

Special Issue

Pre-operative Simulation Utilizing IT: Trouble Shooting and Mastering Surgery by Time-saving

Edited by Editorial Board of the NEUROLOGICAL SURGERY (No Shinkei Geka)

Planned by Fusao IKAWA

Virtual Reality Surgical Simulations Using Fusion Three-Dimensional Images

Taichi KIN 240

Simulation and Navigation in the Neurosurgical Field Using Three-Dimensional Holograms by Mixed Reality Devices

Yasushi MOTOYAMA 248

Surgical Simulation Using a Three-Dimensional Printer

Yuki SAKAEYAMA, Nobuo SUGO 254

Simulation for Endovascular Treatment

Naoki KATO, Soichiro FUJIMURA, Tohru SANO, Hiroyuki ENOMOTO, Michiyasu FUGA, Gota NAGAYAMA, Shunsuke HATAOKA, Issei KAN, Toshihiro ISHIBASHI, Yuichi MURAYAMA 263

In-Hospital Arrangements for Preoperative Simulation

Fusao IKAWA 270

Interactive Virtual Simulation with Haptics for Neurosurgery

Makoto OISHI, Ryosuke OGURA 279

New Preoperative Simulations for the Future of Hydrocephalus Surgery

Shigeki YAMADA 289

Preoperative Simulation of Neuroendovascular Therapy Using a Three-Dimensional Printer Model of a Tailor-Made Hollow Cerebral Aneurysm

Jun HARUMA, Ryu KIMURA, Masafumi HIRAMATSU, Kenji SUGIU 299

A New Preoperative Simulation Using Magnetic Resonance Imaging Bone-Like Imaging with Zero-Echo-Time Sequence

Akihiro INOUE, Yasuhiro SHIRAIISHI, Taichi FURUMOCHI, Takeharu KUNIEDA 309

Usefulness of Preoperative Simulation: Skull Base Approach

Masahiko WANIBUCHI, Toru HIRANO, Toshihiro TAKAMI, Shinji KAWABATA, Motomasa FURUSE, Naosuke NONOGUCHI, Masahiro KAMEDA, Ryo HIRAMATSU, Ryokichi YAGI, Gen FUTAMURA, Masao FUKUMURA, Takuya KOSAKA, Yusuke FUKUO, Katsuya KOMATSU, Nobuhiro MIKUNI 320

Endoscopic Surgery for Skull Base Tumors

Tsuyoshi SASAKI, Takeo GOTO 327

Selection of Appropriate Approaches to Preserve Brain Function for Deep Seated Brain Tumors: Our Experience of Two Posterior Thalamic Cases

Masazumi FUJII 335

Preoperative Simulation of Endoscopic Endonasal Approach for Craniopharyngiomas or Tuberculum Sellae Meningiomas

Hiroyoshi AKUTSU, Takeshi HONGO 347

Hypervascular Tumors such as Hemangioblastoma

Hiroki YOSHIDA, Hirofumi NAKATOMI 358

Brain Stem and Para-Brain Stem Lesions

Soichi OYA, Syunya HANAKITA 367

Craniotomy Clipping for Cerebral Aneurysms

Hiroki UCHIDA, Hidenori ENDO 374

Presurgical Simulation for Brain Arteriovenous Malformation

Jun C. TAKAHASHI 380

Various Bypass Surgery: Preoperative Simulation for STA-MCA Bypass

Hiromasa KOBAYASHI, Yoko MATSUO, Atsushi HIROTA, Ken MIYAGAWA, Ryota TAOMOTO, Takayuki KOGA, Hiroshi ABE 389

Carotid Artery Stenting

Daizo ISHII, Nobutaka HORIE 399

Thrombectomy

Daizo ISHII, Nobutaka HORIE 407

Preoperative Simulation for Complication Control in Spinal Surgery

Hidetoshi MURATA 415

Preoperative Simulation in Epilepsy Surgery

Kota KAGAWA, Koji IIDA, Nobutaka HORIE 422

Review

Japanese National Plan for Promotion of Measures against Stroke and Cardiovascular Diseases and Data-Based Health Management Initiatives

Koji IIHARA 433

Anatomical and Surgical Note

Basic and Advanced Techniques of Anastomosis in Deep Surgical Fields: STA-SCA Anastomosis

Tomohiro INOUE, Sho TSUNODA, Masafumi SEGAWA, Ryuichi NODA, Hiroshi MATSUFUJI, Yuya SAKAKURA, Mariko KAWASHIMA, Atsuya AKABANE, Chikayuki OCHIAI 449