The 26th Annual Meeting of the Japan Society for the Study of Surgical Technique for Spine and Spinal Nerves (JPSTSS)
[Program]

 $6\sim7$ September 2019

6 September (Fri.) Room 1 (10 F Room 1003)

8:20~	- 8:25	Opening Remarks			
8:30~	~ 10:00 (90min.)	Symposium 1			
	New technology in spine surgery Chairs : Koji SATO, Toshihiro TAKAMI				
S1-1 177p	Current innovati Orthopedic Departme Yuichiro ABE	on in computer vision for spine surgery			
S1-2 178p	to characterize t predict surgical	paedic Surgery, Chiba University, Graduate School of Medicine			
S1-3 179p	•	ity navigation for cervical spine surgery d Center, Aichi Medical University Hospital et al.			
S1-4 180p	vascular circulat intramedullary t	of intraoperative assessment of spinal tion using ICG-VA in the surgery of spinal umors surgery, Osaka City University Graduate School of Medicine			

Toshihiro TAKAMI, et al.

S1-5 Intraoperative ultrasonography navigation fusion with CT or MRI
Orthopedic Department, Japanese Red Cross Nagoya Daini Hospital
Koji SATO, et al.

S1-6 Percutaneous ultrasonographic observation of the spinal cord after cervical laminoplasty

Department of Orthopedic Surgery, Osaka Medical College Yoshiharu NAKAYA, et al.

10:00 ~ 10:40 Break

 $10:40 \sim 11:40$ (60min.) Instructional Lecture 1

Chair: Yusuke NAKAO

Relationship between quality of life and radiology:

140p Is the optimal deformity correction the best treatment?

Faculty of Spine Unit of Bordeaux University Hospital, Bordeaux, France Louis BOISSIÈRE

11:40~12:00 Break

12:00~13:00 (60min.) Luncheon Seminar 1

Chair: Koichi SAIRYO

LS1 Laminoplasty using suture anchors for cervical spondylosis and spinal cord tumors

Sapporo Azabu Neurosurgical Hospital

Kazutoshi HIDA

Sponsored by OLYMPUS TERUMO BIOMATERIALS CORP.

13:00~13:05 Break

13:05~13:20 General Assembly

13:20~13:30 Break

Chairs: Hiroshi MIYAMOTO, Kazuhiro HASEGAWA				
S2-1 183p	The key role of augmented intelligence in the future of adult deformity treatment University of California, San Francisco, USA Christopher P. AMES			
S2-2 184p	Implication of standing whole body sagittal alignment in spine surgery Niigata Spine Surgery Center Kazuhiro HASEGAWA			
S2-3 185p	The concept of Sanraku formula for the correction of adult spinal deformity Orthopedic Department, Spine Center, Sanraku Hospital Yusuke NAKAO, et al.			
S2-4 186p	Surgical strategy for cervical kyphosis Orthopaedic Department, Kindai University Hospital Hiroshi MIYAMOTO			
S2-5 187p	Spine deformity based on osteoporosis Department of Orthopedic Surgery, Akita University Graduate School of Medicine Naohisa MIYAKOSHI, et al.			
S2-6 188p	Is L5 PSO the solution to proximal junctional kyphosis? Faculty of Spine Unit of Bordeaux University Hospital, Bordeaux, France Louis BOISSIÈRE			
S2-7 189p	Complications and solutions in complex spine surgery Department of Spine & Reconstructive Orthopaedic Surgery, Sana Clinic Offenbach Offenbach, Germany Michael A. PAUSCHMANN			

 $13:30\sim15:30$ (120min.) Symposium 2 <English Session> Correction of spinal deformity considering global spinal

15:30~15:40	Break
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Free Papers 4 15:40~16:40 (60min.) Cervical spine Chair: Eiichiro HONDA F4-1 The outcome of cervical foraminotomy in case of radiculopathy 317p Orthopedic Department, Japanese Red Cross Musashino Hospital Satoru MATSUTANI, et al. F4-2 Surgical results of laminoplasty for cervical myelopathy due to localized anterior compression 318p Dept. of Spine Surgery, JCHO Tokyo Yamate Medical Center Toshikatsu MAMADA, et al. F4-3 Ensuring the operative field in cervical laminoplasty Department of Neurosurgery, Kyoto Okamoto Memorial Hospital 319p Tomoaki FUJITA, et al. F4-4 The impact of cervical ossification of the anterior longitudinal ligament for surgical outcomes for cervical ossification of the 320p posterior longitudinal ligament - K-line (+) -Department of Orthopaedic Surgery, Nagoya University Graduate School of Medicine Shunsuke KANBARA, et al. F4-5 The study of the cervial posterior approach disectomy Shin-ai Spine Center, Katano Hospital 321p Nobuhiro SASAKI, et al. F4-6 Impact of multifidus muscle swelling on C5 palsy after cervical laminoplasty 322p Orthopedic Department, Osaka Medical College Yoshitada USAMI, et al. F4-7 Relationship between proximal cervical spondylotic amyotrophy and cervical sagittal plane and dynamic 323p alignment Orthopedic Department, Tokyo Med. Hospital Kei KANAZAWA. et al. F4-8 Surgical outcomes of postural instability in patients with cervical myelopathy 324p Department of Orthopedic Surgery, Osaka Medical College

Toma YANO, et al.

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16:45~17:45 (60min.) Spine Leader's Lecture 4

Chair: Hisanori MIHARA

SLL4-1 Anterior cervical decompression with fusion and interbody

150p cage

Orthopedic Department, Saiseikai Kawaguchi General Hospital

Kenichiro SAKAI

SLL4-2 Future development of anterior cervical decompression and fusion

Spine and Spinal Cord Center, Aichi Medical University

Masahito HARA, et al.

Sponsored by Stryker Japan K.K.

17:45~17:50 Break

17:50~18:50 (60分) Spine Leader's Lecture 6

17:50~18:20 (30min.)

Chair: Katsushi TAKESHITA

SLL6-1 Adult spinal deformity

153p Department of Spine & Reconstructive Orthopaedic Surgery, Sana Clinic Offenbach, Offenbach, Germany

Michael A. RAUSCHMANN

Sponsored by B.BRAUN AESCULAP JAPAN CO., LTD.

18:20~18:50 (30min.)

Chair: Masahito HARA

SLL6-2 Spinal surgery in the latest hybrid navigation operating room

Department of Orthopaedic Surgery, Shinshu Univrsity, School of Medicine

Jun TAKAHASHI, et al.

Sponsored by Brainlab K.K.

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Room 2

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6 September (Fri.) Room 2 (10 F Room 1001)

8:30~9:30 (60分) Spine Leader's Lecture 1

8:30~9:00 (30min.)

Chair: Kiyoshi KUMANO

5LL1-1 1000 cases of microsurgical anterior cervical Foraminotomy (MacF) for cervical radiculopathy

Department of Spine Surgery, Shinagawa Shisyokai Hospital

Naoto TSUCHIYA, et al.

Sponsored by ITO MEDICAL INSTRUMENTS Co., Ltd.

9:00~9:30 (30min.)

Chair: Nobuhiro HARA

SLL1-2 How to calculate the accurate correction angle of kyphosis in an adult spine deformity, considering compensation mechanism and reciprocal change

- The advanced Sanraku Formula -

Spine Center, Sanraku Hospital Shigeo SANO, et al.

Sponsored by PETER BREHM Japan Inc.

9:30~9:35 Break

9:35~10:35 (60分) Spine Leader's Lecture 2

9:35~10:05 (30min.)

Chair: Kei MIYAMOTO

SLL2-1 Corrective fixation surgery using multi-level PLIF for adult spinal deformity

Orthopedic Department, Akitakousei Medical Center

Eiji ABE

Sponsored by MIZUHO Corporation

10:05~10:35 (30min.)

Chair: Atsushi NAKANO

SLL2-2 Indication and long-term follow-up study of chemonucleolysis with condoliase after clinical trials of condoliase for lumbar disc herniation

Department of Orthopaedic Surgery, Hamamatsu University School of Medicine Yukihiro MATSUYAMA

Sponsored by KAKEN PHARMACEUTICAL CO.,LTD.

10:35~10:40 Break

10:40~11:40 (60min.) Free Papers 1

Cervical and thoracic spine

Chair: Toshikatsu MAMADA

F1-1 Subaxial subluxation and fixation angle after occipito-atlantoaxial fixation with rheumatoid arthritis

National Hospital Organization, Sagamihara National Hospital Yoh KUMANO, et al.

F1-2 Development of intraoperative navigation system and safety of cervical pedicle screw

Deprtment of Neurosurgery, Tsukazaki Hospital Nobuyuki SHIMOKAWA, et al.

F1-3 The differences of the accuracy of cervical pedicle screw insertion by the setting position of reference frame using 296p intraoperative CT navigation system Department of Orthopaedic Surgery Spine Center, Niigata Central Hospital Tatsuo MAKINO, et al. F1-4 Image examination of the safest insertion point of cervical pedicle screw thorough anterior approach 297p Departmento of Orthopedic Surgery, Kochi Health Sciences Center Yoshiaki ODA, et al. F1-5 The surgical treatment of pyogenic cervical spondylitis using posterior instrumentation without anterior debridement: 298p A report of three cases Department of Orthopaedic Surgery, Funabashi Municipal Medical Center Hiroaki SAMEDA, et al. F1-6 Anteroposterior reconstructive surgery for infectious spondylitis combined with advanced kyphotic deformity in 299p cervical spine is useful Department of Orthopedic Surgery, Showa University Hospital Ryo YAMAMURA, et al. F1-7 Treatment experience of 3 cases of thoracic and spinal cord herniation who underwent hernia repair 300p Department of Neurosurgery, Mie University Graduate School of Medicine Masashi FUJIMOTO, et al. F1-8 Surgical outcomes and prognostic factors for thoracic myelopathy due to ossification of ligamentum flavum 301p Dept. of Spine Surgery, JCHO Tokyo Yamate Medical Center

myelopathy due to ossification of ligamentum flavum
Dept. of Spine Surgery, JCHO Tokyo Yamate Medical Center
Hidemasa UMEKOJI, et al.

11:40~12:00 Break

12:00~13:00 (60min.) Luncheon Seminar 2

Chair: Hideki OTA

LS2 Computer aided surgical resection and reconstruction of spinal tumors

Department of Orthopedic Oncology, Changzheng Hospital, Second Military Medical University, Shanghai, China

Jianru XIAO, et al.

Sponsored by DePuy Synthes, Johnson and Johnson K.K.

13:00 ~ 13:25 Break

13:25~14:25 (60min.) Main Theme 3

New technology in spine surgery 1

Chair: Nobuyuki SHIMOKAWA

MT3-1 Minimally invasive spine surgery in hybrid operation room

216p Department of Neurosurgery, Osaka Police Hospital

Yasushi SHIN, et al.

MT3-2 Usefulness of new exoscope system (ORBEYE) in spine

217p surgery

218p

Department of Neurosurgery, Suita Municipal Hospital Yasuyoshi MIYAO, et al.

MT3-3 Intraoperative evaluation using computed tomography in

atlantoaxial transarticular screw fixation

Orthopedic Department, Osaka Medical College Takuya OBO, et al.

MT3-4 3D printed tubular guides for pedicle screw placement:

219p MySpine technology

Orthopedic Department, Showa University Hiroshi MARUYAMA, et al.

MT3-5 C-arm free technique for anterior correction of adolescent idiopathic scoliosis

Orthopedic Department, Okayama Rosai Hospital

Taro YAMAUCHI, et al.

MT3-6 The evaluation of indirect neural decompression after lateral lumbar interbody fusion using intraoperative computed tomography myelogram

Department of Orthopaedic Surgery, Osaka Medical College Sachio HAYAMA, et al.

MT3-7 Microendoscopic decompression using navigation for lumbar interforaminal stenosis

Orhopedic Department, Okayma Rousai Hospital Taro YAMAUCHI, et al.

14:25~15:30 (65min.) Main Theme 5

New technology in spine surgery ②

Chair: Takanori SAITO

MT5-1 Challenges for MIST

230p -Intraspinal canal treatment (Trans-sacral canalplasty) -

Department of Orthopaedic Surgery, School of Medicine, International University of Health and Welfare / Spin and Spinal Cord Center, International University of Health and Welfare Mita Hospital

Haruki FUNAO, et al.

MT5-2 Experience of TSCP (trans-sacral canalplasty) in 83 cases

231p Kurume University School of Medicine, Department of Orthopedic Surgery Kimiaki YOKOSUKA, et al.

MT5-3 The evolution of the epiduroscopy and the future prospects

Department of Orthopaedics, Kansai Medical University
Masaki PAKU, et al.

MT5-4 Minimally invasive decompression with a new 8 mm fullendoscope for lumbar spinal canal stenosis and foraminal stenosis

Orthopedic Department, Aichi Spine Hospital Fujio ITO, et al.

MT5-5 The study of the appropriate guiding-needle's angle at epidural adhesiolysis

Orthopedic Department, Kurume University Hospital Takahiro SHIMAZAKI, et al.

Room 2

Microendoscopy assisted lumbar lateral interbody fusion: ME-LIF

235p

Aichi Spine Hospital

Motohide SHIBAYAMA, et al.

Postoperative outcomes after trans-Sacral Epiduroscopic Laser MT5-7 Decompression (SELD) in Japanese patients -Denervation

236p therapy for discogenic low back pain-

> Orthopedic Department, Aichi Spine Hospital Zenya ITO, et al.

MT5-8 Comparison of postoperative course between micro LOVE and PELD 237p

> Department of Neurosurgery and Spine Surgery, Iseikai Hospital Masao UMEGAKI, et al.

15:30~15:40 Break

Tea Time Seminar 1 15:40~16:40 (60min.)

Chair: Ichiro BABA

Surgical strategy for elderly spinal deformity with osteoporotic TTS1 vertebral fracture 169p

Department of Orthopaedic Surgery, Hamamatsu University School of Medicine Yukihiro MATSUYAMA

Sponsored by AsahiKASEI Pharma

16:40~16:45 Break

Spine Leader's Lecture 5 16:45~17:45 (60min.)

Chair: Masakazu TAKAYASU

SLL5 Cervical disc replacement: Mobile core technology

Brain and Spine Consultant Clinic, Hong Kong 152p

Joseph Ming Kuen LAM

Sponsored by Zimmer Biomet

17:45~17:50 Break

17:50~18:50 (60min.) Spine Leader's Lecture 7

Chair: Tomoaki TOYONE

The key role of augmented intelligence in the future of adult deformity treatment

University of California, San Francisco, USA Christopher P. AMES

Sponsored by NexMed International Co., Ltd.

DAY

6 September (Fri.) Room 3 (10 F Room 1002)

 $8:30\sim9:40$ (70min.) Main Theme 1 Technical tips 1 Chair: Bungo OTSUKI L3/4 sublaminar taping can prevent adjacent segmental MT1-1 diseases in L4/5/S1 posterior interbody fusion 202p Spine and Spinal Cord Center, Niigata Central Hospital Yuva TAKESUE, et al. Surgical treatment of using expandable cage of lordotic type MT1-2 Orthopedic Department, Yokohama City University Hospital 203p Takashi KUNIYA, et al. MIS posterior/transforaminal lumbar interbody fusion using MT1-3 ILLICO and Capstone control with 'lordotic compression 204p technique' Oume Spine Center, Takagi Hospital Yosuke MIYAMOTO, et al. MT1-4 The evaluation of the bone weight around the cage by the method of bone graft before cage insertion in PLIF 205p Orthopedic Department, Niigata South Hospital Tomohiro IZUMI, et al. MT1-5 Direct repair of pars defects in lumbar spondylolysis using aiming device 206p Department of Orthopaedic Surgery, Graduate School of Medicine, Kyoto University Shunsuke FUJIBAYASHI, et al. Clinical outcomes of MIS-TLIF without resection of MT1-6 fibrocartilage tissue for isthemic spondylolisthesis in a series 207p of 35 cases Orthopedic Department, Anshin Hospital Masao RYU, et al. MT1-7 Minimum invasive PLIF using CBT/ TASS for isthmic spondylolisthesis 208p

Dept. of Orthopaedic Surgery, Osaka City University Graduate School of Medicine

Hidetomi TERAI, et al.

MT1-8 Interbody bone graft via transdiskal screw holes as treatment for high-grade spondylolisthesis

Department of Orthopaedic Surgery, Gifu University / Department of Orthopaedic Surgery, Osaka Medical University Satoshi NOZAWA, et al.

9:40~9:45 Break

9:45~10:45 (60min.) Spine Leader's Lecture 3

Chair: Mamoru KAWAKAMI

SLL3-1 Instrumentation-related complications after spinal surgery in adult spinal deformity

Orthopedic Department, The Hospital of Hyogo College of Medicine Keishi MARUO

SLL3-2 Navigation-assisted spinal surgery in the hybrid operating room

Orthopaedic Surgery, Spine and Spinal Cord Center, Osaka Police Hospital Ryoji YAMASAKI

Sponsored by NuVasive Japan K.K.

10:45 ~ 10:50 Break

10:50~11:40 (50min.) Main Theme 2

Technical tips 2

Chair: Shigeru HIRABAYASHI

MT2-1 Factors and treatment for cloudy endoscopic view in PED

210p Department of Neurosurgery, Saso Hospital Kazunori SHIBAMOTO, et al.

MT2-2 Technical note and outcome of ME-MILD surgery

211p Niigata Spine Surgery Center / Department of Orthopaedic Surgery, The University of Tokyo Hospital Yusuke SATO, et al.

MT2-3 Technique and clinical outcomes of full-endoscopic lumbar laminotomy

Center for Spinal Surgery, Nippon Koukan Hospital Koichiro ONO. et al. MT2-4 A ligamentum flavum-preserving decompression for lumbar spinal stenosis

Orthopedic Department, National Hospital Organization, Kanazawa Medical Center Katsuhito YOSHIOKA, et al.

MT2-5 One year postoperative results of posterior dynamic

non-fusion stabilization for lumber canal stenosis using SSCS

Hachioji Spine Clinic

Osamu MATSUSHIGE, et al.

MT2-6 Salvaged surgery of posterior dynamic transpedicular

stabilization for the adjacent segment disorder after posterior spinal fusion

Fuji Toranomon Orthopaedic Hospital

Shuntaro TSHUCHIDA

11:40~12:00 Break

12:00~13:00 (60min.) Luncheon Seminar 3

Chair: Takuya NIKAIDO

LS3 Experience of intra laminner and trans foraminal endscopic spine surgery

-Navigation technology for endoscopic spine surgery (intracs) -

Lohas Spine Hospital, Kaohsiung, Taiwan

Iiao-Chao YANG

13:00~13:25 Break

13:25~14:25 (60min.) Main Theme 4

Chiari malformation and syringomyelia

Chair: Minoru HOSHIMARU

MT4-1 Recent surgeries for Chiari malformation and related disorders

223p Department of Neurological Surgery,

Okayama University Graduate School of Medicine

Takao YASUHARA, et al.

Foramen magnum decompression without duralplasty in MT4-2 Chiari type 1 malformation 224p Uchikado Neuro-Spine Clinic Hisaaki UCHIKADO MT4-3 The size of the sub-occipital craniectomy of the Chiari type 1 malformation 225p Department of Neurosurgery, Aichi Medical University Masahiro AOYAMA, et al. MT4-4 Subarachnoid-subarachnoid bypass for syringomyelia after spinal cord injury 226p Department of Orthopardic Surgery, Nagoya University Graduates School of Medicine Taro INOUE, et al. MT4-5 Surgical treatment and results of tethered cord syndrome (TCS) 227p Dept. of Orthopaedic Surgery, Osaka City Unversity Graduate School of Medicine Hidetomi TERAI, et al. MT4-6 Our experiences of treatments for spinal adhesive arachnoiditis 228p Department of Neurosurgery, Jikei University School of Medicine Daichi KAWAMURA, et al. MT4-7 Time-spatial labeling inversion pulse magnetic resonance

imaging of six cystic lesions of the spinal cord 229p

Shiga Spine Center, Hino Memorial Hospital Tatsuya ISHIBE, et al.

 $14:25 \sim 14:30$

Break

14:30~15:30 (60min.) Main Theme 6

Spine and spinal cord tumors

Chair: Makoto TANIGUCHI

Surgical management of spinal metastatic tumor, prognosis of MT6-1 paralysis 238p

> Department of Orthopaedics, Japanese Red Cross Musashino Hospital Nobuhiro HARA, et al.

MT6-2 Surgical outcome of spinal meningioma

Department of Neurosurgery, St. Marianna University School of Medicine, Yokohama City Seibu Hospital
Homare NAKAMURA, et al.

MT6-3 Reconstruction after hemipelvectomy for malignant tumor
Department of Orthopaedics, Graduate School of Medicine, Kyoto University Bungo OTSUKI, et al.

MT6-4 5-aminolevulinic acid fluorescence-guided resection of intramedullary ependymoma

Department of Neurosurgery, Sendai Medical Center / Department of Neurosurgery, Tohoku University Graduate School of Medicine Tomoo INOUE, et al.

MT6-5 CD133 as a putative prognostic biomarker of intracranial dissemination of spinal cord astrocytoma

Department of Neurosurgery, Sendai Medical Center / Department of Neurosurgery, Tohoku University Graduate School of Medicine Tomoo INOUE, et al.

MT6-6 Postoperative syrinx shrinkage in spinal ependymoma of WHO
243p Grade II

Orthopedic Department, Nagoya University Kazuyoshi KOBAYASHI, et al.

MT6-7 Approaches to intramedullary spinal cord tumors

244p Shin-aikai Spine Center, Katano Hospital Minoru HOSHIMARU, et al.

15:30 ~ 15:40 Break

15:40~16:40 (60min.) Tea Time Seminar 2

Chair: Kenichiro YAMAGISHI

TTS2 Technical development of balloon kyphoplasty for early stage osteoporotic vertebral fracture

Spine Care Center, Wakayama Medical University Kihoku Hospital

Yukihiro NAKAGAWA

Sponsored by Japan Medical Dynamic Marketing, INC.

16:40 ~ 16:45 Break

247p

16:45~17:45 (60min.) Main Theme 7

Adult spinal deformity 1

Chair: Hideo HOSOE

MT7-1 Characteristics of deformity surgery in patients with severe and rigid cervical kyphosis:

Results of the CSRS Europe multicentre study project

Department of Orthopaedic Surgery, Showa University

Tomoaki TOYONE, et al.

MT7-2 Change in sagittal alignment of patients with dropped head syndrome from preoperative to postoperative

Department of Orthopaedic Surgery, Showa University School of Medicine Chikara HAYAKAWA, et al.

MT7-3 Adult spinal deformity surgical decision-making score:

Development and validation of a scoring system to guide the selection of treatment modalities for patients below 40 years with adult spinal deformity

Department of Orthopedic Surgery, Osaka Medical College Takashi FUJISHIRO, et al.

MT7-4 Impact of pelvic stiffness to global sagittal alignment deterioration on natural sitting posture

Department of Orthopedic Surgery, Hamamatsu University School of Medicine Hiroki USHIROZAKO, et al.

MT7-5 Effect of spinal sagittal malalignment on sit to stand movement

Department of Orthopaedic Surgery, Kyoto City Hospital Mitsuru TAKEMOTO, et al.

MT7-6 Risk factors for correction loss after posterior fixation for single-level thoracolumbar osteoporotic vertebral burst fractures

Department of Spine Surgery, Kanto Rosai Hospital Hiroyuki NAKARAI, et al.

MT7-7 Indications and limitations of floating fusion for adult spinal deformity

Orthopaedic Department, Kindai University Hospital Terumasa IKEDA, et al.

17:45~17:50 Break

17:50~18:50 (60分)

17:50~18:20 (30min.)

Chair: Futoshi SUETSUNA

SLL8-1 Development and

Development and refinement of calcium phosphate cement

Spine Leader's Lecture 8

- Its clinical application to spine surgery -

Department of Orthopaedic Surgery, Spine Center, Kochi Medical School, Kochi University

Ryuichi TAKEMASA

Sponsored by HOYA Technosurgical Corporation

18:20~18:50 (30min.)

Chair: Koji SATO

SLL8-2 Challenging to metastatic spinal tumors

157p Dept of Orthopedics, Traumatology and Spine Surgery, Kawasaki Medical School Kazuo NAKANISHI, et al.

Sponsored by Teijin Nakashima Medical Co., Ltd.

6 September (Fri.) Room 4 (10 F Room 1006)

8:30~9:30 (60min.) Hands-on Session 1

Chair: Sadahiko KONISHI

HO1 Advanced expandable technology, and its surgical technique

171p Hachinohe City Hospital Takuya NUMASAWA

Sponsored by Globus Medical Japan, Inc.

9:30~10:00 Break

10:00~11:00 (60min.) Hands-on Session 2

HO2 Tips and tricks for discectomy and endplate preparation in lumbar interbody fusion

Department of Orthopaedic Surgery, Kyoto City Hospital

Mitsuru TAKEMOTO

Sponsored by DePuy Synthes, Johnson and Johnson K.K.

11:00 ~ 13:30 Break

13:30~14:25 (55min.) Free Papers 2

Anterior cervical fusion

Chair: Atsuomi AIBA

Risk factor for esophageal injury by blade retractor during anterior cervical surgery:

A morphological assessment with intraoperative CT

Department of Orthopedic Surgery, Osaka Medical College

Atsushi NAKANO, et al.

F2-2 Clinical outcomes of multiple-level anterior decompression and fusion for cervical compressive myelopathy

Orthopedic Department, Gifu Municipal Hospital

Kei MIYAMOTO, et al.

F2-3 Comparison between anterior cervical decompression and fusion and cervical disc arthroplasty for surgical treatment of cervical disc herniation

Department of Neurosurgery, Shizuoka General Hospital Yoshifumi KAWANABE, et al.

F2-4 Cage subsidence and local Cobb angle in anterior cervical fusion -Comparison of three types of implants-

Orthopedic Department, Nishinomiya Kyoritsu Neurosurgical Hospital Shu ADACHI, et al.

Anterior cervical discectomy and fusion using a rectangular titanium-coated PEEK stand-alone cage:
Preliminary image analysis of cage subsidence

Department of Neurosurgery, Osaka City University Hospital / Department of Neurosurgery, Moriguchi-Ikuno Memorial Hospital Stroke and Spine Center

Yuta NAKANISHI, et al.

F2-6 Clinical results of titanium coated PEEK cages for anterior cervical decompression and fusion-comparison with non-titanium coated PEEK cages

Orthopedic Department, Numazu City Hospital Atsushi YUNDE, et al.

F2-7 Titanium coated PEEK cage is more useful for the clinical result of multi-vertebral anterior cervical decompression and fusion than conventional PEEK cage

Orthopedic Department, Numazu City Hospital Ryo KADOTA, et al.

14:25~14:30 Break

14:30 \sim 15:30 (60min.) Free Papers 3

Complications

Chair: Yukoh OHARA

F3-1 Sternal fracture caused by prone position surgery of patients with osteoporosis

Orthopedic Department, Fukuoka Kinen Hospital Shinji KUMAMOTO, et al.

F3-2 Influence of preoperative lower extremity muscle strength on deep vein thrombosis in the perioperative period of lumbar 310p surgery Department of Orthopedic Surg., Atsugi City Hosp. Takashi IMURO, et al. F3-3 Prognosis of 99 cases of pyogenic spondylitis -Does endoscopic surgery contribute to the improvement of 311p the mortality rate?-Orthopedic Department, Shiroyama Hospital Kazuki YONEI, et al. F3-4 Prospective multicenter surveillance and risk factor analysis of surgical site infection (SSI) after posterior open thoracolumbar 312p laminectomy and/or herniotomy for degenerative diseases -Is surgery in April at risk for SSI ?-Department of Orthopaedic Surgery, Saitama Medical Center, Saitama Medical University Satoshi OGIHARA, et al. F3-5 Risk factor of surgical site infection in the patients with spinal injury 313p Department of Orthopedic Surgery, Tokyo Medical University Kazuma MURATA, et al. F3-6 Respiratory complications after anterior corpectomy to thoracolumbar spine 314p Department of Spine Surgery, Shinagawa Shishokai Hospital Takeshi UMEBAYASHI, et al. F3-7 Perioperative complications and surgical outcomes in spinal 315p surgery over 90 years old Orthopedic Department, Musashino Red Cross Hospital Shuhei IWATA, et al. F3-8 Incidence and tendency of incidental durotomy in operations

of degenerative spine diseases 316p

> Department of Orthopedic Surgery, Musashino Red Cross Hospital Yuki ISHIKAWA, et al.

 $15:30 \sim 15:40$ Break

15:40	~ 16:45 (65min.) Free Papers 5		
Lateral interbody fusion			
Chair	: Futoshi SUETSUNA		
F5-1 325p	Is autologous bone grafting necessary among the cases of XLIF?		
	Hachioujisekituigekaclinic Takayuki SUMITA, et al.		
F5-2	Radiological improvements in lumbar lordosis and indirect		
326p	decompression after combined XLIF and PPS surgeries with additional anterior column realignment procedure (ACR) Orthopedic Surgery, Kansai Medical University Yoichi TANI, et al.		
F5-3	Indirect decompression with lateral interbody fusion for		
327p	degenerative revision lumbar surgery Dept. of Orthopaedic Surgery, Kyoto University Graduate School of Medicine		
	Takayoshi SHIMIZU, et al.		
F5-4	Reciprocal changes in coronal alignment in lateral lumbar		
328p	interbody fusion Department of Neurosurgery, Kyoto Prefectural University of Medicine		
	Daisuke UMEBAYASHI, et al.		
F5-5	Efficacy of LLIF for restenosis after posterior decompression		
329p	Surgery Dept. of Orthopedic Surgery, Showa University		
	Yoshifumi KUDO, et al.		
F5-6	The usefulness of LLIF for single-level disease		
330p	Department of Neurosurgery, Tokyo Wemen's Medical University		
	Kento TAKEBAYASHI, et al.		
F5-7	Comparison of each lateral interbody fusion approach		
331p	technique for thoracolumbar vertebral fracture Department of Neurosurgery, Kawachi General Hospital		
	Takashi MORIWAKI		
F5-8	Restoration of the lumbar lordosis after lumbar oblique lateral		
332p	interbody fusion (OLIF) surgery in patients with rheumatoid arthritis		
	Orthopedic Department, Sagamihara National Hospital		
	Ryo FUKUSHIMA, et al.		

Room 5

F5-9 Investigation of 5 cases of LLIF for bacterial lumbar vertebral spondylitis 333p Neurosurgery Department, Tsukazaki Hospital Hidetoshi SATO, et al. 16:45~17:45 (60min.) Free Papers 6 Osteoporosis Chair: Hidetomi TERAI Surgical outcome of balloon kyphoplasty for osteoporotic F6-1 vertebral fractures 334p Orthopedic Department, Hachiya Orthopedic Hospital Atsushi YOSHIOKA, et al. F6-2 Efficacy of BKP for single level in patient with simultaneous multiple regions of osteoporotic vertebral fracture 335p Neurosurgery Department, Inazawa Municipal Hospital Hiroshi ITO, et al. F6-3 Analysis of the factors related to poor outcome after balloon kyphoplasty 336p Department of Neurosurgery, Tokyo Women's Medical University / Department of Spinal Surgery, Kameda Medical Center Kotaro KOHARA, et al. Treatment of vertebroplasty and posterior fusion for vertebral F6-4 fracture 337p Orthopedic Department, Nagayama Hospital Takashi ISHITANI. et al. Risk factor for the loss of correction after posterior fusion with F6-5 vertebroplasty for osteoporotic vertbral fractures 338p Orthopedic Department, Omuroseikei Spine Joint Clinic Sho HINENO, et al. Surgical management for delayed neurological deficits after F6-6 osteoporotic vertebral fracture 339p Department of Neurosurgery, Tokyo Wemen's Medical University

Kento TAKEBAYASHI, et al.

Usefulness of combined ACR and PPS surgeries for kyphotic deformity after osteoporotic vertebral fractures at the thoraco-lumbar junction

Sangubashi Spine Surgery Hospital Makoto YOSHIDA, et al.

F6-8 An effect comparison of Denosumab and SERM on spinal instrumentation in patients with osteoporosis

Department of Orthopaedic Surgery, Showa University School of Medicine Koji ISHIKAWA, et al.

17:45 ~ 17:50 Break

17:50~18:50 (60min.) Main Theme 8

Technical tips 3

Chair: Satoru SHIMIZU

MT8-1 A method for spinal dural closure in intradural tumor surgery

Department of Neurosurgery, Tokyo Women's Medical University / Department of Spinal Surgery, Kameda Medical Center Kotaro KOHARA, et al.

MT8-2 Optimal surgical procedure for preventing the tethering of the spinal cord

Shinshu University, School of Medcine Kiyoshi ITO

MT8-3 How to use a mixture of grated gelatin sponge and human thrombin solution as a hemostat for spinal surgery

Orthopedic Department, Kanto Rosai Hospital Akiro HIGASHIKAWA, et al.

MT8-4 High-frequency spinal cord stimulation at T9/10 in patients

255p Department of Spinal Surgery, Akita Cerebrospinal and Cardiovascular Center Naoki HIGASHIYAMA. et al.

MT8-5 A method to perform transforaminal PELD under general anesthesia safely

-Ventilation using laryngeal mask airway in prone position-Fuji Toranomon Orthopaedic Hospital Shuntaro TSUCHIDA, et al.

Siluitiato 150CIIIDA, et al.

MT8-6 Correlation between pain evaluation using the painDETECT questionnaire and efficacy of SCS

Sapporo Azabu Neurosurgical Hospital Toru SASAMORI, et al.

MT8-7 Holding and Lifting Test for symptomatic lumbar foraminal stenosis as a indicator for surgical outcomes

Orthopedic Department, Gifu Municipal Hospital Kei MIYAMOTO, et al.

6 September (Fri.) Room 5 (10 F Room 1007)

8:30~	9:30 (60min.) Short talk 1		
Lumbar and sacral spine Chair : Takashi FUJISHIRO			
ST1-1 358p	Thermo-rhizotomy for low back pain of Bertolotti's syndrome Neurosurgical Department, Saso Hospital Koshi NINOMIYA, et al.		
ST1-2 359p	Two cases reports of far-out syndrome with the degenerative lumbar disease Department of Orthopedic Surgery, Osaka Medical College Atsushi NAKANO, et al.		
ST1-3 360p	A case of lumbar spinal stenosis with diffuse idiopathic skeletal hyperostosis required multiple operations for repetitive cage dislodgement after lateral lumbar interbody fusion Hokusetsu General Hospital Yuki YAMAMOTO, et al.		
ST1-4 361p	A case of lumbar spinal canal stenosis with degenerative scoliosis treated with the combination of LIF and MILD Department of Orthopaedics, Graduate School of Medical Science, Kyoto Prefectural University of Medicine Taisuke WATANABE, et al.		
ST1-5 362p	Lumbar canal stenosis with L5 vertebral fracture: Three case reports and a review of the literature Orthopedic Department, Syunyoukai Central Hospital Shigehito UEZONO, et al.		
ST1-6 363p	A recurrent case which needs L5/S1 foraminotomy after lumbar laminoplasty Seirei Memorial Hospital Satoshi ENDO, et al.		
ST1-7	Lumbar intraspinal synovial cyst containing gas: A case report		

Department of Orthopedic Surgery Osaka Medical College

Shintaro SUGISHIMA, et al.

364p

Posterior approach for L5 vertebral tumor by iliac crest cut and transposition with erector spinae muscles (Gullwing approach)

Department of Preventive and Therapeutic Research for Metastatic Bone Tumor, Faculty of Medicine and Graduate School of Medicine, Hokkaido University Akira IWATA, et al.

ST1-9 Lumbosacral fixation using percutaneous sacral alar iliac screw

Department of Spine and Spinal Surgery, Shin-Takeo Hospital

ST1-10 Iliosacral screw (IS) for revision spine surgery: A case report

367p Department of Spine Surgery, Kanto Rosai Hospital Hiroyuki NAKARAI, et al.

9:30~9:40 Break

Takafumi INOUE, et al.

9:40~10:40 (60min.) Short talk 2

Complications

Chair: Kanji MORI

ST2-1 Postoperative huge spinal epidural hematoma after

micro endoscopic laminectomy

Orthopedic Department, Yokohama Rosai Hospital Ryuji SAKAMOTO, et al.

ST2-2 Intraoperative precautions for removing the lumbar pedicle screw

Neurosurgery Department, Shonan Kamakura General Hospital Tsuyoshi WATANABE, et al.

ST2-3 A case of spinal cord infarction after intercostal artery embolization for spinal metastasis

Orthopaedic Department, Musashino Red Cross Hospital Yusuke ITO, et al.

2 case reports of lumbar subdural hematoma following
Thoracic Aortic Aneurysm operation with lumbar
cerebrospinal fluid drainage

Orthopedic Department, Musashino Red Cross Hospital Yuichi YOSHIDA, et al. ST2-5 A case of tongue swelling after cervical laminoplasty Seirei Memorial Hospital 372p Satoshi ENDO, et al. ST2-6 A case report of early onset adjacent segmental disease in Parkinson's disease patient 373p Spine Center, Shinagawa Shishoukai hospital Ryuta KONO, et al. ST2-7 Abdominal pseudohernia after extreme lateral interbody fusion procedure: A case report 374p Department of Spine and Orthopaedic surgery, Japanese Red Cross Medical Center / Dept. of Orthop. Surg., Showa Univ. School of Medicine Taiki YASUKAWA. et al. Reports of vertebral artery injury in microsurgical anterior ST2-8 cervical foraminotomy (MacF) 375p Department of Spine Surgery, Shinagawa Shisyokai Hospital Naoto TSUCHIYA, et al. ST2-9 Systemic adverse effects of topical vancomycin powder application in spinal instrumentation surgery 376p Department of Neurosurgery, Ohnishi Neurological Center Shinii YAMAMOTO, et al.

The effectiveness of teriparatide therapy for 2 cases of ST2-10 delayed-union after spinal fixation 377p

Spine center, Shin-aikai Katano Hospital

Hiroaki MANABE, et al.

10:40~10:50 Break

10:50~11:40 (50min.) Short talk 3

Chiari malformation

Chair: Shigeo UEDA

Chiari malformation and syringomyelia associated with ST3-1 cervical anomaly: Report of 2 cases 378p

> Department of Neurosurgery, Jikeikai Shinsuma General Hospital Yoshiyuki TAKAISHI, et al.

ST3-2 379p	Constriction of inner layer of the dura following FMD with remove of external layer is not connective tissue but thickening of the dura: A case report Department of Neurosurgery, Hyogo College of Medicine Hiroto KAGEYAMA, et al.
ST3-3 380p	Syringomyelia associated with Chiari malformation type1 treated with V-P shunt Department of Neurosurgery, Nara Medical University Yasuhiro TAKESHIMA, et al.
ST3-4 381p	Adult Chiari type1 malformation presenting with brainstem compression Department of Neurosurgery/Spine & Peripheral Nerve Center, Nakamura Memorial Hospital Yasufumi OHTAKE, et al.
ST3-5 382p	Dynamic evaluation of syringomyelia using low b value DWI Department of Neurospinal Surgery, Hokkaido Ohno Memorial Hospital Tomohiro MURAKAMI, et al.
ST3-6 383p	Spontaneous resolution of spinal dural arteriovenous fistulas Department of Neurosurgery, Aichi Medical University Masahiro AOYAMA, et al.
ST3-7 384p	Two cases with spinal extradural AVF (Type B1) to be treated by intervention through venous tract Department of Neurospinal Surgery, Shiroishikyoritsu Hospital Eiichiro HONDA, et al.
ST3-8 385p	Surgical treatment with dye injection for symptomatic spinal arachnoid cyst Department of Neurosurgery, Tsukazaki Hospital Hiroaki MATSUMOTO, et al.

Break

11:40~13:30

13:30	\sim 14:30 (60min.) Short talk 4	
Endoscopic surgery / Infection Chair : Masateru NAGAE		
ST4-1 386p	A case of endoscopic surgery for ossification of anterior longitudinal ligament at C2-3 Department of Neurosurgery, Kurume University School of Medicine Gohsuke HATTORI, et al.	
ST4-2 387p	Surgical treatment for lumbar disc herniation migrated to posterior epidural space: A report of two cases -Comparing MED to conventional method-Department of Orthopedics and Spine Surgery, Asama General Hospital Hiroshi NAKAMURA, et al.	
ST4-3 388p	Percutaneous endoscope-assisted microsurgery for degenerative lumbar disease Department of Neurosurgery, Kurume University School of Medicine Gohsuke HATTORI, et al.	
ST4-4 389p	2 cases of the percutaneous endoscopic discectomy at L5/S1 with O-arm navigation Neurospinal Surgery, Hokkaido Ohno Memorial Hospital Hitoshi HAYASE, et al.	
ST4-5 390p	Navigation assisted percutaneous endoscopic foraminoplasty for foraminal restenosis after L5/S1 posterior lateral fusion surgery Department of Neurosurgery, Yao Tokushukai General Hospital Masaki YOSHIMURA, et al.	
ST4-6 391p	Microendoscopic Lumbar foraminotomy is an effective procedure for the treatment of L5-S1 foraminal stenosis after floating fusion of multi-segmental lumbar fusion: A case report Department of Orthopedics and Spine Sugery, Asama Hospital Dai ARIYOSHI, et al.	
ST4-7	Two cases of pyogenic spondylitis after osteoporotic vertebral	

Two cases of pyogenic spondylitis after osteoporotic vertebral fracture

Department of Orthopaedic Surgery, Sousei Hospital Yuichi HONDA, et al.

ST4-8 A case of epidural and subcutaneous abscess treated with emergent decompression and postoperative saline epidural perfusion

Department of Neurosurgery, Kyoto Okamoto Memorial Hospital Tomoaki FUJITA, et al.

ST4-9 Treatment of purulent spondylitis/discitis for elderly person

394p Spine Center, Kawasaki Hospital Taigo KAWAOKA

ST4-10 Successfully treated by naso-esophageal extra-drainage and posterior spinal fusion for thoracic spondylitis with paravertebral abscess

Orthopedic Department, Tokyo Metropolitan Tama Medical Center Kazuhiro MASUDA, et al.

14:30~14:40 Break

14:40~15:40 (60min.) Short talk 5

Cervical spine

Chair: Toshiya TACHIBANA

ST5-1 A case presenting with dropped head syndrome happening immediately after cervical laminoplasty as well clinical symptom re-worsening

Department of Neurospinal Surgery, Shiroishikyoritsu Hospital Eiichiro HONDA, et al.

Fracture-dislocation of the cervical spine secondary to low-impact trauma in a patient with Klippel-Feil syndrome
Department of Orthiopedic Surgery, Showa University Hospital

Department of Orthiopedic Surgery, Showa University Hospita Yusuke DODO, et al.

Posterior fixation with Magerl surgery for cervical spinal cord incomplete paralysis with atlanto-axial rotatory fixation:

A case report

Department of Orthopedic Surgery, Osaka Medical College Keiichiro KINO. et al.

ST5-4 Intradural cervical disc herniation: A case report

Department of Spine Surgery, Shinagawa Shishokai Hospital Takeshi UMEBAYASHI, et al.

ST5-5 Utility of phase-contrast cine MRI for detection of the spinal dural defect with superficial siderosis 400p Orthopedic Department, Hyogo Prefectural Amagasaki General Medical Center Hiroaki KIMURA, et al. A case of Charcot spine developing in a young woman with ST5-6 acquired analgesia after acute disseminated encephalomyelitis 401p Orthopedic Department, Yokohama Rosai Hospital Yukimasa YAMATO et al. ST5-7 A case of amyotrophic lateral sclerosis (ALS) diagnosed by exacerbation of neurological symptoms after cervical 402p laminoplasty Osaka Medical College, Department of Orthopedic Surgery Masahiro MIZUTANI, et al. ST5-8 A case of huge hematoma of the cervical ligamentum flavum 403p Orthopedic Department, Yokohama Rosai Hospital Keiichiro TOZAWA, et al. ST5-9 The usefulness of a lateral-posterolateral intermuscular approach (PLIMA) for a rare case of extradural en plaque 404p ventrally extended upper cervical meningioma Department of Neurosurgery, Tominaga Hospital Toshihiko INUI

15:40 ~ 15:45 Break

15:45~16:45 (60min.) Short talk 6

Spinal cord herniation / Tetherd cord syndrome

Chair: Yasushi FUJIWARA

ST6-1 A surgical case of retained medullary cord (RMC)

Department of Neurosurgery, Nagasaki University Hospital Keishi TSUNODA, et al.

ST6-2 A surgical technique for tethered cord syndrome

406p Orthopedic Department, Yokohama Rosai Hospital Fumiko SAIKI. et al.

Room 5

ST6-3 Surgical case of tethered cord syndrome with closed spina bifina 407p Department of Neurosurgery, Saiseikai Wakayama Hospital Junichiro MIKI, et al. ST6-4 A case of myxopapillary ependymoma with tethered cord syndrome 408p Department of Neurosurgery, Mie General Medical Center Yusuke KAMEI, et al. ST6-5 Two cases of intrathecal intramedural extramedullary spinal cord tumor with nocturnal pain relieved by waking symptoms 409p Department Neurosurgery, Spinal Surgery, Heiwa Hospital Yasuomi NONAKA, et al. ST6-6 Preoperative embolization for hemangioblastoma: A case report 410p Spine and Spinal Cord Center, Juntendo University Takeshi HARA, et al. ST6-7 A case of deteriorated schwannomatosis after falling down Department of Neurospinal Surgery, Hokkaido Ohno Memorial Hospital 411p Tomohiro MURAKAMI, et al. Hammock duroplasty for intravertebral herniation of ST6-8 cauda equina 412p Department of Orthopaedic and Spine Surgery, Yokohama Rosai Hospital Yujiro TAKESHITA, et al. ST6-9 Idiopathic spinal cord herniation with duplicated dura matter revealed clearly by high resolution MRI 413p Orthopedic Department, Tsukuba Medical Center Hospital Ikuo AITA, et al. ST6-10 Origin of the bony defect on vertebral body regarding idiopathic spinal cord herniation - A case report -414p Department of Spine Surgery, JCHO Tokyo Yamate Medical Center / Masaki Hospital Norihiko NAKATA, et al.

16:45~16:55 Break

Room

16:55 \sim 17:50 (55min.) Short talk 7

Thoracic spine

Chair: Naohisa MIYAKOSHI

ST7-1 Three cases of discontinuous combined injuries with thoracolumbar fractures with cervical fractures transported to

advanced critical care center

Department of Orthopedic Surgery, Showa University Hospital Ryo YAMAMURA, et al.

Posterior instrumentation without decompression for symptomatic ossification of thoracic posterior longitudinal ligament

Orthopedic Department, Gifu Municipal Hospital Kei MIYAMOTO, et al.

ST7-3 Cases of thoracic ossification of ligamentum flavum causing lower extremity paralysis after minor trauma

Orthopedic Department, Oita Orthopedic Hospital Hideki OHTA, et al.

ST7-4 A New technique of posterior bone graft in total en bloc spondylectomy

- True laminoplasty with PLLA mesh plate -

Department of Orthopaedic and Spine Surgery, Yokohama Rosai Hospital Yujiro TAKESHITA, et al.

ST7-5 Separation surgery with anterior decompression through a posterior single approach in combination with stereotactic body radiation therapy for thoracic spinal metastasis of renal cell carcinoma: A case report

Department of Orthopedic Surgery, Saitama Medical Center, Saitama Medical University

Satoshi IKEMUNE, et al.

ST7-6 A case of metastatic spine tumor with screw loosening during the course of long-term survival in response to molecular targeted drugs

Neurosurgical Department, National Hospital Organization, Iwakuni Clinical Center Kotaro OGIHARA, et al.

ST7-7		
421p	meningioma: A case report	
	Orthopedic Department, Hyogo College of Medicine	
	Tomoyuki KUSUKAWA, et al.	

Vertebroplasty (VP) with LIF and posterior fusion for pseudoarthrosis following osteoporotic vertebral fracture (OVF)

Department of Orthopedic Surgery, Misugikai Sato Hospital Yoshitaka KUROKAWA, et al.

ST7-9 A clinical application of self-growing rod for early onset scoliosis

Department of Orthopaedic Surgery, Saitama Children Hospital Masafumi MACHIDA, et al.

7 September (Sat.) Room 1 (10 F Room 1003)

8:50~10:20 (90min.) Symposium 3		
Chiari malformation and syringomyelia Chairs: Izumi KOYANAGI, Hitoshi KONO		
Mystery of Chiari malformation: Recent experiences Department of Neurosurgery, Hokkaido Neurosurgical Memorial Hospital Izumi KOYANAGI, et al.		
The course of the clinical symptoms after the treatment of syringomyelia associated with Chiari I malformation Department of Neurosurgery, Jikei University School of Medicine Hiroki OHASHI, et al.		
S3-3 Surgery of Chiari malformation 192p Department of Neurosurgery, Juntendo University Yukoh OHARA, et al.		
S3-4 Surgery for syringomyelia associated with Chiari type 1 malformation -A critical review- Department of Spinal Surgery, Kameda Medical Center Motoo KUBOTA, et al.		
Comparative analysis of expansive cranioplasty and foramen magnum decompression for syringomyelia associated with adult Chiari type I malformation Department of Neurosurgery, Osaka City University Graduate School of Medicine Kentaro NAITO, et al.		
S3-6 Treatment of scoliosis with Chiari I malformation and syringomyelia Dept. of Orthop. & Spine Surg., Meijo Hospital		

10:20~10:30	Break
10.20.9 10.30	DI

Toshiki SAITO, et al.

10:30~12:00 (90min.) Symposium 4 Metastatic vertebral tumor Chairs: Norio KAWAHARA, Yasuaki TOKUHASHI S4-1 Treatment strategy for skeletal metastasis using new Katagiri score 196p Division of Orthopedic Oncology, Shizuoka Cancer Center Hospital Hirohisa KATAGIRI, et al. **S4-2** Prognostic scoring system and surgical strategies for metastatic spinal tumor 197p Department of Orthopedic Oncology, Changzheng Hospital, Second Military Medical University, Shanghai, China Jianru XIAO, et al. Surgery combined with intraoperative radiotherapy or **S4-3** stereotactic body radiation therapy for metastatic spinal 198p tumor Orthopedic Department, Cancer and Infection Center Metropolitan Komagome Hospital Takahiro HOZUMI, et al. **S4-4** Carbon ion radiotherapy for spinal metastases of renal cell and thyroid cancers 199p QST NIRS hospital, National Institutes for Quantum and Radiological Science and Technology Reiko IMAI Surgical outcome of spine surgery for spinal metastasis **S4-5** 200p

Department of Orthopaedic Surgery, Kobe University Graduate School of Medicine

Kenichiro KAKUTANI, et al.

S4-6 Progress of total en bloc spondylectomy for spinal metastasis

Department of Orthopaedic Surgery, Nagoya City University 201p Hideki MURAKAMI

 $12:00 \sim 14:00$

Break

14:00~15:00 (60min.) Instructional Lecture 4

Chair: Shunsuke FUJIBAYASHI

Application of oblique lateral lumbar interbody fusion for osteoporotic case and revision spinal fusion

Brain and Spine Consultant Clinic, Hong Kong Joseph Ming Kuen LAM

7 September (Sat.) Room 2 (10 F Room 1001)

 $8:15\sim9:15$ (60min.) Free Papers 7 Cervical spine trauma etc. Chair: Shinsuke SUZUKI Diagnosis and treatment strategy for vertebral artery injury F7-1 associated with cervical spine trauma 342p Department of Neurosurgery, Osaka City General Hospital Toru YAMAGATA, et al. Pathophysiology and treatment of vertebral artery injury F7-2 associated with blunt cervical trauma 343p Neurosurgical Department, Sendai Medical Center, National Hospital Organization Shinsuke SUZUKI, et al. F7-3 Reduction induced disc herniation of cervical facet dislocations 344p Orthopedic Department, Kochi Health Sciences Center Takamitsu TOKIOKA, et al. F7-4 Results of the decompression surgery about cervical cord injury with canal stenosis but without distinct bony damage 345p The Department of Neurosurgery, Hokusou Shiroi Hospital Isao KITAHARA, et al. F7-5 Comparison of postoperative outcomes following transforaminal lumbar interbody fusion using Trabecular Metal 346p cages or PEEK cages with transpedicular instrumentaion Orthopedic Department, Yuki Hospital Takeshi OHKI, et al. F7-6 Frequency of bone union following posterior lumbar interbody fusion with cortical bone trajectory using titanium-coated 347p PEEK cage and PEEK cage Orthopedic Department, Omihachiman Community Medical Center Akira NAKAMURA, et al. F7-7 The graphic changes in the treatment of injection of

348p

condoliase after 6 months

Yuto TADOKORO, et al.

Orthopedic Department, Kochi Health Sience Center

F7-8 Short-term results of intradiskal injection of condoliase

Department of Orthopedic Surgery, Kochi Health Science Center Yoshiaki ODA, et al.

9:15~9:20 Break

 $9:20\sim10:20$ (60min.) Instructional Lecture 2

Chair: Takashi YAMAZAKI

IL2 Cervical nerve root block and ultrasound-guided needle technique in hand surgery

Department of Orthopedic Surgery, Nara Medical University Yasuaki NAKANISHI

10:20~10:25 Break

10:25~11:25 (60分) Spine Leader's Lecture 9

10:25~10:55 (30min.)

Chair: Eiji ABE

SLL9-1 Correction surgery for adult spinal deformity using C-MIS technique

Orthopedic Department, Kansai Medical University

Takanori SAITO, et al.

Sponsored by MIZUHO Corporation

10:55~11:25 (30min.)

Chair: Nobuhiro HARA

SLL9-2 Lumbar intervertebral fixation with titanium fiber mesh spacer
-An advanced material which have high affinity and low
elasticity-

Orthopedic Department, Saku Advanced Care Center Kazuvuki FUKUSHIMA. et al.

Sponsored by KYOCERA Corporation

11:25~11:30 Break

11:30~12:30 (60min.) Instructional Lecture 3

Chair: Masahi NEO

Lateral skull base approach for pathologies of the craniovertebral junction

Department of Neurosurgery, Osaka Medical College

Masahiko WANIBUCHI

12:30~12:50 Break

12:50~13:50 (60min.) Luncheon Seminar 4

Chair: Futoshi SUETSUNA

LS4 Usefulness of titanium implant for cervical laminoplasty

- Focusing on combined usage with foraminotomy -

Spine Center, Dept. of Orthopaedic Surg., Niigata Central Hospital

Akiyoshi YAMAZAKI

Sponsored by HOYA Technosurgical Corporation • Ammtec Inc.

13:50~14:00 Break

14:00~15:00 (60分) Spine Leader's Lecture 10

14:00~14:30 (30min.)

Chair: Kenta FUJIWARA

SLL10-1 History of scoliosis brace and recommendation of night brace

160p Orthopedic Department, Imazu Hospital

Yoshihiro SEMOTO

Sponsored by Nagano Prosthetics & Orthotics Co.,LTD.

14:30~15:00 (30min.)

Chair: Toshitaka YOSHII

SLL10-2 Mid-term and long-term clinical results of non-fusion stabilization for degenerative lumbar diseases

Orthopedic Department, Oita Orthopedic Hospital

Hideki OTA, et al.

Sponsored by OHWA TSUSHO Co.,Ltd.

7 September (Sat.) Room 3 (10 F Room 1002)

8:15 \sim 9:15 (60min.) Main Theme 9

Adult spinal deformity ②

Chair: Masafumi MACHIDA

MT9-1 Comparison of porus titanium alloy cage and titanium coating PEEK cage in corrective-TLIF for degenerative kyphoscoliosis

Department of Spine/Spinal Cord Center, Sanraku Hospital

Nozomu OHTOMO, et al.

MT9-2 Is LIF technique necessary for surgical treatment of adult

spinal deformity?

Oita Orthopedic Hospital Yohei IGUCHI, et al.

MT9-3 Minimum 1 year follow up results of cMIS for adult spinal

261p deformity

Dept of Neurosurgery, Ayabe Renaiss Hospital Kenji FUKAYA

MT9-4 Minimally invasive correction surgery for adult spinal

deformity using LLIF and PPS

-Minimum 2 year follow up cases-

Orthopedic Department, Shunyoukai Central Hospital

Sei TERAYAMA, et al.

MT9-5 Minimally invasive corrective surgery with lateral access corpectomy for adult spinal deformity with osteoporotic vertebral fracture

Depertment of Orthopaedic Surgery, Kansai Medial University Hospital Naoto ONO, et al.

MT9-6 Selective lateral interbody fusion with minimum disc level fused for adult spinal deformity

Orthopedic Department, Gifu Municipal Hospital Kei MIYAMOTO, et al.

MT9-7 Evaluation of sacroiliac joint degeneration after S2 alar iliac screw placement

Ortgopedic Department, Medical Research Institute Kitano Hospital Masato OTA, et al.

9:15~9:20 Break

Main Theme 10 9:20~10:20 (60min.) Technical tips 4 Chair: Masao KODA Refinement of ceramic spacer for double door cervical MT10-1 laminoplasty 266p Spine Center, Department of Orthopaedic Surgery, Teine Keijinkai Hospital Takeshi AOYAMA, et al. Placement of hydroxyapatite spacer in double-door cervical MT10-2 laminoplasty 267p Orthopedic Department, Rakusai-Shimizu Hospital Masaya YAZU, et al. MT10-3 The significance of using the titanium spacer in cervical laminoplasty and side effect 268p Dept. of Neurosurgery, Nippon Medical School Kazunari KOGURE, et al. MT10-4 Technical tips of microscopic posterior cervical foraminotomy for radiculopathy 269p Orthopedics and Microscopic Spine and Spinal Cord Surgery Center, Hiroshima City Asa Hospital Yasushi FUJIWARA, et al. MT10-5 Total uncinectiony for cervical spondylotic radiculopathy 270p Orthopedic Department, University of Tsukuba Masao KODA, et al.

MT10-6 The novel technique for cervical nerve root decompression in cases with cervical artificial disc

Department of Neurosurgery, Tsukazaki Hospital Nobuyuki SHIMOKAWA, et al.

MT10-7 Microsurgical resection of ossification of the posterior longitudinal ligament in the thoracic spine through transthoracic approach without spinal instrumentation

Spinal Disorders Center, Fujieda Heisei Memorial Hospital Ryo KANEMATSU, et al.

10:20∼10:25 Break

Technical tips (5)

10:25~11:25 (60min.)

Chair: Akiyoshi YAMAZAKI

MT11-1 Anterior cervical approach is based on reduced retraction stress and precise dissection of muscle layers 273p

Main Theme 11

Department of Neurosurgery, Kawachi General Hospital

Takashi MORIWAKI

Surgical approach of anterior cervical spine involving C2 MT11-2

vertebra 274p

> Orthopedic Department, Numazu City Hospital Atsuomi AIBA, et al.

MT11-3 Development of our original device to control upper limbs during cervical anterior surgery 275p

Department of Orthopaedic Surgery, Shiga University of Medical Science Kanji MORI, et al.

MT11-4 Tips for posterior cervicothoracic fixation

276p Department of Orthopaedic Surgery, Hyogo College of Medicine Toshiya TACHIBANA, et al.

MT11-5 Posterior cervical spinal fusion using interspinous process plate 277p

Orthopedic Department, Kanou General Hospital Shinya NOUDA, et al.

MT11-6 The surgical outcome of novel concept of posterior

decompression and fusion for K-line (-) cervical ossification of 278p the posterior longitudinal ligament

Spine Center, Dept. of Orthopaedic Surgery, Niigata Central Hospital / Department of Orthopedic Surgery, Niigata University Medical and Dental General Hospital

Keiichi KATSUMI, et al.

MT11-7 Posterior decompression and fusion for thoracic ossification of the posterior longitudinal ligament 279p

- Unilateral post head on type screw method -

Orthopedic Department, Naha City Hospital Shoichiro HIGA, et al.

11:25~11:30 Break 281p

11:30~12:30 (60min.) Main Theme 12

Adult spinal deformity 3

Chair: Shiro IMAGAMA

MT12-1 To prevent rod breakage after corrective surgery for adult spinal deformity

Orthopedic Department, Saiseikai Yokohamashi Tobu Hospital Yu SUEMATSU, et al.

MT12-2 "Cross-band stabilization" in long fusion for

adult spinal deformity to prevent proximal junctional failure

Department of Spine/Spinal Cord Center, Sanraku Hospital Nozomu OHTOMO, et al.

MT12-3 To decrease intraoperative blood loss during corrective surgery with conventional open posterior approach for adult spinal deformity

Orthopedic Department, Saiseikai Yokohamashi Tobu Hospital Kentaro FUKUDA, et al.

MT12-4 LIF combined with minimal invasive posterior decompression for degenerative scoliosis with lumbar spinal stenosis

Hachiya Orthopaedic Hospital Yuichi KONDO, et al.

MT12-5 A consideration of two-stage corrective surgery for adult spinal deformity (ASD)

Department of Orthopedic Surgery, Misugikai Sato Hospital Yoshitaka KUROKAWA, et al.

MT12-6 Comparison of perioperative complications in pedicle subtraction osteotomy for adult spine deformity in one-

subtraction osteotomy for adult spine deformity in one-stage surgery and two-stage surgery

Department of Orthipedic Surgery, Sanraku Hospital Tomomi SUNAYAMA, et al.

MT12-7 Intraoperative spinal cord neuromonitoring for adult spinal deformity

Orthopedic Department, Hamamatsu University School of Medicine Go YOSHIDA. et al.

12:30~12:50 Break

12:50~13:50 (60min.) Luncheon Seminar 5

Chair: Masatoshi SUMI

LSS Knack and pitfall of instrumentation surgery for the cervical

168p spine

Orthopedic Department, Kindai University Hospital

Hiroshi MIYAMOTO

Sponsored by NexMed International Co., Ltd.

13:50 ~ 14:00 Break

14:00~15:00 (60分) Spine Leader's Lecture 11

14:00~14:30 (30min.)

Chair: Hitoshi HASE

SLL11-1 Neuropathic pain mechanisms and treatment

162p Multidisciplinary Pain Center, Physical Fitness Sports Medicine Rehabilitation, Aichi Medical University

Takahiro USHIDA

Sponsored by DAIICHI SANKYO COMPANY, LIMITED

14:30~15:00 (30min.)

Chair: Yasuaki NAKANISHI

SLL11-2 Ultrasound -guided cervical facet block for cricked neck

163p Maeda Orthopaedic Clinic

Manabu MAEDA, et al.

Sponsored by CANON MEDICAL SYSTEMS

7 September (Sat.) Room 4 (10 F Room 1006)

8:15~9:45 (90min.) Hands-on Session 3

Surgical instruction: Nobuyuki SHIMOKAWA, Chair: Junichi MIZUNO

HO3 Prestige LP[™] total disc replacement

-Indication and surgical techniques-

Department of Neurosurgery, Tominaga Hospital

Toshihiko INUI

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9:45~10:30 Break

10:30~12:30 (120min.) Hands-on Session 5

The technique of ultrasound observation of cervical nerve roots and brachial plexus

Department of Orthopedics Nara Medical University

Yasuaki NAKANISHI

Maeda Orthopedic Clinic, Nara

Manabu MAEDA

Department of Emergency and Care Medicine, Nara Medical University

Keisuke MASUDA

KAWABATA Hospital

Chisato WATANABE

Osaka Medical College

Kenta FUJIWARA

12:30~14:00 Break

14:00~15:00 (60min.) Main Theme 13

Technical tips 6

Chair: Kenichi WATANABE

MT13-1 Interbody fusion of lumbar spine using extraforaminal approach through inter muscular approach of Wiltse

Hayashi Orthopedic Clinic Koken HAYASHI MT13-2 Restoration of lumbar lordosis with PLIF using novel short interbody cage for lumbar degenerative disease

Keiyu Orthopedic Hosp. Keiyu Spine Center

Hitoshi KONO, et al.

MT13-3 Tips for correction in lateral access corpectomy for kyphotic deformity after osteoporotic vertebral collapse

-The best procedure to obtain optimal alignment is from the anterior-

 $\label{thm:continuous} \begin{tabular}{ll} Department of Orthopaedic Surgery, Kansai Medical University Hospital Masayuki ISHIHARA, et al. \end{tabular}$

MT13-4 Surgical technique for lumbar degenerative spondylolisthesis in OLIF procedure and reduction effect

Department of Orthopaedic Surgery, Katsuragi Hospital Mutsumi OHUE, et al.

MT13-5 New simple and minimally invasive stabilization between the spinous process and implant, preventing adjacent segmental

diseases

Dept. of Orthopedics Surgery, Sanokousei General Hospital Yuichiro TAKAHASHI, et al.

MT13-6 The spinal fusion with PPS and hook by mini incision for thoracolumbar burst fractures

Orthopedic Department, Yuki Hospital Takeshi OHKI, et al.

MT13-7 Vertebral body reconstruction from posterior approach by posterior insertion of an HA spacer for delayed paralysis due to osteoporotic vertebral fracture

Dept. of Spine Surgery, JCHO Tokyo Yamate Medical Center Toshikatsu MAMADA, et al.

7 September (Sat.) Room 5 (10 F Room 1007)

8:15~9:45 (90min.) Hands-on Session 4

Chair: Masakazu TAKAYASU

HO4 Total disc replacement (Mobi-C)

-Basic techniques and pitfalls-

Department of Orthopaedic Surgery, School of Medicine, International University of Health and Welfare (IUHW)

Ken ISHII

Sponsored by Zimmer Biomet

9:45~10:30 Break

10:30~12:30 (120min.) Hands-on Session 6

HO6 Fundamental bone drilling techniques for practical spinal

176p surgery

Department of Neurosurgery, Tsukazaki Hospital

Nobuyuki SHIMOKAWA

12:30~14:00 Break

14:00~15:00 (60min.) Free Papers 8

Complications

Chair: Takamitsu TOKIOKA

F8-1 Facet joint violation and pedicle bleach during percutaneous pedicle screw placement using coaxial fluoroscopic view of the pedicle -Evaluation by multiplanar CT-

Department of Orthopaedic Surgery, Kyoto University

Koichi MURATA, et al.

The outcome of the accuracy of percutaneous pedicle screws for lumbar spine during the period of introduction in a single hospital

Orthopedic Department, Ogikubo Hospital

Kenshi DAIMON, et al.

352p	posterior fusion surgery and preventive measures for complications Department of Neurosurgery, Shin-yurigaoka General Hospital Hidenori MATSUOKA, et al.
F8-4	Perioperative complications of percutaneous endoscopic
353p	surgery at lumbosacral tunnel Department of Neurosurgery, Neuro-spine Center, Daido Hospital Yasuhiro NAKAJIMA, et al.
F8-5	Risk factor of postoperative neurological deficits following
354p	a stand-alone lateral lumbar interbody fusion
	Orthopedic Department, Showa University Koto Toyosu Hospital Toshiyuki SHIRAHATA, et al.
F8-6	latrogenic nerve rupture in degenerative lumbar spine surgery
355p	Dept. of Orthop. Surge., Musashino Red Cross Hospital
	Takashi YAMAZAKI, et al.
F8-7	Incidence and clinical features of postoperative symptomatic
356p	hematoma after spine surgery: A multi-center study of 45 patients
	Department of Orthopedic Surgery, Japan Community Health Care Organization Tamatsukuri Hospital Soichiro MASUDA, et al.
F8-8	Analysis of detailed clinical characteristics of spinal subdural
357p	hematoma following lumbar decompression surgery

Department of Orthopaedic Surgery, Kansai Electeric Power Hospital / Department of Orthopedic Surgery, Kitano Hospital

Masanori IZEKI, et al.

F8-3 Accuracy of pedicle screw for the patients who underwent