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SHKODRA ANESTHESIA DAY

ABSTRACT BOOK

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OP.1

Mechanism and Manifestation of Delirium in ICU Patients

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Abstract
Delirium is a common neuropsychiatric complication among critically ill patients in the intensive care unit (ICU), associated with increased morbidity, mortality, and prolonged hospitalization. This study investigates the underlying mechanisms and clinical manifestations of delirium in ICU patients, emphasizing the importance of early detection and intervention.
Introduction: Delirium is an acute and fluctuating disturbance of consciousness and cognition, affecting up to 80% of mechanically ventilated ICU patients. It is often underdiagnosed despite its clinical relevance. Delirium arises from complex interactions between predisposing and precipitating factors, including systemic inflammation, neurotransmitter imbalances, and impaired cerebral perfusion. Understanding its pathophysiology and clinical features is crucial for effective management.
Material and Method: This descriptive observational study was conducted in a tertiary care ICU over six months. Adult patients (>18 years) admitted for more than 48 hours were included. The Confusion Assessment Method for the ICU (CAM-ICU) was used to identify delirium. Data on demographics, medical history, severity scores (APACHE II), and possible precipitating factors (e.g., sedation, sepsis, hypoxia) were collected. Laboratory parameters and imaging findings were reviewed to explore underlying mechanisms.
Results: Out of 120 ICU patients enrolled, 54 (45%) developed delirium during their stay. Delirium was more common in older patients (>65 years), those with higher APACHE II scores, and those exposed to benzodiazepines. Inflammatory markers such as CRP and IL-6 were significantly elevated in delirious patients ($p<0.01$). Hypoactive delirium was the most frequent subtype (60%), followed by hyperactive (25%) and mixed (15%). Neuroimaging in select patients showed diffuse cerebral atrophy and white matter changes, supporting the theory of neuroinflammation and disrupted connectivity.
Conclusion: Delirium in ICU patients is multifactorial, with a pathogenesis involving neuroinflammation, neurotransmitter dysregulation, and cerebral hypoperfusion. It presents in various subtypes, often subtle and overlooked. Early identification using standardized tools like CAM-ICU and addressing modifiable risk factors can improve outcomes. Further research is needed to clarify pathophysiological mechanisms and develop targeted therapies.
Keywords: Delirium, ICU, Neuroinflammation, CAM-ICU, Critical care, APACHE II, Hypoactive delirium

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OP.2

Radical Cystectomy: Fast-Tracking to Reduce Postoperative Complications – Our Experience

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Abstract
Radical cystectomy is a complex urological procedure with a high rate of postoperative complications. The implementation of fast-track or Enhanced Recovery After Surgery (ERAS) protocols aims to minimize these risks. This case series presents our initial experience with 5 patients undergoing radical cystectomy managed with a fast-track protocol, focusing on postoperative recovery and complication rates.
Introduction. Radical cystectomy is the standard treatment for muscle-invasive bladder cancer but is associated with significant morbidity and extended recovery periods. Fast-tracking involves evidence-based perioperative strategies to accelerate recovery, reduce complications, and shorten hospital stay. Despite its proven benefits in larger series, limited data exist on its effectiveness in smaller clinical settings. We report our early experience applying fast-track principles in 5 patients.
Material and Method: Between June 2023 and December 2023, five patients (4 males, 1 female; mean age 68) underwent radical cystectomy for bladder cancer in our department. A standardized fast-track protocol was applied, including: Preoperative patient education. Shortened fasting and carbohydrate loading. Epidural or multimodal opioid-sparing analgesia. Early postoperative mobilization (within 24 hours). Early enteral nutrition (liquids within 24 hours). Goal-directed fluid therapy
Patients were monitored for complications (using the Clavien-Dindo classification), time to return of bowel function, and length of hospital stay.
Results: All 5 patients tolerated the fast-track protocol without major deviation.
Return of bowel function: Mean 2.6 days (range 2–3 days). Length of hospital stay: Mean 7.4 days (range 6–9 days)
Complications:. One patient had a Clavien-Dindo grade II infection managed with antibiotics. No cases of ileus, anastomotic leak, or reoperation. Readmission rate: 0%
Patients reported improved comfort and satisfaction with early mobilization and feeding.
Conclusion: Our initial experience with 5 patients suggests that fast-tracking after radical cystectomy is feasible, safe, and potentially effective in reducing postoperative complications and hospital stay. These encouraging results support the continued use and further study of ERAS protocols in urologic oncology, even in smaller clinical settings.
Keywords: Radical cystectomy, Fast-tracking, ERAS, Bladder cancer, Postoperative recovery, Case series

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OP.3

Evaluation and Management of Intraoperative Arrhythmias: Should We Worry?!

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Abstract
Intraoperative arrhythmias are relatively common and can range from benign, self-limiting events to life-threatening disturbances requiring immediate intervention. Their occurrence during surgery can be triggered by multiple factors including anesthesia, surgical manipulation, electrolyte imbalances, hypoxia, and underlying cardiac conditions. Timely recognition and accurate interpretation are crucial for effective management. This abstract explores the evaluation and management of intraoperative arrhythmias, focusing on their incidence, clinical significance, diagnostic approach, and therapeutic strategies. While not all arrhythmias are cause for alarm, certain types such as ventricular tachycardia, bradyarrhythmias with hemodynamic instability, or atrial fibrillation in high-risk patients demand urgent attention. Understanding the context and patient-specific factors helps guide treatment decisions. Anesthesiologists and surgical teams must be prepared to act promptly, using pharmacologic therapy, electrical cardioversion, or advanced cardiac life support (ACLS) protocols when necessary. Ultimately, a proactive approach combining prevention, continuous monitoring, and readiness for intervention can minimize complications and improve patient outcomes. So yes, sometimes we should worry but with the right preparation, we can manage these events effectively.
Keywords: Intraoperative arrhythmias, Perioperative cardiac events, Anesthesia and arrhymia

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OP.4

Frailty syndrome, Fragility Fracture and Anesthesia Care

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Abstract:
Fragility fractures are defined by the World Health Organization as fractures caused by an injury , low energy trauma such as a fall from a standing height or less, that would be insufficient to fracture a normal bone.
The most frequent Fragility Fractures occur at the hip, spine and forearm and with the aging of the population, they are becoming more common.
During the past 15 years there has emerged in the geriatric medical
community a "**Frailty Syndrom"**, which is defined as age-related deficits in normal function and involving several body systems and the criteria for diagnosis are weakness, slowness, low level of physical activity, easy exhaustion, poor endurance, and loss of weight.
This theme describes an overview of perioperative management of the fragility fracture in the frail patient including, pre-operative risk stratification and optimization, anesthesia risks and anesthesia options as well as post-operative pain management.
Keywords: Frailty Syndrom, fragility fracture, weakness, slowness,

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OP.5

Team based performance - Key for good airway management in children

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Abstract

Summary: Patient safety has become an essential component in quality healthcare. Securing an airway is undoubtedly the most important lifesaving skill and knowledge any prehospital and hospital emergency medical service provider owns and it is a vital task for the anesthetists. Anesthetized children, especially toddlers and neonates, have a high risk of critical airway incidents. Delayed management of compromised pediatric airway still causes significant perioperative morbidity and mortality.

Reviewing data shows us that the real progress in the management of pediatric airway, and changes in pediatric anetshesia altogether, started in the first decade of the 21st century (EXIT procedure, fiberoptic and videolaryngoscopy intubation as a gold standard) then, over the following years, the guidelines were, at first, a modification of adult based approaches, and only later on were the guidelines made specially for pediatric patients, then, the neuromuscular blocker was added to the guidelines, the ultrasound and apneic oxygenation started being used in airway management and now the ECMO is incorporated in airway management guidelines in pediatric patients.

Framework to guide in practicing safe and secure control of the pediatric airway could be good knowledge of anatomical and physiological pediatric airway specificity, good airway assessment, planning, minimum standard of equipment, accepted difficult airway algorithms combine with personnel dedicated teaching, training and practice. Ultimately and always the primary goal is to provide child's oxygenation and ventilation.

The human being may err and scientific training is not enough to ensure the desired outcomes; hence, there is a need to develop non-technical skills such as teamwork capabilities. Collaborations play a vital role in increasing the capacity of pediatric anesthesiology educators and training the pediatric anesthesia workforce.

Key words: Team working; Airway management; Children; Anesthesia;

Introduction : Promoting teamwork in the operating theater has been associated with lower mortality according to publications[1-8]. Working as a team requires sharing common goals and specific roles for each team member[1-8].The complexity of surgical interventions demands increasing technical skills[7,8]. Scientific, technical skills training is not enough to ensure the desired outcomes there is a need to develop non-technical skills such as teamwork capabilities[7,8].

Methods:I used MEDLINE to search the English language literature from 2010 to 2024 for articles using the following search terms: "teamwork in operating theatre", "airway management in children", "component of perioperative efficience", "patient safety", "human factor as a key in event response during anesthesia". I focused on the team based performance - key for good airway management in children. All sources were screened and selected for inclusion to determine their relevance in the framework of the current report.

Results Emphasis is placed on the importance of simulation as part of the anesthetist training for developing experience and proper attitudes to solve problems during a crisis, for developing leadership abilities and above all, to be a team player. Primary goal is delivering oxygen and optimizing oxygenation in the management of difficult pediatric airway.

Discussion

Patient must be at the core of our activities and patient safety has to be our number one concern[1]. The medical practice is changing; technical skills must go hand in hand with proper teamwork[1,2]. Hospitals will be evaluated not just in terms of production, but also in terms of quality and outcomes[3,4]. Approximately 50% of hospital errors occur in the OR or in the Resuscitation suites[1]. Most of them are due to poor communication[1]. In order to improve teamwork, simulation, standardization of information, specific training and adequate role definition are required[7,8]. A positive attitude towards other team members, sound communications, leadership, understanding and learning about the different roles, ability to assist, feedback to learn, and finally coordination, are all needed[5,6]. There is a lot of studies as a valuable tool to train the OR staff in non-technical skills and to assess the impact of such training[1-8]. Simulation, training workshops, online modules, briefings and debriefings training programs, timeout and effective WHO checklist utilization as part of the anesthetist training for developing experience and proper attitudes to solve problems during a crisis, for developing leadership abilities and above all, to be a team player are recommended[1-8]. Surgical checklist is the best example of using "briefings" in the operating room[7,8]. The first two phases, "sign-in" and "time-out" must be completed before the surgical procedure begins. The WHO surgical checklist has proven to reduce perioperative morbidity and mortality, with particular impact on laterality errors, wrongful identification, antibiotic prophylaxis, preoperative evaluation check, and the need for blood by-products[7,8].

Conclusion

The aim of this review is to discuss recent scientific literature and provide a comprehensive approach to the team based performance as a key for good airway management in children. Primary goal is always to provide proper child oxygenation. Because of the anesthesiologist's technical training and his/her non-technical skills, including the development of leadership and communication abilities with the OR staff, the anesthesiologist plays a key role in achieving the desired outcomes.

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OP.6

Intraoperative Anaphylaxis: Recognition, Menagement and Prevention

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Abstract
Intraoperative anaphylaxis is a rare but potentially fatal hypersensitivity reaction that occurs under anesthesia, often presenting with cardiovascular collapse, bronchospasm, and cutaneous manifestations. The incidence is estimated to be between 1 in 10,000 and 1 in 20,000 anesthetic procedures, with neuromuscular blocking agents (NMBAs), antibiotics, latex, and colloids being the most common triggers. The clinical presentation can be masked by anesthesia, leading to delayed recognition and management.
Immediate intervention is critical and includes discontinuation of the suspected antigen, administration of intramuscular or intravenous epinephrine as the first-line treatment, aggressive fluid resuscitation, and adjunctive therapies such as antihistamines, corticosteroids, and vasopressors if needed. Perioperative serum tryptase measurements can aid in confirming the diagnosis, while post-event allergy testing is essential for identifying the causative agent and preventing recurrence.
A multidisciplinary approach involving anesthesiologists, intensivists, and allergists is key to optimizing patient safety. Preoperative screening for at-risk individuals, careful selection of anesthetic agents, and structured emergency protocols are essential for prevention and preparedness. This review provides an in-depth analysis of intraoperative anaphylaxis, emphasizing the importance of early recognition, evidence-based management strategies, and preventative measures to enhance perioperative patient
Keywords: *Intraoperative anaphylaxis,antigen,early recognition*

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OP.7

Lactate Levels in Hypoperfusion: Reliable Indicator or Misleading Surrogate?

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Abstract
I**ntroduction:** Lactate is considered as a monitoring key of hypoperfusion, serving as diagnostic and follow tool of critically ill patients. Elevated lactate levels are commonly associated with shock, sepsis, and circulatory failure, leading to its widespread use as both a prognostic indicator and a therapeutic target. However, non-elevated lactate shock is faced in approximately 50% of cases. Mix venous saturation (ScvO2) and CO2 gap can also be used in non-lactate shock states.
Material and method: hyperlactatemia may be benign or malignant as in hypoperfusion. Lactate production can also result from mitochondrial dysfunction, increased glycolysis driven by beta-adrenergic stimulation, or impaired hepatic and renal clearance. So, other markers as ScvO2 and a-v CO2 gap can be used to further evaluate and treat the critically ill patients.
Discussion: after reviewing literature and based on practical my own experience, I believe that recognizing the multifactorial nature of lactate metabolism is crucial for clinicians to avoid misjudgments and wrong therapeutic decisions. This the reason that in ICU the evaluation must be completed with other methods and with clinically evaluation as for example skin mottling and capillary filling time.
Conclusion: Treating critically ill patients presents always a challenge and individualizing them is important. Taking in consideration other measures as ScvO2 and a-vCO2 gap seems to be essential in cases of non-lactate shock states.
Key words: lactate, shock, mix venous saturation

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OP.8

Ventilator Associated Pneumonia - VAP

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Abstract
Introduction: Hospital-acquired pneumonia (HAP) is the second most common cause of hospital-acquired infections, with 50–86% of cases in the ICU being ventilator-associated pneumonia (VAP). Reported incidences vary widely, ranging from 5% to 40%, depending on diagnostic criteria. Intubated patients are 7–12 times more likely to develop VAP. The estimated attributable mortality of VAP is approximately 13%, with higher mortality rates observed in surgical patients and those admitted with moderate to severe illness severity. VAP is associated with prolonged mechanical ventilation, longer ICU stays, and increased costs.
For diagnosis, clinical, imaging, and microbiological criteria must be met, and the use of the CPIS (Clinical Pulmonary Infection Score) is recommended. Treatment duration should generally be limited to 7 days in most cases. Patients should be reassessed daily to confirm ongoing suspicion of disease, antibiotics should be narrowed as soon as antimicrobial susceptibility results are available, and clinicians should consider discontinuing antibiotics if cultures are negative.Prevention of VAP focuses on minimizing the duration of mechanical ventilation, daily evaluation for extubation, hand hygiene, head elevation to 30°, and careful use of H2 antagonists or proton pump inhibitors. Bundles combining multiple preventive strategies may improve outcomes, but large randomized trials are needed to confirm their efficacy.
Keywords: Ventilator-associated pneumonia (VAP), colonization, bronchial aspiration, treatment, prevention, mechanical ventilation

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