

Vit Kotheeranurak, MD

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Personal Information

Birthdate: November 18, 1984 (Bangkok, Thailand)

Languages: Thai  English 

Expertise and Area of interest

Endoscopic spine surgery, Minimally invasive spine surgery

Education

Research Fellowship **Minimally invasive and endoscopic spine surgery, 2018**

The Catholic University of Korea, Seoul St. Mary's Hospital, Seoul, South Korea

Biportal endoscopic spine surgery, 2018

The Leon-Wiltse Memorial Hospital, Suwon, South Korea

Endoscopic spine surgery, 2018

Desert Institute Spine Center (DISC), Phoenix, Arizona, USA

Spinal deformity and minimally invasive spine surgery, 2017

The Cedars-Sinai medical center, Los Angeles, California, USA

Fellowship

Spine surgery, 2016-2017

Spine unit, Orthopaedic department, King Chulalongkorn Memorial Hospital

Residency

Certified Thai Board of Orthopedic Surgery, 2013-2016 (Class President)

Queen Savang Vadhana Memorial Hospital, Sriracha, Chonburi, Thailand

Internship

Queen Savang Vadhana Memorial Hospital, 2011-2012

Sriracha, Chonburi, Thailand

Medical school

Doctor of medicine, 2007-2011

Chulalongkorn University, Bangkok, Thailand

Current Work Position

- Clinical instructor at King Chulalongkorn Memorial Hospital (Thai Red Cross)
- Assistant Vice President (Scientific program) of the Spine Society of Thailand [SST]
- Diversity Task Force, North American Spine Society (NASS)
- Editor of *Neurospine* journal
- Instructor in Endoscopic spine surgery curriculum (AO spine)

Research and published articles

- Transforaminal Endoscopic Decompression of the Lumbar Spine for Stable Degenerative Spondylolisthesis as the Least Invasive Surgical Treatment Using the YESS Surgery Technique, *J Spine*. 2018
- Transforaminal Endoscopic Decompression of the Lumbar Spine for Stable Isthmic Spondylolisthesis as the Least Invasive Surgical Treatment Using the YESS Surgery Technique, *Int J Spine Surg*. 2018
- Clinical and Radiologic Outcomes of Direct Versus Indirect Decompression with Lumbar Interbody Fusion: A Matched-Pair Comparison Analysis, *World Neurosurg*. 2018
- Endoscope-assisted anterior lumbar interbody fusion with CT-guided image navigated unilateral cortical bone trajectory screw fixation in managing adjacent segment disease in L5/S1: a technical note, *World Neurosurg*. 2019
- Comparative analysis of the intervertebral disc signal and annulus changes between immediate and 1-year postoperative MRI after transforaminal endoscopic discectomy and annuloplasty, *Neuroradiology*. 2019
- A systematic review of unilateral bi-portal endoscopic spinal surgery: preliminary clinical results and complication, *World Neurosurg*. 2019
- Does the Neck Pain, Function, or Range of Motion Differ After Anterior Cervical Fusion, Cervical Disc Replacement, and Posterior Cervical Foraminotomy?, *World Neurosurg*. 2019
- A longitudinal investigation of the endplate cystic lesion effect on oblique lumbar interbody fusion, *Clin Neurol Neurosurg*. 2019
- Worldwide research productivity in the field of full-endoscopic spine surgery: a bibliometric study, *Eur Spine J*. 2020
- AOSpine Consensus Paper on Nomenclature for Working-Channel Endoscopic Spinal Procedures, *Global spine j*. 2020
- Neutral hip position for the oblique lumbar interbody fusion (OLIF) approach increases the retroperitoneal oblique corridor, *BMC Musculoskelet Disord*. 2020
- Full Endoscopic Technique for High-Grade Up-Migrated Lumbar Disk Herniation via a Translaminar Keyhole Approach: Preliminary Series and Technical Note, *J Neurol Surg A Cent Eur Neurosurg*. 2020
- No Difference in Pain After Spine Surgery with Local Wound Filtration of Morphine and Ketorolac: A Randomized Controlled Trial, *Clin Orthop Relat Res*. 2020
- Trajectory of Lumbar Translaminar Facet Screw under Navigation: A Cadaveric Study, *Global spine j*. 2020
- Minimally Invasive Percutaneous Modified Iliac Screw Placement Using Intraoperative Navigation: A Technical Note, *World Neurosurg*. 2021

Research and published articles (Cont.)

- Full-endoscopic decompression for thoracic myelopathy caused by ossification of the ligamentum flavum: patient series, *J Neurosurg Case Lessons*. 2021
- Anterior transcorporeal full-endoscopic drainage of a long-span ventral cervical epidural abscess: A novel surgical technique, *N Am Spine Soc J*. 2021
- Psoas Major Muscle Volume Does Not Affect the Postoperative Thigh Symptoms in XLIF Surgery, *Brain Sci*. 2021
- Subsidence of Interbody Cage Following Oblique Lateral Interbody Fusion: An Analysis and Potential Risk Factors. *Global Spine J*. 2021.
- Do Obliquity and Position of the Oblique Lumbar Interbody Fusion Cage Influence the Degree of Indirect Decompression of Foraminal Stenosis? *J Korean Neurosurg Soc*. 2022.
- Comparison of Perioperative and Postoperative Outcomes of Minimally Invasive and Open TLIF in Obese Patients: A Systematic Review and Meta-Analysis. *J Pain Res*. 2022.
- Comparison of Unremoved Intervertebral Disc Location Between 2 Lateral Lumbar Interbody Fusion (LLIF) Techniques. *World Neurosurg*. 2022.
- Anterior Transcorporeal Approach for Cervical Metastatic Melanoma Resection Guided by O-Arm-Navigated Intraoperative Computed Tomography. *Oper Neurosurg (Hagerstown)*. 2022.
- Clinical and Radiographic Comparisons among Minimally Invasive Lumbar Interbody Fusion: A Comparison with Three-Way Matching. *Asian Spine J*. 2022.
- Comparative Radiographic Analyses and Clinical Outcomes Between O-Arm Navigated and Fluoroscopic-Guided Minimally Invasive Transforaminal Lumbar Interbody Fusion. *Int J Spine Surg*. 2022.
- How Prone Position Affects the Anatomy of Lumbar Nerve Roots and Psoas Morphology for Prone Transpsoas Lumbar Interbody Fusion. *World Neurosurg*. 2022.
- Remodeling of the Lumbar Facet Joint After Full Endoscopic Resection for Lumbar Osteoid Osteoma: Case Report and Literature Review. *Int J Spine Surg*. 2022.
- Surgeons' perspective, learning curve, motivation, and obstacles of full-endoscopic spine surgery in Thailand: results from a nationwide survey. *Biomed Res Int*. 2022.
- Full-Endoscopic Anterior Odontoid Screw Fixation: A Novel Surgical Technique. *Orthop Surg*. 2022.
- Thoracolumbar Burst Fracture without Neurological Deficit: Review of Controversies and Current Evidence of Treatment. *World Neurosurg*. 2022
- Intradural disc herniation of L2/3: A case report and literature review. *N Am Spine Soc J*. 2022
- Transforaminal Versus Interlaminar Endoscopic Lumbar Discectomy for Lumbar Disc Herniation: A Systematic Review and Meta-Analysis. *Global Spine J*. 2022
- Successful Criteria for Indirect Decompression With Lateral Lumbar Interbody Fusion. *Neurospine*. 2022
- Incidence and risk factors associated with superior-segmented facet joint violation during minimal invasive lumbar interbody fusion. *Spine J*. 2022
- Predictive parameters for successful indirect decompression of the lateral lumbar interbody fusion (LLIF) surgery. *Interdis neuro surg*. 2022

Research and published articles (Cont.)

- Does the application of expandable cages in TLIF provide improved clinical and radiological results compared to static cages? A meta-analysis, *Front Surg.* 2022
- Transforaminal Versus Interlaminar Endoscopic Lumbar Discectomy for Lumbar Disc Herniation: A Systematic Review and Meta-Analysis, *Global Spine J.* 2022
- Current Status and research hotspots in the field of full endoscopic spine surgery: A bibliometric analysis, *Front Surg.* 2022
- Current Status and research hotspots in the field of full endoscopic spine surgery: A bibliometric analysis, *Front Surg.* 2022
- Identification of the circRNA-miRNA-mRNA regulatory network in osteoarthritis using bioinformatics analysis, *Front Genet.* 2022
- Comparison of PEEK and TiPEEK in Minimally Invasive Transforaminal Lumbar Interbody Fusion: a Randomized Clinical Trial, *World Neurosurg.* 2022
- Posterior Endoscopic Cervical Decompression in Metastatic Cervical Spine Tumors: An Alternative to Palliative Surgery, *J Am Acad Orthop Surg Glob Res Rev.* 2022
- Comparative Radiographic Analyses and Clinical Outcomes Between O-Arm Navigated and Fluoroscopic-Guided Minimally Invasive Transforaminal Lumbar Interbody Fusion, *Int J Spine Surg.* 2022
- Is Biportal Endoscopic Spine Surgery More Advantageous Than Uniportal for the Treatment of Lumbar Degenerative Disease? A Meta-Analysis, *Medicina (Kaunas).* 2022
- Global research hotspots and trends in the field of spine surgery during the COVID-19 pandemic: A bibliometric and visual analysis, *Front Surg.* 2022
- Comparison of oblique and transforaminal approaches to lumbar interbody fusion for lumbar degenerative disease: An updated meta-analysis, *Front Surg.* 2023
- Automatic Detection, Classification, and Grading of Lumbar Intervertebral Disc Degeneration Using an Artificial Neural Network Model, *Diagnostics (Basel).* 2023
- Full-endoscopic Lumbar Discectomy Approach Selection - A Systematic Review And Proposed Algorithm, *Spine (Phila Pa 1976).* 2023
- Transforaminal Versus Interlaminar Endoscopic Lumbar Discectomy for Lumbar Disc Herniation: A Systematic Review and Meta-Analysis, *Global Spine J.* 2023
- Minimally invasive endoscopy in spine surgery: where are we now?, *Eur Spine J.* 2023
- Is navigation beneficial for transforaminal endoscopic lumbar foraminotomy? A preliminary comparison study with fluoroscopic guidance, *Eur Spine J.* 2023
- Bibliometric analysis and description of research trends on transforaminal full-endoscopic approach on the spine for the last two-decades, *Eur Spine J.* 2023
- Factors associated with incomplete clinical improvement in patients undergoing transforaminal endoscopic lumbar discectomy for lumbar disc herniation. *Eur Spine J.* 2023
- A 30-year worldwide research productivity of scientific publication in full-endoscopic decompression spine surgery: quantitative and qualitative analysis. *Neurospine.* 2023

Research and published articles (Cont.)

- Comparison of full-endoscopic and tubular-based microscopic decompression in patients with lumbar spinal stenosis: a randomized controlled trial, *Eur Spine J.* 2023

Book and chapters

- Vit Kotheeranurak. *Basic Science of Intervertebral disc, vertebrae, nerve tissue and muscle*. in: Taweechai Techapongworachai. (Editor). Minimally Invasive Spine book, Spine society of Thailand; 2018
- Vit Kotheeranurak. *Percutaneous Laser Disc Decompression (PLDD)*. in: Taweechai Techapongworachai. (Editor). Minimally Invasive Spine book, Spine society of Thailand; 2018
- Vit Kotheeranurak. *Why endoscopic spine surgery would become a future of spine surgery*. in: Chutsana Suankratai. (Editor). Integrative medicine; 2020
- Vit Kotheeranurak. Managing lumbar spinal stenosis with endoscopic spine surgery. in: Wicharn Karnchanatawan. (Editor). Instructional course lecture RCOST 6; 2020
- Vit Kotheeranurak. Spinal dysraphism, Degenerative spondylolisthesis, Adjacent segment degeneration and Proximal junctional kyphosis, Cervical disc arthroplasty (surgical technique), Anterior lumbar interbody fusion (surgical technique). In: Areesak Chotvijit. (Editor). Textbook of Spine Surgery 3 vol.(SST); 2021
- Vit Kotheeranurak. O-arm Navigation-Guided Endoscopic Cervical Laminoforaminotomy. In: Jin-Sung Kim et al. (Editors). Technical Advances in Minimally Invasive Spine Surgery; Navigation, Robotics, Endoscopy, Augmented and Virtual Reality. Springer; 2022
- Vit Kotheeranurak. *Practical and Applied Anatomy for Full Endoscopic Spine Surgery, Full Endoscopic Drainage of Cervical Epidural Abscess, Endoscopic Discectomy-Assisted Oblique Lumbar Interbody Fusion, Full Endoscopic Posterior Decompression for Thoracic Myelopathy Caused by Ossified Ligamentum Flavum* in: Tun Hing Lui. (Editor). Endoscopy of the Spine. Springer; 2022
- Vit Kotheeranurak. in: Vit Kotheeranurak. (Editor). Basic Endoscopic Lumbar Surgery. CUpress; 2023

Lectures and conferences

Global spine conference, Toronto, Canada (2019)

- Risk factor for subsidence in OLIF surgery: Oral presentation

The 41st Annual meeting of the Royal College of Orthopedic Surgeons of Thailand and visiting JOA (2019)

- Treating high-grade down-migrated disc herniation with transforaminal endoscopic lumbar discectomy (TELD): Video surgical technique

The 1st MIS Spine Week of Thailand and 3rd ISESS meeting (2019)

- Case debate: Challenging case for Lumbar disc herniation
- Cervical disc arthroplasty: video surgical steps
- Managing high-grade down migrated lumbar disc herniation

Eurospine congress (2020): oral presentation

- Comparison of patient reported outcomes between transforaminal and interlaminar endoscopic discectomy in treating patients with paracentral-typed disc herniation: a randomized controlled trial study and preliminary report.

The 42nd Annual meeting of the Royal College of Orthopedic Surgeons of Thailand (2020)

- Instructional Course Lecture: Managing lumbar spinal stenosis with endoscopic decompression

Global spine conference, Paris, France (2021)

- Endoscopic approach for synovial cysts (invited lecturer)
- Clinical and Radiographic Outcomes of Cervical Disc Replacement (CDR) versus Posterior Endoscopic Cervical Decompression (PECD) A Matched-Pair Comparison Analysis

Global spine conference, Las Vegas, USA (2022)

- Endoscopic section2 (moderator)
- Uniportal endoscopy: it is my most versatile approach (invited lecturer)

Other academic activities

- Invited lecturer and endoscopic live surgery demonstrator throughout Thailand
- Course Director of The CU Endoscopic workshop, Orthopaedic department, Faculty of Medicine, Chulalongkorn University. (Annually held)