October 12 Wednesday

10:00-11:40 Lecture 1

Management

Chair : Chang Wan Oh

Department of Neurosurgery, Seoul National University College of Medicine, Republic of Korea

L1-1 Pediatric Moyamoya: Advances in Clinical Care and Translational Research

Department of Neurosurgery, Boston Children's Hospital / Harvard Medical School, USA

Edward Smith

L1-2 Management of elderly patients with moyamoya disease Department of Neurosurgery, Kohnan Hospital, Japan / Division of Advanced Cerebrovascular Surgery, Tohoku University Graduate School of Medicine, Japan

Hidenori Endo

L1-3 Cerebral hyperperfusion after revascularization for Moyamoya disease Department of Neurosurgery, Hokkaido University Graduate School of Medicine, Japan Miki Fujimura

L1-4 Usefulness of Quantitative Analysis on Perfusion CT in Revascularization Surgery for MMD

Department of Neurosurgery, Seoul National University College of Medicine, Republic of Korea

Chang Wan Oh

L1-5 Non-surgical treatment of moyamoya disease Department of Neurology, Samsung Medical Center, S&E Bio, Inc., Seoul, South Korea Oh Young Bang

11:50-12:50 Lecture 2

Surgical Therapy (I)

Chair : John Wanebo

Department of Neurosurgery, Barrow Neurological Institute, USA

L2-1 Salvage revascularization for moyamoya angiopathy Department of Neurosurgery, Barrow Neurological Institute, USA John Wanebo

L2-2 Indirect revascularization surgery for anterior cerebral artery territory in pediatric patients with moyamoya disease

Department of Neurological Surgery, Okayama University, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Japan

Tomohito Hishikawa

L2-3 Strategy and effect of repeat bypass surgery for anterior/posterior circulation in refractory moyamoya disease

Department of Neurosurgery, Hokkaido University, Japan / Department of Neurosurgery, University of Toyama, Japan

Haruto Uchino

12:50-13:50 Lecture 3

Surgical Therapy (${\rm I\!I}$)

Chair : Bin Xu

Neurosurgical Department, Fudan University, China

L3-1 Indirect revascularization for pediatric moyamoya disease: a single center experience over 40 years

Department of Neurosurgery, Tokyo Medical and Dental University, Japan

Shoko Hara

L3-2 Tailored Keyhole Surgical treatments for Moyamoya vasculopathy Neurosurgical Department, Fudan University, China

Bin Xu

L3-3 A flow self-regulating STA-MCA bypass based on side to side fashion anastomosis for adult patients with moyamoya disease

Departement of Neurosurgery, University of Wuhan University, Wuhan, China

Jianjian Zhang

14:00-15:00 Lecture 4

Disease Concept

Chair : Satoshi Kuroda

Department of Neurosurgery, University of Toyama, Japan

L4-1 Short and Long Term Outcomes of Moyamoya Patients Post Revascularization

Department of Neurosurgery and Stanford Stroke Center, Stanford University School of Medicine, California, USA

Gary K. Steinberg

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L4-2 Diagnostic Criteria for Moyamoya Disease - 2021 Revised Version

Department of Neurosurgery, University of Toyama, Japan

Satoshi Kuroda

L4-3 European Moyamoya Update: experience and insights

Moyamoya Center, University Children's Hospital Zurich, University of Zurich, Switzerland / Department of Pediatric Neurology, University Children's Hospital Zurich, University of Zurich, Switzerland

Nadia Khan

15:10-16:30 Lecture 5

Pathophysiology (I)

Chair : Jun C. Takahashi

Department of Neurosurgery, Kindai University Faculty of Medicine, Osaka-Sayama, Japan

L5-1 Significance of *RNF213* in contralateral progression and posterior circulation involvement of unilateral moyamoya disease

Department of Neurosurgery, Kyoto University, Japan

Yohei Mineharu

L5-2 5-Year Stroke Risk and Its Predictors in Asymptomatic Moyamoya Disease – Asymptomatic Moyamoya Registry (AMORE)

Department of Neurosurgery, University of Toyama, Japan

Satoshi Kuroda

L5-3 Impact of hemodynamic failure on rebleeding and effect of bypass surgery in hemorrhagic moyamoya disease

Department of Neurosurgery, Kindai University Faculty of Medicine, Osaka-Sayama, Japan

Jun C. Takahashi

L5-4 Periventricular anastomosis in moyamoya disease Department of Neurosurgery, Kyoto University Graduate School of Medicine, Japan Takeshi Funaki

16:30-17:50 Lecture 6

Pathophysiology (${\rm I\!I}$)

Chair : Nadia Khan

Moyamoya Center, University Children's Hospital, University of Zurich, Switzerland

L6-1 ¹²³I-Iomazenil SPECT for delineating group with cognitive disturbances in patients with moyamoya disease; current evidence and limitation

Department of Neurosurgery, Kyoto University Graduate School of Medicine, Kyoto, Japan

Takayuki Kikuchi

- L6-2 Evaluation of cerebral hemodynamics in patients with moyamoya disease: Comparison among 15O-Gas PET and DSC- /ASL-MRI.
 Department of Neurosurgery, Tokyo Medical and Dental University, Japan / Positron Medical Center, Tokyo Metropolitan Institute of Gerontology, Japan
 Motoki Inaji
 L6-3 Posterior circulation involvement in pediatric moyamoya angiopathy Moyamoya Center, University Children's Hospital, University of Zurich, Switzerland
 Nadia Khan
- L6-4 CO₂-triggered BOLD MRI for the estimation of vasoreactivity Comparison to H2 150 PET-CT and use to monitor disease progression Department of Neurosurgery and Moyamoya Center, University of Tuebingen, Tuebingen, Germany

Constantin Roder

18:00-19:20 Lecture 7

Basic Research

Chair : Jeong Eun Kim

Department of Neurosurgery, Seoul National University College of Medicine, Republic of Korea

L7-1 Differentiation of Fibroblasts into Myofibroblasts in the Arachnoid Membrane of Moyamoya Disease

Department of Neurosurgery, University of Toyama, Japan

Shusuke Yamamoto

- L7-2 Genetic factors for moyamoya disease other than *RNF213* Department of Neurosurgery, Kyoto University, Japan Yohei Mineharu
- L7-3 Influence of *RNF213* rare variants on clinical phenotype in Japanese patients with moyamoya disease and three-dimensional conformational model of *RNF213*

Department of Neurosurgery, Tokyo Women's Medical University Yachiyo Medical Center, Chiba, Japan Shunsuke Nomura

 L7-4 Genome-wide Association Study and Genetic Fine mapping of Novel Susceptibility Genes and Causal Variants in Adult Moyamoya Disease
Department of Neurosurgery, Seoul National University College of Medicine, Republic of Korea
Jeong Eun Kim