

PASMISS 2020 Scientific Programs

April 2, Friday

| Time | Duration | Room A [Online Track A] | Room B [Online Track B] |
|-------------|----------|---|--|
| 08:00-08:10 | (10min) | Opening Remark | |
| 08:10-08:44 | (34min) | Free Papers A-1 Basic Science <i>Moderators: Jin Hwan Kim (Korea), Ruey Mo Lin (Taiwan), Young-Yul Kim (Korea)</i> | Free Papers B-1 Basic Science <i>Moderators: Woo-Dong Nam (Korea), Tsung-Jen Huang (Taiwan), Young-Hoon Kim (Korea)</i> |
| 08:10-08:16 | (6min) | Promotion of Osseointegration of Titanium Implants in Osteoporotic Rats Based on Titanium Affinity Biomimetic Polypeptide Qin Shi (China) | Composite Artificial Bionic Nano-Scaffold with In-Situ Recruitment for Sequential Bone Regeneration Hanwen Li (China) |
| 08:16-08:22 | (6min) | A Novel Intravertebral Modular Fixator: Experimental Study In a Porcine Model Jui-Yang Hsieh (Taiwan) | Association between Ligamentum Flavum Area and Radiographic Signs of Lumbar Spine Degeneration: A Descriptive Study Hao-Chun Chuang (Taiwan) |
| 08:22-08:28 | (6min) | A Finite Element Analysis on the Biomechanical Influences of the Novel Modular Spine Blocks of the Lumbar Spine Jui-Yang Hsieh (Taiwan) | Correlation between TNF Alfa Level in Nucleus Pulposus, Annulus Fibrosus and Facet Joint with the Incidence of Low Back Pain and Pre-Operative Functional Score Using Oswestry Disability Index (ODI) in Degenerative Lumbar Canal Stenosis Yudha Mathan Sakti (Indonesia) |
| 08:28-08:34 | (6min) | The Effect of Prolonged RhBMP-2 Treatment on Telomerase Activity, Replicative Capacity and Senescence of Human Nucleus Pulposus Cells Hyung-Youl Park (Korea) | The Anatomical Study and Clinical Significance of the Sinuvertebral Nerves at the Lumbar Levels Qingchu Li (China) |
| 08:34-08:44 | (10min) | Discussion (All Moderators and Speakers) | Discussion (All Moderators and Speakers) |
| 08:44-09:18 | (34min) | Free Papers A-2 Cervical Spine <i>Moderators: Jin S. Yeom (Korea), Baoshan Xu (China), Kwang-Sup Song (Korea)</i> | Free Papers B-2 Deformity <i>Moderators: Kyu-Jung Cho (Korea), Hidetomi Terai (Japan), Jung Hee Lee (Korea)</i> |
| 08:44-08:50 | (6min) | Can Dynamic Plating Using Fixed Screws at Lowermost Level Enhance Fusion Rate Compared to All Variable Screw Construct in Anterior Cervical Discectomy and Fusion? Jae Jun Yang (Korea) | Coronal Imbalance after Pedicle Subtraction Osteotomy for the Surgical Correction of Ankylosing Spondylitis: Incidence and Risk Factors Sung-Min Kim (Korea) |
| 08:50-08:56 | (6min) | Optimization of Three-Level Cervical Hybrid Surgery to Prevent Adjacent Segment Disease: A Finite Element Study Kuo-Yuan Huang (Taiwan) | S2-Alar-Iliac Screw Technique is Superior to Iliac Screw Technique following Surgical Correction for Adult Spinal Deformity? "In the Change of Spino-Pelvic Parameters" Joonghyun Ahn (Korea) |
| 08:56-09:02 | (6min) | Ossification of the Posterior Longitudinal Ligament (OPLL) Combined with Dural Ossification (DO): Histological Findings and Intraoperative Management Bo Yuan (China) | EOS Analysis of Sagittal Alignment of Spine and Pelvis in Korean Adult Population Min-Gu Jang (Korea) |
| 09:02-09:08 | (6min) | Diagnostic Usefulness of 10-Step Tandem Gait Test for the Patient with Degenerative Cervical Myelopathy Kyung Chung Kang (Korea) | |
| 09:08-09:18 | (10min) | Discussion (All Moderators and Speakers) | Discussion (All Moderators and Speakers) |
| 09:18-09:52 | (34min) | Free Papers A-3 Cervical Spine <i>Moderators: Kyung-Soo Suk (Korea), Sohei Ebara (Japan), Dong-Ho Lee (Korea)</i> | Free Papers B-3 Deformity <i>Moderators: Hak Sun Kim (Korea), Mathan Sakti Yudha (Indonesia), Seung Woo Suh (Korea)</i> |
| 09:18-09:24 | (6min) | A Multi-Centre, Prospective, Randomized Controlled Trial Comparing the Efficacy and Safety of ProDisc®C Implant to Anterior Cervical Discectomy and Fusion (ACDF) Surgery in the Treatment of Symptomatic Cervical Disc Disease (SCDD) at Twenty-Four Months Naresh Kumar (Singapore) | Anterior Growth Modulation and Non-Fusion Surgery for Idiopathic Scoliosis Hee-Kit Wong (Singapore) |
| 09:24-09:30 | (6min) | Deep Learning-Based Radiomics Using Conventional MRI to Predict Clinically Important Improvement after Laminoplasty in Patients with Degenerative Cervical Myelopathy Satoshi Maki (Japan) | Functional Outcomes Following Surgical Treatment in Patient with Primary Degenerative Adult Scoliosis Yudha Mathan Sakti (Indonesia) |
| 09:30-09:36 | (6min) | Cervical Total Disc Replacement for Treatment of Single-Level Degenerative Cervical Disc Disease: A Mid-Term Follow-Up Report Xiongsheng Chen (China) | Incidence and Medical Utilization Pattern of Idiopathic Scoliosis Sahyun Sung (Korea) |
| 09:36-09:42 | (6min) | Accuracy of the Adjustable Aiming Device for Caspar Pin Insertion in Anterior Cervical Spine Surgery: Human Cadaveric Study Torphong Bunmaprasert (Thailand) | Is There an Association Between Psychiatric Disorders and Adolescent Idiopathic Scoliosis? A Large-database Study Soo-Bin Lee (Korea) |
| 09:42-09:52 | (10min) | Discussion (All Moderators and Speakers) | Discussion (All Moderators and Speakers) |

| 09:52-10:02 | | (10min) | | Coffee Break | |
|-------------|---------|---|--|---|--|
| 10:02-10:36 | (34min) | Free Papers A-4 | | Free Papers B-4 | |
| | | Cervical Spine | | Navigation and Robot Assisted Surgery | |
| | | <i>Moderators: Heui Jeon Park (Korea), Shisheng He (China), Jong-Beom Park (Korea)</i> | | <i>Moderators: Hwan-Mo Lee (Korea), Jian Wang (China), Hun-Kyu Shin (Korea)</i> | |
| 10:02-10:08 | (6min) | Comparison of Radiological and Clinical Outcomes after MST(Midline Splitting Technique) Laminoplasty versus UODT(Unilateral Open Door Technique) Laminoplasty. Seung Hun Lee (Korea) | | Clinical and Radiologic Outcomes of Minimally Invasive Surgery Transforaminal Lumbar Interbody Fusion with Computer Guided Navigation Hester Renel Palma (Philippines) | |
| 10:08-10:14 | (6min) | Anterior Cervical Ossified Posterior Longitudinal Ligament En Bloc Resection: The Efficacy and Advantages of a Novel Surgical Technique for the Treatment of Cervical Ossification of the Posterior Longitudinal Ligament with Myelopathy Xiongsheng Chen (China) | | Percutaneous Endoscopic Robot-Assisted Transforaminal Lumbar Interbody Fusion (PE RA-TLIF) for Lumbar Degenerative Spondylolisthesis: A Technical Note and Primary Clinical Results Xinyu Liu (China) | |
| 10:14-10:20 | (6min) | Evaluation of the Authorship and Quality of Information on the Internet Web Sites Regarding Cervical Disc Herniation Heejun Jang (Korea) | | Accuracy Evaluation and Deviation Analysis of Robot-Assisted Spinal Implants: A Retrospective Study of 105 Cases Chao Wang (China) | |
| 10:20-10:26 | (6min) | Exploratory Meta-Analysis on Dose-Related Efficacy and Complications of RhBMP-2 in Anterior Cervical Discectomy and Fusion: 1,539,021 Cases from 2003-2017 Studies Jinhui Shi (China) | | Navigation for Endo-TLIF with Percutaneous Pedicle Screw Fixation : Improved Accuracy and Efficiency Compared to Conventional Technique. Xuexiao Ma (China) | |
| 10:26-10:36 | (10min) | Discussion (All Moderators and Speakers) | | Discussion (All Moderators and Speakers) | |
| 10:36-10:56 | (20min) | Invited Session 1 | | Invited Session 2 | |
| | | <i>Moderators: Seok Woo Kim (Korea), Hee-Kit Wong (Singapore)</i> | | <i>Moderators: Chong-Suh Lee (Korea), Luthfi Gatam (Indonesia)</i> | |
| 10:36-10:51 | (15min) | Single Position Minimally Invasive Lateral Surgery Frank M. Phillips (USA) | | Twenty Years of Experience in the US with Lumbar Disc Replacement: What Have We Learned? Jack E. Zigler (USA) | |
| 10:51-10:56 | (5min) | Discussion (Moderator and Speaker) | | Discussion (Moderator and Speaker) | |
| 10:56-11:38 | (42min) | Free Papers A-5 | | Free Papers B-5 | |
| | | Cervical Endoscopic Decompression Surgery | | Lumbar Endoscopic Decompression Surgery | |
| | | <i>Moderator: Kyung-Hyun Shin (Korea), Kuo-Yuan Huang (Taiwan), Kyubok Kang (Korea)</i> | | <i>Moderator: Keun Ho Park (Korea), Warat Tassanawipas (Thailand), Youk-Sang Kwon (Korea)</i> | |
| 10:56-11:02 | (6min) | Full Endoscopic Posterior Cervical Foraminotomy and Discectomy in Viet Duc University Hospital Dinh Ngoc Son (Vietnam) | | Ultrasonic Osteotome Assisted Full-Endoscopic En Block Resection of Thoracic Ossified Ligamentum Flavum: Technical Note and 2 Years Follow-Up Zhen-Zhou Li (China) | |
| 11:02-11:08 | (6min) | Clinical Efficacy of Endoscopic Bi(two)portal Foraminotomy and Discectomy in Patients with Cervical Herniated Disc Disorder. Seok Bong Jung (Korea) | | A Comparison of Percutaneous Interlaminar Endoscopic and Open Lumbar Discectomy: A 3-Year Multicenter Retrospective Study Ezekiel Ilano (Philippines) | |
| 11:08-11:14 | (6min) | Clinical and Radiological Outcomes of 2-Level Endoscopic Posterior Cervical Foraminotomy Myung Soo Youn (Korea) | | Result of L5 – S1 Disc Herniation Treatment by Percutaneous Interlaminar Endoscopic Lumbar Discectomy Nguyen Le Bao Tien (Vietnam) | |
| 11:14-11:20 | (6min) | Disc Removal or Foraminal Decompression for Cervical Herniation of Nucleus Pulposus and Foraminal Stenosis by Unilateral Biportal Technique Seung Deok Sun (Korea) | | Percutaneous Isthmus Foraminoplasty and Full-Endoscopic Lumbar Discectomy for Very Highly Up-Migrated Lumbar Disc Herniation: Technique Notes and 2 Years Follow-Up Zhen-Zhou Li (China) | |
| 11:20-11:26 | (6min) | Biportal Endoscopic Posterior Cervical Foraminotomy: A Technical Reports and Preliminary Clinical Outcomes Jin Ho Hwang (Korea) | | The Clinical Effect of Endo-Love on the Treatment of Complex Disc Herniation : A Case Series Report Derong Xu (China) | |
| 11:26-11:38 | (12min) | Discussion (All Moderators and Speakers) | | Discussion (All Moderators and Speakers) | |
| 11:38-12:12 | (34min) | Free Papers A-6 | | Free Papers B-6 | |
| | | Vertebral Fractures | | Vertebral Fractures | |
| | | <i>Moderators: Jin-Hyok Kim (Korea), Ming-Chau Chang (Taiwan), Chang Ju Hwang (Korea)</i> | | <i>Moderators: Jae-Sung Ahn (Korea), Arvind Jayaswal (India), Jeong-Hyun Yoo (Korea)</i> | |
| 11:38-11:44 | (6min) | Minimally Invasive Spine Surgery versus Open Surgery Spinal Fusion for Unstable Burst Fracture Seung Gi Lee (Korea) | | Proposal of Treatment Strategy for Transverse Fractures of the C2 Body: Analysis of 49 Cases Based on Modified Classification Sung-Kyu Kim (Korea) | |
| 11:44-11:50 | (6min) | Thoracolumbar Fracture with Posterior Ligamentous Complex Injuries Treated by Posterior Short-Segment Fixation Including the Fractured Vertebra Jun Pan (China) | | Vertebral Body Anterior Translation, a Novel Technique for a Delayed Myelopathy due to an Osteoporotic Spine Fracture Won Shik Shin (Korea) | |
| 11:50-11:56 | (6min) | Relationship between the Time from Injury to Surgery and the Degree of Fracture Reduction by Ligamentotaxis in a Posterior Instrumentation without Fusion for Thoracolumbar Unstable Burst Fracture Sangbong Ko (Korea) | | Surgical Treatment Outcomes of C2 Tear Drop Fractures: Clinical Relevance to Hangman's Fracture and C2-3 Discoligamentous Injury Sung-Kyu Kim (Korea) | |
| 11:56-12:02 | (6min) | Thoracolumbar Burst Fractures Surgical Treatment – Posterior Bone Graft with or without Decompression Using Unilateral Biportal Endoscopy (UBE) and Percutaneous Pedicle Screw Fixation (PPSF) Seung-Hyun Choi (Korea) | | Analysis of Risk Factors for Nonunion of Conservatively Managed Anterior Tear Drop Fractures of C2 Vertebra Sung-Kyu Kim (Korea) | |
| 12:02-12:12 | (10min) | Discussion (All Moderators and Speakers) | | Discussion (All Moderators and Speakers) | |

| 12:12-12:32 | | Luncheon 1 - Hanmi Pharmaceutical | | Luncheon 2 - Amgen Korea | |
|-------------|---------|--|--|--|--|
| | (20min) | <i>Moderator: Si Young Park (Korea)</i> | | <i>Moderator: Se Jun Park (Korea)</i> | |
| 12:12-12:27 | (15min) | The Better Quality of Life with SERM+Vit.D Chang-Hwa Hong (Korea) | | New Treatment Paradigm in the Fight Against OP Byung Ho Lee (Korea) | |
| 12:27-12:32 | (5min) | Discussion (Moderator and Speaker) | | Discussion (Moderator and Speaker) | |
| 13:10-14:15 | | Symposium 1 | | Symposium 2 | |
| | (65min) | Endoscopic Spine Surgery: from Beginner to Expert <i>Moderators: Ki Tack Kim (Korea), Yen-Mou Lu (Taiwan)</i> | | Minimally Invasive Surgery for Spinal Tumors <i>Moderators: Bong-Soon Chang (Korea), Zhaomin Zheng (China)</i> | |
| 13:10-13:20 | (10min) | How to Overcome Obstacles during Bi-Portal Endoscopic Spine Surgery "Learning Curve" Seok Bong Jung (Korea) | | Historical Perspective of Metastatic Spine Tumor Treatment Se Jun Park (Korea) | |
| 13:20-13:30 | (10min) | Transforaminal Approaches for Spinal Stenosis - Biportal Technique Dae-Jung Choi (Korea) | | Overview of Minimally Invasive Spine Tumor Surgery Panya Luksanaprukka (Thailand) | |
| 13:30-13:40 | (10min) | Transforaminal Approaches for Spinal Stenosis - Uniprotral Technique Myung Soo Youn (Korea) | | Instrumentation Failure after Minimally Invasive Spine Tumor Surgery Naresh Kumar (Singapore) | |
| 13:40-13:50 | (10min) | Biportal Technique for Patients with LSS Si Young Park (Korea) | | Concept and Evidence Review of Separation Surgery Sang-Min Park (Korea) | |
| 13:50-14:00 | (10min) | Uniportal Technique for Patients with LSS Keun Ho Park (Korea) | | The Utility of Minimally Invasive Spine (MIS) Surgery in Metastatic Spine Tumor Surgery Jiong Hao Tan (Singapore) | |
| 14:00-14:15 | (15min) | Discussion (All Moderators and Speakers) | | Discussion (All Moderators and Speakers) | |
| 14:15-14:57 | | Free Papers A-7 | | Free Papers B-7 | |
| | (42min) | Lumbar Endoscopic Decompression Surgery <i>Moderators: Eung Ha Kim (Korea), Keng-Chang Liu (Taiwan), Dae-Jung Choi (Korea)</i> | | Transforaminal Lumbar Interbody Fusion <i>Moderators: Whoan Jeang Kim (Korea), Ken Ishii (Japan), Yung Park (Korea)</i> | |
| 14:15-14:21 | (6min) | A Pilot Study of Full-Endoscopic Annulus Fibrosus Suture Following Lumbar Discectomy through Transforaminal Approach or Interlaminar Approach: Technique Notes and 1 Year Follow-Up Zhen-Zhou Li (China) | | Long-Term Clinical and Radiological Outcomes of Minimally Invasive Transforaminal Lumbar Interbody Fusion: 10-Year Follow-Up Results Young Ho Roh (Korea) | |
| 14:21-14:27 | (6min) | The Technique and Effect of Percutaneous Endoscopic Lumbar Discectomy via Interlaminar Approach for Recurrent Lumbar Disc Herniation Jiancheng Zeng (China) | | Ten-Year Outcomes of Minimally Invasive Versus Open Transforaminal Lumbar Interbody Fusion Ji-Won Kwon (Korea) | |
| 14:27-14:33 | (6min) | Distance and Approach Angle for L4 – L5 Transforaminal Percutaneous Spine Endoscopy Based on 3d CT Scan in Indonesian Population Galih Prasetya Sakadewa (Indonesia) | | Comparative Analysis of Outcomes in Minimally Invasive TLIF and Conventional TLIF Jae-Young Hong (Korea) | |
| 14:33-14:39 | (6min) | Outcome Parameters Assessment to Evaluate Successful Procedure in a Single - Center Early Experience of Percutaneous Endoscopic Lumbar Discectomy (PELD) Yudha Mathan Sakti (Indonesia) | | Influence of Contoured Versus Straight Rod on Clinical Outcomes and Sagittal Parameters in Minimally Invasive Transforaminal Lumbar Interbody Fusion (MIS-TLIF) at L4/5 Level-More than 5 Years Follow-Up Yiwei Zhao (China) | |
| 14:39-14:45 | (6min) | Results of Transforaminal Endoscopic Lumbar Discectomy for Very High Grade Migrated Disk Herniation Dinh Ngoc Son (Vietnam) | | Unilateral Transforaminal Lumbar Interbody Fusion Using Dual Transverse Lordotic Cages: A technical Note Eun-Seok Son (Korea) | |
| 14:45-14:57 | (12min) | Discussion (All Moderators and Speakers) | | Discussion (All Moderators and Speakers) | |
| 14:57-15:39 | | Free Papers A-8 | | Free Papers B-8 | |
| | (42min) | Lumbar Endoscopic Decompression Surgery <i>Moderators: Seung Deok Sun (Korea), Noor Helmi Zairin (Indonesia), Ho-Joong Kim (Korea)</i> | | Lumbar Endoscopic Decompression Surgery / Arthroplasty <i>Moderators: Dae-Moo Shim (Korea), Koichi Sairyo (Japan), Hyun-Jin Park (Korea)</i> | |
| 14:57-15:03 | (6min) | Pooled Analysis of Unsuccessful Percutaneous Biportal Endoscopic Surgery Outcomes from a Multi-Institutional Retrospective Cohort of 824 Cases Wanseok Kim (Korea) | | Biportal Endoscopic versus Microscopic Lumbar Decompressive Laminectomy in Patients with Spinal Stenosis: A Randomized Controlled Trial Sang-Min Park (Korea) | |
| 15:03-15:09 | (6min) | Surgical Treatment of Far-Out Syndrome by Unilateral Biportal Endoscopy: Surgical Techniques and 1-Year Clinical Outcomes Man-Kyu Park (Korea) | | Full-Time and Real-Time Lumbar Foraminoplasty with Biportal Spinal Endoscopic System (BiSES) Zhi Zhou (China) | |
| 15:09-15:15 | (6min) | A Novel Percutaneous Biportal Endoscopic Technique for Symptomatic Spinal Epidural Lipomatosis Sangsoo Kang (Korea) | | Biportal Endoscopic Versus Open Microscopic Lumbar Redo-Discectomy for Symptomatic Recurrent Lumbar Disc Herniation Min Seok Kang (Korea) | |
| 15:15-15:21 | (6min) | Difficulties During Early Learning Period of Biportal Endoscopic Spine Surgery (BESS) Yeon Ho Kim (Korea) | | Approach Decision for Adjacent Segment Disease Using Bi-Portal Endoscopic Spine Surgery Dae-Jung Choi (Korea) | |
| 15:21-15:27 | (6min) | Efficacy and Techniques of Bi-Portal Endoscopic Spinal Surgery in Lumbar Foraminal Stenosis Dongyun Kim (Korea) | | Evaluation on the Results of Total Disc Replacement Surgery l5s1 at Viet Duc University Hospital Tran Dinh Toan (Vietnam) | |
| 15:27-15:39 | (12min) | Discussion (All Moderators and Speakers) | | Discussion (All Moderators and Speakers) | |
| 15:39-15:49 | (10min) | Coffee Break | | | |

| | | Invited Session 3 | |
|-------------|---------|--|---|
| 15:49-16:09 | (20min) | <i>Moderators: Po-Quang Chen (Taiwan), Shinichi Konno (Japan)</i> | |
| 15:49-16:04 | (15min) | Integration of Spinal Navigation and Minimally Invasive Surgery: Recent Progress and Robotic Surgery Trend Yoshihisa Kotani (Japan) | |
| 16:04-16:09 | (5min) | Discussion (All Moderators and Speaker) | |
| 16:09-17:01 | (52min) | Symposium 3 | Symposium 4 |
| | | Anterolateral Lumbar Approach | SI Joint Pain. What's the Real Causes of Lower Back Pain |
| | | <i>Moderators: Chang-Hoon Jeon (Korea), Shing-Sheng Wu (Taiwan)</i> | <i>Moderators: Kee-Yong Ha (Korea), Huilin Yang (China)</i> |
| 16:09-16:19 | (10min) | T12-L1: What Do You Prefer? Intra vs Extra-Thoracic Ho-Jin Lee (Korea) | The Causes of Lower Back Pain : SI Joint Pain, One of the Causes of Lower Back Pain Chang-Hwa Hong (Korea) |
| 16:19-16:29 | (10min) | L2-5: Is Neuro-Monitoring Needed for DLIF or OLIF? Jae-Young Hong (Korea) | Anatomical Landmarks and Biomechanics of the SI Joint Pain Eun-Seok Son (Korea) |
| 16:29-16:39 | (10min) | L5-S1: Should We Learn How to Repair the Vessel? vs Narrowing an Indication to Ovoid Vessel Injury Nam-Su Chung (Korea) | Diagnostic Procedure : The Diagnosis of Mechanical Dysfunction of the SI Joint Sang-Bum Kim (Korea) |
| 16:39-16:49 | (10min) | Discussion (All Moderators and Speakers) | Treatment of SI Joint Pain : Non-Operative and Operative Treatment Chang Su Kim (Korea) |
| 16:49-17:01 | (12min) | Discussion (All Moderators and Speakers) | |
| 17:01-17:43 | (42min) | Free Papers A-9 | Free Papers B-9 |
| | | Lumbar Endoscopic Decompression Surgery | Lumbar Endoscopic Decompression Surgery |
| | | <i>Moderators: Weonwook Park (Korea), Zhenzhou Li (China), Nam-Su Chung (Korea)</i> | <i>Moderators: Yongsoo Choi (Korea), Hiroshi Yamada (Japan), Sang-Bum Kim (Korea)</i> |
| 17:01-17:07 | (6min) | Cervical Epidural Pressure Measurement During Biportal Endoscopic Lumbar Discectomy Taewook Kang (Korea) | Percutaneous Full-Endoscopic Spine Technique for Treatment of Central Lumbar Spinal Stenosis by Interlaminar approach Jingbo Xue (China) |
| 17:07-17:13 | (6min) | Bilateral Decompression through Right Side Approach on BESS (Lower vs Higher) Won Shik Shin (Korea) | Clinical Analysis of 96 Cases of Lumbar Lateral Recess Stenosis with the Full-Endoscopic Visualized Decompression via a Superior Vertebral Notch Approach Yawei Li (China) |
| 17:13-17:19 | (6min) | Foraminal Decompression by Biportal Endoscopic Spine Surgery Seung Deok Sun (Korea) | Clinical Results of Transforaminal Full-Endoscopic Lumbar Discectomy for Huge Central Lumbar Disc Herniation - Usefulness of the Outside-In Technique with Foraminoplasty Jiro Hirayama (Japan) |
| 17:19-17:25 | (6min) | Multifidus Muscle Changes after Biportal Endoscopic Spinal Surgery: Magnetic Resonance Imaging Evaluation Ho-Jin Lee (Korea) | Minimally Invasive Percutaneous Endoscopic Treatment for Acute Pyogenic Spondylodiscitis Following Vertebroplasty: A Case Report Myungsoo Youn (Korea) |
| 17:25-17:31 | (6min) | Biportal Endoscopic Discectomy in Obese Patients Hojin Jung (Korea) | |
| 17:31-17:43 | (12min) | Discussion (All Moderators and Speakers) | Discussion (All Moderators and Speakers) |
| 17:43-18:17 | (34min) | Free Papers A-10 | Free Papers B-10 |
| | | Lateral Lumbar Interbody Fusion | Lumbar Endoscopic Fusion Surgery |
| | | <i>Moderators: Byung-Joon Shin (Korea), Kazuo Nakanishi (Japan), Jae Chul Lee (Korea)</i> | <i>Moderators: Hak Jin Min (Korea), Fujio Ito (Japan), Jaewan Soh (Korea)</i> |
| 17:43-17:49 | (6min) | Advantage of Single-Position Oblique Lumbar Interbody Fusion with Percutaneous Pedicle Screw Instrumentation Eugene Park (Korea) | The Result of Biportal Endoscopic Transforaminal Lumbar Interbody Fusion. Is It Better Compared with Conventional MIS-TLIF? Asrafi Rizki Gatam (Indonesia) |
| 17:49-17:55 | (6min) | Evaluation of the Mid-Term Outcomes of Oblique Lateral Interbody Fusion Geundong Kim (Japan) | Unilateral Biportal Endoscopic Lumbar Interbody Fusion (ULIF) versus Conventional Posterior Lumbar Interbody Fusion (PLIF) for 2 Lumbosacral Segment : Clinical and Radiological Outcomes of One-Year Follow-Up Seung-Hyun Choi (Korea) |
| 17:55-18:01 | (6min) | The Fate of the Lumbar Facet Cyst Following Minimally Invasive Oblique Lateral Interbody Fusion (MI-OLIF) in Degenerative Spondylolisthesis: Preliminary Results of a Prospective Case Series Sam Yeol Chang (Korea) | Biportal Endoscopy-Assisted Versus Microendoscopy-Assisted Minimally Invasive Transforaminal Lumbar Interbody Fusion for Lumbar Degenerative Diseases Hyun-Jin Park (Korea) |
| 18:01-18:07 | (6min) | The Influential Factors of Cage Selection in Oblique Lumbar Interbody Fusion Jiancheng Zeng (China) | Full-Endoscopic Posterior Lumbar Interbody Fusion via an Interlaminar Approach Versus Minimally Invasive Transforaminal Lumbar Interbody Fusion: A Retrospective Study with 12-Month Follow-Up Yawei Li (China) |
| 18:07-18:17 | (10min) | Discussion (All Moderators and Speakers) | Discussion (All Moderators and Speakers) |

* This program is subject to change.