

Symposium 1

9:00 – 10:40, November 24 (Wed.), 2021 Hall 1

International Intradiscal Therapy Society(IITS) Symposium

Moderators: Nobuyuki Fujita (Fujita Health University, Japan)
Toshiya Tachibana (Hyogo College of Medicine, Japan)

- S1-1 1-year clinical outcome of condoliase therapy for patients with lumbar disc herniation**
Tomohiro Banno
(Hamamatsu University School of Medicine, Japan)
- S1-2 Intradiscal injection of platelet-rich plasma (PRP) for the treatment of discogenic low back pain**
Koji Akeda
(Department of Orthopaedic Surgery, Mie University Graduate School of Medicine, Japan)
- S1-3 Molecular mechanisms of intervertebral disc degeneration**
Nobuyuki Fujita
(Fujita Health University, Japan)
- S1-4 Intradiscal Therapy Using Bipolar Radiofrequency coagulation for Athletes**
Hiroaki Manabe
(Department of Orthopedics, Tokushima Naruto Hospital, Japan)
- S1-5 Basic information for painful Modic change**
Tetsuhiro Ishikawa
(Orthopedic Surgery, Sanmu Medical Center, Japan)
- S1-6 A new intradiscal therapy for painful Modic change: Full-endoscopic disc cleaning (FEDC) surgery**
Kazuya Kishima
(Department of orthopaedic surgery, Hyogo college of medicine, Japan)

Invited Lecture 1

10:50 – 11:50, November 24 (Wed.), 2021 Hall 1

Moderator: Yukoh Ohara (Juntendo University, Japan)

- IL1 History of my full-endoscopic surgery:
A review of a 50 year contribution to Spine Care**
Anthony Yeung
(Desert Institute for Spine Care, USA)

Luncheon Seminar 1

12:00 – 13:00, November 24 (Wed.), 2021 Hall 1

Moderator: Hiroaki Nakamura (Osaka City University, Japan)

LS1-1 Transforaminal advanced lumbar disc surgery

Fumitake Tezuka

(Department of Orthopedics, Tokushima University, Japan)

LS1-2 New techniques of full-endoscopic spine surgery –FEL, HDOI, KLIF–

Koichiro Ono

(Department of Orthopedics Nippon Medical School, Japan)

Co-sponsored by NIPRO & Richard Wolf

Special Program 1

13:10 – 14:10, November 24 (Wed.), 2021 Hall 1

Moderator: Akira Dezawa (Meiryukai, Japan)

SP1-1 State of the art in minimally invasive spine surgery using full-endoscopic technology

Koichi Sairyō

(Department of Orthopedics, Tokushima University, Japan)

SP1-2 Evolution of total en bloc spondylectomy (TES)

Hideki Murakami

(Department of Orthopaedic Surgery, Graduate School of Medical Sciences, Nagoya City University, Japan)

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Symposium 2

14:20 – 16:00, November 24 (Wed.), 2021 Hall 1

Leading edge Endoscopic Spine Fusion Symposium

Moderators: Akira Dezawa (Meiryukai, Japan)

Koichi Sairyō (Tokushima University, Japan)

S2-1 Full endoscopic trans-Kambin triangle lumbar interbody fusion: surgical technique and clinical outcome

Masatoshi Morimoto

(Tokushima University Graduate School, Japan)

S2-2 Full-endoscopic KLIF and Educational System in Japan

Seiji Yamaya

(Center of Endoscopic Spine Surgery, Department of Orthopaedic Surgery, Sendai Nishitaga Hospital, Japan)

S2-3 Endoscopic TLIF

Hyeun Sung Kim

(Nanoori Gangnam Hospital, Spine Surgery, Seoul, Korea)

- S2-4 UBE-TLIF**
Javier Quillo Olvera
(The Brain and Spine Care, Minimally Invasive Spine Surgery Group. Anahuac University, School of Medicine, Mexico)
- S2-5 Endoscopic Fusion**
Malcolm Pestonji
(MGM Hospital & Research Centre Private Limited, India)
- S2-6 Posterior lumbar interbody fusion by biportal technique using 30 degrees arthroscope in lumbar degenerative disease**
Seok-Bong Jung
(Jinju Bon Hospital, Spine Center, Korea)
- S2-7 Percutaneous endoscopic transforaminal lumbar interbody fusion: a novel technique- sentinel pinning for protection of exiting root**
Yi Hung Huang
(Chia Yi Christian Hospital, National Cheng Kung University Hospital, Taiwan)

Evening Seminar 1

17:00 – 18:00, November 24 (Wed.), 2021 Hall 1

Moderator: Yoshiharu Kawaguchi (University of Toyama, Japan)

- ES1-1 Radiation exposure to the medical staff during minimally invasive spine surgery ~the essential knowledge and reduction technique ~**
Kazuta Yamashita
(Tokushima University Hospital, Japan)
- ES1-2 Management Strategy for Dura Tears following Transforaminal Endoscopic Spinal Surgeries: From simple dura tear to an exceptional serious complication**
Jin-Sung Kim
(Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Korea)

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General Session 1

9:20 - 10:10, November 24 (Wed.), 2021 Hall 2

FESS for Lumbar Pathology

Moderator: Gun Choi (Pohang Woori Hospital, Korea)

Keynote Lecture

Gun Choi
(Pohang Woori Hospital, Korea)

GS1-1 An early recurrence case of lumbar disc herniation after full-endoscopic lumbar discectomy

Kazuma Doi
(Shinyurigaoka General Hospital, Japan)

GS1-2 Effectiveness of full-endoscopic posterolateral approach for recurrent lumbar disc herniation in the lateral recess

Yasuhiro Nakajima
(Daido Hospital Neuro-Spine Center, Japan)

GS1-3 Transforaminal Decompression of Severe Spinal Stenosis in Elders

Tolgay Satana
(Dr Tolgay Satana, Turkey)

GS1-4 Usefulness of Full-endoscopic lumbar foraminoplasty (FELF) for lateral stenosis

Takashi Inokuchi
(Tokushima University, Japan)

GS1-5 Full-endoscopic resection for lumbar facet joint cysts: Effectiveness of indigo carmine injection into the facet joint before operation

Kohei Ota
(Tokushima University, Japan)

General Session 2

10:20 - 11:00, November 24 (Wed.), 2021 Hall 2

FESS for Intradiscal Pathology

Moderator: Akihiro Nagamachi (Takamatsu Municipal Hospital, Japan)

GS2-1 Spinal kinematics of Type 1 Modic change

Yuji Yamada
(Anan Medical Center, Japan)

GS2-2 Characteristics of low back pain in professional baseball players and surgical treatment

Masatoshi Morimoto
(Tokushima University, Japan)

GS2-3 Effectiveness and limitations of full-endoscopic spine surgery via a transpedicular approach for highly migrated lumbar disc herniation

Hiroki Yoshimatsu

(Aichi Spine Hospital, Japan)

GS2-4 Full-endoscopic disc cleaning and thermal annuloplasty in discogenic chronic low back pain

Akihiro Nagamachi

(Takamatsu Municipal Hospital, Japan)

Luncheon Seminar 2

12:00 – 13:00, November 24 (Wed.), 2021 Hall 2

Moderator: Toshinori Sakai (Tokushima University, Japan)

LS2 Vertebral Augmentation for Osteoporotic and Osteolytic Vertebral Fractures

Daisuke Togawa

(Departments of Orthopaedics and Rheumatology, Kindai University Nara Hospital, Japan)

Co-sponsored by NuVasive Japan

General Session 3

14:20 – 16:00, November 24 (Wed.), 2021 Hall 2

MIS for Spinal Cord Pathology

Moderator: Yoshihiro Kitahama (Suzukake Central Hospital, Japan)

Keynote Lecture

Joachim Oertel

(Dept. of Neurosurgery, University of Saarland, Germany)

GS3-1 Simultaneous single-stage decompression of the cervical and lumbar spine for patients with symptomatic tandem spinal stenosis: Surgical strategy using uniportal and biportal techniques

Javier Quillo Olvera

(The Brain and Spine Care Group, Hospital H+, Queretaro, MX. , Mexico)

GS3-2 Biportal endoscopic unilateral laminotomy with bilateral decompression for the treatment of cervical spondylotic myelopathy. A technical case report

Ji Yeon Kim

(Leon Wiltse Memorial Hospital, Korea)

GS3-3 Stridor and sialorrhea as initial manifestations of diffuse idiopathic skeletal hyperostosis (DISH)

Ali hammed

(Tishreen university hospital, Syria)

- GS3-4** **Comparative analysis of three types of minimally invasive posterior cervical foraminotomy for the foraminal stenosis; Uniportal endoscopy, Biportal endoscopy, and Microsurgery**
 Ji Yeon Kim
 (Leon Wiltse Memorial Hospital, United States)
- GS3-5** **Solitary plasmocytoma of the thoracolumbar spine: interdisciplinary management using Closing Posterior ? Opening Anterior Wedge osteotomy and radiotherapy**
 Ali hammed
 (Tishreen university hospital, Syria)
- GS3-6** **Percutaneous Endoscopic Thoracic Discectomy**
 Tolgay Satana
 (Dr Tolgay Satana, Turkey)
- GS3-7** **A case of adult-onset Tethered cord syndrome**
 Yasuhiro Node
 (SHIN-YURIGAOKA General Hospital, Japan)
- GS3-8** **Effectiveness of percutaneous endoscopic cyst puncture for evaluating the therapeutic effect of cystectomy for perineural cyst**
 Eiji Abe
 (Spine and Spinal Cord Center, Juntendo University, Japan/Department of Neurosurgery, Juntendo University)

General Session 4

16:10 - 16:40, November 24 (Wed.), 2021 Hall 2

MIS Spinal Fusion

Moderator: **Fujio Ito** (Aichi Spine Hospital, Japan)

- GS4-1** **Percutaneous full-Endoscopic Kambin Lumbar Interbody Fusion (PE-KLIF) with pedicle screw fixation including L5/S1 level**
 Fujio Ito
 (Aichi Spine Hospital, Japan)
- GS4-2** **Early clinical results of full-endoscopic lateral lumbar interbody fusion via Kambin's triangle for degenerative lumbar disc diseases**
 Hiroki Iguchi
 (Department of Orthopaedic Surgery, Takamatsu Municipal Hospital, Japan)
- GS4-3** **Stress fracture of the contralateral pedicle with unilateral lumbar spondylolysis in 4 cases**
 Shinya Nakagawa
 (Department of Orthopedics, Tokushima University, Japan)

Moderator: Akira Dezawa (Meiryukai, Japan)

ES2-1 Robotics: a “Swiss Knife“ for the Digital O.R. ?

Ferdinand Feldhütter

(Jr. Product Manager Cirq Robotics, Brainlab, Germany)

**ES2-2 Scoliosis Surgery –New workflow for Anterior VATS and Posterior Scoliosis
Surgery with Navigation based Robotic Arm in Spine Hybrid Operation Room**

Sohei Ebara

(Vice President of Shonan Fujisawa Tokushukai Hospital, Director of Spine and Scoliosis Center,
Japan)

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New Technology

Moderator: Kazuta Yamashita (Tokushima University, Japan)

Keynote Lecture

Future prospect and our experience of augmented reality microscope for spine surgery

Fumitake Tezuka

(Department of Orthopedics, Tokushima University, Japan)

GS5-1 Anterior transarticular screw fixation under Navigation guided drill

Takaoki Kimura

(Shin-yurigaoka General Hospital, Japan)

GS5-2 Efficacy of Atlantoaxial Transarticular Screw Fixation Using Navigation-Guided Drill

Takeshi Hara

(Spine and Spinal Cord Center, Juntendo University, Japan/Department of Neurosurgery, Juntendo University)

GS5-3 Initial experience with a new navigation system in surgery for spinal intramedullary tumors

Daichi Kawamura

(Department of Neurosurgery, Jikei University Hospital, Japan)

GS5-4 A comparative study of variable direction drilling-assisted full endoscopic Trench technique and traditional Trench technique for central cervical intervertebral disc herniation

Du Yu

(the Second Affiliated Hospital of Chongqing Medical University, China)

GS5-5 Clinical outcomes evaluation of percutaneous endoscopic cervical discectomy with lamina-hole approach for cervical radiculopathy

Cheng Si

(the Second Affiliated Hospital of Chongqing Medical University, China)

GS5-6 Preliminary outcomes of 270-degree intervertebral foramina compression involving posterior percutaneous endoscopic cervical discectomy for cervical spondylotic radiculopathy

Yan Zheng Jian

(the Second Affiliated Hospital of Chongqing Medical University, China)

Risk Management

Moderator: **Yasuhiro Nakajima** (Daido Hospital, Japan)

- GS6-1 Risk of dural injury and kidney injury according to transforaminal approach**
Takashi Inokuchi
(Tokushima University, Japan)
- GS6-2 Extraforaminal Stenosis at L2-L3 Treated with Microendoscopic Surgery: Report of Two Cases**
Arihiko Tsukamoto
(Sapporo Medical University Hospital, Japan)
- GS6-3 A preoperative scoring system for predicting adjacent vertebral fracture after balloon kyphoplasty using whole spine X-ray**
Koji Matsumoto
(Department of Orthopaedic Surgery, Nihon University Itabashi Hospital, Japan)
- GS6-4 A case of full-endoscopic discectomy for highly migrated lumbar disc herniation divided into two stages**
Takuma Abe
(Department of Orthopedics, Tokushima University, Japan)

Luncheon Seminar 3**12:00 – 13:00, November 24 (Wed.), 2021 Hall 3**

Moderator: **Yukoh Ohara** (Juntendo University, Japan)

- LS3-1 Sexual Dysfunction and Genitopelvic Dysesthesia (GPD) due to Spinal Abnormalities: The Role of Endoscopic Spine Surgery**
Choll W. Kim
(Excel Spine Center, San Diego, CA, USA)
- LS3-2 Thought on the best endoscopic procedure at lumbosacral level**
Jin-Sung Kim
(Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Korea)
- Co-sponsored by elliquence international**

FESS Educational Symposium at WCMISST

Moderators: Kazuyoshi Nakanishi (Nihon University, Japan)
Kota Watanabe (Keio University, Japan)

- S3-1 Effectiveness of the new training system of full endoscopic spine surgeries using NIPRO Bone Model**
Kosuke Sugiura
(Department of Orthopedics Institute of Biomedical Sciences Tokushima University Graduate School, Japan)
- S3-2 Educational training using a fellowship program**
Kiyoshi Yagi
(Nagoya City University, Japan)
- S3-3 Endoscopy Education and training in India**
Pramod Lokhande
(Gurukrupa Spine Clinic, India)
- S3-4 Educational System in Taiwan for Minimally Invasive and Endoscopic Spine**
Jwo-Luen Pao
(Far Eastern Memorial Hospital, Taiwan)
- S3-5 SPINE SURGERY FELLOWSHIP TRAINING IN INDONESIA 1994–2021**
Luthfi Gatam
(Fatmawati General Hospital, Indonesia)

Moderator: Takashi Chikawa (Tokushima Prefecture Naruto Hospital, Japan)

- ES4 Efficacy and impact of minimally invasive spinal treatment (MIST) in an aged society**
Ken Ishii
(Department of Orthopaedic Surgery, School of Medicine, International University of Health and Welfare (IUHW), Japan)

Co-sponsored by Asahi Kasei Pharma

Moderator: **Yoshiyasu Arai** (Saiseikai Kawaguchi General Hospital, Japan)

ES3-1 lateral access surgery A to Z -Tips and clinical results in LIF, lateral access corpectomy and ACR-

Masayuki Ishihara

(Department of Orthopaedic Surgery, Kansai Medical University Hospital, Japan)

ES3-2 Tips, tricks and traps during minimally invasive spine surgery

Koichiro Ono

(Department of Orthopedics, Nippon Medical School, Japan)

Co-sponsored by Baxter

November 24 (Wed.), 2021 Hall 4

Hands-on Seminar 1

10:00 - 11:00, November 24 (Wed.), 2021 Hall 4

MAZOR X

Co-sponsored by Medtronic Japan

Hands-on Seminar 2

15:00 - 16:00, November 24 (Wed.), 2021 Hall 4

AR NAVIGATION

Co-sponsored by BRAINLAB & Carl Zeiss Meditec AG

Sponsored Symposium 1

8:30 – 9:30, November 25 (Thu.), 2021 Hall 3

Novel Technology Symposium

Moderator: **Fumitake Tezuka** (Tokushima University, Japan)

- SS1-1 Clinical Relevance of preventing implant contamination during spine surgery**
Neel Anand
(Professor of Orthopaedic Surgery, Director of Spine Trauma, Cedar Sinai Medical Center, Los Angeles, CA, USA)
- SS1-2 Role of synthetic biologics in Spine Surgery**
Anand Agarwal
(Spine Surgeon, CEO, OsteoNovus Inc., Toledo OH)
- SS1-3 3D-exoscopic visualization using ORBEYE in spinal procedures**
Kentarō Yamane
(Okayama Medical Center, Japan)
- SS1-4 Three Dimensional Spine Model for FESS**
Ryo Okada
(Tokushima Prefectural Miyoshi Hospital, Japan)

Co-sponsored by OsteoNovus & medical.order.japan

Sponsored Symposium 2

9:40 – 10:40, November 25 (Thu.), 2021 Hall 3

KJT Korea-Japan-Taiwan Cutting Edge Symposium

Moderators: **Hyeun Sung Kim** (Nanoori Gangnam Hospital, Korea)
Chien-Min Chen (Changhua Christian Hospital, Taiwan)

- SS2-1 Effect of Dorsal Root Ganglion Retraction in Endoscopic Lumbar Decompressive Surgery for Foraminal Pathology: A Retrospective Cohort Study of Interlaminar Contralateral Endoscopic Lumbar Foraminotomy and Discectomy versus Transforaminal Endoscopic Lumbar**
Hyeun Sung Kim
(Nanoori Gangnam Hospital, Spine Surgery, Seoul, Korea)
- SS2-2 The current indications of single port endoscope. What should we use for?**
Yukoh Ohara
(Department of Neurosurgery Juntendo university, Spine and spinal cord center Juntendo university hospital, Japan)
- SS2-3 Full endoscopic application in spinal tumor**
Chien-Min Chen
(Department of Neurosurgery, Changhua Christian Hospital, Changhua, Taiwan)

- SS2-4 Percutaneous Endoscopic Transforaminal Lumbar Interbody Fusion (PETLIF)
–A New Modified Technique for Treating Degenerative Lumbar Spondylolisthesis–**
Katsuhisa Yamada
(Department of Orthopaedic Surgery, Hokkaido University Hospital, Japan)

Co-sponsored by NAKANISHI

Luncheon Seminar 4

12:00 – 13:00, November 25 (Thu.), 2021 Hall 3

Moderator: Kazuo Omori (Nippon Koukan Hospital, Japan)

- LS4-1 Application of joimax[®] endoscope in spine decompression and fusion**

Ralf Wagner

(LIGAMENTA Spine Center, Rotkreuz-Hospital, Frankfurt, Germany)

- LS4-2 Navigation and Current Spinal Endoscopic Surgeries with the Latest Devices**

Christoph P. Hofstetter

(Department of Neurological Surgery, University of Washington, Seattle, WA, USA)

Co-sponsored by Japan Medicalnext

General Session 7

15:00 – 16:00, November 25 (Thu.), 2021 Hall 3

FESS Special Technique

Moderator: Takashi Tomita (Aomori Prefectural Central Hospital, Japan)

Keynote Lecture

Motor control exercise with “Beyond Pilates” after the surgery through my experience

Junya Takeda

(Clinic for Orthopedics, Sports Medicine & Nutrition, Japan)

- GS7-1 Full Endoscopic Spinal Surgery in Sub-Saharan Africa: Our Experience**

Musa Ibrahim Z

(Department of Surgery, Murtala Muhammad Specialist Hospital Kano, Nigeria)

- GS7-2 Full-endoscopic Translaminar Approach for Lumbar Disc Herniation Cranially Migrated in the Medial Side of Pedicle**

Shigeki Urayama

(Dept. of Orthop. Surg., Mizuno Memorial Hospital, Japan)

- GS7-3 Long term clinical research of 155 cases of Full Endoscopic Single level Lumbar Discectomy**

Yoshihiro Kitahama

(Spine Center, Suzukake Central Hospital, Japan/Neurosurgery, Hamamatsu University School of Medicine/Medical Technology Innovation Center, Juntendo University/Engineering, Shizuoka University)

GS7-4 Full-endoscopic Spinal Surgery for a Giant Lumbar Disc Herniation: A Case Report

Takeshi Umebayashi
(Tokyo Spine Clinic, Japan)

Special Program 2

16:10 – 17:10, November 25 (Thu.), 2021 Hall 3

The TAIKAN: Professional Support for Athletes

Moderator: Toshihiko Yamashita (Sapporo Medical University, Japan)

SP2-1 Exercise therapy with yoga for low back pain

Emi Motohashi
(Educate Movement Institute Association, Japan)

SP2-2 Pilates Method for The Tennis Player

Shizu Katsumi
(Niigata Tennis Association, Japan)

SP2-3 The Approach for TAIKAN by Athletic Trainer

Rieko Kuramochi
(School and Graduate School of Health and Sport Sciences, Chukyo University, Japan)

SP2-4 Post-operative Support Using Pilates Procedure

Miori Yamazaki
(Clinic for Orthopedic, Sports Medicine and Nutrition, Daikanyama, Pilates Lab, Daikanyama / Aoyama Reserve, Japan)

Invited Lecture 2

17:15 – 18:15, November 25 (Thu.), 2021 Hall 3

Moderator: Akira Dezawa (Meiryukai, Japan)

IL2 Full-endoscopic decompression in spinal stenosis

Sebastian Ruetten
(Center for Spine Surgery and Pain Therapy, Center for Orthopaedics and Traumatology, St. Anna Hospital Herne/Marien Hospital Herne University Hospital/Marien Hospital Witten, - St. Elisabeth Group - Catholic Hospitals Rhein-Ruhr - Herne, Germany)