limited window of maneuverability to access the epidural space. An epidural catheter inserted at L4/L5 (skin-to-space depth: 3 cm). Incremental boluses of lignocaine cocktail (total 7 ml) were administered, achieving T6 blockade after 35 minutes. Surgery proceeded uneventfully. Epidural catheter was continued for postoperative analgesia (3–4 ml/hr). Both mother and baby recovered well.

Learning Points

Extreme short stature adds complexity to neuraxial anaesthesia due to significant anatomical variation and the lack of clear dosing guidelines. In such patients, epidural anaesthesia provides a safer alternative by allowing a controlled, titratable block, minimising the risk of high or unpredictable spread. The use of ultrasound guidance is invaluable in these scenarios, enhancing precision and improving the success rate in navigating challenging spinal anatomy.

Conclusion

Neuraxial anaesthesia in extremely short statured parturients requires careful planning. Epidural anaesthesia with ultrasound guidance offers a safe and effective alternative to spinal anaesthesia, especially when rapid onset is not critical. Tailored approaches and interdisciplinary collaboration are essential in managing high risk obstetric patients with complex anatomy and comorbidities.

ID 114**MANAGING BRONCHIAL OBSTRUCTION FROM A MIGRATED TRACHEOESOPHA-
GEAL VOICE PROSTHESIS: ANAESTHETIC AND PROCEDURAL CHALLENGES**

Afifah Samsudin^{1,2}, Mohammad Erysyad Kamil Mohammad Syafiie², Mufaddal Moiz^{1,2}, Akmal Firdaus Samuel^{1,2}, Adlin Dasima Abdul Kadir^{1,2}

¹*Faculty of Medicine, Universiti Teknologi MARA, Sungai Buloh, Selangor, Malaysia;*

²*Hospital Al-Sultan Abdullah (UiTM), Puncak Alam, Selangor, Malaysia*

Introduction

Displacement of a tracheoesophageal voice prosthesis is a rare but potentially life-threatening complication in post-laryngectomy patients. Anaesthetic management in such cases requires meticulous planning to prevent airway compromise. This case illustrates the anaesthetic considerations and multidisciplinary coordination that contributed to a favourable outcome.

Case Description

A 65-year-old man with a tracheoesophageal voice prosthesis post-total laryngectomy for transglottic carcinoma and inclusion body myositis developed acute respiratory distress with oxygen desaturation to 70%. High-flow oxygen improved SpO₂ only marginally (80%) though he remained conscious (GCS E4VtM6). Bedside flexible bronchoscopy through existing tracheostoma revealed absence of voice prosthesis. Chest radiograph revealed left hemithorax opacities and a focal radiodense shadow in the left main bronchus, suggestive of migrated prosthesis. Due to persistent hypoxia, gentle bag-assisted ventilation was initiated. Adaptive-support ventilation (PEEP 0, FiO₂ 1.0) improved SpO₂ above 90%. Dexmedetomidine (0.2-0.4mcg/kg/hr) was initiated to alleviate dyspnoea while preserving spontaneous breathing.

Urgent retrieval using fiberoptic bronchoscopy was performed under conscious sedation. Dexmedetomidine was carefully titrated to 0.6mcg/kg/hr, preserving spontaneous ventilation. Following successful retrieval, anaesthesia was deepened with sevoflurane for bronchoalveolar lavage and biopsy. A lung recruitment manoeuvre was performed before ICU transfer, where he was weaned off mechanical ventilation a few hours later.

Learning Points

Acute, life-threatening hypoxia resulting from prosthesis migration presented a complex airway management dilemma. Although positive-pressure ventilation is generally avoided as it may worsen obstruction or cause distal displacement, it was cautiously employed using adaptive-support ventilation with minimal pressures to restore oxygenation in this critical situation. Dexmedetomidine enabled cooperative

sedation with minimal respiratory depression for safe retrieval. Early multidisciplinary coordination ensured timely and safe airway intervention.

Conclusion

Careful balancing of ventilation strategies, preservation of spontaneous breathing and effective multidisciplinary teamwork are vital for safe anaesthetic management in migrated prosthesis-related airway emergencies.

ID 115**OPTIMISING ENHANCED RECOVERY AFTER SURGERY FOR BREAST REDUCTION:
A CASE SERIES ON MORPHINE AS AN ADJUVANT IN PARASPINAL BLOCKS**

Kuang TS, **Chong ASC**, Wan Nabilah, Azrin M Azidin, Amiruddin NM Kamil

¹Hospital Kuala Lumpur, Kuala Lumpur, Malaysia

Introduction

Breast reduction surgery is associated with significant postoperative pain, commonly managed with opioids, which can cause adverse effects such as nausea, vomiting, sedation, ileus, and respiratory depression. This case series explores an enhanced recovery after surgery (ERAS) protocol incorporating morphine as an adjuvant in paraspinal blocks to improve pain control and reduce opioid use.

Methods

This retrospective case series includes four patients who underwent bilateral breast reduction surgery at Hospital Kuala Lumpur. The ERAS protocol included preoperative bilateral intertransverse process (ITP) blocks with 0.375% ropivacaine and 2mg morphine each side, intraoperative multimodal analgesia (ketamine, dexamethasone, magnesium sulphate, paracetamol), and a protocolized postoperative pain management strategy. Pain scores, opioid consumption, complications, and hospital length of stay were analysed.

Results

All patients reported low postoperative pain scores (NRS 0–4). None of them required additional intravenous patient-controlled analgesia (PCA) or rescue opioids at any time during hospital stay beyond the scheduled regimen. All patients were discharged within five days postoperatively. One patient was readmitted for suspected breast hematoma (no collection found), and another patient required packed cell transfusion during hospital stay. No opioid-related side effects were reported.

Conclusion

The addition of morphine as an adjuvant in paraspinal blocks within an ERAS framework demonstrated effective pain control. This multimodal technique could be a potential approach for optimizing perioperative outcomes.

