

Breakfast Seminar

<Update management for cerebral vasospasm>

8:00-8:30

Room A

Chair: **Hidenori SUZUKI** (Mie University Graduate School of Medicine)

- BS1-1** Stratified Assessment of Clazosentan Efficacy Following Subarachnoid Hemorrhage: New era of cerebral vasospasm treatment
 Hiroyuki SAKATA (Department of Neurosurgery, Tohoku University Graduate School of Medicine, Sendai, Japan)
- BS1-2** Update Management for Cerebral Vasospasm
 Shinsuke MURAOKA (Department of Neurosurgery, JCHO Chukyo Hospital, Aichi, Japan / Department of Neurosurgery, Nagoya University Graduate School of Medicine)

Discussant: **Yu HASEGAWA** (Ariake Seijin Hospital, Japan)

Oral Session 5

<Aneurysm / SAH Ⅲ: Microsurgical Clipping and Operative Approaches>

8:40-9:40

Room A

Chairs: **Taek Kyun NAM** (Chung-Ang University Hospital, ROK), **Katsumi TAKIZAWA** (Japanese Red Cross Asahikawa Hospital, Japan)

- O5-1** STA - Sapping Minipterional Approach with Isolated Distal Sylvian Fissure opening without opening of carotid cisternal membrane for Clipping of supraclinoid ICA aneurysms
 Younggyun JEONG (Department of Neurosurgery, Busan Paik hospital, Inje university, Busan, ROK)
- O5-2** Microsurgical Tactics of Kissing Aneurysms
 Hyun Jin HAN (Severance Hospital, Yonsei University College of Medicine, Seoul, ROK)
- O5-3** Endoscopic Trans-Orbital Approach for clipping a middle cerebral artery aneurysm: A cadaveric study with clinical application
 Chang Ki JANG (Department of Neurosurgery, Severance Hospital, Yonsei University College of Medicine, ROK)
- O5-4** Modified Supraorbital Keyhole Approach with Partial Extradural Anterior Clinoidectomy for Clipping of Internal Carotid Artery Aneurysms: Surgical Technique and Outcomes
 Dong-Kyu JANG (Department of Neurosurgery, Incheon St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Incheon, ROK)
- O5-5** Microsurgery for posterior circulation aneurysms in endovascular era
 Yosuke AKAMATSU (Department of Neurosurgery, Iwate Medical University, Yahaba, Iwate, Japan)

- O5-6** Contralateral approach for para-clinoid aneurysms: the usefulness of high-resolution vessel MRI
Seok Keun CHOI (Kyung Hee University Hospital, ROK)
- O5-7** Symptomatic Perforator Infarction after Clipping of P-com to Proximal A1 Aneurysms: Incidence, Clinical Characteristics, and Surgical Implications
Woo Cheul CHO (Seoul St. Mary's Hospital, The Catholic University of Korea, ROK)

Video Symposium 5

<Surgery of complex internal carotid-posterior communicating artery aneurysms>

9:40-10:40 Room A

Chairs: **Jun Seob LIM** (Kwangju Christian Hospital, ROK), **Hidenori ENDO** (Tohoku University Graduate School Of Medicine, Japan)

- VS5-1** Microsurgical Strategies for Complex Internal Carotid-Posterior Communication Aneurysms Unsuitable for Endovascular Therapy
Katsumi TAKIZAWA (Department of Neurosurgery, Japanese Red Cross Asahikawa Hospital, Japan)
- VS5-2** Surgical strategy for safe microsurgical clipping of complex internal carotid-posterior communicating artery aneurysms
Shuntaro TOGASHI (Department of Neurosurgery, Akita Cerebrospinal and Cardiovascular Center, Akita, Japan)
- VS5-3** Technical pearls and pitfalls in Pcom aneurysm clipping
Kim Yong BAE (Yonsei University)
- VS5-4** Surgical treatment of an angiographically obliterated large IC-PC aneurysm presenting with oculomotor nerve palsy: a case report
Jiwook RYU (Department of Neurosurgery, Kyung Hee university, Seoul, ROK)

Discussant: **Hiroaki SHIMIZU** (Akita Prefectural Hospital Organization, Japan)

Symposium 5

<Carotid endarterectomy and stenting: Current Applications and Future Perspectives>

10:40-12:10 Room A

Chairs: **Jun Kyeong KO** (Pusan National University, ROK), **Kazumichi YOSHIDA** (Shiga University of Medical Science, Japan)

- S5-1** Contemporary Decision-Making for Carotid Revascularization in the CREST-2 Era
Masakazu OKAWA (The department of Neurosurgery, National Cerebral and Cardiovascular Center, Osaka, Japan)
- S5-2** CAS or CEA? How I Choose and Perform Carotid Revascularization as a Hybrid Vascular Neurosurgeon
Jun Kyeong KO (Department of Neurosurgery, School of Medicine, Pusan National University, ROK)
- S5-3** Is Carotid Shunting Truly Optional? Redefining Safety Standards in Carotid Endarterectomy
Taek Kyun NAM (Department of Neurosurgery, Chung-Ang University Hospital, Seoul, ROK)

- S5-4** Recirculation from common carotid artery to external carotid artery during carotid endarterectomy
Tae-Sun KIM (Department of Neurosurgery, Chonnam National University Hospital & Medical School, Gwang-Ju, ROK)
- S5-5** Investigations of Appropriate Surgical Strategy for Carotid Stenosis
Daina KASHIWAZAKI (Department of Neurosurgery, University of Toyama, Toyama, Japan)
- S5-6** Durable Long-Term Outcomes of Carotid Endarterectomy with Patch Graft Closure in the Era of Selective Revascularization
Masaaki KORAI (Department of Neurosurgery, Tokushima University Graduate School of Biomedical Sciences, Tokushima, Tokushima, Japan)

Discussants: **Kyu-Sun CHOI** (Hanyang University, ROK), **Tomohito HISHIKAWA** (Kawasaki Medical School, Japan)

Luncheon Seminar 2

<AIS – How to Perform Safe MT with Esperance AC, pRESET, and Paragon>

12:30-13:30

Room A

Chair: **Hirotoishi IMAMURA** (Kobe City Medical Center General Hospital, Japan)

- LS2** Vessel- & Operator-Friendly AIS strategy – Esperance and pRESET
Sakyo HIRAI (Institute of Science Tokyo Hospital, Japan)
- Go distal: a combination of Paragon and Distal
Jong Hyon PARK (Hallym University Dongtan Sacred Heart Hospital, ROK)

Sponsored by Wallaby Phenox

Symposium 7

<Current issues of acute ischemic stroke: techniques, indications, ICAD and implementation>

13:40-15:10

Room A

Chairs: **Jaechan PARK** (Kyungpook National University, ROK), **Nobuyuki SAKAI** (Seijinkai Shimizu Hospital, Japan)

- S7-1** Mechanical Thrombectomy: Current Landscape and Remaining Challenges
Tsuyoshi OHTA (Department of Neurosurgery, Kyoto University, Kyoto, Japan)
- S7-2** Building an Effective Stroke System of Care in Japan: Impact of a Prefecture-Wide Prehospital Triage Program
Yukiko ENOMOTO (Department of Neurosurgery, Gifu University Graduate School of Medicine, Japan / Gifu Prefecture Medical Control Council)
- S7-3** Large Core Thrombectomy: What Should We Consider Before We Treat?
Wonsoo SON (Department of Neurosurgery, Kyungpook National University Hospital, Daegu, ROK)

S7-4 The role of direct stent angioplasty ("rescue stenting") in cerebral acute ischemic stroke
Kuhyun YANG (Department of Neurological Surgery, Gangneung Asan Medical Center, University of Ulsan College of Medicine, ROK)

S7-5 Urgent Bypass for Patients with Acute Ischemic Stroke
Si Un LEE (Department of Neurosurgery, Seoul National University Bundang Hospital, Seoul National University College of Medicine, Seongnam-si, ROK)

Discussants: **Yong Hwan CHO** (Dong-A University, ROK), **Hideyuki ISHIHARA** (Yamaguchi University, Japan)

Oral Session 8

<Operative Innovation, Devices, CSDH and Special Topics>

15:20-16:20 Room A

Chairs: **Won-Sang CHO** (Seoul National University Hospital, ROK), **Chiaki SAKAI** (Kyoto University Graduate School of Medicine, Japan)

O8-1 Outcomes of cranioplasty with customized artificial bone flap made by 3D printing technique in patients with aneurysmal subarachnoid hemorrhage
Sung-Tae KIM (Department of Neurosurgery, Haeundae Paik Hospital, Inje University College of Medicine, Busan, ROK)

O8-2 Microscopic cerebrovascular neurosurgery using bypass and skull base technique
Tomohiro INOUE (Department of Neurosurgery, NTT medical center Tokyo, Japan)

O8-3 Intracranial hypotension presenting with brain sagging ; a decision making and treatment strategies in various neurosurgical field
Sungpil JOO (Chonnam National University Hospital, ROK / Chonnam National University Hospital)

O8-4 CT-Guided MMA Frontal-Parietal Bifurcation-Targeted Burr Hole Trephination: A Refined Single-Stage Surgical Approach for Chronic Subdural Hematoma
Shin-Woong KO (Department of Neurosurgery, Hanyang University Guri Hospital, ROK)

O8-5 The Novel Trocar for Laparoscopic Ventriculoperitoneal Shunt Surgery for Post-Hemorrhagic Hydrocephalus
Eun Suk PARK (Department of Neurosurgery, Wonkwang University Hospital, Wonkwang University School of Medicine, Iksan, ROK)

O8-6 Standardization and Advancement of Full Exoscopic Direct Cerebrovascular Surgery
Tsutomu ICHINOSE (Department of Neurosurgery, Osaka Metropolitan University, Osaka, Japan)

O8-7 Distinct Hematoma-Absorption Dynamics After Repeat Surgery Versus Particle Middle Meningeal Artery Embolization for Recurrent Chronic Subdural Hematoma
Jinhwan KOO (Department of Neurosurgery, Seoul National University Hospital, Seoul, ROK)

Symposium 9

<Which CSDH should be treated with MMAE?>

16:20-17:50

Room A

Chairs: **Jae Sung AHN** (Ulsan University, ROK), **Tomohito HISHIKAWA** (Kawasaki Medical School, Japan)

- S9-1** Neovascularization in the Outer Membrane of Chronic Subdural Hematoma: A Probable Cause of Spontaneous Recurrence
Won-Sang CHO (Department of Neurosurgery, Seoul National University Hospital, Seoul National University College of Medicine, Seoul, ROK)
- S9-2** Baseline Hematoma Burden and Treatment Effect Heterogeneity of Middle Meningeal Artery Embolization for Chronic Subdural Hematoma
Hyungon LEE (Department of Neurosurgery, Samsung Changwon Hospital, Sungkyunkwan University School of Medicine, Changwon, ROK / Department of Neurosurgery, Dongnam institute of Radiological & Medical Science)
- S9-3** Clinical Scenario-Based Patient Selection for Middle Meningeal Artery Embolization in Chronic Subdural Hematoma
Shunsuke TANOUE (Headquarters, 4th Division, Japan Ground Self-Defense Force, Japan / Department of Neurosurgery, Mishuku Hospital)
- S9-4** MMA embolization at early after surgery to prevent recurrent subdural hematoma (MESH study)
Hyun Jin HAN (Severance Hospital, Yonsei University College of Medicine, Seoul, ROK)
- S9-5** From Adjunctive to Stand-Alone Therapy: A 5-Year Experience of Coil-Only Middle Meningeal Artery Embolization (MMAE) for chronic subdural hematoma (CSDH)
Dae Won KIM (Department of Neurosurgery, Wonkwang University Hospital, ROK)
- S9-6** Stand-Alone Middle Meningeal Artery Embolization Versus Burr-Hole Trephination for Neurologically Stable, Burr-Hole-Eligible Chronic Subdural Hematoma: A Propensity Score-Matched Comparison
Hyun Jeong LEE (Department of Neurosurgery, Jeju National University College of Medicine, Jeju, ROK)
- S9-7** Who Should Undergo MMAE for Chronic Subdural Hematoma?
Chiaki SAKAI (Regulatory Science of Medical Device Development and Innovation, Kyoto University Graduate School of Medicine, Kyoto, Japan)

Discussants: **Park Eun SUK** (Wonkwang University, ROK), **Kazutaka UCHIDA** (Stroke Center, Hyogo Medical University, Japan)

Oral Session 6

<Moyamoya Disease: Hemodynamics, Bypass and Perioperative Management>

8:40-9:40

Room B

Chairs: **Sung Pil JOO** (Chonnam National University Hospital, ROK), **Atsushi KANOKE** (Kohnan Hospital, Japan)

- O6-1** Perioperative Management Protocol to Reduce Complications of STA-MCA Bypass Surgery in Adult Hemorrhagic Moyamoya Disease
Shoko HARA (Department of Neurosurgery, Institute of Science Tokyo, Tokyo, Japan)
- O6-2** Hemodynamic and Morphologic Differences between Ruptured and Unruptured Periventricular Anastomosis in Adult moyamoya disease
Jiwook RYU (Department of Neurosurgery, Kyung Hee university, Seoul, ROK)
- O6-3** Hemodynamic change in contralateral unoperated hemispheres following unilateral combined bypass surgery in adult patients with moyamoya disease
Won-Sang CHO (Department of Neurosurgery, Seoul National University Hospital, Seoul National University College of Medicine, ROK)
- O6-4** Prediction of Postoperative Neovascularization After Indirect Bypass in Adult Moyamoya Disease: A Preoperative Clinical and Perfusion-Based Model
Si Un LEE (Department of Neurosurgery, Seoul National University Bundang Hospital, Seoul National University College of Medicine, Seongnam-si, ROK)
- O6-5** Modified STA Side-Branch Bypass for Adult Moyamoya Disease: A Tailored Revascularization Strategy
Shintaro ARAI (Department of Neurosurgery, School of Medicine, Showa Medical University, Japan)
- O6-6** Impact of Reduced-Size Arteriotomy on Postoperative Cerebral Hyperperfusion Syndrome in Moyamoya Bypass Surgery
Hye Won CHOI (Samsung medical center, ROK)
- O6-7** Association Between Reduced Cerebral Oxygen Metabolism and Prolonged TNEs After Revascularization for Moyamoya Disease
Koki ONODERA (National Cerebral and Cardiovascular Center, Japan)

Oral Session 7

<Bypass, Acute Revascularization and Ischemic Stroke>

9:40-10:40

Room B

Chairs: **Seok Keun CHOI** (Kyung Hee University Hospital, ROK), **Hirotohi IMAMURA** (Kobe City Medical Center General Hospital, Japan)

- O7-1** Technical System for Becoming a Cerebral Bypass Surgeon: Acquisition and Transmission of Bypass Techniques Based on 250 Cases and Clinical Research
Sho TSUNODA (The Department of Neurosurgery, Tokyo Metropolitan Geriatric Hospital, Japan)

- 07-2** Mechanical Revascularization and Acute-Phase Bypass Surgery at Our Hospital
Akio TERANISHI (Department of Neurosurgery, International Medical Center, Saitama Medical University, Japan)
- 07-5** Management of Aneurysms in Hemorrhagic Moyamoya Disease: Hemodynamic Insights from a Case Series
Yong-Jun LEE (Department of Neurosurgery, Chonnam National University Hospital & Medical School, ROK)
- 07-3** Association Between Intraoperative Blood Pressure Reduction and Postoperative Infarct Enlargement in Acute EC-IC Bypass for Progressive Ischemic Stroke
Hiroyuki MIZUNO (Department of Neurosurgery, Japanese Red Cross Maebashi Hospital, Gunma, Japan / Department of Neurosurgery, Gunma University Graduate School of Medicine, Gunma, Japan)
- 07-4** COMparision of clinical and radiological outcomes between suction asPiration method and combination mEthod of mechanical Thrombectomy in acutE cerebral infarction: (COMPETE) trial interim analysis
Sung-Chul JIN (Department of Neurosurgery, Inje University, Haeundae Paik Hospital, ROK)
- 07-6** Hemodynamic and Morphologic Differences Between Complex- and Original-Type Choroidal Anastomosis in Adult Moyamoya Disease: A Cross-Sectional MRI Study
Jae Seong HONG (Department of Neurosurgery, Kyung Hee university hospital, Seoul, ROK)
- 07-7** Cerebrospinal Fluid Cytokine Profiling Reveals a Shared Inflammatory Signature Between Pneumococcal Meningitis-Associated and Subarachnoid Hemorrhage-Associated Cerebral Vasospasm: A Pediatric Case Report
Gen YAMAUCHI (Department of Neurosurgery, Chukyou Hospital, Aichi, Japan / Department of Neurosurgery, Kasugai Municipal Hospital, Aichi, Japan)

Symposium 6

<Surgical management of Moyamoya disease>

10:40-12:10

Room B

Chairs: **Seung Young CHUNG** (Eulji University, ROK), **Takeshi FUNAKI** (Kyoto University Graduate School of Medicine, Japan)

- S6-1** Comparison of Bifrontal Craniotomy and Multiple Burr Hole Encephalogueoperiosteal-synangiosis for Pediatric Moyamoya Disease: An Experience of 346 Patients
Joo Whan KIM (Division of Pediatric Neurosurgery, Seoul National University Children's Hospital, Seoul National University College of Medicine, ROK)
- S6-2** The Role of Periventricular Anastomoses in Surgical Management of Moyamoya Disease
Eika HAMANO (Department of Neurosurgery, National Cerebral and Cardiovascular Center, Osaka, Japan)
- S6-3** Predictive Factors for Hemorrhagic and Ischemic Stroke After Combined Bypass for Adult Patients
Si Un LEE (Department of Neurosurgery, Seoul National University Bundang Hospital, Seoul National University College of Medicine, Seongnam-si, ROK)

S6-4 Hyperperfusion Syndrome: Refining Its Clinical Implications for Bypass Surgery in Adult Moyamoya Disease
Jeong Eun KIM (Department of Neurosurgery, Seoul National University College of Medicine, ROK)

S6-5 Lessons from Hemodynamic Complications and Strategies for Safer Revascularization in Moyamoya Disease
Atsushi KANOKE (Department of Neurosurgery, Kohnan Hospital, Sendai, Japan / Department of Neurosurgery, Tohoku University Graduate School of Medicine, Sendai, Japan)

Discussants: **Woo Cheul CHO** (The Catholic University of Korea, ROK), **Yasuyuki KAKU** (Kumamoto University, Japan)

Symposium 8

<Treatment strategies of Grade 3 brain arteriovenous malformation>

13:40-15:10	Room B
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Chairs: **Jeong Eun KIM** (Seoul National University, ROK), **Hiroki KURITA** (International Medical Center, Saitama Medical University, Japan)

S8-1 Treatment Strategy of Unruptured Spetzler-Martin Grade III Arteriovenous Malformations: A Review of the Literature and Recommendation
Sang Weon LEE (Department of Neurosurgery, School of Medicine, Pusan National University, Busan, ROK)

S8-2 Treatment Strategies for Spetzler-Martin Grade III Brain Arteriovenous Malformations: A Single-Center Experience
Yushiro TAKE (The Department of Cerebrovascular Surgery, Saitama Medical University, International Medical Center, Saitama, Japan)

S8-3 High Grade AVM Treatment: Case Series and Literature Review
Dong-Kyu JANG (Department of Neurosurgery, Incheon St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Incheon, ROK)

S8-4 The Soft Nidus Concept: Designing Resection Through Embolization -- Toward Fine Microsurgical Dissection --
Naoki NAKAYAMA (Advanced Cerebrovascular Center, Sapporo Hakuyokai Hospital, Sapporo, Japan)

Discussants: **Seok-keun CHOI** (Kyung Hee University, ROK), **Hisae MORI** (National Cerebral and Cardiovascular Center, Japan)

Oral Session 9

<Aneurysm / SAH IV: Ruptured Aneurysm, SAH and Vasospasm>

15:20-16:20

Room B

Chairs: **Dae-Won KIM** (Wonkwang University College of Medicine, ROK), **Hiroyuki SAKATA** (Tohoku University Graduate School of Medicine, Japan)

- 09-1** Comparative Effectiveness of Clazosentan- and Cilostazol-Based Strategies for Vasospasm Prevention After Aneurysmal Subarachnoid Hemorrhage: The CLACILO Multicenter Retrospective Study
Hidehito KIMURA (Department of Neurosurgery, Kobe University Graduate School of Medicine, Kobe, Japan)
- 09-2** Microsurgical Clipping for Small Ruptured Intracranial Aneurysms: Treatment Outcomes and Durability in 126 Cases
Yoshimichi SATO (Department of Neurosurgery, Kohnan Hospital, Sendai, Japan)
- 09-3** Age-dependent association between concomitant cilostazol use and delayed ischemic events in clazosentan-treated aneurysmal subarachnoid hemorrhage: a multicenter prospective registry
Taku SUGIYAMA (Department of Neurosurgery, Hokkaido University Graduate School of Medicine, Sapporo, Japan)
- 09-4** Plasma sCLEC-2 as an Early Biomarker of Platelet Activation and Disease Severity in Aneurysmal Subarachnoid Hemorrhage
Hideyuki YOSHIOKA (Department of Neurosurgery, University of Yamanashi, Yamanashi, Japan)
- 09-5** Anesthetic Perturbation Reveals Attenuated Ipsilesional Slow-Wave Reactivity After Aneurysmal Subarachnoid Hemorrhage: A Frontal Two-Channel EEG Study
Hyun Dong YOO (Department of Neurosurgery, Daejeon Eulji Medical Center, Daejeon, ROK)
- 09-6** Clipping versus Endovascular Coil Embolization for Ruptured PICA Aneurysms: A Bi-Institutional Propensity Score-Adjusted Retrospective Cohort Study
Jong Young LEE (Department of Neurosurgery, Hallym University Gangdong Sacred Heart Hospital, Seoul, ROK)
- 09-7** Sequential Decision-Making in Bilateral Distal Internal Carotid Artery SAH with Suspected Dissecting Pathology
Hun HEO (Department of Neurosurgery, Naeun Hospital, Incheon, ROK)

Symposium 10

<Training of the Next Generation Cerebrovascular Surgeons>

16:20-17:50

Room B

Chairs: **Sang Weon LEE** (Pusan National University, ROK), **Hidenori ENDO** (Tohoku University Graduate School Of Medicine, Japan)

- S10-1** Transmitting a Microsurgical Training Culture in the Endovascular Era: From Sapporo to Kyoto
Kosumo NODA (Department of Neurosurgery, Soseikai general hospital, Kyoto, Japan)

- S10-2** Introduction of Neurosurgical Training Programs in the Korean Society of Cerebrovascular Surgeons
Dong-Kyu JANG (Department of Neurosurgery, Incheon St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Incheon, ROK)
- S10-3** Training Cerebrovascular Neurosurgeons in Korea: Fellowship Structure, Certification Systems, and the Dual-Competency Challenge
Kyu-Sun CHOI (Department of Neurosurgery, Hanyang University, Seoul, ROK)
- S10-4** Eye-Tracking Analysis of Operator Gaze Behavior During Neuroendovascular Procedures
Koichi ARIMURA (Department of Neurosurgery, Kyushu University, Fukuoka, Japan)

Discussants: **Shin-Woong KO** (Hanyang University, ROK), **Daisuke MARUYAMA** (Kyoto Prefectural University of Medicine, Japan)