



Anesthesiology



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Society for Obstetric Anesthesia and Perinatology



CONTENTS

- ◇ THIS MONTH IN ANESTHESIOLOGY 5A
- Does Use of Volatile Anesthetic Shorten Time in the Intensive Care Unit after Elective Coronary Surgery?
- Predicting Recovery of Consciousness in Acute Brain-injured Patients
- Neuroprotection in a Rat Model of Focal Cerebral Ischemia
- Does Central Neuraxial Analgesia Improve Outcomes in Coronary Artery Bypass Patients?
- ◆ EDITORIAL VIEWS
-
- Mechanical Ventilation-induced Lung Release of Cytokines: A Key for the Future or Pandora's Box? 1
Didier Dreyfuss and Jean-Jacques Rouby
- For Outpatients, Does Regional Anesthesia Truly Shorten the Hospital Stay, and How Should We Define Postanesthesia Care Unit Bypass Eligibility? 3
Brian A. Williams
- Two Reports of Propofol Anesthesia Associated with Metabolic Acidosis in Adults 6
Joe S. Funston and Donald S. Prough

- | | |
|---|--|
| ◇ | Refers to This Month in Anesthesiology |
| ◆ | Refers to Editorial Views |
| 🌐 | See Web Site enhancement |

CONTENTS



■ CLINICAL INVESTIGATIONS

- ◇ **Choice of Primary Anesthetic Regimen Can Influence Intensive Care Unit Length of Stay after Coronary Surgery with Cardiopulmonary Bypass** **9**

Stefan G. De Hert, Philippe J. Van der Linden, Stefanie Cromheecke, Roel Meeus, Pieter W. ten Broecke, Ivo G. De Blier, Bernard A. Stockman, and Inez E. Rodrigus

In patients undergoing coronary surgery with cardiopulmonary bypass, the use of a sevoflurane or desflurane in the fast-track anesthetic protocol resulted in a shorter intensive care unit and hospital length of stay.

- Autonomic Nervous System Response to Epidural Analgesia in Laboring Patients by Wavelet Transform of Heart Rate and Blood Pressure Variability** **21**

Alain Deschamps, Ian Kaufman, Steven B. Backman, and Gilles Plourde

Wavelet transform of heart rate and blood pressure variability was used to characterize the autonomic response to epidural anesthesia in 13 laboring patients. The results show that wavelet transform can detect changes in autonomic tone even when values for blood pressure and heart rate are not significantly affected and that analysis of blood pressure variability is essential to obtain an index of changes in sympathetic tone.

- Evidence That Intravenous Vasopressors Can Affect Rostral Spread of Spinal Anesthesia in Pregnancy** **28**

David W. Cooper, Leo Jeyaraj, Ryan Hynd, Rebekah Thompson, Tim Meek, David M. Ryall, and Manmohan S. Kokri

This study provides evidence that intravenous phenylephrine can decrease rostral spread of spinal anesthesia in pregnancy, compared with intravenous ephedrine.

- Spectral Entropy as an Electroencephalographic Measure of Anesthetic Drug Effect: A Comparison with Bispectral Index and Processed Midlatency Auditory Evoked Response** **34**

Ann L. G. Vanluchene, Hugo Vereecke, Olivier Thas, Eric P. Mortier, Steven L. Shafer, and Michel M. R. F. Struys

Compared with the Bispectral Index and A-Line[®] ARX Index, both state entropy and response entropy seem to be useful electroencephalographic measures of anesthetic drug effect, with low baseline variability and accurate burst suppression prediction. The ability of the measures to predict the propofol effect-site concentration was best for the Bispectral Index.

CONTENTS



- ◆ **Can Bispectral Index Monitoring Predict Recovery of Consciousness in Patients with Severe Brain Injury?** **43**

Neus Fàbregas, Pedro L. Gambús, Ricard Valero, Enrique J. Carrero, Lydia Salvador, Elysabeth Zavala, and Enrique Ferrer

Bispectral Index value and other electrophysiologic and clinical measures were recorded in unconscious brain-injured patients in whom sedatives had been withdrawn. A model relating Bispectral Index value and probability of recovery of consciousness has been described and validated.

■ **LABORATORY INVESTIGATIONS**

- ◆ **Effect of Mechanical Ventilation on Cytokine Response to Intratracheal Lipopolysaccharide** **52**

Thomas C. Whitehead, Haibo Zhang, Brendan Mullen, and Arthur S. Slutsky

Mechanical ventilation can modify lung cytokine responses to lipopolysaccharide by redistribution of alveolar macrophages.

- Effect of ONO1714, a Specific Inducible Nitric Oxide Synthase Inhibitor, on Lung Lymph Filtration and Gas Exchange during Endotoxemia in Unanesthetized Sheep** **59**

Tomonobu Koizumi, Hitoshi Ogasawara, Hiroshi Yamamoto, Kenji Tsushima, Zonghai Ruan, Mingyuan Jian, Keisaku Fujimoto, and Keishi Kubo

Nitric oxide release by the inducible nitric oxide synthase pathway partially contributes to the increased permeability of pulmonary edema and decreased oxygenation during endotoxemia in sheep.

- Effects on Synaptic Inhibition in the Hippocampus Do Not Underlie the Amnestic and Convulsive Properties of the Nonimmobilizer 1,2-Dichlorohexafluorocyclobutane** **66**

Misha Perouansky and Robert A. Pearce

The nonimmobilizer 1,2-dichlorohexafluorocyclobutane did not affect spontaneous and miniature γ -aminobutyric acid type A receptor-mediated synaptic currents. The synaptic γ -aminobutyric acid type A receptor in hippocampal pyramidal cells discriminates between anesthetics and nonimmobilizers.

CONTENTS



- ◇ **Combination of Isoflurane and Caspase Inhibition Reduces Cerebral Injury in Rats Subjected to Focal Cerebral Ischemia** **75**
Satoki Inoue, John C. Drummond, Daniel P. Davis, Daniel J. Cole, and Piyush M. Patel
-
- A combination of isoflurane and the caspase inhibitor can produce neuroprotection that is apparent 2 weeks after ischemia in a rodent focal ischemia model.
-
- Inducible Nitric Oxide Synthase Mediates Delayed Cardioprotection Induced by Morphine *In Vivo*: Evidence from Pharmacologic Inhibition and Gene-knockout Mice** **82**
Xiaojing Jiang, Enyi Shi, Yoshiki Nakajima, and Shigehito Sato
-
- Morphine induces delayed cardioprotection in mice in a dose-dependent manner. This effect is associated with enhanced expression of inducible nitric oxide synthase protein in myocardium and is completely abrogated by either selective pharmacologic inhibition of inducible nitric oxide synthase or targeted disruption of the inducible nitric oxide synthase gene, indicating that inducible nitric oxide synthase mediates this process.
-
- Inhibitory Effect of Fentanyl on Acetylcholine-induced Relaxation in Rat Aorta** **89**
Ju-Tae Sohn, Seong-Ho Ok, Hee-Jin Kim, Seon-Hak Moon, Il-Woo Shin, Heon-Keun Lee, and Young-Kyun Chung
-
- Fentanyl attenuates acetylcholine-induced relaxation *via* an inhibitory effect at a level proximal to nitric oxide synthase activation on the pathway involving endothelial M₃ muscarinic receptor activation in rat aorta. Acetylcholine-induced relaxation in a rat aorta is mediated primarily by endothelial M₃ muscarinic receptor.
-
- Surfactant Reduction in Embolism Bubble Adhesion and Endothelial Damage** **97**
Akira Suzuki, Stephen C. Armstead, and David M. Eckmann
-
- Surfactants reduce the adhesion force developed between a gas embolism bubble and the vessel wall and preserve endothelial structure and function after attempts to damage the endothelium by massive air perfusion.



CONTENTS

An *In Vivo* Evaluation of the Mycobacterial Filtration Efficacy of Three Breathing Filters Used in Anesthesia **104**

Daniel P. Vezina, Claude A. Trépanier, Martin R. Lessard, Marie Gourdeau, Claude Tremblay, and Robert Guidoin

Using anesthetized pigs, three models of breathing filters were exposed for 2 h to a high concentration of nebulized *Mycobacterium chelonae*. Only one model, the Pall BB25A[®], was 100% effective in preventing mycobacterial contamination of the breathing circuit.

Lidocaine Increases Intracellular Sodium Concentration through Voltage-dependent Sodium Channels in an Identified Lymnaea Neuron **110**

Shin Onizuka, Toshiharu Kasaba, Toshiro Hamakawa, Shoichiro Ibusuki, and Mayumi Takasaki

Lidocaine increases intracellular sodium concentration and promotes excitation through voltage-dependent sodium channels.

Anesthetics Inhibit Acetylcholine-promoted Guanine Nucleotide Exchange of Heterotrimeric G Proteins of Airway Smooth Muscle **120**

Chie Sakihara, William J. Perkins, David O. Warner, and Keith A. Jones

Anesthetics inhibit muscarinic receptor-promoted guanine nucleotide exchange at the α subunit of heterotrimeric G proteins.

■ PAIN AND REGIONAL ANESTHESIA

◆ A Comparison of Infraclavicular Nerve Block *versus* General Anesthesia for Hand and Wrist Day-case Surgeries **127**

Admir Hadzic, Jeffrey Arliss, Beklen Kerimoglu, Pelin Emine Karaca, Marina Yufa, Richard E. Claudio, Jerry D. Vloka, Richard Rosenquist, Alan C. Santos, and Daniel M. Thys

Infraclavicular brachial plexus block results in faster recovery and less adverse events than general anesthesia with wound infiltration with local anesthetic in patients undergoing day-case hand surgery.

A Novel Liposomal Bupivacaine Formulation to Produce Ultralong-Acting Analgesia **133**

Gilbert J. Grant, Yechezkel Barenholz, Elijah M. Bolotin, Mylarrao Bansinath, Herman Turndorf, Boris Piskoun, and Elyad M. Davidson

This study describes the development and human testing of a novel ultralong-acting local anesthetic, liposomal bupivacaine. Compared with standard bupivacaine, the liposomal formulation prolonged analgesia in a dose-dependent manner.

CONTENTS



Sciatic Nerve Block *via* Posterior Labat Approach Is More Efficient Than Lateral Popliteal Approach Using a Double-injection Technique: A Prospective, Randomized Comparison **138**

Manuel Taboada, Jaime Rodríguez, Julián Álvarez, Joaquín Cortés, Francisco Gude, and Peter G. Atanassoff

Comparison of two approaches to the sciatic nerve using double-injection techniques yielded superior results after the proximal Labat approach as compared with the lateral popliteal approach.

Injuries Associated with Regional Anesthesia in the 1980s and 1990s: A Closed Claims Analysis **143**

Lorri A. Lee, Karen L. Posner, Karen B. Domino, Robert A. Caplan, and Frederick W. Cheney

Almost half of the regional anesthesia claims in the Closed Claims database from the 1980s and 1990s were block related, but the majority of obstetric claims are associated with temporary or low severity injury. Neuraxial cardiac arrest accounts for one third of high-severity injuries for obstetric and nonobstetric procedures, whereas neuraxial hematomas associated with coagulopathy result predominately from nonobstetric claims. Eye blocks have emerged as a new source of permanent injury in the 1990s.

◇ **Effects of Perioperative Central Neuraxial Analgesia on Outcome after Coronary Artery Bypass Surgery: A Meta-analysis** **153**

Spencer S. Liu, Brian M. Block, and Christopher L. Wu

Perioperative central neuraxial analgesia is not currently associated with reduction in mortality or myocardial infarction after coronary artery bypass grafting but is associated with reduction in dysrhythmias, pulmonary complications, time until tracheal extubation, and pain scores.

Time Sequence of Sensory Changes after Upper Extremity Block: Swelling Sensation Is an Early and Accurate Predictor of Success **162**

Xavier Paqueron, Marc E. Gentili, Jean Claude Willer, Pierre Coriat, and Bruno Riou

Swelling illusion during the onset of a peripheral nerve block corresponding to the impairment of small sensory fibers is an early and accurate predictor of the block (99%; 95% confidence interval, 96-100%).



CONTENTS

Preventive Analgesia Is Associated with Reduced Pain Disability 3 Weeks but Not 6 Months after Major Gynecologic Surgery by Laparotomy 169

Joel Katz and Lorenzo Cohen

Preoperative or postoperative epidural lidocaine and fentanyl in combination with general anesthesia for abdominal gynecologic surgery by laparotomy is associated with less pain disability 3 weeks after surgery when compared with general anesthesia alone.

Quality of Postoperative Pain Using an Intraoperatively Placed Epidural Catheter after Major Lumbar Spinal Surgery 175

André Gottschalk, Marc Freitag, Sascha Tank, Marc-Alexander Burmeister, Sonja Kreißl, Ralph Kothe, Nils Hansen-Algenstedt, Lothar Weisner, Hans-Jürgen Staudé, and Thomas Standl

Postoperative infusion with 0.1% ropivacaine using an intraoperatively placed epidural catheter provides lower pain scores and opioid requirement after major vertebral surgery, and patient satisfaction was greater when compared with the results obtained with placebo.

Ultrasound Guidance in Caudal Epidural Needle Placement 181

Carl P. C. Chen, Simon F. T. Tang, Tsz-Ching Hsu, Wen-Chung Tsai, Hung-Pin Liu, Max J. L. Chen, Elaine Date, and Henry L. Lew

Ultrasonography can be used as an image tool to locate the sacral hiatus accurately for caudal epidural injections.

α_{2A} Adrenoceptors Contribute to Feedback Inhibition of Capsaicin-induced Hyperalgesia 185

Heikki Mansikka, Janne Lähdesmäki, Mika Scheinin, and Antti Pertovaara

This study shows that central α_{2A} adrenoceptors contribute to feedback inhibition of pain hypersensitivity.

Effects of Laparotomy on Spontaneous Exploratory Activity and Conditioned Operant Responding in the Rat: A Model for Postoperative Pain 191

Thomas J. Martin, Nancy L. Buechler, William Kahn, James C. Crews, and James C. Eisenach

Laparotomy was found to decrease exploratory behavior and conditioned operant responding in rats, with the magnitude and duration of the effects of laparotomy being dependent on the type of behavior measured. Examining these behaviors in the rat after laparotomy may be beneficial for the development of novel analgesics.

CONTENTS



Tissue Monocytes/Macrophages in Inflammation: Hyperalgesia *versus* Opioid-mediated Peripheral Antinociception **204**

Alexander Brack, Dominika Labuz, Anu Schiltz, Heike L. Rittner, Halina Machelska, Michael Schäfer, Regina Reszka, and Christoph Stein

Partial depletion of tissue monocytes/macrophages by clodronate-containing liposomes at the site of a local inflammation does not alter peripheral hyperalgesia, but it significantly reduces opioid-mediated antinociception.

■ **REVIEW ARTICLE**

Perioperative Management of Acute Pain in the Opioid-dependent Patient **212**

Sukanya Mitra and Raymond S. Sinatra

Patients with opioid dependence, whether abusers or legitimate users, can pose significant and unique challenges to the anesthesiologist. This overview focuses on the clinical implications of opioid tolerance and dependency and offers guidelines for patient assessment and pain management in the perioperative setting.

■ **CLINICAL CONCEPTS AND COMMENTARY**

Mechanical Ventilation in Patients with Acute Respiratory Distress Syndrome **228**

Jean-Jacques Rouby, Jean-Michel Constantin, Cassio Roberto de A Girardi, Mao Zhang, and Qin Lu

The objectives of mechanical ventilation in acute respiratory distress syndrome are aimed at providing adequate gas exchange while limiting ventilator-induced lung injury. Optimizing positive end-expiratory pressure should result from a compromise between alveolar recruitment and lung overinflation. Reducing tidal volume below 10 ml/kg, limiting plateau airway pressure to 30 cm H₂O, turning the patient in the prone position, and using a spontaneous mode as early as possible are the different means that can be recommended for optimizing the ventilatory strategy.

■ **CLASSIC PAPERS REVISITED**

🌐 **Seeing the Light: Protein Theories of General Anesthesia** **235**

Nicholas P. Franks and William R. Lieb

This article is a revisiting of original material published as: Franks NP, Lieb WR: Do general anaesthetics act by competitive binding to specific receptors? *Nature* 1984; 310: 599–601.

■ **CASE REPORTS**

◆ **Metabolic Acidosis Associated with Propofol in the Absence of Other Causative Factors** **239**

Bethanie K. Burow, Michael E. Johnson, and Douglas L. Packer

CONTENTS



- ◆ **Lactic Acidosis during Propofol-Remifentanyl Anesthesia in an Adult** **241**
Jean-Corentin Salengros, Charles-Eric Velghe-Lenelle, Renaud Bollens, Edgard Engelman, and Luc Barvais
- Spinal Alcohol Neurolysis for Intractable Thoracic Postherpetic Neuralgia after Test Bupivacaine Spinal Analgesia** **244**
Gabriela R. Lauretti, Wilder R. Trevelin, Luis-Cleber P. Frade, and Izabel C. P. R. Lima
- Methemoglobinemia from Hydrogen Peroxide in a Patient with Acatlasemia** **247**
Yoshikazu Hamada, Yoshiyuki Kameyama, Toru Iizuka, Taku Ishizaki, Takahisa Nishiyama, and Atsushi Isshiki
- **LABORATORY REPORTS**
-
- Clinical Implications of Topographic Anatomy on the Ganglion Impar** **249**
Chang-Seok Oh, In-Hyuk Chung, Hyun-Ju Ji, and Duck-Mi Yoon
- Effects of Bupivacaine Enantiomers and Ropivacaine on Vasorelaxation Mediated by Adenosine Triphosphate-sensitive K⁺ Channels in the Rat Aorta** **251**
Mayuko Dojo, Hiroyuki Kinoshita, Katsutoshi Nakahata, Yoshiki Kimoto, and Yoshio Hatano
- **CORRESPONDENCE**
-
- Intrathecal Morphine and Inflammatory Masses** **255**
Marion R. McMillan
- Intrathecal Opioid Infusions** **256**
J. Antonio Aldrete
- In Reply** *Kenneth A. Follett* **256**
- In Reply** *Tony L. Yaksh and Jeffrey W. Allen* **257**
- In Reply** *Tamara Lee Gradert, Wallace B. Baze, William C. Satterfield, Keith R. Hildebrand, Mary J. Johansen, and Samuel J. Hassenbusch* **258**
- More Reasons Why Anesthesiologists Should Administer Preoperative Antibiotics** **258**
Jonathan V. Roth



CONTENTS

<p>Anesthesiologists and Perioperative Antibiotic Prophylaxis <i>Anurag Tewari, Shuchita Garg, and Tej K. Kaul</i></p> <p>In Reply <i>R. David Warters, Peter Szmuk, Evan G. Pivalizza, Ralf Gebhard, and Tiberiu Ezri</i></p>	<p>259</p> <p>260</p>
<p>Neuroprotection by Nitrous Oxide and Xenon and Its Relation to Minimum Alveolar Concentration <i>Jacques H. Abraini, Hélène N. David, Olivier Nicole, Eric T. MacKenzie, Alain Buisson, and Marc Lemaire</i></p> <p>In Reply <i>H. Mayumi Homi, Noriko Yokoo, Daqing Ma, David S. Warner, Nicholas P. Franks, Mervyn Maze, and Hilary P. Grocott</i></p>	<p>260</p> <p>261</p>
<p>Rapid Ischemic Preconditioning for Spinal Cord Protection after Transient Aortic Occlusion <i>Ioannis K. Toumpoulis and Constantine E. Anagnostopoulos</i></p> <p>In Reply <i>Meiko Kakimoto, Masahiko Kawaguchi, and Hitoshi Furuya</i></p>	<p>261</p> <p>262</p>
<p>Dantrolene Use in 3,4-Methylenedioxymethamphetamine ("Ecstasy")-Mediated Hyperthermia <i>Daniel E. Rusyniak, Matthew L. Banks, Edward M. Mills, and Jon E. Sprague</i></p> <p>In Reply <i>Marko Fiege, Frank Wappler, Ralf Weisshorn, Mark U. Gerbershagen, Melanie Menge, and Jochen Schulte am Esch</i></p>	<p>263</p> <p>264</p>
<p>Intracuff Pressure Monitoring during Nitrous Oxide Anesthesia when Using the Soft Seal® Laryngeal Mask <i>Masahiro Kanazawa and Toshiyasu Suzuki</i></p> <p>In Reply <i>André Van Zundert, Baha Al-Shaikh, Kristine Fonck, and Eric Mortier</i></p>	<p>264</p> <p>265</p>
<p>Where Is the Fentanyl? <i>Edward S. Thompson</i></p>	<p>265</p>
<p>Insertion of the Nasogastric Tube Made Easy <i>Choon Looi Bong, Joselo D. Macachor, and Nian Chih Hwang</i></p>	<p>266</p>
<p>Grading Scale for Mask Ventilation <i>Richard Han, Kevin K. Tremper, Sachin Kheterpal, and Michael O'Reilly</i></p>	<p>267</p>

CONTENTS

■ REVIEWS OF EDUCATIONAL MATERIAL

268



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