

MOCA KEYWORDS

PHARMACOLOGY

Alkalinization of lidocaine
Anaphylaxis: Therapy
Antibiotic prophylaxis: PCN reactions
Benzodiazepine antagonism
Bupivacaine cardiac toxicity
Burns: Resistance to NMBs
Cefazolin administration
Codeine resistance DDX
Congenital methemoglobinemia
Context sens half-time: Opioids
Desflurane vap.: Heating rationale
Etomidate: CNS effects
Etomidate: Physiol effects
Hemodialysis: End-stage renal disease
High spinal: Clinical findings
Inhaled anesthetics: Fluoride
Intrathecal lidocaine: Side effects
Intrathecal opioid spread
Isoflurane effect on HPV
Isoflurane: Cerebral blood flow
Ketamine: Physiologic effects
Ketorolac: Renal function
Latex allergy: anesH implications
Local anes: Methemoglobinemia
MAC: Age-related changes
Malignant hyperthermia: Presentation
Methemoglobinemia: Rx
MH Hx: Anes management
MH: Dantrolene indications
MH: Ryanodine receptor
Muscle relaxants: Histamine release
Myoclonus: Induction agents
N₂O and hematopoiesis
Neostigmine side effects
Nerve block: Bicarbonate effect
Neural blockade: Bicarbonate
NMB reversal end points
PCN rash: Antibiotic selection
Pharmacokinetics: Lidocaine
Prolonged ventilation: Myoneuropathy
Protamine reactions: Treatment
Remifentanil pharmacokinetics
Seizure provocation: IV anesthetics
Spinal anes: Transient neurol Sx
Succinylcholine after neostigmine
Succinylcholine hyperkalemia risk factors
Succinylcholine in children
Succinylcholine: Contraindications for use
Time to spont vent after tpi/sux
Vol anes uptake: Determinants
Volatile anesthetics: Induction

PHYSICS, MONITORING, ANES DELIVERY DEVICES

AICD: Perioperative management
Airway pressure alarms
Arterial waveform: Periph vs central
Bispectral index: Efficacy
CO₂ absorbent drying: Effects
Common gas outlet check valve
Diffusion hypoxia
Double burst vs. train of four
E cylinder O₂ volume
ESU dispersive pad: Purpose
ETCO₂ – PACO₂ gradient
ETCO₂ and esophageal intubation
Etomidate administration
Evoked potentials: Anes effects
Fresh gas flow: Insp concentration
Helium in airway obstruction
Hypothermia: ABG effects
Inhalation agents: Resp depression
Inhalation agents: Wake-up
Isoflurane wake-up time
Laminar vs. Turbulent gas flow
Low pressure leak test
Mech vent airway press patterns
Mech vent in asthma: I:E ratios
Metoprolol: Intravenous administration
Monitoring for residual NMB
Monophasic vs. Biphasic defib
NIBP: Sources of error
Noninvasive ventilation techniques
Oscillometric BP meas: Principles
Oxygen pipeline problems: Dx
Pacemaker nomenclature
Pacemaker: Standard nomenclature
Peak alveolar pressure measurement
Pressure control vent cycling
Pulse oximetry artifact: Cause
Second gas effect
Sevo: Fire hazard
Soda lime exhaustion Rx
TEE: Acute myocardial ischemia
Turbulent gas flow physics
Ultrasound physics: Frequency
Vaporizer function
Vaporizer safeguards
Volatile agents: CO toxicity
Wall O₂ failure: Signs

ANATOMY

Peroneal N blockade: Popliteal fossa
Spinal needle: Paresthesia DDx
Transtracheal jet vent anat
Ultrasound for IJ: Advantages

ANESTHESIA PROCEDURES, METHODS, TECHNIQUES

ASA PS classification
Attempted CSE but no CSF
Autonomic drugs: Gastric emptying
Bier block: Early tourniquet release
Cervical plexus block Cx
Comp epidural anes: Pneumocephalus
Cor pulmonale: Preop findings
Endotracheal tube: Respiratory rate
Epi + local anes: B-blockade effect
Epidural anes test dose: Effects
Epidural hematoma Dx
Epidural test dose: β -blocker effect
Head trauma: Anesthetic management
Hypoxemia in lateral position: Cause
Interpretation: ABG
Interscalene block: Phrenic paralysis
Intravenous regional nerve block: Cardiac effects
IV vs. epidural morphine
Laparoscopy hypoxemia DDx
Lat fem cutan nerve block anatomy
Local anesthetic reactions: DDx
Metformin: Contrast dye
Midazolam: Side effects
Myocard ischemia: Indicators
Neurofibromatosis and intubation
Postdural puncture headache: Parturients
Preop cardiac eval guidelines
Preop cardiac risk: Old MI
Preop cardiac risk: Surg procedure
Preop cardiac testing: LBBB effect
Pulmonary fibrosis: Bleomycin therapy
Recovery from spinal anesthesia
Retained epidural catheter: Mgmt
SAB: Neurologic sequelae
Saphenous nerve distribution
Scopolamine delirium Rx
Spinal anes: Bradycardia resusc
Spinal anesth: PFTs
Spinal cephalgia: epidemiology
Spinal spread: Factors influencing
Spinal-epidural anesthesia
Spread of LA during SAB: Factors
Stellate block side effects
Stellate ganglion blk: Effects
Subarachnoid space: Injection of air
Tibial nerve block: Distribution
Tracheal trauma: Airway mgmt
Volume vs pressure ventilators in ICU

ANESTHESIA PROCEDURES, METHODS, TECHNIQUES (cont.)

Airway exch cath advantages
Alveolar gas equation: Hypercarbia
ASA Guidelines: Sedation
Brachial artery cannulation Cx
Carbon monoxide poisoning
Double lumen tube: Auscultation
Effects: Tube in trachea
Endobronchial intubation: Position change
Fluid resus: Crystalloid vs colloid
GA: Heat loss prevention
Hiatal hernia: Ketorolac
Intraop hypothermia: Prevention
Lactated Ringer's: Metabolic effects
Laryngeal injury: Airway mgmt
Laryngospasm complications
Lithotomy position: Nerve injury DDx
LMA cuff leak Rx
LMA indications
MAO inhibitor-pressor interaction
Monitored anes care: Hypoventilation
Nasogastric tube
PCA: Basal infusion effects
PONS injury: Resp effects
PONV prophylaxis
Poor larynx visualization: Diseases
Position nerve injury: Lower extrem
Postop hoarseness: Mechanisms
Postop respiratory distress: Cause
Pulmonary edema: Rx
Rheumatoid arthritis: Cx of intubation
Sedation: ASA guidelines
Supplemental block: Saphenous
Thorac epidural: Drug combinations

HEMATOLOGY

Acute isovolemic hemodilution: Physiolog
Anticoagulants and epidural
Autologous predonation: Risks
Autologous vs allogenic blood
Blood transfusion: Viral Cx
Citrate toxicity: Rx
Daunorubicin toxicity
Doxorubicin: Anesth implications
Hemolytic transfusion Rxn signs
LMW heparin characteristics
Massive blood loss: FFP
Massive transfusion + coagulation
Massive transfusion: Coagulopathy
Transfusion anaphylactoid reaction
Transfusion avoidance: Periop options
Transfusion in neonates
Transfusion: Viral transmission
Von Willebrand's disease: Perioperative mgmt
Warfarin: Urgent reversal

RESPIRATORY SYSTEM

Advanced age: Pulm parameters
Anesthetic management: Lung disease
Apneic oxygenation physiology
ARDS: Techniques of ventilation
ARDS: Ventilation management
Art O₂ content and VO₂: Physiology
Arterial blood gas analysis
Awake intubation: Airway anesthesia
Bronchopleural fistula: Mgmt
Bronchoscopy: Tube placement
Comb Resp / metab pH disturbance
Controlled ventilation: Hemodynamics
COPD: CO diffusion
Effects of PEEP on pul edema
Hypoxia: Physiologic responses
Inadequate O₂ delivery Dx
Lung function tests: Airway obstr
Mixed SvO₂ determinants
Moderate sedation definition
Multiple rib fractures: Analgesia mgmt
Myasthenic syndrome: NMB effects
One-lung vent: Hypoxemia mgmt
Oxygen physiol: HGB and CAO₂/CVO₂
PEEP
Pressure support vent: Mechanism
Pulmonary embolus physiology
Scleroderma: PFT changes
Superior laryng N block effects
Transcrucoid local anesthetics: Effects
Ventilation: Airway pressure

CARDIOVASCULAR SYSTEM

Amiodarone: Toxic pulmonary effects
AV gradient: Determinants
BP measurement: Site
CAD: Intraop ischemia mgmt
CAD: Preoperative evaluation
Cardiac innervation: Nerve blocks
Cardiac morbidity: Orthopnea
Cardiomyopathy: Atenolol
Cardiopulmonary bypass: Milrinone
Carotid endarterec: EEG slowing Rx
Central-to-peripheral art pressure changes
Cerebral ischemia during carotid endart: Mgmt
Coagulopathy: Blood component Rx
Coagulopathy: Platelets
Coronary anat: Reg wall motion Dx
Coronary circulation and TEE
CPB rewarming temperature progression
CPB venous return
CPB: Noncoronary collateral flow
CPB: Renal failure
Defibrillation: Influencing factors
Descending thoracic aortic surg: CNS Cx
Dopamine hemodynamic effects
ECG interpretation: Delta waves

CARDIOVASCULAR SYSTEM (cont.)

HOCM: Hypotension management
Hypoxemia during delib hypotension
IHSS: Rx of hypotension
Increased SvO₂: cause
Inguinal hernia: Preoperative evaluation
Ischem changes: Intraop ECG settings
Mediastinoscopy intra-op Cx
Metabolism of vasodilators
Mitral regurgitation: Anesthetic drugs
Mitral stenosis: Anesth mgmt
Myocard ischemia: Intra-op Rx
Myocard O₂ supply:demand ratio
Myocardial ischemia, tachycardia: Rx
Myocardial ischemia: ECG
Myocardial ischemia: Physiologic factors
Neonatal art line: Hypovolemia Dx
Nicardipine: Hypotension
Nicardipine: Severe hepatic insufficiency
Nitroglycerin toxicity
Nitroprusside toxicity signs
Norepinephrine hemodynamic effects
Normovolemic hemodil: CV compensation
Pacing modes: Stroke volume
Perioperative cardiac risk modification: Drugs
Phenylephrine administration
Phenylephrine: Spectral-edge frequency
Post-cardiac tpnt autonomic pharmacology
Predictors of myocardial risk
Right vent O₂ supply phys
Sevoflurane anesthesia: Hypovolemia
Stroke after CPB: Risk factors
TEE: Hypotension DDx
Thermodilution CO: Inaccuracy sources
Vfib: Drug Rx
WPW: Common dysrhythmias

GASTROINTESTINAL/HEPATIC

Biliary obstruction: Jaundice
Diarrhea: ABG effects
Immunosuppressants: Anesth consid
Liver disease: Synthetic function Dx
Liver failure: Signs and tests
Periop coagulopathy mgmt
Pickwickian syndrome: ABGs
Postop jaundice: Causes
TPN: Intraoperative effects

CENTRAL AND PERIPHERAL NERVOUS SYSTEMS

Abnormal ECG: Catecholamines
Acute mgmt spinal shock
Air embolization Dx: Devices
Anesthesia injection: Axillary sheath
Atropine: Respiratory distress
Autonomic hyperreflexia hemodynamics
Autonomic hyperreflexia: Prevention
Axillary block limitations: Mgmt
Axillary block: Indications
Beta blocker side effects
Brain death: Definition
Brain death: Dx
C7-8 spinal injury effects
Carbon monoxide poisoning: Labs
Carotid surg: EEG interpretation
CBF: Clinical determinants
CBF: Factors influencing
Central anticholinergic syndrome: Rx
Cerebral edema: Blood-brain barrier
Cerebral perfusion pressure determ
Cerebral vasospasm characteristics
Cerebral vasospasm mgmt
Cerebral vasospasm: Rx
Cerebrospinal fluid: Intracranial pressure
Cholinergic crisis: Rx
CNS injury management
CO poisoning: Hyperbaric O₂
CO poisoning: Rx
Cord transection: Mass reflex
CPB and temp measurements
Deliberate hypoten: Isoflurane vs SNP
Detection of venous air emboli
Dexmedetomidine: Hemodynamic effects
EEG burst suppression: Causes
Epilepsy surgery: Anes drugs
Evoked potentials: Anesthetics
Glycopyrrolate effects
Heat loss during GA
Heat nociceptors
Indication: Sup hypogast plexus block
Intracranial aneurysm hemorrhage
Intracranial aneurysm rupture: Rebleed DDx
Intracranial aneurysm: CSF drainage
Intracranial compliance measurement
Intracranial pressure: Diuretics
Lung protect vent: Pressure goal
Metabolic factors: Neurol outcome
Metoclopramide: Extrapryam Rxn mgmt
Pedi hyperkalemic C-arrest: Causes
Phenylephrine: Cerebral blood flow
Pontine surgery: Hemodynamic effects
Post-craniotomy DI: Mgmt
Pressors and preload
Regional anesth: Knee replacement
Signs of autonomic hyperreflexia

CENTRAL AND PERIPHERAL NERVOUS SYSTEMS (cont.)

Spinal cord anatomy
Spinal shock management
SSEP latency prolongation: DDx
SSEP monitoring: Dx/Rx
SSEPs: Systemic physiol disturbances
Subarachnoid block: ECG changes
Superf cervical plexus block anat
Sux hyperkalemia: Inherited diseases
T2 spinal: Respiratory arrest mechanism
Terbutaline side effects
Vasopressors in sepsis
Venous air embolism: Ultrasonography

RENAL/URINARY

Acid-base: Complex abnormalities
COPD: ABG abnormalities
Head trauma: Hypervent compensation
Intraoperative oliguria evaluation
Lithotripsy: Shock wave timing
Morphine metabolites: Renal failure
Nicardipine side effects
Normal saline: Acidosis
Postoperative acid-base disorders
Postoperative renal failure
Renal failure: Opioid admin
Renal insufficiency: Fluid mgmt
Turp: Bladder perforation

ENDOCRINE/METABOLIC

Diabetes insipidus: Dx
Diabetes: Hyperglycemia preop mgmt
Elective surgery: Preop hyperglycemia mgmt
Hypercalcemia preop management
Hypocalcemia after parathyroidectomy
Hypothyroidism Rx: Occult CAD
Phenoxybenzamine: Phys effects
Pre-op extreme hyperglycemia: Type I DM
Rx: Hypercalcemia
Thyroidectomy: Post-op Cx
Trauma: Oliguria DDx
Type 2 diabetes: Periop mgmt
Uncontrolled diabetes: Intraop Rx

NEUROMUSCULAR DISEASES AND DISORDERS

Amyotrophic lateral sclerosis: PFTs
MS: Periop exacerbation
Myasthenia gravis: Relaxant potency
Myasthenic crisis Rx
Myasthenic crisis: Edrophonium
NM blockers: Drug interactions

PAINFUL DISEASE STATES

Celiac block effects
Chronic pain: CRPS Sx and signs
Clonidine: Morphine tolerance
Complex regional pain syndrome I
CRPS I early findings
Fibromyalgia: Dx
Intrathecal narcotics: Tolerance
Ketamine analgesic mechanism
Liposome-encaps morphine: Advantages
Low back musculoskel pain Rx
Lumbar radiculopathy: Epid steroids
Lumbosacral radiculopathy mgmt
Neuraxial opioids action site
Neuraxial opioids: Onset
Neurolytic intercost blk indications
Pancreatic cancer pain Rx
Pelvic cancer pain: Mechanism
Postherpetic neuralgia: Location
Proximal amputation: Phantom limb pain
Spinal stim: Indications
Stellate ganglion block: Signs
Stellate ganglion nerve block
Tramadol drug interactions
Trigeminal neuralgia: Pharmacotherapy

OTOLARYNGOLOGY (ENT) ANESTHESIA

Airway fire: Management
Inspired gases: Combustibility
Jet vent: Air entrainment phys
Laryngotracheal injury: Airway mgmt
Laser: ETT & fire prevention

ANESTHESIA FOR PLASTIC SURGERY,

LIPOSUCTION

Liposuction complications
Liposuction: Lidocaine concentration
Tumescent anes: Lidocaine dose

ANESTHESIA FOR LAPAROSCOPIC SURGERY

Laparoscopy + Tberg: Physiologic effects
Laparoscopy: Hemodynamic effects
Laparoscopy: Hypercarbia DDx
Laparoscopy: Hypotension DDx
Laparoscopy: Hypoxemia DDx

OPHTHALMOLOGIC ANESTHESIA

Oculocardiac reflex management
Retrobulbar block complications
Retrobulbar block Cx
Retrobulbar block: Complications

ORTHOPEDIC ANESTHESIA

Bone marrow embolus: Hypotension mgmt
Effects of tourniquet release
Tourniquet pain prevention: Legs

PEDIATRIC ANESTHESIA

Anes uptake: Infant vs adult
Calcium chloride
Caudal block anatomy
Croup: Radiographic Dx
Down syndrome: Airway
Hypovolemia clinical signs
Infant airway anatomy
Infant fluid replacement
Infant: BP and HR during halothane
Infant: Respiratory physiology
Lactated Ringer's solution: Fluids
Masseter rigidity and MH
Methemoglobinemia: EMLA
Neonatal persistent fetal circulation
Neonatal apnea: O₂ desaturation
Neonatal surgery: Hypothermia prevention
Neonatal thermoregulation
Omphalocele repair: Hypovolemia Dx
Pediatric URI: Elective surgery
Peds emergence delirium: Risk factors
Peds PONV Rx
Peds: Circle system advantages
Persistent fetal circ: Pathophys
Pierre-Robin anatomy
PONV prophylaxis: Children
Premedication in children: Midazolam
Premie apnea prevention
Premie postop apnea risk factors
Respiratory physiol: Neonates vs. adults
Succinylcholine: Bradycardia
Sux hyperkalemia: Dx/Rx
Systemic-pulmonary artery: Anes consid
Trisomy 21: Anes implications
Volatile anes overdose: Infants

TRAUMA, BURN MANAGEMENT, MASS CASUALTY,

BIOLOGICAL WARFARE

Airway burn mgmt
C-spine injury risk assessment
Tension pneumothorax: Intraop mgmt

ETHICS, PRACTICE MANAGEMENT, MEDICOLEGAL ISSUES

Ethics: Disclosure
Maintenance of Cert requirements
Medication error prevention
OR management: Time definitions
Sentinel event definition

AMBULATORY SURGERY

Amb surg: Unplanned admission
Amb surgery contraindications
Amb surgery: Pregnancy testing
Ambulatory surg SAB additives
Outpatient anesth: Delayed discharge
Outpt procedures: Pt selection
PACU Stage I bypass criteria
Spinal anesthesia: Delayed recovery

OBSTETRICAL ANESTHESIA

Air embolism & cesarean section
Anes during pregnancy: PCO₂ mgmt
Aspiration pneumonia mgmt
C-section GA: Unable to intubate
Diabetes: Pregnancy Cx
DM in pregnancy: Cx
Emerg C-section/asthma: GA mgmt
Epidural opioids for labor
Fetal beat-to-beat variability
Fetal HR monitoring
FHR tracing: Uteroplacental perfusion
Hypotensive syndrome: Fetal distress
Maternal-fetal oxygen transport
MgSO₄/eclampsia: Implications
Neonatal blood gas analysis
Neonatal resuscitation
Neonatal resuscitation: Meconium
Nerve injury: Forceps delivery
Oxytocin side effects
Placental transfer: Determinants
Pregnancy respiratory phys
Pregnancy: Physiologic changes
Pregnancy: Spinal anesthesia spread
Pregnancy: Supine hypotension phys.
Ritodrine: Side effects
Rocuronium: Placental pharmacology
Second stage labor: Analgesia options
Succinylcholine: Placenta
Supine hypotension physiol
Uterine atony and asthma: Mgmt
Uterine atony Rx: Asthma
Uterine atony/bleeding mgmt
Uterine relaxing agents
Valvular heart disease: Pregnancy
Venous air embolism

GERIATRIC ANESTHESIA/AGING

Aging: Cardiac physiology
Aging: Pharmacodyn: Anes drugs
Aging: Respiratory effects
Geriatric periop risk predictors
Oliguria and PPV DDx/Rx
Scopolamine patch: Elderly Pt Cx
Scopolamine: CNS effects

CRITICAL CARE

Septicemia hemodynamics Dx/Rx
SvO₂: Septic shock
Vasopressin in septic shock

ELECTROCONVULSIVE THERAPY

ECT: Physiol changes
ECT: Slow awakening DDx

ORGAN DONORS: PATHOPHYSIOLOGY AND MANAGEMENT

Brain death: Electrolytes

RADIOLOGIC PROCEDURES: ANESTHETIC IMPLICATIONS

Contrast nephropathy prevention
Contrast Rxn Rx
MRI: Anes monitors
MRI: Monitoring artifacts

PHYSICIAN IMPAIRMENT OR DISABILITY

Chemical dependence signs
Physician impairment: Referral
Substance abuse: Relapse risk