The 21st Annual Meeting of Japan Society for the Study of Surgical Technique for Spine and Spinal Nerves (JPSTSS)

- Program -

26 ~ 27 September 2014

26 September (Fri.)

Main Hall 1

7:30 Registration

7:55 ~ 8:00

~ Opening Remarks ~

President Naoki Asami, M.D.

8:00 ~ 8:40 (40min.)

Main Theme 2-1

〈 Occipital plate 〉

Chairpersons Futoshi Suetsuna, M.D., Nobuyuki Shimokawa, M.D.

M2-1-1

Occipito-axial fixation by bone graft in consideration of biomechanics for Atolant-occipital lesion

Yoshiki Yamano, M.D., et al.

(Osaka Microsurgery Center, Seikeikai Hospital, Sakai, Osaka)

M2-1-2

The cases of stabilizing the craniocervical junction which is believed to require the occipital bone plate

Nobuhiro Sasaki, M.D., et al.

(Neurosurgery Department, Shinaikai Sekitsui Sekizui Center Teseikai Hospital, Shijyonawate, Osaka)
Indication of occipito-cervical fixation with the occipital plate in cranio-cervical instability

Masakazu Takayasu, M.D., et al.
(Department of Neurological Surgery, Spine Center, Aichi Medical University, Nagakute, Aichi)

Decreasing necessity of occipital plate in treatment of cranio-cervical lesions

Gohsuke Hattori, M.D., et al.
(Department of Neurosurgery, Kurume University School of Medicine, Kurume, Fukuoka)

Revision surgery for failed occipitocervical fusion using multiple screws through the connector with rod-and-screw occipitocervical fixation device and wiring with polyethylene tape

Junichi Ohya, M.D., et al.
(Department of Orthopaedic Surgery, The University of Tokyo, Bunkyou-ku, Tokyo)

Main Theme 2-2
〈C1-2 Fusion〉

Chairpersons Masashi Neo, M.D., Masakazu Takayasu, M.D., Macondo Mochizuki, M.D.

C1 Lateral Mass Screw Insertion Technique

Isao Kitahara, M.D., et al.
(Department of Neurosurgery, Chiba Tokushukai Hospital, Funabashi, Chiba)

Minimally invasive upper cervical posterior fixation—A new technique of C1 lateral mass screw insertion via posterolateral approach

Takamitsu Tokioka, M.D., et al.
(Department of Orthopedic Surgery, Kochi Health Sciences Center, Kochi, Kochi)

The anatomical features of the axis necessary for screw placement...

Muneyoshi Yasuda, M.D., et al.
(Department of Neurological Surgery, Spine Center, Aichi Medical University, Nagakute, Aichi)

Surgical treatment for severe kyphotic deformity due to pathological odontoid fracture in a patient with multiple myeloma

Nozomu Ohtomo, M.D., et al.
(Department of Orthopaedic Surgery, Faculty of Medicine, The University of Tokyo, Bunkyou-ku, Tokyo)
Utility of the analysis of intracranial venous sinuses using CT venography concomitant with preoperative CT angiography in occipitocervical surgery

Masanori Izeki, M.D., et al.
[Orthopedic Department, Kitano Hospital, Kita-ku, Osaka]

New posterior atlantoaxial fixation procedure, using C1/2 transarticular screw and C1 lateral mass screws

Takayuki Yamaguchi, M.D., et al.
[Department of Orthopedic Surgery, Nagasaki Medical Center, Oomura, Nagasaki]

Fixation with Headless Compression Screw for Hangman’s fractures

Takayuki Ogawa, M.D., et al.
[Orthopedic Surgery, Kaisei General Hospital, Sakaide, Kagawa]

Internal bony screw fixation against for cervical spinal injuries instead of Halo-vest fixation

Tatsuo Takahashi, M.D., et al.
[Department of Neurosurgery, Nagoya Medical Center, National Hospital Organization, Nagoya, Aichi]

A case of odontoid base fracture treated with C1-2 hook

Akira Itoi, M.D., et al.
[Orthopedic Surgery, Intendo Shizuoka Hospital, Izunokuni, Shizuoka]

10:05～10:15 Transfer 10min.
10:15～11:15 (60min.)

Spine Leader’s Lecture A (Postgraduate Lecture of JOA)

10:15～10:45 (30min.)
Chairperson Naoki Asami, M.D.

Stephen Ritland, M.D. [Neurological Surgeon, Private practice, Flagstaff, Arizona, USA]
History of CBT screwing and its surgical technique as MISS

[Medtronic Sofamor Danek, Co., Ltd.]

10:45～11:15 (30min.)
Chairperson Kenichi Watanabe, M.D.

Hideki Ota, M.D. [Oita Orthopedic Hospital, Oita, Oita]
TLIF attempts using pedicle screw with mobility

[OHWA TSUSHO CO., LTD]

10:15～11:15 (Spine Leader’s Lecture B of Main Hall 2 page 63)
11:15～11:25 Transfer 10min.
11:25 〜 12:25  (Hands-on Session 1〜3 page 70)
12:25 〜 12:40  Transfer  15min.
12:40 〜 13:40 (60min.)

Luncheon Seminar 1
(Postgraduate Lecture of JOA)
Chairperson  Satoshi Tani, M.D.

LS-1-1  Junichi Mizuno, M.D. [Center for Minimally Invasive Spinal Surgery, Shin-Yurigaoka General Hospital, Kawasaki, Kanagawa]
Biomechanical study and clinical application of newly introduced titanium spacer “Laminoplasty basket” for cervical laminoplasty ... 103

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13:40 〜 13:45  Break  5min.
13:45 〜 14:00 (15min.)

General Assembly (Report of board meeting and finance)
President  Naoki Asami, M.D.

Announcement of President-elect
Takashi Yamazaki, M.D.
[Department of Orthopaedic Surgery Musashino Red Cross Hospital Musashino, Tokyo]

14:00 〜 14:05  Break  5min.
Symposium

Open PLIF versus MIS PLIF
Chairpersons  Shigeo Sano, M.D., Kiyoshi Kumano, M.D.

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Stephen Ritland, M.D., Ivan Cheng, M.D.
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(National Institute of Musculo-Skeletal Disorders, Murayama Medical Center, Musashimurayama, Tokyo)

19:00 ~ 20:30 Banquet
Main Hall 2

7:30  Registration

8:05 〜 8:40 (35min.)

Free Papers a
〈 Iliosacral 〉
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### Main Theme 9

**〈 CSF leakage 〉**

Chairpersons  Shigeru Hirabayashi, M.D., Hisaaki Uchikado, M.D.

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<td><em>(Department of Orthopaedic Surgery, Hyogo College of Medicine, Nishinomiya, Hyogo)</em></td>
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Isao Kitahara, M.D., et al.
(Department of Neurosurgery, Chiba Tokushukai Hospital, Funabashi, Chiba)

10:05 ~ 10:15 Transfer 10min.

10:15 ~ 11:15 (60min.)

Spine Leader’s Lecture B (Postgraduate Lecture of JOA)

10:15 ~ 10:45 (30min.)
Chairperson  Takashi Yamazaki, M.D.
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(Orthopedic Surgeon, Sanraku Hospital, Chiyoda-ku, Tokyo)
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11:25 ~ 12:25 (Hands-on Session 1~3 page 70)
12:25 ~ 12:40 Transfer 15min.

12:40 ~ 13:40 (60min.)

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**Main Theme 7-1**

*〈 Original instrumentation 1 〉*

**Chairpersons**  
Masafumi Machida, M.D., Toru Maruyama, M.D.

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16:20 〜 17:40 (80min.)

Main Theme 7-2
〈Original instrumentation 2〉
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<tr>
<td></td>
<td>(Department of Orthopaedic Surgery, Hamamatsu University School of Medicine, Hamamatsu, Shizuoka)</td>
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<tr>
<th>Fb-8</th>
<th>The feasibility of the cannulated cervical pedicle screw</th>
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<tr>
<td></td>
<td>Nobuyuki Shimokawa, M.D., et al.</td>
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<td></td>
<td>(Spine Center, Tsukazaki Hospital, Himeji, Hyogo)</td>
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<tr>
<th>Fb-9</th>
<th>The tips in surgery of cervical laminoplasty (French door open type) with partial foraminotomy for C5 palsy prevention</th>
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<td></td>
<td>Shinsuke Suzuki, M.D., et al.</td>
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<td></td>
<td>(Department of Neurosurgery, National Hospital Organization Sendai Medical Center, Sendai, Miyagi)</td>
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</tbody>
</table>

19:00 ~ 20:30  Banquet (Main Hall 1)
### Free Papers C

**Chairpersons** Hideo Hosoe, M.D., Makoto Taniguchi, M.D.

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<td>Fe-1</td>
<td>A comparative study of autologous cancellous bone grafting vs. beta-tricalcium phosphate in anterior cervical disectomy and fusion using rectangular titanium stand-alone cage</td>
<td>Toru Yamagata, M.D., et al.</td>
<td>(Neurosurgical Department, Osaka City General Hospital, Osaka, Osaka)</td>
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<td>Fe-2</td>
<td>Delayed diagnosis of cervical dislocation</td>
<td>Hiroyuki Hashidate, M.D., et al.</td>
<td>(Department of Orthopedic Surgery, Shinonoi General Hospital, Nagano, Nagano)</td>
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<td>Fe-3</td>
<td>Initial Fixation Strength of Cervical Open-Door Laminoplasty Using Basket-Shaped titanium plate</td>
<td>Yukoh Ohara, M.D., et al.</td>
<td>(Shinyurigaoka General Hospital, Surgical Department of Spine, Spinal Cord and Peripheral Nerve, Kawasaki, Kanagawa)</td>
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<td>Fe-4</td>
<td>3 cases of VAIs following cervical spine fracture-dislocation.—Should VAI be treated prior to reduction?—</td>
<td>Euan Morita, M.D., et al.</td>
<td>(Orthopedic Department, Musashino Red Cross Hospital, Musashino, Tokyo)</td>
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<td>Fe-5</td>
<td>Radiological Evaluation of Open-Door Cervical Laminoplasty Utilizing Spring-Back Pressure of Compacted Cancellous Bone of the Lamina</td>
<td>Minoru Hoshimaru, M.D., et al.</td>
<td>(Shin-aiikai Spine Center, Shijyonawate, Osaka)</td>
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<tr>
<td>Fe-6</td>
<td>Surgical treatment for completely dislocated cervical spine without spinal cord injury</td>
<td>Yaoki Nakao, M.D., et al.</td>
<td>(Department of Emergency, Daiyukai General Hospital, Ichinomiya, Aichi)</td>
</tr>
</tbody>
</table>
Surgical management of cervical myelopathy—laminoplasty VS posterior fusion—
Takashi Kuniya, M.D., et al.
(Orthopaedic Department, Yokohama City University Medical Center,
Yokohama, Kanagawa)

8:55〜9:00	Break	5min.
9:00〜10:05 (65min.)

**Free Papers d**

**〈 Lumbar 〉**

*Chairpersons* Masato Noji, M.D., Hirohiko Inanami, M.D., Toshiyuki Takahashi, M.D.

- **Fd-1**
  **Posterior decompression fusion for lumbar canal stenosis associated with osteoporotic vertebral fracture**
  Kengo Fujii, M.D., et al.
  (Spine and Orthopaedic Surgery, Japanese Red Cross Medical Center, Shibuya-ku, Tokyo)

- **Fd-2**
  **Microendoscopic herniotomy using translaminar approach for lumbar disc herniation**
  Yasuhiro Ueda, M.D., et al.
  (Department of Orthopaedic Surgery, Fukui Prefectural Hospital, Fukui, Fukui)

- **Fd-3**
  **Stabilization surgery using the ISOBAR TTL rod for the treatment of lumbar spinal canal stenosis with intervertebral instability**
  Noburo Hashimoto, M.D.
  (Department of Orthopedic Surgery, National Hospital Organization Kumamoto Medical Center, Kumamoto, Kumamoto)

- **Fd-4**
  **A case of fusion cage migration after posterior lumbar interbody fusion for degenerative spondylolisthesis**
  Keiichi Akatsuka, M.D., et al.
  (Department of Neurosurgery, Tottori Municipal Hospital, Tottori, Tottori)

- **Fd-5**
  **Outcome of Lumbar Spine Microendoscopic Laminecotomy for Lumbar Canal Stenosis**
  Kazuki Takeda, M.D., et al.
  (Orthopedic Department, Ogikubo Hospital, Suginamiku, Tokyo)

- **Fd-6**
  **Relationship between spinal sagittal alignment and clinical results after microendoscopic laminotomy (MEL) for patients with lumbar spinal canal stenosis**
  Kenichi Kawaguchi, M.D., et al.
  (Department of Orthopaedic Surgery, Saga-Ken Medical Center Koseikan,
  Saga, Saga)
A surgical procedure for caudad migration lumber disc hernia causing assured herniotomy through a trans-axilla approach. .............................. 287
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(Department of Neurosurgery, Yukioka Hospital, Osaka, Osaka)

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Takahiro Funato, M.D., et al.
(Department of Orthopedic Surgery, Teikyo University Mizonokuchi Hospital, Kawasaki, Kanagawa)

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Hands-on Session 1
ROOM

Hands-on Session
Room ①
Chairperson Tomoaki Toyone, M.D.
Techniques for the various vertebral body osteotomies
by Shigeo Sano, M.D. (PETER BREHM JAPAN KK)

Hands-on Session 2

Hands-on Session
Room ②
Chairperson Tateru Shiraishi, M.D.
Spinal instrumentation using the CBT technique
by Yoshiyuki Yato, M.D. (Johnson & Johnson K.K. DePuy Synthes Spine)

Hands-on Session 3

Hands-on Session
Room ③
Chairperson Masatoshi Sumi, M.D.
Cervical and thoracic screw insertion method with screw guide template system
by Taku Sugawara, M.D. (NuVasive Japan Inc., FUTURO)

12:40 〜 13:40 (Luncheon Seminar 1 of Main Hall 1 page 58)
12:40 〜 13:40 (Luncheon Seminar 2 of Main Hall 2 page 63)
13:40 〜 13:45 Break 5min.
13:45 〜 14:00 (General Assembly at Main Hall 1 page 58)
14:00 〜 14:05 Break 5min.
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Chairperson  Makoto Taniguchi, M.D.

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(Department of Neurological Surgery, Okayama University Graduate School of Medicine, Okayama, Okayama)

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(Department of Neurosurgery, Kagawa Rosai Hospital, Marugame, Kagawa)

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Tomohiro Murakami, M.D., et al.
(Department of Neurosurgery, Sapporo Miyanosawa Neurosurgical Hospital, Sapporo, Hokkaido)

15:10 ~ 15:15
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15:15 ~ 16:35 (80min.)

Main Theme 4
〈 Anterior cervical plate 〉
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Cervical anterior fusion using cylindrical cage without anterior plate is possible or not  297
Eiichiro Honda, M.D., et al.
(Department of Neurospinal Surgery, Shiroishikyoritsu Hospital, Kijimagun, Saga)

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<td>[Orthopedic Department, Kashiwa City Hospital, Kashiwa, Chiba]</td>
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<td>(Uchikado Neuro-Spine Clinic, Fukuoka, Fukuoka)</td>
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<td>(Department of Neurosurgery, Nippon Medical School, Tama, Tokyo)</td>
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<td>Anterior spinal surgery for multi-level cervical degenerative disease</td>
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<td>(Department of Neurosurgery, Nagoya University Graduate School of Medicine, Nagoya, Aichi)</td>
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<td>The difference between autologous bone graft and PEEK cage used in ACDF of hybrid anterior cervical fusion</td>
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<td>Ryo Kadota, M.D., et al.</td>
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<td>(Orthopedic Department, Numadu City Hospital, Numazu, Shizuoka)</td>
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<td>M4-8</td>
<td>Long-term outcomes of one-level or two level anterior cervical fusion; plating or non plating, and ADL disturbance and adjacent disc disease</td>
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<td>Yuka Horiuchi, M.D., et al.</td>
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<td>(Department of Orthopaedic Surgery, Hachinohe City Hospital, Hachinohe, Aomori)</td>
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<td>M4-9</td>
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<td>(Department of Neurosurgery, Hokkaido Neurosurgical Memorial Hospital, Sapporo, Hokkaido)</td>
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16:35 ~ 16:45 Break 10min.
Free Papers e
〈Thoraco lumbar〉
Chairpersons Yukoh Ohara, M.D., Masaki Mizuno, M.D.

Fe-1
Surgical case of vertebral tumor expanding to ventral epidural space of Th2 and Th3
Masahito Yuzurihara, M.D., et al.
(Spinal Surgery, Kameda Medical Center, Kamogawa, Chiba)

Fe-2
Microsurgical bilateral decompression via unilateral approach for patients with thoracic myelopathy due to ossification of the ligamentum flavum.
Shinichirou Taniguchi, M.D., et al.
(Department of Orthopaedic Surgery, Kansai Medical University Takii Hospital, Moriguchi, Osaka)

Fe-3
Outcome of Anterior and Posterior Spinal fusion on Osteoporotic spinal body fractures with neurological symptoms: Five case Report
Toru Kono, M.D., et al.
(Orthopedic Department, Ogikubo Hospital, Suginami-ku, Tokyo)

Fe-4
The operation techniques of posterior decompression with instrumented fusion in OPLL of the thoracic spine
Hiromitsu Takano, M.D., et al.
(Department of Orthopedic Surgery, Juntendo University, Bunkyou-ku, Tokyo)

Fe-5
Posterior instrumented fusion without neural decompression for incomplete neurological deficits following vertebral collapse in the osteoporotic thoracolumbar spine—Short fusion combined with spinous process plate—
Atsushi Nakano, M.D., et al.
(Deptment of Orthopedic Surgery, Osaka Medical College, Takatsuki, Osaka)

Fe-6
Transforaminal Thoracic Interbody Fusion for Treatment of a combined disc herniation and OFL in lower thoracic spine: Two case reports
Takeshi Umebayashi, M.D., et al.
(Spine Center, Shinagawa Shishokai Hospital, Shinagawa-ku, Tokyo)

Fe-7
The change of the operation method for the treatment of thoracolumbar burst fracture using percutaneous pedicle screw fixation
Shuntaro Tsuchida, M.D., et al.
(Fuji Toranomon Orthpaedic Hospital, Gotenba, Shizuoka)

17:35 〜 17:45 Break 10min.
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<td>Ff-1</td>
<td>Thoracic arachnoiditis and arachnoid cyst developed 23 years after myelography with an oily contrast medium: A case report</td>
<td>Leo Ishizuka, M.D., et al.</td>
<td>Department of Orthopedic Surgery, Jikei University School of Medicine, Ninato-ku, Tokyo.</td>
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<td>Ff-2</td>
<td>Postoperative pleurisy developed in patient after lumbar spine surgery: a case report</td>
<td>Hiroki Hirabayashi, M.D., et al.</td>
<td>Orthopedic Department, Marunouchi Hospital, Matsumoto, Nagano.</td>
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<td>Ff-3</td>
<td>The usefulness of urokinase-treated antithrombogenic drain for microendoscopic lumbar laminotomy</td>
<td>Shu Nakamura, M.D.</td>
<td>Department of Orthopaedic Surgery, Aichi Spine Institute, Tanbagun, Aichi.</td>
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<td>Ff-4</td>
<td>Attempts to enhance CSF flow restoration in surgery for spinal adhesive arachnoiditis</td>
<td>Tetsuryu Mitsuyama, M.D., et al.</td>
<td>Department of Neurosurgery, Tokyo Women’s Medical University, Shinjyuku-ku, Tokyo.</td>
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<tr>
<td>Ff-5</td>
<td>Recurrent symptomatic epidural hematoma after cervical laminectomy</td>
<td>Masato Anno, M.D., et al.</td>
<td>Department of Orthopaedic Surgery, Musashino Red Cross Hospital, Musashino, Tokyo.</td>
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<td>Ff-7</td>
<td>A case of venous air embolism during posterior spinal surgery for dural arteriovenous fistula</td>
<td>Seishi Matsui, M.D., et al.</td>
<td>Department of Neurosurgery, Ehime University Graduate School of Medicine, Toon, Ehime.</td>
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</table>
Iatrogenic C8 radiculopathy due to foraminal stenosis after cervical screw fixation

Fumio Hasue, M.D., et al.

Department of Orthopedic Surgery, Kimitsu Chuo Hospital, Kisarazu, Chiba

19:00 〜 20:30 Banquet (Main Hall 1)
7:30 Registration

8:00 ~ 9:00 (60min) ———————————————————
Morning Seminar 1
(Postgraduate Lecture of JOA)
Chairperson Shigeru Hirabayashi, M.D.

MS-1 Hisamitsu Ide, M. D. [Department of Urology, Teikyo University, Itabashi-ku, Tokyo]
With the aim of Men’s Healthy life expectancy—Cutting Edge of
Urological Management useful for Spinal Surgeons— 99
[Hisamitsu Pharmaceutical Co., inc.]

9:00 ~ 9:05 Break 5min.
9:05 ~ 10:15 (70min.) ———————————————————
Main Theme 8
〈 Post operative infection 〉
Chairpersons Hitoshi Hase, M.D., Keiichi Akatsuka, M.D.

M8-1 The efficacy of local application of vancomycin powder to reduce the incidence of surgical site infection for instrumented spine surgery 345
Daisuke Numaguchi, M.D., et al.
[Orthopedic Department, Tokyo Women’s Medical University Hospital, Shinjuku-ku, Tokyo]

M8-2 Effectiveness of teriparatide for spinal infection 347
Ko Ishida, M.D., et al.
[Orthopaedic Department, Yokohama City University Medical Center, Yokohama, Kanagawa]

M8-3 Treatment method for deep infection after spinal instrumentation surgery by using Negative pressure wound therapy 349
Koichiro Ide, M.D., et al.
[Department of Orthopaedics, Shizuoka City Shizuoka Hospital, Shizuoka, Shizuoka]
**M8-4**

**Challenge for 0% of surgical site infection rate**
Motoo Kubota, M.D., et al.

[Department of Spinal Surgery, Kameda Medical Center, Kamogawa, Chiba]

**M8-5**

**An excessive compression method for persistent cerebrospinal fluid leakage after spine surgery**
Masato Anno, M.D., et al.

[Department of Orthopaedic Surgery, Musashino Red Cross Hospital, Musashino, Tokyo]

**M8-6**

**Spinal surgery without using the monopolar**
Shunji Asamoto, M.D.

[Department of Neurosurgery, Mita Hospital, International University of Health and Welfare, Minato-ku, Tokyo]

**M8-7**

**Our strategy for preventing postoperative surgical site infection of the spine surgery**

[Department of Orthopaedic Surgery, Shimonoseki City Hospital, Shimonoseki, Yamaguchi]

**M8-8**

**Risk factors of infection and how to prevent it in PLIF**
Kosuke Kuribayashi, M.D.

[Department of Spine Surgery, Daiichi Towakai Hospital, Takatsuki, Osaka]

10:15 〜 10:25 Transfer 10min.

10:25 〜 11:25 (60min.)

**Spine Leader’s Lecture C (Postgraduate Lecture of JOA)**

10:25 〜 10:55 (30min.)

Chairperson Toshihiro Takami, M.D.

**SLL-C-1**

Naoki Asami, M.D. (Spine Surgery, Ikeda Hospital, Kobayashi, Miyazaki)

Original Guiding system for C1-2 rigid posterior fusion using intra-articular spacer ........................................ 121

[KiSCO CO., LTD.]

10:55 〜 11:25 (30min.)

Chairperson Takanori Saito, M.D.

**SLL-C-2**

Eiji Abe, M.D. (Department of Orthopedic surgery, Akita Kousei Medical Center, Akita, Akita)

Corrective surgery for degenerative lumbar scoliosis -Indication of L5-S1 fusion from the angle of postoperative sagittal balance .......... 123

[MIZUHO Corporation]

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12:50 〜 13:50 (60min.)

Luncheon Seminar 3
(Postgraduate Lecture of JOA)
Chairperson  Takanori Saito, M.D.

| LS-3 | Ken Ishii, M.D.  (Department of Orthopaedic Surgery, Keio University, Shinjuku-ku, Tokyo)  
Current management and Future Prospects of Spinal Surgery— with a focus on minimally invasive spine stabilization (MIST)—  
(Stryker Japan K.K.) | 109 |

12:50 〜 13:50  (Luncheon Seminar 4 of Main Hall 2 page 84)

13:50 〜 14:00  Break  10min.
14:00 〜 14:30 (30min.)

Special Lecture 2
Chairperson  Naoki Asami, M.D.

| SL-2 | Resectability of intramedullary spinal cord tumor—personal cases—  
Tomokazu Goya, M.D.  (Department of Neurosurgery, Junwakai Memorial Hospital, Miyazaki, Miyazaki) | 95 |

14:30 〜 14:50  Booth Viewing  20min.
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〈 Extramedullary tumor 〉
Chairpersons  Motoo Kubota, M.D., Masanori Ito, M.D.

M6-1-1
A New Concept for Making Decision Regarding Surgical Approach for Spinal Meningiomas: The T-line
Toshiya Tachibana, M.D., et al.
(Department of Orthopaedic Surgery, Hyogo College of Medicine, Nishinomiya, Hyogo)

M6-1-2
Surgical procedures and clinical outcomes of spinal meningioma using METRx tubular retractor system
Macondo Mochizuki, M.D., et al.
(Department of Orthopaedic Surgery, Numazu City Hospital, Numazu, Shizuoka)

M6-1-3
Hemilaminectomy for removal of intradural extramedullary spinal cord tumors
Kentaro Naito, M.D., et al.
(Department of Neurosurgery, Osaka City University Graduate School of Medicine, Osaka, Osaka)

M6-1-4
En bloc open door laminoplasty for thoracolumbar spinal cord tumors
Hiroaki Sameda, M.D., et al.
(Orthopedic Department, Funabashi Municipal Medical Center, Funabashi, Chiba)

M6-1-5
Surgical management of solitary nerve sheath tumors of cervical spine: a retrospective case analysis based on tumor location and extension
Junya Abe, M.D., et al.
(Department of Neurosurgery, Tsukazaki Hospital, Himeji, Hyogo)

M6-1-6
A case of Neurofibromatosis type1 with repeated vertebral arteriovenous fistula
Yusuke Kamei, M.D., et al.
(Department of Neurosurgery, Mie Prefectural General Medical Center, Yokkaichi, Mie)

M6-1-7
Interspinous wiring following hemifacetectomy for resection of spinal dumbbell schwannoma. 2 cases report
Keishi Tsunoda, M.D., et al.
(Department of Neurosurgery, Nagasaki University Hospital, Nagasaki, Nagasaki)
Case report of schwannomatosis
Naoki Okamoto, M.D., et al.
(Spine and Orthopedic Surgery, Japanese Red Cross Medical Center, Shibuya-ku, Tokyo)

16:00 ~ 16:15
Break 15min.
16:15 ~ 17:30 (75min.)

Main Theme 6-2
〈Intramedullary tumor〉

Chairpersons Minoru Hoshimaru, M.D., Tatsuo Takahashi, M.D.

Posterolateral sulcus approach for spinal intramedullary tumor of lateral location
Toshihiro Takami, M.D., et al.
(Department of Neurosurgery, Osaka City University Graduate School of Medicine, Osaka, Osaka)

A case of methotrexate-related lymphoproliferative disorder at the thoracic spine
Yosuke Kobayashi, M.D., et al.
(Department of Orthopaedic Surgery, Saitama Medical Center, Saitama Medical University, Kawagoe, Saitama)

Clinical results of spinal cord tumor resection by recapping hemi-laminoplasty with preserving muscle
Yoshihide Yanai, M.D., et al.
(Orthopedic Department, National Defense Medical College, Tokorozawa, Saitama)

Monostotic fibrous dysplasia of the axis: A case report and review of the literature
Akira Nakamura, M.D., et al.
(Department of Orthopaedic Surgery, Shiga University of Medical Science, Otsu, Shiga)

The surgery of intramedullary spinal cord tumors focusing on the procedure of tumor dissection
Hidetoshi Murata, M.D., et al.
(Department of Neurosurgery, Yokohama City University, Graduate School of Medical Sciences and School of Medicine, Yokohama, Kanagawa)

Our surgical management and techniques of intramedullary spinal cord tumors
Yasuo Hironaka, M.D., et al.
(Department of Neurosurgery, Nara Medical University, Kashiwara, Nara)
Intradural extramedullary metastatic spinal tumor: A report of three cases
Homare Nakamura, M.D., et al.
(Division of Neurosurgery St. Marianna University School of Medicine
Yokohama City Seibu Hospital, Yokohama, Kanagawa)

Usefulness of preoperative embolization for large cervical hemangioblastoma
Tomohiro Yamauchi, M.D., et al.
(Department of Neurosurgery, Hokkaido Neurosurgical Memorial Hospital,
Sapporo, Hokkaido)

A operative case of cavernous angioma close to conus
Eiichiro Honda, M.D., et al.
(Department of Neuro-spinal Surgery, Shiroishikyoritsu Hospital, Kijimagun, Saga)

17:30〜17:35
〜 Closing Remarks 〜
President  Naoki Asami, M.D.
27 September (Sat.)

Main Hall 2

7:30 Registration

8:00 ~ 9:00 (60min)

Morning Seminar 2
(Postgraduate Lecture of JOA)
Chairperson  Akiyoshi Yamazaki, M.D.

**MS-2**
Yukihiro Matsuyama, M.D. (Orthopedic Surgery, Hamamatsu University School of Medicine, Hamamatsu, Shizuoka)

Surgical approach for adult spinal deformity with osteoporosis ... 101
(Asahi Kasei Pharma Corp.)

9:00 ~ 9:10  Break  10min.

9:10 ~ 9:50 (40min)

Main Theme 5
*Cervical posterior decompression*
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Ryoma Aoyama, M.D., et al.
(Department of Orthopaedics, Tokyo Dental College Ichikawa General Hospital, Ichikawa, Chiba)

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Short-term outcomes of facet joint fixation by absorbable screws ... 397
Ken Ninomiya, M.D., et al.
(Orthopedic Department, Tokyo Dental College Ichikawa General Hospital, Ichikawa, Chiba)

**M5-3**
Posterior elements that should be preserved in posterior cervical spine surgery ... 399
Shigeo Ueda, M.D., et al.
(Shin-ai Spine Center, Tesseikai Neurosurgical Hospital, Shijyounawate, Osaka)
Correlation between axial pain and movement of the spinous process toward the periphery after S-ELAP .............................. 401
Mitsuru Furukawa, M.D., et al.
(Orthopedic Department, Shizuoka City Shimizu Hospital, Shizuoka, Shizuoka)

Assessment of the posterior cervical muscle volume after transspinous sublaminal decompression .............................. 403
Hitoshi Hayase, M.D., et al.
(Department of Neurosurgery, Kaneda Hospital, Maniwa, Okayama)

9:50 ~ 9:55  Break  5min.

9:55 ~ 10:15 (20min)  

Spine Key Lecture
Chairperson  Takanori Saito, M.D.

SKL  Tokumi Kanemura, M.D.  [Spine Center, Konan Kosei Hospital, Konan, Aichi]
Surgical technique of Extreme lateral Interbody Fusion for correction of spinal deformity.................................................. 97

10:15 ~ 10:25  Transfer  10min.

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

Spine Leader’s Lecture D (Postgraduate Lecture of JOA)

10:25 ~ 10:55 (30min.)
Chairperson  Tomoaki Toyone, M.D.
SLL-D-1  Ivan Cheng, M.D.  [Associate Professor of Orthopaedic Surgery, Stanford University, CA, USA]
The use of XLIF for adult deformity .................................................. 124
[NuVasive Japan Inc.]

10:55 ~ 11:25 (30min.)
Chairperson  Hideki Ota, M.D.
SLL-D-2  Roberto Bassani, M.D.  [Director 2° Spinal Surgery IRCCS Istituto Ortopedico Galeazzi, Milano, Italy]
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11:25 ~ 11:35  Transfer  10min.

11:35 ~ 12:35  (Hands-on Session 4~6 page 88)

12:35 ~ 12:50  Transfer  15min.
12:50 〜 13:50 (60min.)

**Luncheon Seminar 4**
(Postgraduate Lecture of JOA)
Chairperson  Koji Sato, M.D.

**LS-4**  Seiji Ohtori, M.D. [Department of Orthopaedic Surgery, Graduate School of Medicine, Chiba University, Chiba, Chiba]
Current approach for refractory low back pain  
(Medtronic Japan Co., Ltd.)

12:50 〜 13:50  (Luncheon Seminar 3 of Main Hall 1 page 78)
13:50 〜 14:00  Transfer  10min.
14:00 〜 14:30  (Special Lecture 2 of Main Hall 1 page 78)
14:35 〜 15:35 (60min.)

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**Main Theme 1-1**
〈 MIST 〉
Chairpersons  Takamitsu Tokioka, M.D., Yasuo Mikami, M.D.

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[Department of Neurosurgery, Inazawa City Hospital, Inazawa, Inasawa, Aichi]

**M1-1-2**
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[Department of Orthop. and Spine Surg., Nagoya Daini Red Cross Hospital, Nagoya, Aichi]

**M1-1-3**
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Hirohiko Inanami, M.D., et al.
[Orthopedic Department, Iwai Orthopedic Medical Hospital, Edogawaku, Tokyo]

**M1-1-4**
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[Department of Neurosurgery, Mie University Graduate School of Medicine, Tsu, Mie]

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Additional level of MIS-TLIF increased burden but not influenced clinical outcomes .............................................................. 413
Koichiro Ono, M.D., et al.
(Center for Spinal Surg., Nippon Kokan Hospital, Kawasaki, Kanagawa)

Accuracy of percutaneous pedicle screws and the preoperative planning ................................................................. 415
Yosuke Miyamoto, M.D.
(Orthopedic Department, Takagi Hospital, Oume, Tokyo)

A comparison study of Open-PLIF and MIS-TLIF for degenerative lumbar disease ............................................................. 417
Tomoyuki Katsuhata, M.D., et al.
(Yokohama City University Medical Center, Department of Orthopaedic Surgery, Yokohama, Kanagawa)

15:35 ~ 15:40 Break 5min.
15:40 ~ 16:40 (60min.) Main Theme 1-2 〈 CBT 〉

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(Spine and Spinal Cord Center, International University of Health and Welfare, Minato-ku, Tokyo)

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(Orthopedic Department, National Defense Medical College, Tokorozawa, Saitama)

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Ken Ninomiya, M.D., et al.
(Orthopedic Department, Ichikawa General Hospital, Ichikawa, Chiba)

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[Department of Neurosurgery, Mie University Hospital, Tsu, Mie] |
[Orthopedic Surgery, Shiga University of Medical Science, Otsu, Shiga] |
[Department of Spinal Surgery, Kameda Medical Center, Kamogawa, Chiba] |

16:40 〜 16:45  
Break 5min.

16:45 〜 17:25 (40min.)  
Main Theme 1-3  
〈 XLIF 〉
Chairpersons Junichi Kunogi, M.D., Tokumi Kanemura, M.D

| M1-3-1 | XLIF for the salvage of rod fracture after lumbar PSO - report of 2 cases | Naohiro Kawamura, M.D., et al.  
[Department of Spine & Orthopedic Surgery, Japanese Red Cross Medical Center, Shibuya-ku, Tokyo] |
| M1-3-2 | Microendoscopic XLIF and percutaneous pedicle screw system (PPS) for adjacent level disease | Yuichi Takano, M.D., et al.  
[Department of Orthopaedic Surgery, Iwai Orthopaedic Medical Hospital, Edogawa-ku, Tokyo] |
| M1-3-3 | Surgical result of XLIF for degenerative lumbar kyphosis | Hideki Ohta, M.D., et al.  
[Orthopedic Department, Oita Orthopedic Hospital, Oita, Oita] |
| M1-3-4 | Development of finger navigation using a novel finger-electrode device for XLIF (extreme lateral interbody fusion) procedure | Wataru Narita, M.D., et al.  
[Orthopedic Department, Nantan General Hospital, Nantan, Kyoto] |
| M1-3-5 | Minimum invasive Surgical Technique for degenerative lumbar kyphoscoliosis : combination of XLIF, PPS and rod technique | Masayuki Ishihara, M.D., et al.  
[Department of Orthopedics Surg., Kansai Medical University, Moriguchi, Osaka] |
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7:30 Registration

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Measurement of the 5th lumbar spinal nerve root by MR mylogram reconstruction
Sei Terayama, M.D., et al.
[Sangubashi Spine Surgery Hospital, Shibuya-ku, Tokyo]

Cervical canal stenosis in asymptomatic volunteers—Analysis of dynamic MRI and X-ray photography in 100 asymptomatic volunteers—
Ryoma Aoyama, M.D., et al.
(Department of Orthopaedics, Tokyo Dental College Ichikawa General Hospital, Ichikawa, Chiba)

11:35 〜 12:35 (60min.)

Hands-on Session 4
Anterior Cervical Fixation Using Screw/ Cage System
by Kuniyoshi Abumi, M.D. [Biomet Japan, Inc.]

Hands-on Session 5
Insertion technique of S2 (S1) Sacral-Ala-Iliac screw without X-ray fluoroscopy
by Shigeo Sano, M.D. [Johnson & Johnson, K.K. DePuy Synthes Spine]

Hands-on Session 6
The posterior spinal fusion by Illico SE system and The percutaneous vertebroplasty for the thoraco—lumbar vertebral fracture
by Noburo Hashimoto, M.D. [ALPHATEC PACIFIC, INC.]