

PROGRAM

Evening Seminar I Clinical Application of Dexmedetomidine in Neuroanesthesiology

【EI-01】 Neuroprotective Role Given by Dexmedetomidine May Improve Clinical Neurological Outcome

Kazuko Taiji

(Medical Department, Asia-Pacific Region, Hospira Japan Co., Ltd, Japan)

【EI-02】 Dexmedetomidine for Patients with Acute Subarachnoid Hemorrhage

Kiyotaka Sato

(Department of Neuroanesthesia, Kohnan Hospital, Japan)

【EI-03】 Effects of Perioperative Concurrent Use of Dexmedetomidine on Awakening

Takehiko Adachi

(Department of Anesthesiology, Kitano Hospital, Japan)

Evening Seminar II Brain Monitoring

【EII-01】 Balance of Cerebral Oxygenation and Application in Operating Rooms

Younsuk Lee

(Department of Anesthesiology, Dongguk University Ilsan Hospital, Goyang, 410-773 Korea)

【EII-02】 Brain Monitoring

Bao Guo Wang

(Capital University of Medical Science, China)

Luncheon Seminar

【L-01】 Strategy Against Infection in the Field of Anesthesia

Tomoko Fukada

(Department of Anesthesiology, Tokyo Women's Medical University, Japan)

Symposium I Anesthesia for Functional Neurosurgery

【SI-01】 Awake Craniotomy

Tatang Bisri

(Department of Anesthesiology & ICU, Medical Faculty, Padjadjaran University, Dr. Hasan Sadikin Hospital-Bandung, Indonesia)

【SI-02】 Anesthetic Management for Awake Craniotomy

Seiji Takaoka¹⁾, Yoshihide Miura²⁾

(¹⁾Department of Anesthesiology, Yamagata University of Medicine, Japan. ²⁾Department of Dental Anesthesiology, Health Sciences University of Hokkaido, Japan)

【SI-03】Anesthesia for Functional Neurosurgery

Kyeong Tae Min

(Department of Anesthesiology and Pain Medicine Yonsei University College of Medicine, Seoul, Korea)

【SI-04】Propofol Anesthesia for Intraoperative Wake-up Test in Scoliosis Surgery

Masafumi Takada¹⁾, Yuko Ando¹⁾, Makoto Fukusaki¹⁾, Yoshiaki Terao, Kazunori Yamashita, Koji Sumikawa²⁾

(¹⁾Department of Anesthesia, Nagasaki Rosai Hospital, Sasebo, Japan. ²⁾Department of Anesthesiology, Nagasaki University School of Medicine, Nagasaki, Japan)

Symposium II

Advances in Neuroprotection/Resuscitation

【SII-01】Apoptosis after Cerebral Ischemia

Bong Ki Moon

(Departments of Anesthesiology and Pain Medicine, College of Medicine, Ajou University, Suwon, Korea)

【SII-02】Molecular Mechanism of Cerebral Nerve Injuries During Intensive Care and Possible Drug-mediated Protection of Brain

Hiroyuki Uchino¹, Go Hirabayashi¹, Takayasu Kakinuma¹, Yoshiaki Johko¹, Futoshi Shibasaki², Nagao Ishii¹

(¹Department of Anesthesiology, Hachioji Medical Center, Tokyo Medical University 1163 Tate-machi Hachioji city 193-0998 Tokyo, Japan. ²Department of Molecular Physiology, Tokyo Metropolitan Institute of Medical Science 3-18-22, Honkomagome, Bunkyo-ku, 113-8613, Tokyo, Japan)

【SII-03】Low Hematocrit Causes Worsened Cerebral Injury After Prolonged Hypothermic Circulatory Arrest

Xiangrui Wang

(Department of Anesthesiology, RenJi Hospital, Shanghai Jiao Tong University, China. 1630 Dong Fang Road, Shanghai, China. 200127)

【SII-04】Protective Effect of Histamine Against Ischemia-Reperfusion Injury in Brain

Koh Kuzume

(Ehime University School of Medicine, Department of Anesthesiology and Resuscitology, Japan)

【SII-05】Stem Cell Therapy after Brain Resuscitation

Hae-Kyu Kim

(Department of Anesthesia and Pain Medicine, Pusan National University School of Medicine, 1-10, Ami-dong, Seo-gu, Busan, 602-739, Korea)

【SII-06】The Mechanism of the Tolerance against Spinal Cord Ischemia Induced by Hyperbaric Oxygen Preconditioning

Lize Xiong

(Department of Anesthesiology, Xijing Hospital, Fourth Military Medical University, Xi'an, Shaanxi 710032 China)

Poster Presentation

[Laboratory Investigations]

【P-01】 The Neuroprotection of Olprinone, a Phosphodiesterase Inhibitor, on Global Cerebral Ischemia in Rats

Yasuyuki Kakihana, Naoko Iwamoto, Kohsho Fujikawa, Atsuro Miyata, Yuichi Kanmura
(Division of Intensive Care Medicine, Department of Anesthesiology & Critical Care Medicine, Department of Pharmacology, Kagoshima University School of Medicine and Dentistry, Kagoshima, Japan)

【P-02】 β -adrenoreceptor Antagonists Attenuate the Brain Infarction after Transient Focal Ischemia in Rats

Toru Goyagi, Tetsu Kimura, Toshiaki Nishikawa
(Department of Anesthesia and Intensive Care Medicine, Akita University School of Medicine, Japan)

【P-03】 Neuroprotective Effects of Combination of Dexmedetomidine and Hypothermia after Incomplete Cerebral Ischemia in Rats

Koji Sato, Tetsu Kimura, Toshiaki Nishikawa
(Department of Anesthesia and Intensive Care Medicine, Akita University School of Medicine, Japan)

【P-04】 Quantitative Evaluation of the Neuroprotective Effects of Thiopental Sodium, Propofol and Halothane on Brain Ischemia in Gerbils

Motomu Kobayashi, Yoshimasa Takeda, Ken Takata, Hisami Aoe, Hideki Taninishi, Toshihiro Sasaki, Minako Arai, Kiyoshi Morita
(Department of Anesthesiology and Resuscitology, Okayama University Medical School, 2-5-1 Shikata-cho, Okayama city, Okayama 700-8558, Japan)

【P-05】 Nitrous Oxide Accelerates Neuronal Damage during Cerebral Ischemia: Quantitative Evaluation in Gerbil

Hideki Taninishi, Yoshimasa Takeda, Motomu Kobayashi, Minako Arai, Toshihiro Sasaki, Hisami Aoe, Kiyoshi Morita
(Department of Anesthesiology and Resuscitology, Okayama University Medical School, Japan)

【P-06】 Mechanism of [^3H] D-aspartate Release in Ischemia-like Condition in Rat Cerebral Cortex

Dong-Chan Kim, Hyung-Sun Lim, Kee-Won Kim*
(Department of Anesthesiology & Pain Medicine, Department of Pharmacology*, Chonbuk National University Medical School & Hospital, Jeonju, Korea)

【P-07】 Permeability Transition in Mitochondria Isolated from Cold Perfused Brain and Spinal Cord - a Detailed Comparison of Calcium Sensitivity

Saori Morota^{1,3}, Yoshihisa Kudo³, Eskil Elmér², Hiroyuki Uchino¹ and Nagao Ishii¹
(¹ Dept. of Anesthesiology, Tokyo Medical University Hachioji Medical Center, Tatemachi, Hachioji, Japan
² Lab. for Experimental Brain Research, Dept. of Clinical Sciences, Lund University, Sweden, ³ Lab. of Cellular Neurobiology, School of Life Science, Tokyo University of Pharmacy and Life Science, Hachioji, Japan)

【P-08】 Antinociceptive Effect and Toxicity of Repeated Infusion of Intrathecal Cannabinoid In Rats

Yoon Myung Ha *, Choi Jeong Il, Hong Beom Bae, Chang Young Jeong
(Department of Anesthesiology and Pain Medicine, Medical School, Chonnam National University, Gwangju, Korea)

【P-09】 Melatonin Reduces Anesthesia-induced Apoptotic Neurodegeneration in the Developing Rat Brain

Byung Hoon Yoo, Jun Heum Yon, Ok Sun Kim, Sang Seok Lee, Kye Hyuk. Hong
(Department of Anesthesiology and Pain Medicine, Sanggye Paik Hospital, Medical College, Inje University, Seoul, Korea)

【P-10】 Antiapoptotic Action of Delta Opioid Peptide [D-Ala²,D-Leu⁵] Enkephalin against Oxygen-glucose Deprivation in Brain Slices

Yongjun Zhenga, Xiangrui Wanga*, Hongzhan Chenb, xingjun Wub, Yanhua Zhaoa, Diansan Sua
(^aDepartment of Anesthesiology, RenJi Hospital, Shanghai Second Medical University, 1630 Dong Fang Road, Shanghai, China. Post Code : 200127. ^b Department of Pharmacology, Shanghai Second Medical University, Shanghai China. Post Code : 200025)

【P-11】 Intravenous Dexmedetomidine Attenuates Cardiac Collapse and Decreases Lung Permeability Induced by Intracranial Hypertension in Rats

Motoi Kumagai, Takashi Horiguchi, Toshiaki Nishikawa
(Department of Anesthesia and Intensive Care, Akita University School of Medicine, Japan)

【P-12】 Angiotensin II Type 1 (AT₁)-Receptor Blocker Attenuated Sustained Pial Arteriolar Vasoconstriction after Unclamping of Abdominal Aortic Cross-Clamping in Rabbits

Motoyasu Takenaka, Hiroki Iida, Mami Iida, Masayoshi Uchida, Shuji Dohi
(Department of Anesthesiology and Pain Medicine, Gifu University Graduate School of Medicine, Gifu City, Gifu, Japan)

【P-13】 Effects of Remifentanyl on GABA_A Receptor-mediated mIPSCs of CA1 Region Pyramidal Neurons in Rat Hippocampal Slices

Xue Qingsheng, Yu Buwei
(Department of Anesthesiology, Ruijin Hospital, Shanghai Jiaotong University, Shanghai, China)

【P-14】 The Effect of Hydroxyethyl Starch (HES) 130/0.4 on Balance of Cerebral Oxygen Supply and Consumption in Rabbits Undergoing Acute Hemorrhagic Shock

Chen Shaoyang, Zhu Xiaoling, Li Wanpeng, Chen Dandan, Wang Qiang, Lei Chong, Xiong Lize
(Department of Anesthesiology, Xijing Hospital, Fourth Military Medical University, Xi'an 710032, China)

【P-15】 The Effects of 6% Hydroxyethyl Starch (130/0.4) and 7.5% Sodium Chloride on Brain Water Content of Experimental Intracerebral Hemorrhage in Rat

Peng Yuming*, Wang Baoguo#
(*Capital University of Medical Sciences. #Department of anesthesia, Beijing Tiantan Hospital, Affiliated of Capital University of Medical Sciences, Chinese Academy of medical Sciences, Beijing 100050, China)

【P-16】 Low Hematocrit Causes Worsened Cerebral Injury After Prolonged Hypothermic Circulatory Arrest In Rats, Possible Involvement of C-Fos, Bcl-2 and Bax

Dian-San Su., Xiang-Rui Wang, Yongjun Zheng, Yan-Hua Zhao
(Department of Anesthesiology, RenJi Hospital, Shanghai Second Medical University, 1630 Dong Fang Road, Shanghai, China. Post Code: 200127)

【P-17】 The Evaluation of Morphine Induced Spasticity after Non-injurious Period of Spinal Ischemia with "Spasticity Meter"

Seiya Nakamura¹, Manabu Kakinohana¹, Martin Marsala², Kazuhiro Sugahara¹.
(¹ Faculty of Anesthesiology, University of Ryukyus, Japan, ² Anesthesiology Research Laboratory, University of California, San Diego)

【P-18】 Tight Glycemic Control by Insulin Started in the Preischemic but not Postischemic Period Protects against Ischemic Spinal Cord Injury in Rabbits

Daisuke Nagamizo, Mishiya Matsumoto, Shunsuke Tsuruta, Takefumi Sakabe

(Department of Anesthesiology-Resuscitology, Yamaguchi University School of Medicine, Japan)

【P-19】 Expression of VDUP1 Gene in the Spinal Cords of Rats with a Weight-drop Spinal Cord Injury

Won Hyung Lee, Young Goun Go, Che Sung Lim, Hee Suk Yoon

(Department of Anesthesiology, Chungnam National University Hospital, Taejeon, South Korea.)

【P-20】 Human Adipose-derived Stromal Cells Promote Functional Recovery of Injured Rat Spinal Cord and Reduce Cavity Formation

Cheul-Hong Kim¹, Tae-Hoon Lee², Jin-Sup Jung², Sang-Wook Shin¹, Jae-Young Kwon¹, Hae-Kyu Kim¹

(¹ Department of Anesthesia and Pain Medicine, ² Department of Physiology, Pusan National University School of Medicine, Busan, Korea)

【P-21】 The Short-time Protective Effect of Hypoxic Preconditioning on Ischemia/Reperfusion Brain

Zhen-hong Wang Xiang-rui Wang

(Department of Anesthesiology, RenJi Hospital, Shanghai Second Medical University, 1630 Dong Fang Road, Shanghai, China. Post Code : 200127)

【P-22】 Establishment of an Asphyxial Hypoxic Preconditioning Model in Rats

Jin Hai-long, Xu Xue, Wang Bao-guo

(Department of Anesthesiology, Beijing Tiantan Hospital, Affiliate of Capital University of Medical Sciences, Chinese Academy of Medical Sciences, Beijing 100050, China)

【P-23】 Effects of Asphyxial Hypoxic Preconditioning on HIF-1 after Intracranial Hemorrhage in Rats

Li-xin AN, Yu-ming Peng, Bao-guo WANG, YUAN Fang, et al.

(Capital University of Medical Sciences, Department of Anesthesiology, Beijing Tiantan hospital, Beijing 100054, China)

【P-24】 ICP Elevation Can Induce Ischemic Tolerance Associated with Adenosine A1 receptor Activation in a Transient stroke Rat Model

Akaiwa Keiichi¹, Akashi Hidetoshi¹, Harada Hideki², Kano Tatsuhiko², Aoyagi Shigeaki¹

(Department of Department of Surgery¹, Anesthesiology², Kurume University School of Medicine, Japan)

【P-25】 Ischemic Tolerance Induced by Repeated Hyperbaric Oxygen in Rat Brain

Takao Hirata¹, Ying Jun Cui¹, Takeshi Funakoshi², Yoichi Mizukami², Yu-ichiro Ishikawa³, Futoshi Shibasaki⁴, Mishiya Matsumoto¹, Takefumi Sakabe¹

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[Clinical Investigations]

【P-26】 Effects of Neuromuscular Block on Bispectral Index and Cerebral and Systemic Hemodynamics during Moderate or Deep Sedation in Critically ill Patients

Satoki Inoue*, Masahiko Kawaguchi†, Noriyuki Sasaoka*, Katsuji Hirai*, Hitoshi Furuya†

(Division of Intensive and Department of Anesthesiology Anesthesiology, Nara Medical University, 840 Shijo-cho, Kashihara, Nara, 634-8522, Japan)

【P-27】 Study on Target-Controlled Infusion of Remifentanil in Neurosurgical Anesthesia

Yan Xing, Baoguo Wang

(Department of Anesthesiology, Beijing Tiantan Hospital, Affiliate of Capital University of Medical Sciences, Beijing 100050, China)

【P-28】 Application of Sulfentanyl Target Controlled Infusion Regulated by Electric Stimulus - Circulatory Response Feedback in Neurosurgery Anesthesia

HE Ying, WANG Bao-guo

(Department of Anesthesiology, Beijing Tiantan Hospital, Capital University of Medical Sciences, Chinese Academy of Medical Sciences, Beijing 100050, China)

【P-29】 The Efficacy and Limitations of Bilateral Somatosensory Evoked Potential Monitoring to Detect the Brain Ischemia during Aortic Arch Operation under Moderate Hypothermia

Shinichi Kakumoto, Katsuhiko Seo, Hiroshi Miyawaki, Seishou Kawashima, Kazunobu Ohtake, Kaori Yoshitomi, Atsushi Kotera, Satoshi Yamashita

(Department of Anesthesiology and Intensive Care Medicine, Kokura Memorial Hospital, Kitakyushu, Japan)

【P-30】 Evaluation of Appropriate Levels of Neuromuscular Blockade and Variability of Post-tetanic Motor Evoked Potentials

¹⁾Yamamoto Y, ¹⁾Kawaguchi M, ¹⁾Horiuchi T, ¹⁾Hayashi H, ¹⁾Inoue S, ²⁾Nakase H, ²⁾Sakaki T, ¹⁾Furuya H

(¹⁾Department of Anesthesiology, ²⁾Department of Neurosurgery, Nara Medical University, Japan)

【P-31】 Diversity of Baroreceptor Sensitivity according to Blood Pressure Components during Valsalva Maneuver

Younsuk Lee¹, Jun Kwon Choi², Heon Cho³

(Department of Anesthesiology, Dongguk University Ilsan Hospital, Goyang, 410-773 Korea)

【P-32】 Advance of Age Decreases Sevoflurane Requirement for Adequate Depth of Anesthesia as Measured by the Bispectral Index Monitor

Yutaka Oda¹, Tadashi Matsuura¹, Katsuaki Tanaka², Kiyonobu Nishikawa¹, Akira Asada¹

(¹Department of Anesthesiology and Intensive Care Medicine, Graduate School of Medicine, Osaka City University, Osaka and ²Department of Anesthesiology, Hoshigaoka Koseinenkin Hospital, Hirakata, Japan)

【P-33】 Sevoflurane Concentration Needed to Suppress Bispectral Index Increase in Response to Noxious Stimulation

Tetsu Kimura, Koji Sato, Toshiaki Nishikawa

(Department of Anesthesia and Intensive Care Medicine, Akita University School of Medicine Hondo 1-1-1, Akita-shi, Akita 010-8543, Japan)

- 【P-34】** The Effect of Scalp Nerve Block Combined with Tramadol PCA on the Postoperative Pain Undergoing Craniotomy
Lixin Wang, Baoguo Wang
(Department of Anesthesiology, Beijing Tiantan Hospital, Affiliate of Capital University of Medical Science, Beijing, China)
- 【P-35】** The Effects of Esmolol on Hemodynamic and Bispectral Index Responses to Tracheal Intubation during Sevofurane or Desflurane Anesthesia
Seung Ho Choi, Woo Kyung Lee*, Chang Seok Kim, Jong Hoon Kim, Kyeong Tae Min
(Department of Anesthesiology and Pain Medicine, Yonsei University College of Medicine, Seoul, Korea,
*Department of Anesthesiology and Pain Medicine, Kwandong University College of Medicine, Goyang, Korea)
- 【P-36】** Effect of Nitrous Oxide on Cerebral Oxygenation during Propofol or Sevoflurane Anesthesia
Yasuhiro Morimoto, Hiroaki Matayoshi, Daisuke Nagamizo, Atsuo Yamashita, Mishiya Matsumoto, Takefumi Sakabe
(Department of Anesthesiology - Resuscitology, Yamaguchi University School of Medicine, Japan)
- 【P-37】** The Effect of Nitrous Oxide on Cerebral Entropy during Inhalation with Isoflurane
K. S. Park, B. K. Moon, J. C. Park*, S. Y. Lee and J. S. Kim
(Department of Anesthesiology and Pain Medicine, College of Medicine, Ajou University, Suwon, Korea,
*Department of Anesthesiology and Pain Medicine, College of Medicine, Cheju National University, Jeju, Korea)
- 【P-38】** Changes of Ionized Magnesium and Total Magnesium Concentration during the Brain Surgery
Chul Ho Chang, Cheung Soo Shin
(Department of Anesthesiology and Pain Medicine and Pain Research Institute, Yonsei University, College of Medicine, Seoul, Korea)
- 【P-39】** 2% propofol in MCT/LCT Does not Increase Serum Triglycerid
Kiyotaka Sato¹, Hideyuki Kamii¹, and Masato Kato²
(¹Department of Neuroanesthesia, Kohnan hospital, ²Department of Anesthesiology, Tohoku Postgraduate Medical School, Japan)
- 【P-40】** Effect of Isoflurane-induced Hypotension on the Cerebrospinal Fluid Concentration of Free Fatty Acids in Patients Undergoing Clipping of Intracranial Aneurysm
Hao CHENG, Lan MENG, Ru-quan HAN, Bao-guo WANG, et al.
(Department of Anesthesiology, Beijing Tiantan Hospital, Affiliate of Capital University of Medical Sciences, Chinese Academy of Medical Sciences, Beijing 100050)
- 【P-41】** Comparison of the Effect of Hypertonic Saline 3% and Mannitol 20% on Intracranial Pressure and Cerebral Oxygen Supply/Consumption in Selective Neurosurgery
CHEN Jia-yao, ZHOU Shou-jing
(Department of anesthesiology, Huashan Hosotal, Shanghai 200040, China)
- 【P-42】** Efficacy of Pharyngeal Cooling for Selective Brain Cooling in Humans, Monkeys and Rats
Yoshimasa Takeda, Ken Takata, Hisami Aoe, Motomu Kobayashi, Hideki Taninishi, Toshihiro Sasaki, Minako Arai, Kiyoshi Morita
(Dept. of Anesthesiology and Resuscitology, Okayama University Medical School, Japan)

【P-43】 Relationship Between Blood and Brain Extracellular Glucose in the Post-cardiac Arrest Patients

Yasuhiro Kuroda, Yuko Abe, Susumu Yamashita, Ken-ya Kawakita, Takehiro Nakamura, Nobuyuki Kawai¹, Seigo Nagao¹, Nobuhiro Maekawa

(Department of Emergency and Critical Care Medicine, Kagawa University Hospital. Department of Neurological Surgery, University of Kagawa, Faculty of Medicine¹, Japan)

【P-44】 The Development of Monitoring in Keeping Cerebral Oxygen Supply-consumption Balance

Shaoyang Chen, Wang Qiang

(Department of Anesthesiology, Xijing Hospital, Fourth Military Medical University : Xi'an 710032, China)

【P-45】 Decompressive Craniectomy for Large Middle Cerebral Artery Infarction

TK Kwek¹, KJ Chin¹, HC Chua², JJ See¹

(Department of Anaesthesiology, Tan Tock Seng Hospital, Singapore¹. Department of Neurology, National Neuroscience Institute, Singapore²)

【P-46】 Cardiac Arrest Due to Severe Hypokalemia during Barbiturate Coma Therapy in a Patient with Severe Acute Head Injury

Ju-Tae Sohn, Il-Woo Shin

(Department of Anesthesia and Pain Medicine, Gyeongsang National University College of Medicine, 92 Chilam-dong, Jinju, 660-702, Republic of Korea)

【P-47】 Internal Carotid Artery Occlusion as a Treatment for Internal Carotid Artery Aneurysm Rupture during Endovascular Coiling

Hee-Pyoung Park*, O-Ki Kwon[†], Jung-won Hwang*, Yong-Seok Oh*

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【P-48】 Generalized Convulsion and Delayed Emergence Caused by Pneumocephalus Following Microvascular Decompression Surgery

Jung Sang Woo, Park Jung Wook*, Cho Yong Hyun, Choi Young Kyoo*

(Department of Anesthesiology and Pain Medicine, Seoul Sacred Heart Hospital, *Department of Anesthesiology and Pain Medicine, College of Medicine, Kyung Hee University, Seoul, Korea)

【P-49】 Postoperative Management using Dexmedetomidine Hydrochloride in Patients Undergoing Epilepsy Surgery

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