

Anesthetic Action: Intravenous Agents & Biochemistry

A-55 Room E, 10/17/2000 9:00 AM - 11:00 AM (PS)

Cardiac Output Determine the Hypnotic Dose of Propofol *Yushi U. Adachi, M.D.; Kazubiko Watanabe, M.D. Ph.D.; Hideyuki Higuchi, M.D. Ph.D.; Tetsuo Satoh, M.D. Ph.D., Anesthesiology, National Defense Medical College, Tokorozawa, Saitama.* We investigated the relationship between cardiac output (CO) and hypnotic dose of propofol. Regression analysis revealed CO was major determinant as same as patient's age or weight.

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Effects of Combined Methexitone-Remifentanil Anaesthesia in Electroconvulsive Therapy *Fred Andersen, registrar; Dag Aarsland, consultant; Helge Holst-Larsen, clinical direct, Department of Anaesthesia, Rogaland Central Hospital, *Rogaland Psychiatric Hospital, Stavanger, Norway.* Low dose methohexitone with remifentanil prolongs seizure duration in patients undergoing ECT.

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Propofol Induction in Alcoholic Patients : A PK/PD Study *Bernard Bougeois, MD; Alexandre Mignon, MD; Gilles Peytavin, MD; Jean-Marie Desmots, MD; Frederique Servin, MD, Anesthesia, Hopital Bicbat, Paris, France.* PKPD relationships for propofol were compared in alcoholic and non alcoholic patient.

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Differences between Plasma Concentrations of Propofol and Values of Diprifusor® during Cardiopulmonary Bypass *Juan S. Campos, M.D.; Jose N. Fernandez, M.D.; Josefina S. Galan, M.D.; Hector S. Litvan, M.D.; Juan V. Landeira, M.D., Anesthesiology, Hospital Sant Pau, Barcelona, Spain.* Plasma values were higher before CPB, but lower during CPB. Despite hemodilution Diprifusor is a valid tool

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Reversal Agents Cause Persistent Changes in Heart Rate Variability during Recovery from Propofol Anesthesia *M. Chinzai; T. Chinzai; M. Ogawa; M. Tagami; K. Hanaoka, Dept. of Anes., Univ. of Tokyo, Tokyo, Japan.* Propofol caused reduction in heart rate variability (HRV). Reversal agents for neuromuscular blockade produced persistent changes in HRV parameters during recovery.

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Propofol Depresses Spinal α -Motor Neurons in Man: An F-Wave Study *Michael Dueck, MD; Aloys Oberbuer; Sascha Velde; Christoph Diefenbach; Ulf Boerner, Department of Anesthesiology, University of Cologne, Cologne, Germany.* (1) Propofol significantly depresses spinal α -motor neurons in man. (2) This finding could explain the fact that propofol facilitates intubation of the trachea.

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The Effect of Ketamine on the Myosin Light-Chain Phosphatase Activity in Porcine Cerebral Artery *Hideyoshi Fujibara, MD, PhD; Alexey Godin, MD; Satoru Fukuda, MD, PhD; Koki Shimofuji, MD, PhD, Anesthesiology, Niigata University Faculty of Medicine, Niigata, Japan.* Ketamine is suggested to potentiate the basal activity of myosin light-chain phosphatase.

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Comparison of Adenosine and Remifentanil on Hemodynamic Effects and Postoperative Pain in Major Gynecologic and Orthopedic Surgeries *A.F. Fukunaga, MD, PhD; G.E. Alexander, MD, Anesth., Harbor-UCLA Med. Cent., Torrance, CA, United States.* Adenosine provides hemodynamic stability during anesthesia and significant residual postoperative analgesia without oversedation or cardiorespiratory depression.

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Mitogen Activated Protein Kinase Pathway Is Involved in Morphine-Ketamine Interactions *Ivone A.de S. Gomes, PhD; Achla Gupta, PhD; Lakshmi A. Devi, PhD; Herman Turndorf, M.D.; Mylar Rao Bansinath, PhD, Anesthesiology, NYU School of Medicine, New York, NY, United States.* In SKNSH cells combination of ketamine and morphine augments MAPK phosphorylation suggesting role of MAPK signalling in hyperalgesia.

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Protective Effects of Propofol on Bronchoconstriction and Bradycardia Induced by Vagal Nerve Stimulation (VNS) *Eiji Hashiba, MD; Kei Suzuki, MS; Kazuyoshi Hirota, MD; Yoshio Hashimoto, MD; Akitomo Matsuki, MD, Anesthesia, University of Hiroaki School of Medicine, Hiroaki, Japan.* We showed that propofol attenuated VNS-induced bronchoconstriction and bradycardia using bronchoscopic methods.

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The Anesthetic Potency of Two Formulations of Propofol in Pediatric Patients *Piotr K. Janicki, MD, PhD; Thomas C. Lewis, MD; Michael S. Higgins, MD; Ki Szmyd-Hogan, CRNA; Charles Beattie, PhD, MD, Anesthesiology, Vanderbilt University, Nashville, TN, United States.* In a retrospective analysis of two propofol preparations in patients for MRI the metabisulfite containing propofol required a 10% higher infusion rate.

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Different Effects of CoCl₂ and Desferrioxamine, Hypoxia Mimicking Agents, on Mitochondrial DNA in Human Cells *Yoichi Kai, MD, PhD; Kazuo Irita, MD, PhD; Shosuke Takabashi, MD, PhD, Anesthesiology and Critical Care Medicine, Kyushu University School of Medicine, Fukuoka, Japan.* Hypoxia can be mimicked by using CoCl₂ and DFX. However these two chemicals have different effects on mitochondrial DNA.

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Neutrophil Cathepsin G Activity in Plasma Determined by an Amidolysis Method Using a Specific Substrate *Mutsuito Kikura, MD; Tatsuaki Iwamoto, MD; Shunji Kobayashi, MD; Shigehito Sato, MD, Anesthesiology and Intensive Care, Hamamatsu University School of Medicine, Hamamatsu, Japan.* Cathepsin G activity determined by amidolysis method is useful for assessment of neutrophil activation.

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Effects of Thiopental, Ketamine, and Midazolam on Nonadrenergic Noncholinergic Relaxation of Isolated Rabbit Lower Esophageal Sphincter *Atsushi Kohjitani, DDS, PhD; Takuya Miyawaki, DDS, PhD; Ryuji Matsuo, DDS, PhD; Masahiko Shimada, DDS, PhD, Dental Anesthesiology, Okayama University Dental School, Okayama, Japan.* NO-cGMP modulation by ketamine and midazolam related to the inhibition of LES NANC transmission.