Thursday, June 20

**[JOSKAS] Presentation 27 - Spine/Basic**

Chairperson: Shinichi Konno

- **O1-27-1 (8:00 - 8:05)**
  
  Evaluation of Spino-pelvic-rhythm
  
  Kiyotaka Hasebe
  
  Department of Rehabilitation, Teikyo University Mizonokuchi Hospital, Kawasaki, Japan

- **O1-27-2 (8:05 - 8:10)**
  
  Spino-pelvic-rhythm of athletes who overcame chronic low back pain
  
  Kiyotaka Hasebe
  
  Department of Rehabilitation, Teikyo University Mizonokuchi Hospital, Kawasaki, Japan

- **O1-27-3 (8:10 - 8:15)**
  
  Development of diagnostic aid system of spondylolysis using hammering frequency analysis
  
  Hiroyuki Watanabe
  
  Kitasato University School of Health Sciences Department of Rehabilitation, Japan

- **O1-27-4 (8:15 - 8:20)**
  
  Relationship between Spinal Flexibility and Spondylolysis -A Finite Element Study-
  
  Tomoya Terai
  
  Department of Orthopedic Surgery, Affiliated Hospital to Ehime Juzen School of Allied Medical Professions, Ehime, Japan

- **O1-27-5 (8:20 - 8:25)**
  
  The effectiveness of nerve root monitoring on the spine for minimizing the risk of root injuries during surgery
  
  Takahiro Funato
  
  Department of Orthopedic Surgery, Teikyo University Mizonokuchi Hospital, Kawasaki, Japan

- **O1-27-6 (8:25 - 8:30)**
  
  The changes of the surgical equipments for PED
  
  Kiyoshi Yoshihara
  
  Department of Orthopedic Surgery, Sangenjaya Daitichi Hospital, Japan

**Discussion (8:30 - 8:55)**

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**[JOSKAS] Presentation 28 - Spine**

Chairperson: Toru Hasegawa

- **O1-28-1 (8:55 - 9:00)**
  
  Adjacent segment disease of Top League rugby players who returned to play after anterior cervical disc fusion
  
  Kuniaki Amano
  
  Department of Orthopedic Surgery, Ibaraki Seinan Medical Center Hospital, Ibaraki, Japan

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32 Thursday, June 20 - Friday, June 21, 2013
A study on pathogenesis of lumbar spondylolysis using MRI findings
Yoichiro Takata
Department of Orthopedic Surgery, University of Tokushima, Tokushima, Japan

Percutaneous endoscopic lumbar discectomy (PELD) for teenagers
Takahiro Funato
Department of Orthopedic Surgery, Teikyo University Mizonokuchi Hospital, Kanagawa, Japan

Intra-operative identification of conjoined nerve root during micro-endoscopic discectomy: A case report
Shuji Kawamura
Department of Orthopedic Surgery, University of Sapporo, Hokkaido, Japan

Minimally invasive Discectomy procedure with Disc-FX for the treatment of degenerative disc disease
Takahiro Funato
Department of Orthopedic Surgery, Teikyo University Mizonokuchi Hospital, Kawasaki, Japan

Short term results of spinal reconstruction associated with VATS for elderly patients with Osteoporotic Spinal Pseudoarthrosis
Hideaki Iba
Department of Orthopedic Surgery, University of Kawasaki Medical School, Japan

Discussion (9:25 - 9:50)

Analysis of Adolescent Fresh Lumbar Spondylolysis Patients with MRI Signal Changes in the Adjacent Pedicle
Yuichiro Goda
Department of Orthopedic Surgery, University of Tokushima, Tokushima, Japan

Study on Low Back Pain of Young Athlete
Kenji Hatakeyama
Funabashi Orthopedic Hospital, Japan

Therapy of the early stage of lumbar spondylolysis (stress fracture of pars interarticularis)
Kunio Kamatani
Higashi Maebashi Orthopedic Surgery, Japan
O1-29-4 (10:05 - 10:10)
Asymmetric osteoarthritic changes in high-class throwing athletes
Yasuhiro Kitagawa
Department of Orthopedic Surgery, Teikyo University Mizonokuchi Hospital, Kawasaki, Japan

O1-29-5 (10:10 - 10:15)
The Periods of Return to Sports on Lysis repaired by Pedicle Screw-Hook Fixation Method
Jun Hara
Department of Orthopedic Surgery, Odawara City Hospital, Kanagawa, Japan

O1-29-6 (10:15 - 10:20)
Modic type 1 change of the vertebral endplate in athletes
Atsuhisa Yamada
Department of Orthopedic Surgery, Teikyo University Mizonokuchi Hospital, Japan

Discussion (10:20 - 10:45)

10:45 - 11:40 Room 7 (2F 207)
[JOSKAS] Presentation 30 - Spine/Herniation
Chairperson: Toshihiko Yamashita

O1-30-1 (10:45 - 10:50)
Clinical results of microendoscopic discectomy for lumbar disc herniation in the athlete
Mitsunori Yoshimoto
Department of Orthopedic Surgery, Sapporo Medical University, Sapporo, Japan

O1-30-2 (10:50 - 10:55)
Analysis of Reoperations after Microendoscopic Lumbar Decompressions
Yohei Yuzawa
Spine Center Tokyo-West, Tokushukai Hospital, Tokyo, Japan

O1-30-3 (10:55 - 11:00)
Risk factor of recurrence lumbar disc herniation after microendoscopic discectomy
Koichiro Ono
Department of Orthopedic Surgery, Nihon Kokan Hospital, Kawasaki, Japan

O1-30-4 (11:00 - 11:05)
Clinical Evaluation of Re-operated Patients in the Early Stage after Lumbar Microendoscopic Discectomy
Shintarou Onishi
Department of Orthopedic Surgery, Kurobe City Hospital, Kurobe, Toyama, Japan

O1-30-5 (11:05 - 11:10)
Surgical Results and Complication of Percutaneous Endoscopic Discectomy for Lumbar Disc Herniation in preliminary 30 cases
Kazuo Ohmori
Department of Orthopedic Surgery, Nippon Kokan Hospital, Kanagawa, Japan
O1-30-6 (11:10 - 11:15)
Percutaneous endoscopic discectomy; Transforaminal vs Interlaminar
Kiyoshi Yoshihara
Department of Orthopedic Surgery, Sangenjaya Daiichi Hospital, Japan

Discussion (11:15 - 11:40)

13:30 - 15:00 Room 7 (2F 207)
[JOSKAS] Panel Discussion 6 - Treatment Strategy of Sports Impediment on Spine
Chairpersons: Yoshinori Fujimoto
Tomoaki Toyone

PD6-1
The Current Conditions and Countermeasures for Low Back Pain in a Professional Baseball Team
Masashi Yokota
Department of Sports Medicine, Hokkaido University Graduate School of Medicine, Japan

PD6-2
Can early-stage spondylolysis be distinguished from other low back disorders by characteristics of low back pain in adolescent patients?
Yasuchika Aoki
Department of Orthopaedic Surgery, Toho University Sakura Medical Center, Japan

PD6-3
Conservative treatment for lumbar spinal disorder of athletes
Koji Kaneoka
Waseda University, Faculty of Sports Sciences, Japan

PD6-4
Conservative treatment with a lumbar support in adolescents
Kazuhiko Nakano
Nishioka Daiichi Hospital, Japan

PD6-5
Low Back Pain in the Immature Spine and Surgical Treatment
Toshinori Sakai
Department of Orthopedics, Institute of Health Biosciences, The University of Tokushima Graduate School, Tokushima, Japan

PD6-6
Percutaneus Endoscopic Spine Surgery and Return to Competitive Sports in Top-athlete
Masataka Sakane
Department of Orthopaedic Surgery, University of Tsukuba, Japan

PD6-7
Over 3-year follow up study concerning the return-to-play after posterior lumbar interbody fusion for highly competitive athletes
Takato Aihara
Funabashi Orthopedic Hospital, Japan
15:00 - 16:30 Room 7 (2F 207)

Session 1 - MIS TLIF

Chairpersons: Yuichiro Nishijima
Thomas Lübbers

I-SS1-1 (15:00 - 15:15)

Computer Navigation for Trans-ossseous Interbody Fusion of the L5-S1 Disc
Michael Mac Millan
Department of Orthopaedics, University of Florida, USA


Results with long term follow-up of percutaneous arthrodesis (Pe-PLIF)
Daniel Gastambide
Gieda Inter Rachis, Paris, France

I-SS1-3 (15:25 - 15:35)

5 years' follow-up of MIS TLIF for lumbar degenerative spondylolisthesis: No correlation found between patient outcome and abnormal lumbar MRI findings indicating paraspinal muscle atrophy
Tomoaki Toyone
Department of Orthopaedic Surgery, Teikyo University Chiba Medical Center, Japan

I-SS1-4 (15:35 - 15:45)

Retrospective CT scan analysis of percutaneously inserted pedicle screws by finger navigation technique in MIS-TLIF comparing with open method
Yuichiro Nishijima
Nishijima Spine Center, Tokyo, Japan

I-SS1-5 (15:45 - 15:55)

Comparison of DLIF with interbody fusion through conventional miniopen lateral approach
Chong-Suh Lee
Department of Orthopedic Surgery, Samsung Medical Center, Sungkyunkwan University, Seoul, Korea

I-SS1-6 (15:55 - 16:05)

Should the presence of back pain be considered when making surgical decisions for lumbar spinal fusion?
Yasuchika Aoki
Department of Orthopaedic Surgery, Toho University Sakura Medical Center, Japan

I-SS1-7 (16:05 - 16:15)

Minimally invasive TLIF using tubular retractor vs. mini-open TLIF
Which procedure is less invasive?
Akihito Wada
Department of Orthopaedic Surgery, Toho University School of Medicine, Japan

Discussion (16:15 - 16:30)
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Room</th>
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<tbody>
<tr>
<td>7:45 - 7:50</td>
<td>Opening Remarks</td>
<td>Room 8 (2F Small Hall)</td>
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<tr>
<td></td>
<td>Akira Dezawa</td>
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<tr>
<td></td>
<td>Department of Orthopedic Surgery, Teikyo University, Mizonokuchi Hospital, Japan</td>
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<td>7:50 - 8:20</td>
<td>Session 2</td>
<td>Room 8 (2F Small Hall)</td>
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<td>Chairperson: Sang-Ho Lee</td>
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<td>I-SS2-1 (7:50 - 8:00)</td>
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<td>Minimally Invasive Spine Surgery in Latin America and the World Federation of Minimally Invasive Spine Surgery (WFMISS)</td>
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<td>Pil Sun Choi</td>
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<td>Orthopedic Institute of Medicine School, University of Sao Paulo, Brazil</td>
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<td>I-SS2-2 (8:00 - 8:10)</td>
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<td>Pathogenesis of Sciatic Pain Induced by Lumbar Disc Herniation</td>
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<td>Shigeru Kobayashi</td>
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<td>Department of Orthopaedics and Rehabilitation Medicine, Faculty of Medical Sciences, The University of Fukui, Japan</td>
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<td>I-SS2-3 (8:10 - 8:20)</td>
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<td>Clinical anatomy of the lumbar spine</td>
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<td>Burkay Kutluhan Kaçira</td>
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<td>Orthopaedics and Traumatology, Necmettin Erbakan University, Turkey</td>
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<tr>
<td>8:20 - 9:00</td>
<td>Keynote Lecture</td>
<td>Room 8 (2F Small Hall)</td>
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<td>Chairperson: Sadahisa Hijikata</td>
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<td>I-KL-1 (8:20 - 8:40)</td>
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<td>Interventional Pain Management at the Spine</td>
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<td>Niebergall Henner</td>
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<td>Department of Pain Medicine, Zollikerberg Hospital, Switzerland</td>
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<td>I-KL-2 (8:40 - 9:00)</td>
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<td>Evolution of percutaneous endoscopic lumbar disc surgery in Europe since 1982</td>
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<td>Hansjoerg F. Leu</td>
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<td>WSC-Klinik HIRSLANDEN, Zurich, Switzerland</td>
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<tr>
<td>9:00 - 10:15</td>
<td>Symposium 1 - Lumbar Disc Herniation</td>
<td>Room 8 (2F Small Hall)</td>
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<td>Chairpersons: Bambang Darwono</td>
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<td>Hansjoerg F. Leu</td>
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<td>I-SY1-Keynote Lecture (9:00 - 9:15)</td>
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<td>Anthony Yeung</td>
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<td>Desert Institute for Spine Care, Phoenix, AZ, USA</td>
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</table>
I-SY1-1 (9:15 - 9:25)
State of the arts and Pitfall of Percutaneous endoscopic lumbal discectomy
Gun Choi
Neurosurgery, Wooridul Spine Hospital, Seoul, Korea

I-SY1-2 (9:25 - 9:35)
MED with newly designed 12 mm tubular retractor system is less invasive than the conventional MED system
Hirohiko Inanami
Department of Orthopedic Surgery, Iwai Orthopaedic Medical Hospital, Japan

I-SY1-3 (9:35 - 9:45)
Endoscopic spine surgery in Recurrent disc Herniations
Mahadeo Rohidas
Prakruti Clinic Dr. Rohidas’s Centre for Minimally Invasive Spine & Neurosurgery, India

I-SY1-4 (9:45 - 9:55)
Endoscopic disc surgery : The current state of the method
Christof Birkenmaier
Department of Orthopedics, Grosshadern Campus, Ludwig Maximilian University, Munich, Germany

I-SY1-5 (9:55 - 10:05)
The evidence of surgery for lumbar disc herniation
Shinichi Konno
Department of Orthopaedic Surgery, Fukushima Medical University, Japan

Discussion (10:05 - 10:15)

10:15 - 11:30 Room 8 (2F Small Hall)
Symposium 2 - Fracture of Osteoporosis
Chairpersons: Po-Quang Chen
Luthfi Gatam

I-SY2-1 (10:15 - 10:30)
Vertebral Augmentation – Current Status of Balloon Kyphoplasty in Japan
Daisuke Togawa
Hamamatsu University School of Medicine, Shizuoka, Japan

I-SY2-2 (10:30 - 10:45)
The Role of Vessel-X, Vessel-Lock, and SrHA cement in the Treatment of Osteoporotic Vertebral Compression Problems
Darwono A. Bambang
Department of Orthopaedic Surgery, Gading Pluit Hospital, Jakarta, Indonesia

I-SY2-3 (10:45 - 11:00)
Surgical Treatment of the Osteoporotic Thoracic-Lumbar Vertebral Collapse with Unstable Kyphosis and Neurological Complications
- Results of Anterior Reconstruction -
Kiyoshi Kaneda
Professor Emeritus, Department of Orthopaedic Surgery, Hokkaido University School of Medicine, Sapporo, Japan
I-SY2-4 (11:00 - 11:15)
Percutaneous Kyphoplasty: Sun Yat-sen University 10 Year Experiences
Zhaomin Zheng
Department of Spine Surgery, The First Affiliated Hospital, Sun Yat-sen University, Guangzhou, China

I-SY2-5 (11:15 - 11:30)
Spinal Shortening Osteotomy with Short Fusion for Osteoporotic Vertebral Pseudoarthrosis
Hiroshi Ozawa
Department of Orthopaedic Surgery, Tohoku University School of Medicine, Japan

I-SY2-6 (11:15 - 11:30)
Endoscopic Interbody Fusion – Latest trends and Solutions
Anand Agarwal
Engineering Center for Orthopaedic Research Excellence (E-CORE), Departments of Bioengineering and Orthopaedic Surgery, Colleges of Engineering and Medicine, University of Toledo, Toledo, OH, USA

Discussion (11:15 - 11:30)

11:30 - 12:10 Room 8 (2F Small Hall)
Session 3
Chairpersons: Shinichi Konno
Anand Agarwal

I-SS3-1 (11:30 - 11:40)
Current Survey Results of the Endoscopic Spine Surgery in Japan
Toru Hasegawa
Department of Orthopedics, Traumatology and Spine Surgery, Kawasaki Medical School, Okayama, Japan

I-SS3-2 (11:40 - 11:50)
Percutaneous Endoscopic Lumbar Spinal Surgery (PELSS) In Managing Lumbar Spine Disease: Current Status and the Future
Shao-Keh Hsu
Minimal Invasive Spinal Center, Tungs’ Taichung MetroHabor Hospital, Taichung, Taiwan

I-SS3-3 (11:50 - 12:00)
Surgical Anatomical Considerations for Minimally Invasive Spine Surgery
Eugene Wong
Pantai Hospital KL, Malaysia

I-SS3-4 (12:00 - 12:10)
The Review of MIS TLIF and Open Surgical Method Lumbar Spine Pathology
Luthfi Gatam
Orthopaedic and Traumatology Departement, Fatmawati General Hospital, Indonesia
12:15 - 13:15 Room 8 (2F Small Hall)
**Lilac Seminar 7**

**Chairperson:** Munehito Yoshida

**LS7**

Toshihiko Yamashita  
*Department of Orthopaedic Surgery, Sapporo Medical University, Sapporo, Japan*

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13:30 - 15:15 Room 8 (2F Small Hall)

**Symposium 3 - Cervical**

**Chairpersons:** ShaoKeh Hsu  
Gun Choi

**I-SY3-1 (13:30 - 13:40)**

**Comparison of anterior foraminotomy and posterior foraminotomy on unilateral cervical radiculopathy:**  
**Difference in anatomical location of lesion**  
Sang-Ho Lee  
*Department of Neurosurgery, Seoul Wooridul Spine Hospital, Korea*

**I-SY3-2 (13:40 - 13:50)**

**Perioperative complications associated with cervical microendoscopic foraminotomy (CMEF)**  
Yukihiro Nakagawa  
*Department of Orthopaedic Surgery, Wakayama Medical University, Japan*

**I-SY3-3 (13:50 - 14:00)**

**Anterior Transvertebral Herniotomy for Cervical Disk Herniation**  
Sadaaki Nakai  
*Yoshida Orthopedic Hospital, Toyota City, Aichi Prefecture, Japan*

**I-SY3-4 (14:00 - 14:10)**

**Anterior Endoscopic Cervical Discectomy (AECD) with Foraminoplasty Assisted by GPS (grid positional system) and IOM**  
John C. Chiu  
*California Spine Institute Medical Center, Thousand Oaks, CA, USA*

**I-SY3-5 (14:10 - 14:20)**

**Optimization of beam diagnostics in respect of minimal invasive surgery in cervical and lumbar DDD**  
Moguchaya Olga  
*Polenov Neurosurgical Institute, Saint-Petersburg, Russia*

**I-SY3-6 (14:20 - 14:30)**

**Minimally Invasive Posterolateral Approach for Cervical Pedicle Screw Fixation Using 3D Navigation System**  
Takamitsu Tokioka  
*Department of Orthopedic Surgery, Kochi Health Sciences Center, Kochi, Japan*
I-SY3-7 (14:30 - 14:40)
Endoscopic posterior decompression for cervical myelopathy
~ Middle term follow up with Tubed surgery of assisted endoscope ~
Yasuhiko Nishimura
Spinal Surgery Centre, Department of Neurosurgery, Wakayama KOYO Hospital, Japan

I-SY3-8 (14:40 - 14:50)
Perioperative complications associated with cervical microendoscopic laminoplasty (CMEL)
Yukihiro Nakagawa
Department of Orthopaedic Surgery, Wakayama Medical University, Japan

Discussion (14:50 - 15:15)

15:45 - 17:00 Room 8 (2F Small Hall)
Session 4 - Interlaminar or Transforaminar?
Chairpersons: Christof Birkenmaier
Koichi Sairyo

I-SS4-1 (15:45 - 15:55)
Percutaneous endoscopic lumbar discectomy: Updated techniques
Chi Heon Kim
Department of Neurosurgery, Seoul National University College of Medicine and Hospital, Seoul, Korea

I-SS4-2 (15:55 - 16:10)
Anthony Yeung
Desert Institute for Spine Care, Phoenix, AZ, USA
- Case Study
Chairperson: Christof Birkenmaier

I-SS4-3 (16:10 - 17:00)
Koichi Sairyo and Takahiro Funato
Department of Orthopedic Surgery, Teikyo University Mizonokuchi Hospital, Japan

Discussion (16:10 - 17:00)
Friday, June 21

8:30 - 9:30 Room 7 (2F 207)

**Education-training Lecture**

Chairperson: Moroe Beppu

**Minimally Invasive Upper-extremity Endoscopic Surgery**
- Carpel Tunnel Syndrome & Cubital Tunnel Syndrome -
  Ichiro Okutsu
  Okutsu Minimally Invasive Orthopaedic Clinic, Japan

9:30 - 10:20 Room 7 (2F 207)

**Session 5 - Free Paper**

Chairpersons: Pil Sun Choi
Masataka Sakane

**I-SS5-1 (9:30 - 9:40)**

Arthroscopic release of the piriformis muscle under local anesthesia for piriformis syndrome
Yasuhiro Kitagawa
Department of Orthopedic Surgery, School of Medicine, Teikyo University, Mizonokuchi Hospital, Japan

**I-SS5-2 (9:40 - 9:50)**

Endoscopic management of tarsal tunnel syndrome using the USE system
Aya Yoshida
Okutsu Minimally Invasive Orthopaedic Clinic, Japan

**I-SS5-3 (9:50 - 10:00)**

Clinical Results for X-MR Assisted Percutaneous Transforaminal Endoscopic Lumbar Discectomy
Gun Choi
Seoul Wooridul Hospital, Korea

**I-SS5-4 (10:00 - 10:10)**

Clinical Application of Spinal Endoscopy: Degenerative Disorder, Infection, and Tumor
Kyung-Hoon Kim
Department of Anesthesia and Pain Medicine, School of Medicine, Pusan National University, Korea

**I-SS5-5 (10:10 - 10:20)**

Laser disc reconstruction: Tissue engineering approach for treatment of chronic discogenic neck and low back pain
Borshchenko Igor
ORTHOSPINE Clinic, Russia
**10:20 - 11:20 Room 7 (2F 207)**

### Session 6 - Free Paper

**Chairpersons:** Ali Fahir Özer  
Yasuhiko Nishimura

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<tr>
<th>Session</th>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
<th>Institution</th>
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<tbody>
<tr>
<td>I-SS6-1</td>
<td>10:20 - 10:30</td>
<td>Structural Preserving Percutaneous Endoscopic Lumbar Interlaminar Discectomy: Ligamentum Flavum Splitting, Fissure Fragmentectomy and Sealing Procedure</td>
<td>Hyeun Sung Kim</td>
<td>Department of Neurosurgery, Hurisarang Spine Hospital, Daejeon, Korea</td>
</tr>
<tr>
<td>I-SS6-2</td>
<td>10:30 - 10:40</td>
<td>Endoscopic Trans-iliac Approach to L5-S1 Disc and Foramen - A Report of Clinical Experience</td>
<td>Sandeep Sherlekar</td>
<td>American Spine Center, USA</td>
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<tr>
<td>I-SS6-3</td>
<td>10:40 - 10:50</td>
<td>The muscle injury of posterior lumbar interbody fusion using a cortical bone trajectory</td>
<td>Kazuto Miura</td>
<td>Department of Orthopedic Surgery, Tachikawa General Hospital, Japan</td>
</tr>
<tr>
<td>I-SS6-4</td>
<td>10:50 - 11:00</td>
<td>Clinical results of endoscopic discectomy of a herniated disc of the lumbar spine</td>
<td>Shakhaydar S. Shatursunov</td>
<td>Research Institute of Traumatology and Orthopaedics, Ministry of Public Health of the Republic of Uzbekistan</td>
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**Discussion (11:00 - 11:20)**

### 11:45 - 12:45 Room 7 (2F 207)

**Lilac Seminar 14**

**Chairperson:** Masahiro Kurosaka

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<th>Institution</th>
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<tr>
<td>LS14</td>
<td>13:20 - 14:35</td>
<td>Clinical outcomes of microendoscopic laminotomy for degenerative lumbar spondylolisthesis on lysthetic pathological stages</td>
<td>Akihito Minamide</td>
<td>Department of Orthopaedic Surgery, Wakayama Medical University, Wakayama, Japan</td>
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*Sponsored by Taisho Toyama Pharmaceutical Co., Ltd.*
### I-SS7-2 (13:30 - 13:40)
Unilateral Biportal Endoscopic Segmental Sublaminoplasty for Lumbar Central Stenosis
(Not Microendoscopic technique)

Jinhwa Eum  
Department of Neurosurgery, Kabul Gumi Hospital, Korea

### I-SS7-3 (13:40 - 13:50)
A case of intraspinal synovial cyst associated with spondylolysis: Cyst removal via interlaminar approach

Masataka Sakane  
Department of Orthopaedic Surgery, University of Tsukuba, Japan

### I-SS7-4 (13:50 - 14:00)
Reduction of moderate to high grade Spondylolisthesis after circumferential releasing technique under the mini-open posterior lumbar interbody fusion

Chang Il Ju  
Department of Neurosurgery, College of Medicine, Chosun University, Gwangju, Korea

### I-SS7-5 (14:00 - 14:10)
Epiduroscopic laser -Lumbar disc decompression

Kang Taek Lim  
CheonAn Woori Spine Hospital, Korea

### Discussion (14:10 - 14:35)

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### Session 8-1 - Sports Medicine and Motion Preservation Surgery

Chairpersons: Shigeki Urayama  
Kang Taek Lim

### I-SS8-1 (14:35 - 14:50)
The predictors for outcome of L5 nerve root with extra-foraminal stenosis in micro-endoscopic decompression surgery

Hirohiko Inanami  
Department of Orthopedic Surgery, Iwai Orthopaedic Medical Hospital, Japan

### I-SS8-2 (14:50 - 15:05)
A Review of Direct Repair of Pars Defects

Toshinori Sakai  
Department of Orthopaedic Surgery, Tokushima University, Japan

### I-SS8-3 (15:05 - 15:15)
Kinematics of cervical spine following total disc arthroplasty and anterior cervical discectomy fusion in cadaveric study

Tomoya Terai  
Department of Orthopaedic Surgery, Affiliated Hospital to Ehime Juzen School of Allied Medical Professions, Japan
Two types of laminolysis in adolescent athletes
Yoichiro Takata
Department of Orthopedics, Institute of Health Biosciences, The University of Tokushima Graduate School, Tokushima, Japan

Persistent Tight Hamstrings Following Conservative Treatment for Apophyseal Ring Fracture in Adolescent Athletes
Yuichiro Goda
Department of Orthopedics, Institute of Health Biosciences, The University of Tokushima Graduate School, Tokushima, Japan

Session 8-2 - Sports Medicine and Motion Preservation Surgery
Chairpersons: Hirohiko Inanami, Toshinori Sakai

Intra-operative identification of conjoined nerve root during micro-endoscopic discectomy: -A case report-
Shuji Kawamura
Department of Orthopaedic Surgery, Sapporo Medical University, Japan

Clinical results of second operation for the patients who have undergone balloon kyphoplasty
Hikaru Morisue
Department of Orthopaedic Surgery, Nishi-Yokohama International Hospital, Japan

Percutaneous vertebroplasty for osteoporotic vertebral fracture associated with delayed neurologic deficit
Toshio Nakamae
Department of Orthopaedic Surgery, JA Hiroshima General Hospital, Hiroshima, Japan

Percutaneous transpedicular Intervertebral vacuum PMMA Injection for low back pain with lumbar degenerative scoliosis
Kiyotaka Yamada
Department of Orthopaedic Surgery, Hiroshima General Hospital, Japan

Micro-endoscope assist the XLIF surgery
Hirohiko Inanami
Department of Orthopedic Surgery, Iwat Orthopaedic Medical Hospital, Japan

Percutaneous vertebroplasty with hydroxyapatite under local anesthesia for the treatment of osteoporotic vertebral burst fracture
Shigeki Urayama
Department of Orthopaedic Surgery, Mizuno Memorial Hospital, Japan
## Symposium 4 - SCS

**Chairpersons:** John C. Chiu  
Henner Niebergall

### I-SY4-Keynote Lecture (8:30 - 8:45)

**Microdecompression and Dynamic Interlaminar Stabilization/Fixation Surgery for Treatment of Symptomatic Lumbar Spinal Stenosis (LSS)**  
John C. Chiu  
*California Spine Institute Medical Center, Thousand Oaks, CA, USA*

### I-SY4-1 (8:45 - 9:00)

**Patient position for Endoscopic Lumbar Discectomy-Vajrasana or Namaj position**  
Mahadeo Rohidas  
*Prakruti Clinic Dr. Rohidas’s Centre for Minimally Invasive Spine & Neurosurgery, India*

### I-SY4-2 (9:00 - 9:10)

**Lumbar foraminal stenosis -The clinical features, diagnosis and microendoscopic treatment -**  
Munehito Yoshida  
*Wakayama Medical University, Orthopaedic Surgery, Wakayama, Japan*

### I-SY4-3 (9:10 - 9:20)

**The Role of Interlaminar Dynamic Stabilization Device (IntraSPINE) in the Treatment of Late Degenerative Problems**  
Bambang Darwono  
*Gading Pluit Hospital, Indonesia*

### I-SY4-4 (9:20 - 9:30)

**Potential Risks and Complications of Minimally Invasive Spine Surgery and their Avoidance**  
John C. Chiu  
*California Spine Institute, Thousand Oaks, CA, USA*

### I-SY4-5 (9:30 - 9:40)

**In spine fusion, PEEK rods prevent screw loosening in osteoporotic spine**  
Anand Agarwal  
*Engineering Center for Orthopaedic Research Excellence (E-CORE), Departments of Bioengineering and Orthopaedic Surgery, Colleges of Engineering and Medicine, University of Toledo, Toledo, OH, USA*

### Discussion (9:55 - 10:05)
### Session 9 - Free Paper

**Chairpersons:** Daniel Gastambide  
Shrinivas Mahadeo Rohidas

#### I-SS9-1 (10:15 - 10:30)
**Minimal invasive decompression of foraminal stenosis using tubular retractors and posterolateral approach**

Robert Saftic  
*Akxis - International Hospital for Minimal Invasive Spinal Surgery and Orthopedics, Zagreb, Croatia*

#### I-SS9-2 (10:30 - 10:45)
**Distraction Interference Arthrodesis with Neurovascular Anticipation (DIANA) - A new treatment option for Sacroiliac Joint Pain**

Pascal Militzer  
*Spine Practice Heidelberg, Germany*

#### I-SS9-3 (10:45 - 11:00)
**Basics and concept of SpineTIP**

Thomas Lübbers  
*Wirbelsäulenzentrum, Ludmillenstift, Meppen, Germany*

#### I-SS9-4 (11:00 - 11:15)
**Instrumented Adjacent Segmental Degeneration of the Spine - The Biomechanical Studies on motion Preservation Devices and Suggested Procedures of Prevention and Treatment**

Po-Quang Chen  
*Department of Orthopedic Surgery, National Taiwan University Hospital & Kangning General Hospital, Taipei, Taiwan*

### Lilac Seminar 15

**Chairperson:** Takashi Hagiuchi

**LS15**

Takumi Nakagawa  
*Department of Orthopaedic Surgery, Teikyo University School of Medicine, Tokyo, Japan*

### Symposium 5 - Thoracic

**Chairpersons:** Kiyoshi Kaneda  
Gun Choi

**I-SY5-Keynote Lecture (13:30 - 13:45)**

**Anterior Reconstruction in Treatment of the Thoraco-Lumbar Spinal Diseases - The Indications, Surgical Procedures and Results -**

Kiyoshi Kaneda  
*Professor Emeritus, Department of Orthopaedic Surgery, Hokkaido University School of Medicine, Sapporo, Japan*
I-SY5-1 (13:45 - 13:55)
Endoscopic anterior correction and fusion for thoracic scoliosis
Sohei Ebara
Spine & Scoliosis Center, Shonan Fujisawa Tokushukai Hospital, Japan

I-SY5-2 (13:55 - 14:05)
New approach for thoracic disease with PED: Percutaneous endoscopic thoracic decompression from through the chest cavity (VATS-PETD)
Sumito Shimizu
Spine and Spinal Cord Center, Omigawa General Hospital, Japan

I-SY5-3 (14:05 - 14:15)
Transthoracic anterior decompression for thoracic ossification of posterior longitudinal ligament with myelopathy
Sang-Ho Lee
Department of Neurosurgery, Seoul Wooridul Spine Hospital, Korea

I-SY5-4 (14:15 - 14:30)
Endoscopic Treatment of Thoracal Disc Herniation
Ali Fahir Özer
Professor of Neurosurgery, Koc University School of Medicine, Department of Neurosurgery, Istanbul, Turkey

I-SY5-5 (14:30 - 14:40)
Minimally Invasive Posterolateral Endoscopic Thoracic Discectomy - Guided with Grid Position System (GPS)
John C. Chiu
California Spine Institute Medical Center, Thousand Oaks, CA, USA

I-SY5-6 (14:40 - 14:50)
Percutaneous endoscopic discectomy for the transition area between thoracic and the upper lumbar segment
Fujio Ito
Aichi Spine Institute, Japan

I-SY5-7 (14:50 - 15:00)
Ultrasonic bone dissector in Endoscopic spine surgery
Mahadeo Rohidas
Prakruti Clinic Dr. Rohidas's Centre for Minimally Invasive Spine & Neurosurgery, India

Discussion (15:00 - 15:10)

15:30 - 17:00 Room 8 (2F Small Hall)
Panel Discussion - Discogenic Pain
Chairpersons: Yasuchika Aoki
Anthony Yeung

I-PD-1 (15:30 - 15:40)
Yasuchika Aoki
Department of Orthopaedic Surgery, Toho University Sakura Medical Center, Japan
I-PD-2 (15:40 - 15:50)
Koichi Sairyo
Department of Orthopedic Surgery, Teikyo University, Mizonokuchi Hospital, Japan

I-PD-3 (15:50 - 16:00)
Anthony Yeung
Desert Institute for Spine Care, Phoenix, AZ, USA

I-PD-4 (16:00 - 16:10)
Hansjoerg F. Leu
WSC-Klinik HIRSLANDEN, Zurich, Switzerland

Discussion (16:10 - 17:00)

11:45 - 12:45 (2F 203)
Workshop 1 - PED
I-WS1
Thomas Lübbers
Wirbelsäulenzentrum, Ludmilenstift, Meppen, Germany

11:45 - 12:45 (2F 205)
Workshop 2 - PED
I-WS2
Anthony Yeung
Desert Institute for Spine Care, Phoenix, AZ, USA