

7:00 a.m. - 9:00 a.m. Registration & Breakfast

9:00 a.m. - 9:10 a.m. Opening Remarks
Sadayoshi Watanabe (*Tokyo General Hospital*)
Hiromi Goto (*Southern TOHOKU General Hospital*)
Hiroyuki Kinouchi (*University of Yamanashi*)
Masahiro Shimizu (*Kantoh Neurosurgical Hospital*)

9:10 a.m. - 9:50 a.m. Key Note Lecture 1: Cerebral Aneurysm
Moderator: Hiroyuki Kinouchi (*University of Yamanashi*)

1-1. Minimally Invasive Strategies for Cerebral Aneurysm Surgery

YOKO KATO

Department of Neurosurgery, Fujita Health University Banbuntane Hotokukai Hospital

1-2. Key Factors for Safety of Endovascular Treatment of Intracranial Aneurysms

YUICHI MURAYAMA

Jikei University School of Medicine

9:50 a.m. - 10:30 a.m. Aneurysm Surgery Symposium 1
Moderator: Shinsuke Irie (*Kushiro Kojinkai Memorial Hospital*)

2-1. New Paradigm of Relationship Between Ruptured and Unruptured Cerebral Aneurysm

FUSAO IKAWA¹⁾, Akio Morita²⁾, Shotai Kobayashi³⁾, Kaoru Kurisu¹⁾

¹⁾ *Department of Neurosurgery, Graduate School of Biomedical and Health Sciences, Hiroshima University, Hiroshima, Japan*

²⁾ *Department of Neurological Surgery, Nippon Medical School Hospital, Tokyo, Japan*

³⁾ *Shimane University School of Medicine, Izumo, Shimane, Japan*

2-2. Stroke and Subarachnoid Hemorrhage. A Review.

ROAR JUUL¹⁾, Tom Christensen²⁾

¹⁾ *Department of Neurosurgery, St. Olavs Hospital*

²⁾ *Norwegian Patient Registry, Norway*

2-3. Surgery for Recurrent Aneurysms at the Site of Previous Clipping or Coiling

HIROAKI SHIMIZU, Masataka Takahashi, Atsuya Okubo

Department of Neurosurgery, Akita University School of Medicine

10:30 a.m. - 11:10 a.m. Aneurysm Surgery Symposium 2
Moderator: Hiroaki Shimizu (*Akita University*)

3-1. Key Hole Approach for Non-Ruptured Acom Aneurysms

SHINSUKE IRIE, Masayasu Arihara, Ryo Irie, Kei Ito, Manabu Sumiyoshi, Osamu Saito, Toru Inagaki,

Hiroshi Nakagawa, Koji Saito

Kushiro Kojinkai Memorial Hospital

3-2. Microneurosurgical Management of Paraclinoid Carotid Aneurysms: A Review of Anatomy, Surgical Techniques, Complications, and Outcomes

RUSSELL REID MARGRAF^{1,2)}, Taka Fukushima^{1,3)}, Yusuke Kinoshita³⁾

¹⁾ *Wake Medical Center*

²⁾ *Raleigh Neurosurgical Clinic*

³⁾ *Carolina Neuroscience Institute and International Neuroscience Education and Research Foundation*

3-3. Management of Posterior Inferior Cerebellar Artery Aneurysms MULTICENTER RETROSPECTIVE STUDY

SAMES MARTIN¹⁾, Alena Sejkorová¹⁾, Ondra Petr³⁾, Miriam Mulino³⁾, Jiří Cihlář¹⁾, Aleš Hejčl¹⁾, Claudius Thomé³⁾, Giuseppe Lanzino²⁾

¹⁾ Neurosurgery Department J.E.Purkyně University, Masaryk Hospital, Ústí nad Labem, Czech Republic

²⁾ Department of Neurological Surgery, Mayo Clinic, MN, USA

³⁾ Department of Neurosurgery, Medical University Innsbruck, Innsbruck, Austria

3-4. Tips and Pitfalls of Surgery for Basilar Artery Aneurysm

FUSAO IKAWA, Kaoru Kurisu

Department of Neurosurgery, Graduate School of Biomedical and Health Sciences, Hiroshima University, Hiroshima, Japan

11:10 a.m. - 12:00 p.m. Aneurysm Surgery Symposium 3

Moderator: Yuichi Murayama (*Jikei University*)

4-1. Stent Assisted Coil Embolization by Overlapping Technique with LVIS Stents on Giant Basilar Artery Unruptured Aneurysm; Case Report

KAZUKI TAKAHIRA¹⁾, Taketo Kataoka^{1,2)}, Yuzo Terakawa¹⁾, Hitoshi Hayase^{1,2)}, Shinsuke Irie^{1,2)}, Koji Saito^{1,2)}

¹⁾ Hokkaido Ohno Memorial Hospital

²⁾ Kushiro Kojinkai Memorial Hospital

4-2. Hemodynamic Changes of Stent-Assisted Coiling with Computational Fluid Dynamics Using Double Porous Media Modeling to Simulate Stent-Assisted Coiling of Cerebral Aneurysm

MASANORI TSUJI¹⁾, Fujimaro Ishida^{1,2)}, Takayuki Kishimoto¹⁾, Satoru Tanioka¹⁾, Kazuhiro Furukawa²⁾, Masato Shiba²⁾, Katsuhiko Tanaka¹⁾, Yasuyuki Umeda³⁾, Ryuta Yasuda²⁾, Shinichi Shimosaka¹⁾, Hidenori Suzuki²⁾

¹⁾ Department of Neurosurgery, Mie Chuo Medical Center, National Hospital Organization, Tsu, Mie, Japan

²⁾ Department of Neurosurgery, Mie University Graduate School of Medicine, Tsu, Mie, Japan

³⁾ Department of Neurosurgery, Mie Prefecture General Medical Center, Yokkaichi, Mie, Japan

4-3. Ischemic Complication of Unruptured Cerebral Aneurysms Treated by Endovascular Coil Embolization

KOJI HASHIMOTO, Kazuya Kanemaru, Hideyuki Yoshioka, Nobuo Senbokuya, Takashi Yagi, Hiroyuki Kinouchi

Department of Neurosurgery, University of Yamanashi

4-4. Chronological Change of the Treatment for Subarachnoid Hemorrhage in Elderly Patients: A Multicenter Retrospective Study

HIROAKI MURAYAMA¹⁾, Kazuya Kanemaru¹⁾, Tsuneo Shimizu²⁾, Shin Nakano³⁾, Isao Fukasawa⁴⁾, Akira Fukamachi⁵⁾, Hiroyuki Kinouchi¹⁾

¹⁾ Department of Neurosurgery, University of Yamanashi

²⁾ Department of Neurosurgery, Kanto Neurosurgical Hospital

³⁾ Department of Neurosurgery, Yamanashi Prefectural Central Hospital

⁴⁾ Department of Neurosurgery, Kofu Johnan Hospital

⁵⁾ Department of Neurosurgery and Radiology, Nasu Neurosurgical Center

4-5. Results of Neck Clipping and Intraaneurysmal Thrombectomy for Partially Thrombosed Giant Cerebral Aneurysms Compressing Brainstem

RIRIKO TAKEDA, Hiroki Kurita

Saitama Medical University International Medical Center

12:00 p.m. - 12:40 p.m. Vascular Disease and Monitoring Symposium

Moderator: Fusao Ikawa (*Hiroshima University*)

5-1. The Usefulness of Teflon Wrapping Clipping (TeRC) Method for IC Anterior Wall Aneurysm

KOJI TOKUSHIGE¹⁾, Kenichi Sakamoto¹⁾, Ai Hirakawa¹⁾, Naoto Eiraku¹⁾, Kazuho Hirahara¹⁾, Kouichi Uetsuhara¹⁾, Takanori Fukushima²⁾

¹⁾ Department of Neurosurgery, Medical corporation KENKOUKAI, Kirishima Memorial Hospital

²⁾ Department of Neurosurgery, Duke University, Raleigh, NC, USA

5-2. Development of and Clinical Experience with a Simple Device for Performing Intraoperative Fluorescein Fluorescence Cerebral Angiography

TSUYOSHI ICHIKAWA, Haruhiko Kikuta, Kazuaki Takiguchi, Kyouichi Suzuki, Yoichi Watanabe
Department of Neurosurgery, Fukushima Red Cross Hospital

5-3. Intraoperative Monitoring of Blood Flow Insufficiency in Perforating Arteries Using Motor Evoked Potential, Medullary Trigeminal Evoked Potential and Fluorescein Angiography

HARUHIKO KIKUTA, Kazuaki Takiguchi, Tsuyoshi Ichikawa, Kyouichi Suzuki, Yoichi Watanabe
Department of Neurosurgery, Fukushima Red Cross Hospital

5-4. Intra-Arterial Fluorescence Angiography with Injection of Fluorescein Sodium from the Superficial Temporal Artery during Aneurysm Surgery

KAZUAKI TAKIGUCHI, Haruhiko Kikuta, Tsuyoshi Ichikawa, Kyouichi Suzuki, Yoichi Watanabe
Department of Neurosurgery, Fukushima Red Cross Hospital

12:40 p.m. - 1:00 p.m.	Trauma Symposium Moderator: Hiromi Goto (<i>Southern TOHOKU General Hospital</i>)
-------------------------------	--

6-1. Damage Control Surgery for Intraoperative Intractable Hemorrhage in Traumatic Brain Injury

YASUSHI HAGIHARA^{1,2)}, Hiroshi Ima¹⁾, Kousuke Masuda¹⁾, Makoto Dehara¹⁾, Tetsuya Matsuoka²⁾
¹⁾ *Department of Neurosurgery, Rinku General Medical Center*
²⁾ *Senshu Trauma and Critical Care Center, Rinku General Medical Center*

6-2. Hematoma Irrigation with Trehpination Therapy in the Initial Management of Acute Traumatic Intracranial Hematoma in the Emergency Room

TAKURO EHARA, Yuichiro Kikkawa, Tomoya Kamide, Ryouyusuke Tsuchiya, Aoto Shibata, Kaima Suzuki, Ririko Takeda, Hiroki Kurita
Stroke Center, Saitama Medical University International Medical Center

1:00 p.m. - 1:30 p.m.	Special Lecture 1 Moderator: Hiromi Goto (<i>Southern TOHOKU General Hospital</i>)
------------------------------	---

7-1. Deep Learning-Based Assessment of Cognitive Dysfunction for Screening Test of Dementia

KAORU SAKATANI^{1,2)}
¹⁾ *Department of Electrical and Electronic Engineering, NEWCAT Research Institute, College of Engineering*
²⁾ *Department of Neurological Surgery, School of Medicine, Nihon University*

5:30 p.m. - 7:30 p.m.	Welcome Reception
------------------------------	-------------------

7:00 a.m. - 8:00 a.m. Registration & Breakfast

8:00 a.m. - 8:20 a.m. Spine Symposium 1
Moderator: Hiroshi Nakagawa (*Kushiro Kojinkai Memorial Hospital*)

8-1. Surgical Treatment of Spinal Diffuse Idiopathic Skeletal Hyperostosis (Spinal DISH)

TADAO MATSUSHIMA^{1, 2)}, Ken Kazama¹⁾, Masato Tomii¹⁾, Junichi Mizuno¹⁾, Junko Matsuyama²⁾, Sumito Okuyama²⁾, Keiichi Kubota²⁾, Shinjitsu Nishimura²⁾, Kazuo Watanabe²⁾

¹⁾ *Center for Minimally Invasive Surgery of Spine and Spinal cord Disorders, Southern TOHOKU General Hospital, Miyagi*

²⁾ *Department of Neurosurgery, Southern TOHOKU General Hospital, Miyagi*

8-2. Anterior Decompression Via a Postero-Lateral Approach for Thoracic OPLL: Report of a Case

YASUNOBU ITOH, Shinichi Numazawa, Hikari Sato, Kota Yamakawa, Isao Akasu, Chika Ino, Tomoko Otomo, Jun Sakai, Emiko Chikui, Sadayoshi Watanabe

Department of Neurosurgery / Spine Center, Tokyo General Hospital

8:20 a.m. - 9:00 a.m. Spine Symposium 2
Moderator: Yasunobu Itoh (*Tokyo General Hospital*)

9-1. Efficacy of Intraoperative Cone Beam CT in Spinal Surgery

TAKASHI YAGI, Takashi Yagi, Hiroaki Murayama, Nobuo Senbokuya, Koji Hashimoto, Hideyuki Yoshioka, Kazuya Kanemaru, Hiroyuki Kinouchi

Department of Neurosurgery, University of Yamanashi

9-2. The Surgical Characteristics in Water and the Microscopic Anatomy of the Vertebral Foramen

YASUHIKO NISHIMURA¹⁾, Junichi Mizuno²⁾

¹⁾ *Department of Neurosurgery, Wakayama Koyo Hospital*

²⁾ *Lessinvasive Spinal Surgery Center, Shinyurigaoka General Hospital*

9-3. Magnetic and Electric Spinal Cord Stimulation Rapidly Ameliorate Motor Deficit and Gait Disturbance in Stroke, Spinal Cord Injury and Osteoarthritis : Target Stimulation of CPG

KATSUHIRO NISHINO¹⁾, Suguru Yamaguchi¹⁾, Kazuyuki Imamura²⁾, Teruyasu Hirayama³⁾, Milan Dimitrijevic⁴⁾, Hayato Suzuki¹⁾

¹⁾ *Kakunodate City General Hospital, Dept of Neurosurgery*

²⁾ *Maebashi Institute of Technology, Dept of System Life Engineering*

³⁾ *Nihon Univ, Dept of Neurosurgery*

⁴⁾ *Physical Medicine & Rehab, Baylor College of Medicine*

9-4. Two Cases of Over-Shunting Associated Myelopathy Treated by Adding Gravity Valve

TAKESHI HARA, Madoka Nakajima, Hajime Arai

Department of Neurosurgery, Juntendo University

9:00 a.m. - 9:40 a.m. Key note Lecture 2: Spine
Moderator: Tadao Matsushima (*Southern TOHOKU General Hospital*)

10-1. Surgical Strategies in Management of Cervical OPLL

HIROSHI NAKAGAWA¹⁾, Manabu Sumiyoshi¹⁾, Hitoshi Hayase²⁾, Takahisa Kaneko²⁾, Koji Saito¹⁾

¹⁾ *Kushiro Kojinkai Memorial Hospital*

²⁾ *Hokkaido Ohno Memorial Hospital*

10-2. Cervical Canal Expansion by Open-Door Manner for Ossification of Posterior Longitudinal Ligament

YASUNOBU ITOH, Shinichi Numazawa, Hikari Sato, Kota Yamakawa, Isao Akasu, Chika Ino, Tomoko Otomo, Jun Sakai, Emiko Chikui, Sadayoshi Watanabe
Department of Neurosurgery / Spine Center, Tokyo General Hospital

9:40 a.m.- 10:10 a.m.	Special Lecture 2 Moderator: Kazuhiro Hongo (<i>Shinshu University</i>)
------------------------------	--

11-1. Microsurgical Flow Diversion for Cure of Giant Aneurysms: 140Cases of High Flow Skull Base Bypass

TAKANORI FUKUSHIMA
Professor of Neurosurgery, Duke University Medical Center.
Director, Carolina Neuroscience Institute & Skull Base Surgery Center

10:10 a.m. - 10:50 a.m.	Key Note Lecture 3: Vascular Malformation Moderator: Hiromi Goto (<i>Southern TOHOKU General Hospital</i>)
--------------------------------	---

12-1. Battles and Lessons Learned from 180 AVM Surgery

HIROKI KURITA
Department of Cerebrovascular Surgery, International Medical Center, Saitama Medical University

12-2. Selection of a Suitable Surgical Approach to The Brainstem Cavernous Malformation

KAZUHIRO HONGO, Tetsuya Goto, Tetsuyoshi Horiuchi
Shinshu University School of Medicine

10:50 a.m. - 11:40 a.m.	Plenary Session 1: Cerebrovascular Disease Moderator: Hiroki Kurita (<i>Saitama Medical University</i>)
--------------------------------	--

13-1. Intra-Arterial Embolization of Fistula Followed by ICA Occlusion with High Flow Bypass for CCF Caused by Ruptured Symptomatic ICA Cavernous Large Aneurysm-A Case Report

FUMIYA SANO, Takatoshi Sorimachi, Akihiro Hirayama, Rie Aoki, Kitipong Srivatanakul, Mitsunori Matsumae
Tokai University

13-2. Two Cases of Cerebral AVM Evaluated by DSA Before and After Hemorrhage

AKINORI ONUKI, Kazuomi Horiuchi, Ryoji Munakata, Zenichiro Watanabe, Kazuo Watanabe
Southern TOHOKU General Hospital

13-3. Treatment of Cerebrovascular Disease in Hybrid OR: A 10-Year Survey and Future Prospects

AOTO SHIBATA, Yuitirou Kikkawa, Ririko Takeda, Tomoya Kamide, Kaima Suzuki, Shinya Kouyama, Hiroki Kurita
Saitama Medical University International Medical Center

13-4. Transient Global Amnesia Like Symptoms in a Patient with Moyamoya Disease -A Case Report-

NAOKAZU HAYASHI, Takatoshi Sorimachi, Akihiro Hirayama, Rie Aoki, Takahiro Osada, Kittipong Srivatanakul, Mitsunori Matsumae
Tokai University, Dept. of Neurosurgery

13-5. Adverse Impact of Direct Oral Anticoagulants (DOAC) in Intracranial Hemorrhage Patients

KEI ITO, Sumiyoshi Manabu, Osamu Saito, Toru Inagaki, Shinsuke Irie
Kushiro Kojinkai Memorial Hospital

13-6. The Accumulation of Brain Water-Free Sodium is Associated with Ischemic Damage Independent of the Blood Pressure in Female Rats

MANABU SUMIYOSHI¹⁾, Keiko Kitazato²⁾, Shinji Nagahiro²⁾, Koji Saito¹⁾
¹⁾ *Kushiro Kojinkai Memorial Hospital*
²⁾ *Tokushima University*

11:40 a.m. - 12:20 p.m. Key Note Lecture 4: Brain Tumor
Moderator: Shunsuke Satoh (*Southern TOHOKU General Hospital*)

14-1. New Technologies and Materials Available for the Surgical Treatment of Acoustic Neuromas (Vestibular Schwannomas)

LUCIANO MASTRONARDI, Cacciotti Guglielmo, Roperto Raffaelino, Giacobbo Carlo
San Filippo Neri Hospital of Roma

14-2. Combined Transmastoid Approach Variations for Radical Resecting Large Cerebellopontine Angle and Jugular Foramen Tumors

YOICHI NONAKA¹⁾, Takanori Fukushima²⁾, Takatoshi Sorimachi¹⁾, Mitsunori Matsumae¹⁾
¹⁾ *Department of Neurosurgery, Tokai University School of Medicine*
²⁾ *Division of Neurosurgery, Duke University Medical Center*

12:20 p.m. - 1:10 p.m. Plenary Session 2: Brain Tumor
Moderator: Yoichi Nonaka (*Tokai University*)

15-1. The Method in Placement of Intraoperative Continuous Facial Nerve Stimulation Electrode for Vestibular Schwannoma Surgery

KOICHI TORIHASHI, Takafumi Ogura, Hosoya Tomohiro, Sadao Nakajima, Mitsutoshi Kadowaki, Hiroki Yoshioka, Atsushi Kambe, Makoto Sakamoto, Masamichi Kurosaki
Department of Neurosurgery, Tottori University

15-2. Combined Presigmoid, Retrosigmoid and Transsigmoid Skull Base Approach for Giant Cerebellopontine Angle Tumors

YUSUKE KINOSHITA^{1,3)}, Takanori Fukushima^{1,2)}
¹⁾ *Department of Neurosurgery, Duke University Medical Center*
²⁾ *Carolina Neuroscience Institute*
³⁾ *Department of Neurosurgery, Nakamura Memorial Hospital*

15-3. Improvement of Patient's Body Protection During Park Bench Position

MASAYUKI SUMIDA, Atsuhito Matsumoto, Sayuru Tuyuguchi
Hiroshima Red Cross Hospital, Department of Neurosurgery

15-4. Clinical Analysis of Surgical Cases in Recurrent Meningioma

MASATAKA TAKAHASHI, Masaya Oda, Takahiro Ono, Junya Hatakeyama, Yousuke Furuyama, Hiroaki Shimizu
Department of Neurosurgery, Akita University Graduate school of Medicine

15-5. The Treatment Strategy and Prognosis of WHO Grade2 Meningiomas

YUKI KITADA, Hiromi Goto, Shunsuke Sato, Kazuo Watanabe
Southern Tohoku General Hospital

15-6. Normal Pressure Hydrocephalus After Meningioma Surgery

DAICHI FUJIMORI, Yuki Kitada, Syunsuke Sato, Hiromi Goto, Kazuo Watanabe
Southern Tohoku General Hospital

1:10 p.m. - 1:30 p.m. Key Note Lecture 5
Moderator: Kaoru Kurisu (*Hiroshima University*)

16-1. Magnetic Resonance Imaging Technique for Visualization of Irregular Cerebrospinal Fluid Motion In the Ventricular System and Subarachnoid Space

MITSUNORI MATSUMAE, Takatoshi Sorimachi
Department of Neurosurgery Tokai University

1:30 p.m. - 2:00 p.m.

Key Note Lecture 6

Moderator: Mitsunori Matsumae (*Tokai University*)

**17-1. First Install of Basic Type of Smart Cyber Operating Theater (SCOT) in Hiroshima University Hospital
-information Integrated and Packaged Operating Theater -**

KAORU KURISU¹⁾, T. Saito^{1,2)}, S. Usui¹⁾, F. Yamasaki¹⁾, K. Iida¹⁾, Y. Muragaki³⁾, H. Iseki³⁾

¹⁾ *Department of Neurosurgery, Hiroshima University Hospital*

²⁾ *Department of Neurosurgery, Tokyo Women's Medical University*

³⁾ *Faculty of Advanced Techno-Surgery, Tokyo Women's Medical University*

17-2. Basic Maneuver of Micro-Instruments Under Microscope -How to Make Effective and Stable Use of them -

KAORU KURISU, T. Okazaki

Department of Neurosurgery, Hiroshima University Hospital

7:00 a.m. - 8:00 a.m. Registration & Breakfast

8:00 a.m. - 8:30 a.m. Special Lecture 3
Moderator: Naokatsu Saeki (*International University of Health and Welfare, Ichikawa Hospital*)

18-1. Therapeutic Strategy for Sinonasal Malignancies with Extention to or Near the Cranial Base and its Survival Outcome

AKIYOSHI KONNO¹⁾, Yuji Ueki¹⁾, Yusuke Mada¹⁾, Shunsuke Sato²⁾, Hiromi Gotoh²⁾, Kazuo Watanabe²⁾

¹⁾ *Department of Otolaryngology and Head & Neck Surgery, Southern Tohoku Research Institute for Neuroscience Southern Tohoku General Hospital*

²⁾ *Department of Neurosurgery, Southern Tohoku Research Institute for Neuroscience Southern Tohoku General Hospital*

8:30 a.m. - 9:00 a.m. Rehabilitation Symposium
Moderator: Hidenori Kobayashi (*Asuwa Clinic*)

19-1. Low-frequency Repetitive Transcranial Magnetic Stimulation Plus Intensive Occupational Therapy for Poststroke Patients with Upper Limb Hemiparesis

RYUSUKE HIJIKATA¹⁾, Hiroaki Harashima¹⁾, Sadayoshi Watanabe²⁾, Kazuo Watanabe³⁾, Masahiro Abo⁴⁾

¹⁾ *Department of Rehabilitation Tokyo General Hospital*

²⁾ *Department of Neurosurgery Tokyo General Hospital*

³⁾ *Department of Neurosurgery Southern Tohoku General Hospital*

⁴⁾ *Department of Rehabilitation Medicine, Jikei University School of Medicine*

19-2. Who in which Improvement of Basic Motion and Gait Was Observed by Training Using Bionic Leg Robot

HIROAKI HARASHIMA¹⁾, Sadayoshi Watanabe²⁾, Kazuo Watanabe³⁾

¹⁾ *Department of Rehabilitation, TOKYO GENERAL HOSPITAL*

²⁾ *TOKYO GENERAL HOSPITAL*

³⁾ *SOUTHERN TOHOKU HEALTHCARE GROUP*

19-3. The Effects of Repetitive Transcranial Magnetic Stimulation on Patients with Hemiplegia or Aphasia due to Stroke

HIDENORI KOBAYASHI

Asuwa Clinic, Fukui, Japan

9:00 a.m. - 9:30 a.m. Honored Guest Special Lecture
Moderator: Hiromi Goto (*Southern TOHOKU General Hospital*)

20-1. Pineal Cysts are a Common Incidental Finding with a Statistical Association to Headaches and Controversial Surgical Indications

TIIT MATHIESEN

University of Copenhagen

12:30 p.m. **Pan-Pacific Cup at Ka'apapali Golf Resort**

5:30 p.m. Cocktail Party

6:30 p.m. Banquet

Wednesday, January 31, 2018 (The 8th International Mt. BANDAI Symposium for Neuroscience)

5:00 p.m. - 6:00 p.m.	Registration
------------------------------	--------------

6:00 p.m. - 9:00 p.m.	Welcome Reception
------------------------------	-------------------

7:00 a.m. - Registration & Breakfast

7:50 a.m. - 8:00 a.m. Opening Remarks
Hiroyuki Kinouchi (*University of Yamanashi*)
Masahiro Shimizu (*Kantoh Neurosurgical Hospital*)
Sadayoshi Watanabe (*Tokyo General Hospital*)
Hiromi Goto (*Southern TOHOKU General Hospital*)

8:00 a.m. - 8:40 a.m. Symposium 1: Functional Surgery & Spinal Disorder
Moderator: Hiroyuki Nakase (*Nara Medical University*)
Sadayoshi Watanabe (*Tokyo General Hospital*)

1-1. Use of Local Anesthesia for Lumboperitoneal Shunt Procedure in Patents of Idiopathic Normal Pressure Hydrocephalus

TAKASHI KAWAHARA¹, Masamichi Atsuchi¹, Koji Takasaki¹, Takuya Iwasaki¹, Kazunori Arita²
Departments of Neurosurgery, ¹Atsuchi Neurosurgical Hospital and ²Kagoshima University

1-2. Intraoperative ABR Monitoring for HFS Findings After BTX Treatment

TADASHI KAWAGUCHI, Tetsuro Takao, Yasushi Jimbo, Taiki Saito
Department of neurosurgery, Nagaoka Red Cross Hospital

1-3. Cervical Myelopathy Induced by Massive Epidural Venous Plexus Due to Cerebrospinal Fluid Overdrainage

YUMI KO, Yasuhiro Takeshima, Yuki Shiraishi, Toshiharu Murakami, Yasushi Motoyama, Park Young-Su,
Hiroyuki Nakase
Department of Neurosurgery, Nara Medical University

1-4. C1 laminectomy without Fusion for Retro-Odontoid Pseudotumor

NOBUO SENBOKUYA, Takashi Yagi, Hiroaki Murayama, Toru Tateoka, Kouji Hashimoto, Hideaki Yoshioka,
Kazuya Kanemaru, Hiroyuki Kinouchi
Department of Neurosurgery, University of Yamanashi

1-5. Mini-open Oblique Lumbar Lateral Interbody Fusion (OLLIF) without Decompression for the Treatment of Osteoporotic Vertebral Collapse (OVC) with Neurological Deficits

TAKAHISA KANEKO¹, Hiroshi Nakagawa², Hitoshi Hayase¹, Koji Saito²
¹*Departments of Orthopedic Surgery, Kojinkai, Hokkaido Ohno Memorial Hospital and* ²*Department of Neurosurgery, Kojinkai, Kushiro Kojinkai Memorial Hospital*

8:40 a.m. - 9:10 a.m. Special Lecture 1
Moderator: Toru Matsui (*Saitama Medical University*)

2-1. Neuroendoscopic Skull Base Surgery

TAKAKAZU KAWAMATA, Kosaku Amano, Go Matsuoka, Seiichiro Eguchi, Yasuo Aihara
Department of Neurosurgery, Tokyo Women's Medical University

9:10 a.m. - 10:00 a.m. Plenary Session 1: Cerebrovascular Disease
Moderator: Hiroaki Shimizu (*Akita University*)
Hirofumi Nakatomi (*The University of Tokyo*)

3-1. Newly Developed Malleable Neurosurgical Instruments

YOSHIKAZU OKADA, Shinsuke Sato
Department of Neurosurgery, St. Luke's International Hospital

3-2. Significance of Rapid O-15 Gas PET without Arterial Blood Sample for Estimating Cerebral Hemodynamics in Child Moyamoya Disease

JYOJI NAKAGAWARA

Department of Neurosurgery, National Cerebral and Cardiovascular Center

3-3. Open Surgery in the Era of Endovascular Surgery

HIROAKI SHIMIZU, Masataka Takahashi, Atuya Okubo

Department of Neurosurgery, Akita University

3-4. The Usefulness of High-Resolution Three-Dimensional Multi-Fusion Medical Imaging for Preoperative Planning in Patients with Arteriovenous Malformations and Arteriovenous Fistulas

HIROFUMI NAKATOMI¹⁾, Masanori Yoshino¹⁾, Taichi Kin¹⁾, Toki Saito²⁾, Naoyuki Shono¹⁾, Seiji Nomura¹⁾, Daichi Nakagawa¹⁾, Synsaku Takayanagi¹⁾, Hideaki Imai¹⁾, Hiroshi Oyama²⁾, Nobuhito Saito¹⁾

¹⁾Department of Neurosurgery and ²⁾Department of Clinical Information Engineering, Health Services Science, School of Public Health, The University of Tokyo

3-5. Surgical Experience of Cerebral AVM

TORU MATSUI

Department of Neurosurgery, Saitama Medical University

10:00 a.m. -10:20 a.m.	Honored Guest Special Lecture 1 Moderator: Teiji Tominaga (<i>Tohoku University</i>)
-------------------------------	---

4-1. 10-Year Follow-Up of Medial Sphenoid Wing and Petroclival Meningiomas

TIIT MATHIESEN

Department of Neurosurgery, University of Copenhagen

10:20 a.m. - 10:50 a.m.	Special Lecture 2 Moderator: Yoshikazu Okada (<i>St.Luke's International Hospital</i>)
--------------------------------	---

5-1. Neurosurgical Strategy in Consideration of Cerebral Venous Circulation

HIROYUKI NAKASE, Ichiro Nakagawa, Fumihiko Nishimura, Yasuhiro Takeshima, Daisuke Wajima, Yasushi Motoyama, Park Young-Su

Department of Neurosurgery, Nara Medical University

10:50 a.m. - 11:50 a.m.	Symposium 2: Tumor Moderator: Yoichi Nonaka (<i>Tokai University</i>) Masahiro Shimizu (<i>Kantoh Neurosurgical Hospital</i>)
--------------------------------	---

6-1. 11C-Methionine PET Images of Various Benign Brain Tumors

MOTOKI INAJI¹⁾, Tadashi Nariai¹⁾, Masae Kuroha¹⁾, Shihori Hayashi¹⁾, Yoji Tanaka¹⁾, Kenji Ishii²⁾, Taketoshi Maehara¹⁾

¹⁾Department of Neurosurgery, Tokyo Medical and Dental University and ²⁾Neuroimaging Center, Tokyo Metropolitan Institute of Gerontology

6-2. Preoperative Evaluation of the Surgical Anatomy for Lateral Suboccipital Approach in the Era Of Three-Dimensional CT

TETSURO TAKAO¹⁾, Tadashi Kawaguchi¹⁾, Masafumi Fukuda²⁾, Tetsuya Hiraishi²⁾, Yukihiro Fujii²⁾

¹⁾Departments of Neurosurgery, Nagaoka Red Cross Hospital and ²⁾Brain Research Institute, Niigata University

6-3. Microsurgical Management of Jugular Foramen Tumors

YOICHI NONAKA¹⁾, Takanori Fukushima²⁾, Takatoshi Sorimachi¹⁾, Mitsunori Matsumae¹⁾

¹⁾Department of Neurosurgery, Tokai University and ²⁾Division of Neurosurgery, Duke University Medical Center

6-4. Intraoperative Rapid Immunohistochemistry of Ki-67 is Helpful for Diagnosing Tumor Grade of Meningioma

MASATAKA TAKAHASHI¹⁾, Masaya Oda¹⁾, Takahiro Ono¹⁾, Toshio Sasajima³⁾, Hiroshi Nanjo²⁾, Yoshihiro Minamiya⁴⁾, Hiroaki Shimizu¹⁾

Departments of ¹⁾Neurosurgery and ⁴⁾Thoracic Surgery, Akita University; ²⁾Division of Clinical Pathology, Akita University Hospital;

³⁾Akita Prefectural Center for Rehabilitation and Psychiatric Medicine

6-5. Efficacy of Simulation with Multimodality in Endoscopic Endonasal Surgery

TOSHIHIRO OGIWARA, Tetsuya Goto, Alhusain Nagm, Takatoshi Hasegawa, Kazuhiro Hongo

Department of Neurosurgery, Shinshu University

6-6. Endoscopic Transsphenoidal Surgery Using Intraoperative 3T MRI and Electromagnetic Neuronavigation for Skull Base Tumors

MASAKAZU OGIWARA, Tomoyuki Kawataki, Mitsuto Hanihara, Hiroyuki Kinouchi

Department of Neurosurgery, University of Yamanashi

6-7. Clinical Significance of Conformity Index and Gradient Index in Stereotactic Radiosurgery for Patients with a Solitary Brain Metastasis

HITOSHI AIYAMA^{1,2)}, Masaaki Yamamoto^{1,2)}, Takao Koiso²⁾, Shinya Watanabe²⁾, Takuya Kawabe³⁾, Yasunori Sato⁴⁾, Eiichi Ishikawa²⁾, Akira Matsumura²⁾, Barfod Bierta E.¹⁾

¹⁾Katsuta Hospital Mito Gamma House; Department of Neurosurgery, ²⁾University of Tsukuba and ³⁾Kyoto Prefectural University;

⁴⁾Department of Global Clinical Research, Chiba University

11:50 a.m. - 12:10 p.m.

Honored Guest Special Lecture 2

Moderator: Takashi Yoshimoto (*Southern TOHOKU Research Institute for Neuroscience*)

7-1. Management of Anterior Fossa Meningiomas: Minimally Invasive & Skull Base Strategies

JOHN TEW, Jr.

Department of Neurosurgery, University of Cincinnati

12:20 p.m. - 12:50 p.m.

Special Lecture 3

Moderator: Tomokatsu Hori (*Tokyo Neurological Center Hospital*)

Co-sponsored by Medicaline Co., Ltd.

8-1. Pre-clinical Study of The Muse Cell Therapy for Cerebral Infarction

TEIJI TOMINAGA, Taksugu Abe, Kuniyasu Niizuma

Department of Neurosurgery, Tohoku University

12:50 p.m. - 1:30 p.m.

Symposium 3: Cerebrovascular Disease

Moderator: Hiromi Goto (*Southern TOHOKU General Hospital*)

Takashi Inoue (*Sendai Medical Center*)

9-1. Predictive Value of MR Imaging to Estimate the Onset Day in Patients with Subarachnoid Hemorrhage

TAKASHI INOUE¹⁾, Miki Fujimura²⁾, Hidenori Endo³⁾, Teiji Tominaga³⁾

Department of Neurosurgery, ¹⁾Sendai Medical Center, ²⁾Kohnan Hospital, and ³⁾Tohoku University

9-2. Long-Term Clinical and Angiographic Outcomes of Wrap-Clipping for Ruptured Blood Blister-Like Aneurysms of the Internal Carotid Artery Under the Endoscope Monitoring

MITSUTO HANIHARA, Hiroyuki Kinouchi, Hideyuki Yoshioka, Kazuya Kanemaru, Koji Hashimoto

Department of Neurosurgery, University of Yamanashi

9-3. Intraoperative Monitoring of Cerebral Blood Flow During Extracranial-Intracranial Bypass Surgery Using A Two-Dimensional Laser Speckle Flowgraphy

SADAHIRO NOMURA, Takao Inoue, Hideyuki Ishihara, Hisaharu Gotou, Fumiaki Oka, Koki Okazaki, Naomasa Mori, Kohei Haji, Michiyasu Suzuki

Department of Neurosurgery, Yamaguchi University

9-4. Comparison of Laser Speckle Flowgraphy in Ocular Blood Flow with Intraoperative Neurophysiological Monitoring During Carotid Endarterectomy

HIROMU SUNADA

Nara Medical University

1:30 p.m. - 2:10 p.m.

Plenary Session 2: Benign Tumor

Moderator: Kiyoshi Saito (*Fukushima Medical University*)

Michihiro Kohno (*Tokyo Medical University*)

10-1. Our Struggle for Neurofibromatosis Type 2

KIYOSHI SAITO¹, Kensho Iwatate¹, Masahiro Ichikawa¹, Mio Nemoto¹, Shinya Jinguji¹, Masayuki Yamada¹, Yosuke Kuromi¹, Taku Sato¹, Jun Sakuma¹, Tadashi Watanabe², Masazumi Fujii¹

Department of Neurosurgery, ¹Fukushima Medical University and ²Nagoya Daini Red Cross Hospital

10-2. Hearing Preservation After Removal of Small Vestibular Schwannomas by Retrosigmoid Approach: Comparison of Two Different ABR Neuromonitoring Techniques

LUCIANO MASTRONARDI, Di Scipio Ettore, Cacciotti Guglielmo, Raffaello Roperto

Department of Neurosurgery, San Filippo Neri Hospital of Roma

10-3. Microsurgical Management of Vestibular Schwannomas

SAMES MARTIN, Vachata P., Cee J.

Department of Neurosurgery, Masaryk Hospital, Purkyne University

10-4. Surgery for Jugular Foramen Tumors

MICHIHIRO KOHNO, Ken Matsushima, Norio Ichimasu, Hitoshi Izawa, Nobuyuki Nakajima, Jiro Akimoto

Department of Neurosurgery, Tokyo Medical University

2:10 p.m. - 2: 50 p.m.

Symposium 4: AVM

Moderator: Sadahiro Nomura (*Yamaguchi University*)

Yasushi Matsumoto (*Kohnan Hospital*)

11-1. Impact of Three-Dimensional Fusion Image for the Surgical Management of Infratentorial AVMs

HISAHARU GOTOU, Hideyuki Ishihara, Fumiaki Oka, Hirokazu Sadahiro, Sadahiro Nomura, Michiyasu Suzuki

Department of Neurosurgery, Yamaguchi University

11-2. Combined Treatments for Ruptured Arteriovenous Malformations with Onyx TAE

RYO IRIE¹, Tomoaki Terada²

Departments of Neurosurgery, ¹Kushiro Kojinkai Memorial Hospital and ²Showa University Fujigaoka Hospital

11-3. Embolization of the Choroidal Artery in the Treatment of Cerebral Arteriovenous Malformations

YASUSHI MATSUMOTO¹, Hidenori Endo¹, Kenichi Sato¹, Miki Fujimura², Teiji Tominaga³

¹Department of Neuroendovascular Therapy, Kohnan Hospital; ²Department of Neurosurgery, ²Kohnan Hospital and ³Tohoku University

11-4. The Usefulness of Hybrid Operating Room and Intra-Arterial Injection Fluorescence Videoangiography for the Treatment of AVM

HIDEYUKI YOSHIOKA, Kazuya Kanemaru, Koji Hashimoto, Takashi Yagi, Nobuo Senbokuya, Hiroaki Murayama, Toru Tateoka, Hiroyuki Kinouchi

Department of Neurosurgery, University of Yamanashi

11-5. Super-Selective Angiography for the Embolization of an Intradural Spinal Lesion

KAZUYA KANEMARU, Koji Hashimoto, Hideyuki Yoshioka, Nobuo Senbokuya, Hiroaki Murayama, Toru Tateoka, Takashi Yagi, Hiroyuki Kinouchi

Department of Neurosurgery, University of Yamanashi

7:00 a.m. - Registration & Breakfast

7:30 a.m. - 8:20 a.m. Plenary Session 3: Malignant Tumor
Moderator: Takakazu Kawamata (*Tokyo Women's Medical University*)
Yukihiko Sonoda (*Yamagata University*)

12-1. Diagnostic Performance and Safety of Positron Emission Tomography in Patients with Clinically Suspected High- and Low-Grade Gliomas

TOSHIHIKO WAKABAYASHI, Atsushi Natsume, Kazuya Motomura, Fumiharu Ohka, Kuniaki Tanahashi, Goro Kondo
Department of Neurosurgery, Nagoya University

12-2. How to Perform The Biopsy for Gliomatosis Cerebri

HIROKAZU SADAHIRO, Hisaharu Goto, Sadahiro Nomura, Michiyasu Suzuki
Department of Neurosurgery, Yamaguchi University

12-3. False-Positive Inflammatory Change Mimicking Glioblastoma Multiforme Under 5-Aminolevulinic Acid-Guided Surgery

YUKI SHIRAIISHI, Koji Omoto, Ryosuke Matsuda, Ichiro Nakagawa, Yasushi Motoyama, Hiroyuki Nakase
Department of Neurosurgery, Nara Medical University

12-4. The New Operation System Integrating Multimodal Information for Glioma Surgery

TOMOYUKI KAWATAKI, Masakazu Ogiwara, Mitsuto Hanihara, Hiroyuki Kinouchi
Department of Neurosurgery, University of Yamanashi

12-5. Opening The Ventricle During Surgery Diminishes Survival Among Patients with Newly Diagnosed Glioblastoma Treated with Carmustine Wafers: A Multi-Center Retrospective Study

YUKIHIKO SONODA¹⁾, Toshihiro Kumabe²⁾, Teiji Tominaga³⁾, Hiroyuki Kinouchi⁴⁾, Hiroaki Shimizu⁵⁾,
Kuniaki Ogasawara⁶⁾, Michiyasu Suzuki⁷⁾
Department of Neurosurgery, ¹⁾Yamagata University, ²⁾Kitasato University, ³⁾Tohoku University, ⁴⁾University of Yamanashi, ⁵⁾Akita University, ⁶⁾Iwate Medical University, and ⁷⁾Yamaguchi University

8:20 a.m. - 8:50 a.m. Special Lecture 4
Moderator: Toshihiko Wakabayashi (*Nagoya University*)

13-1. Treatment Strategy and Genetic Analysis of Hemangioblastoma

NOBUHITO SAITO, Shunsaku Takayanagi, Akitake Mukasa, Taichi Kin, Hideaki Imai, Hirofumi Nakatomi
Department of Neurosurgery, The University of Tokyo

8:50 a.m. - 9:30 a.m. Symposium 5: Ischemia
Moderator: Jyoji Nakagawara (*National Cerebral and Cardiovascular Center*)
Kazuya Kanemaru (*University of Yamanashi*)

14-1. To What Extent can Embolism Following Carotid Stenting be Predicted? Plaque Diagnosis with RADAR Spin Echo

HIROYUKI TOYAMA¹⁾, Hiroyuki Toyama¹⁾, Takatoshi Sorimachi²⁾, Mitsunori Matsumae²⁾
¹⁾Shida Memorial Neurosurgery Clinic and ²⁾Department of Neurosurgery, Tokai University

14-2. Arterial Spin Labeling to Assess Pre and Post Cerebral Blood Flow in Fukushima Double Direct Bypass in Hawaii's Moyamoya Disease Patients

CALLIE NAOMI TAKAHASHI¹⁾, Takanori Fukushima²⁾, Stephen Holmes³⁾, Jon Graham⁴⁾, Melvin Wong⁵⁾
¹⁾Georgetown University School of Medicine; ²⁾Department of Neurosurgery, Carolina Neuroscience Institute/Duke University Medical Center; ³⁾Hawaii Advanced Imaging Institute; ⁴⁾Jon F. Graham, MD, Limited Liability Company; ⁵⁾University of Hawaii John A. Burns School of Medicine

14-3. Surgical Revascularization Treatments and Arterial Spin Labeling in Hawaii's Moyamoya Disease

Patients

MARGARET LI KRACKELER¹⁾, Takanori Fukushima²⁾, Stephen Holmes³⁾, Jon Graham⁴⁾, Melvin Wong⁵⁾

¹⁾Georgetown University School of Medicine; ²⁾Department of Neurosurgery, Carolina Neuroscience Institute/Duke University Medical Center; ³⁾Hawaii Advanced Imaging Institute; ⁴⁾Jon F. Graham, MD, Limited Liability Company; ⁵⁾University of Hawaii John A. Burns School of Medicine

14-4. The value of MRI Arterial Spin Labeling Blood Flow for The Neurosurgeon: Pre and Post Operative Moya Moya and Tumor Characterization

STEPHEN MICHAEL HOLMES

Hawaii Advanced Imaging Institute

14-5. Efficacy of Intravenous Administration of Human-Derived Muse Cell Preparation for The Treatment of Lacunar Infarction in Mouse

TAKATSUGU ABE, Kuniyasu Niizuma, Hiroki Uchida, Teiji Tominaga

Department of Neurosurgery, Tohoku University

9:30 a.m. - 9: 40 a.m.	Closing Remarks Sadayoshi Watanabe (<i>Tokyo General Hospital</i>) Hiroyuki Kinouchi (<i>University of Yamanashi</i>)
11:30 a.m.	Mt. BANDAI Cup at Hawaii Prince Golf Course
6:30 p.m. - 10: 10 p.m.	Cocktail Party & Banquet

P-01. Hyponatremia in Acute Stroke; A Systematic Review and Meta-Analysis

SHOGO SHIMA¹⁾, Yosuke Moteki²⁾, Masaki Shinoda¹⁾, Osamu Takahashi¹⁾, Shinsuke Sato¹⁾, Yoshikazu Okada¹⁾, Yasunari Niimi¹⁾

Departments of Neurosurgery, ^{1)St. Luke's International Hospital and ^{2)Tokyo Women's Medical University}}

P-02. Effect of Oral Hygienic Care for the Stroke Patients

MOTOKI INAJI¹⁾, Haruka Tohara²⁾, Junichi Furuya³⁾, Yoshiyuki Numasawa⁴⁾, Shunsuke Minakuchi²⁾, Taketoshi Maehara¹⁾

Departments of ^{1)Neurosurgery, ^{2)Gerontology and Gerodontology, ^{3)Oral Health Sciences for Community Welfare and ^{4)Neurology, Tokyo Medical and Dental University}}}}

P-03. Preoperative Cervical Carotid Artery Contrast-Enhanced Ultrasound Findings are Associated with Development of Microembolic Signals on Transcranial Doppler During Carotid Exposure in Endarterectomy

KOHKI OIKAWA¹⁾, Tadayoshi Kato²⁾, Kazumasa Oura²⁾, Shinsuke Narumi²⁾, Makoto Sasaki³⁾, Shunrou Fujiwara¹⁾, Masakazu Kobayashi¹⁾, Yoshiyasu Matsumoto¹⁾, Yasuo Terayama²⁾, Kuniaki Ogasawara¹⁾

Departments of ^{1)Neurosurgery, ^{2)Neurology and Gerontology and ^{3)Institute for Biomedical Sciences, Iwate Medical University}}}

P-04. The Preoperative Evaluation of the Ischemia Due to Interruption in Case of CEA by tASL

HIKARU MIZOBUCHI, Yasuo Sada, Mikio Kusunose, Kenn Kajita, Kechan Park, Shinya Honda

Department of Neurosurgery, Atago Hospital

P-05. The Result of Treatment for Unruptured Cerebral Aneurysms in Our Hospital

RYUJI AWA, Tetsuya Nagayama, Tessei Ueda, Kazuhiro Moriyama, Takashi Kawahara, Tsuneo Makiuchi,

Masayuki Yamagami, Masazumi Gondo, Koji Takasaki, Masamichi Atsuchi, Masayuki Atsuchi

Department of Neurosurgery, Atsuchi Neurosurgical Hospital

P-06. Development of a Carotid Cavernous Aneurysm After Medical Treatment of a Macroprolactinoma: A Case Report

SHOTA KAKIZAKI¹⁾, Shunsuke Ichi²⁾, Atsushi Hosono²⁾, Yusuke Tabei²⁾, Shinobu Adachi²⁾, Takayuki Saguchi²⁾, Ichiro Suzuki²⁾

Department of Neurosurgery, ^{1)Jikei University Katsushika Medical Center and ^{2)Japan Red Cross Medical Center}}

P-07. A Case Report: Hybrid OR is A Useful for CS dAVF Requiring Sinus Packing Via SMCV by Trans-Sylvian Approach

SHINJI SATO¹⁾, Yasuaki Kokubo¹⁾, Kanako Kawanami¹⁾, Hiroshi Itagaki¹⁾, Yuuki Yamada¹⁾, Yasushi Matsumoto²⁾, Yukihiro Sonoda¹⁾

^{1)Department of Neurosurgery, Yamagata University and ^{2)Department of Neuroendovascular Therapy, Kohnan Hospital}}

P-08. A Case of Parachordal Arteriovenous Fistula with Double Holes of Fistula

SHINSUKE SATO^{1,2)}, Yasunari Niimi²⁾, Yoshikazu Okada¹⁾, Tatuki Mochizuki¹⁾, Shougo Shima¹⁾, Yuuichi Mochizuki^{1,2)}, Tatuya Inoue^{1,2)}, Kentarou Kuwamoto^{1,2)}

Departments of ^{1)Neurosurgery and ^{2)Neuroendovascular Therapy, St. Luke's International Hospital}}

P-09. A Case Report of Third Ventricular Cavernoma

MIO NEMOTO, Taku Sato, Masahiro Ichikawa, Takao Kojima, Masazumi Fujii, Jun Sakuma, Kiyoshi Saito

Department of Neurosurgery, Fukushima Medical University

P-10. The Role of Surgery for Multifocal Glioblastoma Multiforme

REID RIKIO HOSHIDE¹⁾, Charles Teo²⁾

^{1)Department of Neurosurgery, University of California San Diego and ^{2)Centre for Minimally Invasive Neurosurgery}}

P-11. Acute Intratumoral Hemorrhage from an Optic Pathway Glioma: A Case Report

TAKA AKI KAMIJO¹⁾, Yousuke Miyairi¹⁾, Hiroaki Shigeta²⁾, Kazuhiro Hongo¹⁾

Department of Neurosurgery, ¹⁾Shinshu University and ²⁾Nagano Children's Hospital

P-12. Posteriorly Displaced Lateralized Components of Craniopharyngiomas in Children: Considerations In Modifying Current Classifications

REID RIKIO HOSHIDE, Robert Rennert, Mark Calayag, Michael Levy

Department of Neurosurgery, University of California San Diego

P-13. Linac-Based Fractionated Stereotactic Radiotherapy with Micro-Multileaf Collimator for Large Brain Metastasis Unsuitable for Surgical Resection

TOSHIHARU MURAKAMI¹⁾, Ryosuke Matsuda¹⁾, Tadashi Sugimoto¹⁾, Hiroyuki Nakase¹⁾, Tetsuro Tamamoto²⁾, Masatoshi Hasegawa²⁾

Departments of ¹⁾Neurosurgery and ²⁾Radiation Oncology, Nara Medical University

P-14. Delayed Air Migration to The Biopsy Site Leading to Deterioration of Hemiparesis: A Rare Complication of Stereotactic Brain Biopsy

YUZO TERA KAWA, Taketo Kataoka, Kazuki Takahira, Shinsuke Irie, Hitoshi Hayase, Koji Saito

Department of Neurosurgery, Hokkaido Ohno Memorial Hospital

P-15. Supra-orbital, Keyhole Approach to The Mesial Middle Cranial Fossa: An Institutional Experience

REID RIKIO HOSHIDE¹⁾, Charles Teo²⁾

¹⁾Department of Neurosurgery, University of California San Diego and ²⁾Centre for Minimally Invasive Neurosurgery

P-16. Recurrence of Intracranial Meningioma After Simpson Grade 1-2 Resection for WHO Grade 1 Meningioma: Analysis of Recurrence Pattern and Outcome

HIROMI GOTO, Shunsuke Satoh, Yuki Kitada, Kazuo Watanabe

Southern TOHOKU Research Institute for Neuroscience

P-17. Changes in Regional Cerebral Blood Flow After Vagal Nerve Stimulation for Intractable Epilepsy

MASAFUMI FUKUDA¹⁾, Hiroshi Masuda¹⁾, Hiroshi Shirozu¹⁾, Yosuke Ito¹⁾, Yoko Nakayama¹⁾, Takefumi Higashijima¹⁾, Yukihiro Fujii²⁾

Department of Neurosurgery, ¹⁾Nishi-Niigata Chuo National Hospital and ²⁾Brain Research Institute, University of Niigata

P-18. Features of Amygdala in Patients with Medial Temporal Lobe Epilepsy and Hippocampal Sclerosis: An Mri Volumetric and Histopathological Study

YOKO NAKAYAMA¹⁾, Masafumi Fukuda²⁾

Department of Neurosurgery, ¹⁾Nagaoka Chuo General Hospital and ²⁾Epilepsy Center, Nishi-Niigata Chuo National Hospital

P-19. Pediatric Intracavernous Sinus Lesions: A Single Institutional Surgical Case Series and Review of The Literature

REID RIKIO HOSHIDE, Robert Rennert, Mark Calayag, Michael Levy

Department of Neurosurgery, University of California San Diego

P-20. Treatment Strategy of The Acquired Intracranial Cystic Lesions by Neuroendoscopy

TOMORU MIWA, Takayuki Ohira, Masahiro Toda, Kazunari Yoshida

Department of Neurosurgery, Keio University

P-21. Fate of The Three Embryonic Dural Sinuses in Infants: the Primitive Tentorial Sinus, Occipital Sinus, and Falcine Sinus

KATSUHIRO MIZUTANI¹⁾, Tomoru Miwa¹⁾, Takenori Akiyama¹⁾, Yoshiaki Sakamoto²⁾, Hirokazu Fujiwara³⁾, Kazunari Yoshida¹⁾

Departments of ¹⁾Neurosurgery, ²⁾Plastic and Reconstructive Surgery and ³⁾Radiology, Keio University