

英語原著論文(筆頭著者)

- 1) Matsukawa K, Yato Y, Nemoto O, et al:  
Morphometric measurement of cortical bone trajectory for lumbar pedicle screw insertion using computed tomography.  
J Spinal Disord Tech 26(6): E248-E253, 2013
- 2) Matsukawa K, Yato Y, Kato T, et al:  
In vivo analysis of insertional torque during pedicle screwing using cortical bone trajectory technique.  
Spine 39(4): E240-E245, 2014
- 3) Matsukawa K, Yato Y, Kato T, et al:  
Cortical bone trajectory for lumbosacral fixation: penetrating S1 endplate screw technique.  
J Neurosurg Spine 21(2): 203-209, 2014
- 4) Matsukawa K, Yato Y, Imabayashi H, et al:  
Biomechanical Evaluation of Fixation Strength of Lumbar Pedicle Screw Using Cortical Bone Trajectory: A Finite Element Study.  
J Neurosurg Spine 23(4): 471-478, 2015
- 5) Matsukawa K, Taguchi E, Yato Y, et al:  
Evaluation of the Fixation Strength of Pedicle Screws Using Cortical Bone Trajectory: What Is the Ideal Trajectory for Optimal Fixation?  
Spine 40(15): E873-E878, 2015
- 6) Matsukawa K, Yato Y, Imabayashi H, et al:  
Biomechanical evaluation of cross trajectory technique for pedicle screw insertion: combined use of traditional trajectory and cortical bone trajectory.  
Orthop Surg 7(4): 317-323, 2015
- 7) Matsukawa K, Yato Y, Imabayashi H, et al:  
Biomechanical evaluation of fixation strength among different sizes of pedicle screws using the cortical bone trajectory: what is the ideal screw size for optimal fixation?  
Acta Neurochir 158(3): 465-471, 2016
- 8) Matsukawa K, Kato T, Yato Y, et al:  
Incidence and risk factors of adjacent cranial facet violation following pedicle screw insertion using cortical bone trajectory technique.

Spine 41(14), E851-856, 2016

- 9) Matsukawa K, Yato Y, Imabayashi H, et al:  
Biomechanical evaluation of lumbar pedicle screw in spondylolytic vertebra: comparison of fixation strength between traditional trajectory and cortical bone trajectory.  
J Neurosurg Spine 24(6): 910-915, 2016
- 10) Matsukawa K, Yato Y, Hynes RA, et al:  
Cortical Bone Trajectory for Thoracic Pedicle Screws: A Technical Note.  
Clin Spine Surg 30(5): E497-E504, 2017
- 11) Matsukawa K, Yato Y, Hynes RA, et al:  
Comparison of pedicle screw fixation strength among different transpedicular trajectories: A finite element study.  
Clin Spine Surg 30(7): 301-307, 2017
- 12) Matsukawa K, Yato Y:  
Lumbar pedicle screw fixation with cortical bone trajectory: A review from anatomical and biomechanical standpoints  
Spine Surgery and Related Research 1(4): 164-173, 2017
- 13) Matsukawa K, Abe Y, Yanai Y, et al:  
Regional Hounsfield unit measurement of screw trajectory for predicting pedicle screw fixation using cortical bone trajectory: a retrospective cohort study  
Acta Neurochir 160(2): 405-411, 2018
- 14) Matsukawa K, Yato Y, Imabayashi H, et al:  
Feasibility of using tapping torque during lumbar pedicle screw insertion to predict screw fixation strength.  
J Orthop Sci. 25(3): 389-393, 2020
- 15) Matsukawa K, Kaito T, Abe Y:  
Accuracy of cortical bone trajectory screw placement using patient-specific template guide system  
Neurosurg Rev. 43(4): 1135-1142, 2020
- 16) Matsukawa K, Kato T, Mobbs R, et al:  
Combination of sacral-alar-iliac screw and cortical bone trajectory screw techniques for lumbosacral fixation: technical note.  
J Neurosurg Spine. 33(2): 186-191, 2020

- 17) Matsukawa K, Yato Y:  
Smart glasses display device for fluoroscopically guided minimally invasive spinal instrumentation surgery: a preliminary study.  
J Neurosurg Spine. 34(1): 150-155, 2021
- 18) Matsukawa K, Yato Y, Imabayashi H:  
Impact of Screw Diameter and Length on Pedicle Screw Fixation Strength in Osteoporotic Vertebrae: A Finite Element Analysis.  
Asian Spine J. 15(5):566-574, 2021
- 19) Matsukawa K, Yanai Y, Fujiyoshi K, et al :  
Depth of vertebral screw insertion using a cortical bone trajectory technique in lumbar spinal fusion: radiological significance of a long cortical bone trajectory.  
J Neurosurg Spine. 35(5) : 601-606, 2021
- 20) Matsukawa K, Abe Y, Mobbs RJ:  
Novel Technique for Sacral-Alar-Iliac Screw Placement Using Three-Dimensional Patient-Specific Template Guide.  
Spine Surg Relat Res. 5(6):418-424, 2021
- 21) Matsukawa K, Kato T, Fujiyoshi K, et al:  
Radiological comparison of penetrating endplate trajectory versus anterior bicortical trajectory for sacral pedicle screw insertion in posterior lumbosacral interbody fusion.  
J Orthop Sci. 27(6):1203-1207, 2022
- 22) Matsukawa K, Konomi T, Matsubayashi K, et al:  
Influence of Pedicle Screw Insertion Depth on Posterior Lumbar Interbody Fusion: Radiological Significance of Deeper Screw Placement.  
Global Spine J.14(2):470-477, 2024
- 23) Matsukawa K, Fujiyoshi K, Yanai Y, et al:  
Reduction capacity and factors affecting slip reduction using cortical bone trajectory technique in transforaminal lumbar interbody fusion for degenerative spondylolisthesis.  
Spine Surg Relat Res.6(5):480-487, 2022
- 24) Matsukawa K, Kaito T, Abe Y:  
Comparison of Safety and Perioperative Outcomes Between Patient-specific Template-Guided and Fluoroscopic-Assisted Freehand Lumbar Screw Placement Using Cortical Bone Trajectory

Technique

Global Spine J. 14(5):1464-1471, 2024

25) Matsukawa K, Kato T, Yanai Y, et al.:

Influence of facetectomy, cross-link augmentation, and interbody procedure on progression of bone fusion in single-level posterior lumbar interbody fusion using the long cortical bone trajectory technique.

J Neurosurg Spine. 41(4):483-488, 2024

26) Matsukawa K, Fujiyoshi K, Kobayashi Y, et al.:

Delayed herniation of cauda equina root through occult dural tear following unilateral biportal endoscopic decompression: illustrative case.

J Neurosurg Case Lessons. 10(7): Case25438, 2025

27) Matsukawa K, Oyaizu D, Yoshiyuki Y:

Double pedicle screw salvage fixation for adjacent segment disease after lumbar fusion: a case report.

Spine Surg Relat Res. 9(6):705-707, 2025

#### 英語出版本執筆 (Published book)

1) Keitaro Matsukawa

New techniques and MIS – the cortical bone trajectory screws: indications and limits

Modern Thoraco-Lumbar Implants for Spinal Fusion, R. Delfini et al. (eds), 2017, Springer

#### 英語著書監修

1) Widmer J, Aubin CE, van Lenthe GH, Matsukawa K.

Editorial: Innovations to improve screw fixation in traumatology and orthopedic surgery.

Front Bioeng Biotechnol. 2022 Nov 25;10:1094813. doi: 10.3389/fbioe.2022.1094813. eCollection 2022.