



2023.5.21 日本放射線技術学会近畿支部・春季勉強会 in 大阪

# 京都大学における脊椎臨床研究 -放射線診断との関わり-

医療法人社団 貴順会 吉川病院  
医療法人社団 曙会 シムラ病院  
京都大学大学院医学研究科・運動器機能再建学講座

藤林俊介

KYOTO  
UNIVERSITY



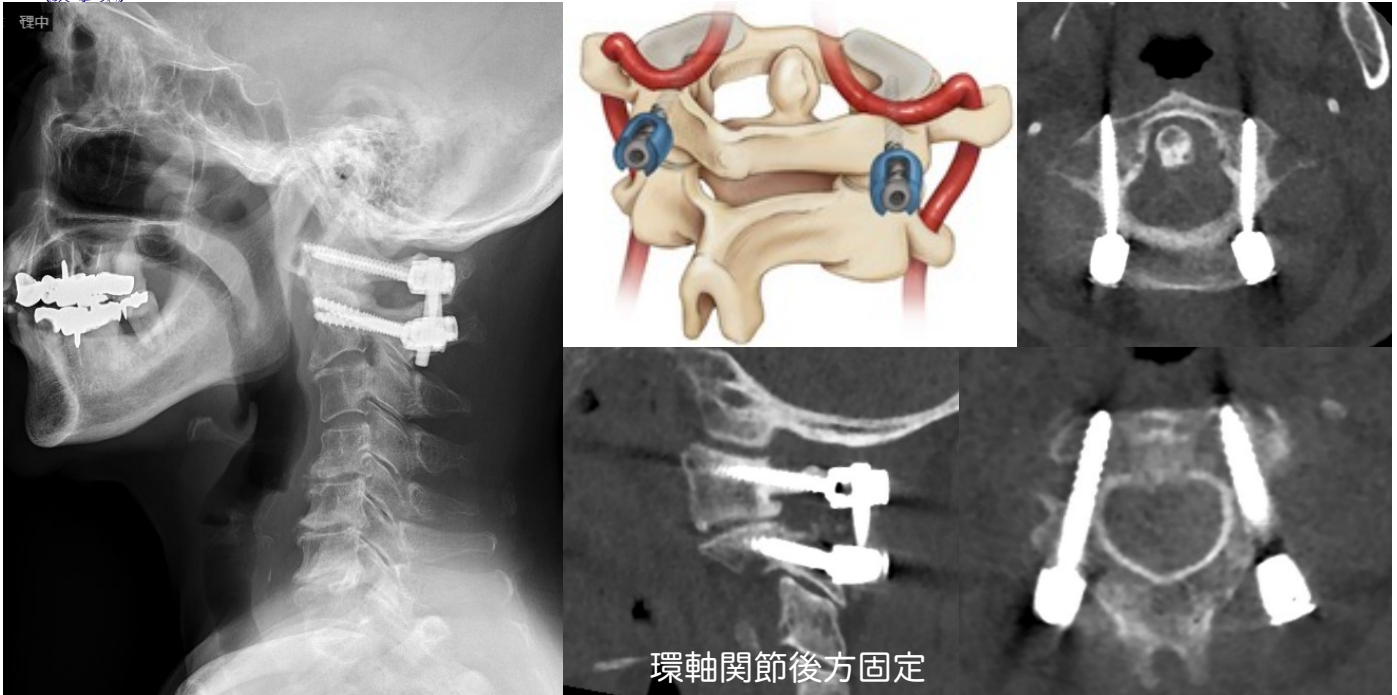
## 本日の講演内容

- 上位頸椎疾患手術における合併症と対策
- 手術支援ナビゲーションの導入
- 低侵襲腰椎側方固定術における画像診断
- 硬膜外くも膜嚢腫の術前診断
- 医療従事者の職業被曝
- 患者被曝に対する脊椎低線量CT
- 注意すべき疾患：DISH骨折・転移性脊椎腫瘍・化膿性脊椎炎
- 成人脊柱変形における全脊柱立位レントゲン撮影
- 医療機器開発

KYOTO  
UNIVERSITY



# 環軸關節後方固定術

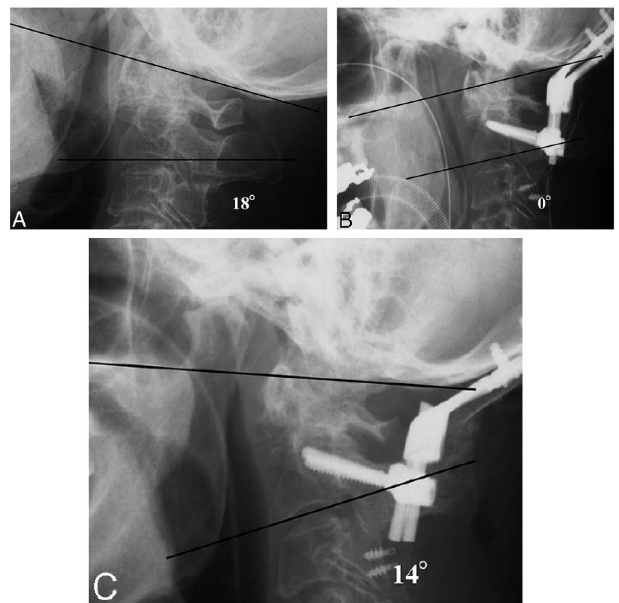


# 上位頸椎疾患における合併症：嚥下・呼吸障害

## Upper-Airway Obstruction After Short Posterior Occipitocervical Fusion in a Flexed Position

Makoto Yoshida, MD, Masashi Neo, MD, PhD, [Shunsuke Fujibayashi, MD, PhD](#), and Takashi Nakamura, MD, PhD

Spine 2007





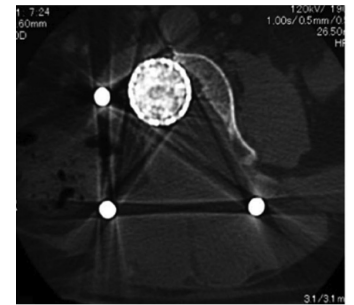
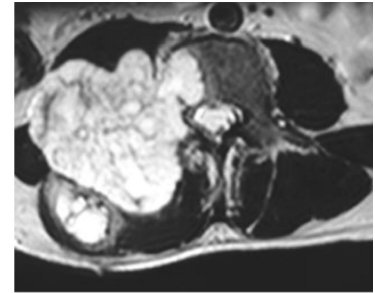
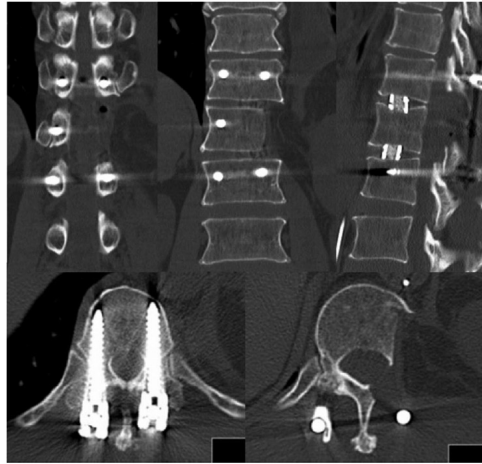
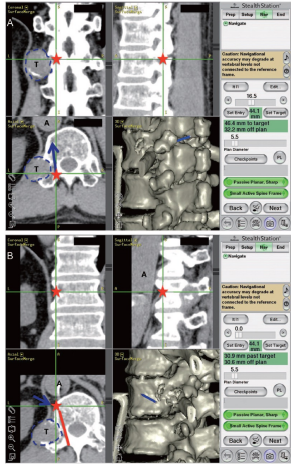
# 手術支援ナビゲーションシステムを使用した手術

## Computer-Assisted Spinal Osteotomy

A Technical Note and Report of Four Cases

Spine 2010

Shunsuke Fujibayashi, MD, PhD,\* Masashi Neo, MD, PhD,\* Mitsuru Takemoto, MD, PhD,\* Masato Ota, MD,\* Tomitaka Nakayama, MD, PhD,\* Junya Toguchida, MD, PhD,† and Takashi Nakamura, MD, PhD\*



KYOTO UNIVERSITY



Contents lists available at ScienceDirect

Journal of Orthopaedic Science

journal homepage: <http://www.elsevier.com/locate/jos>



Original Article

Preoperative assessment of the ureter with dual-phase contrast-enhanced computed tomography for lateral lumbar interbody fusion procedures

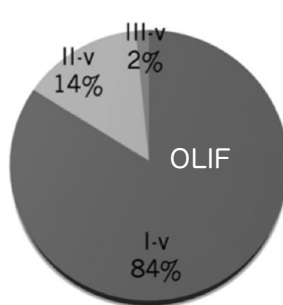
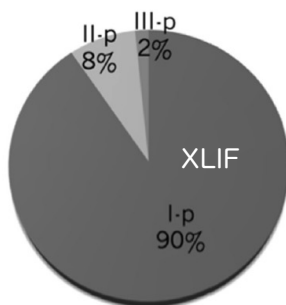
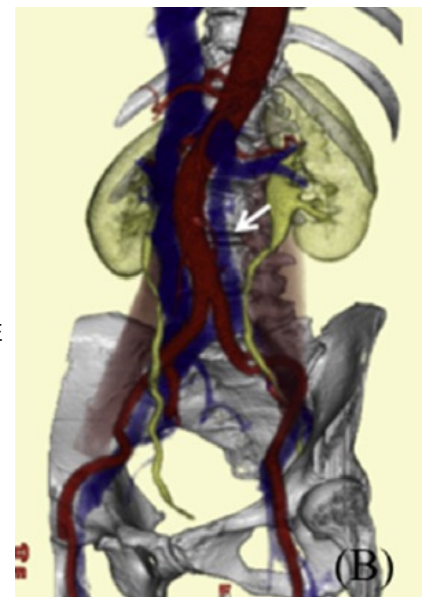


Shunsuke Fujibayashi\*, Bungo Otsuki, Hiroaki Kimura, Shimei Tanida, Kazutaka Masamoto, Shuichi Matsuda

J Orthop Sci 2017

Department of Orthopaedic Surgery, Graduate School of Medicine, Kyoto University, 54 Shogoin Kawahara-cho, Sakyo-ku, Kyoto 606-8507, Japan

## 二相性造影CT : CE-Boost



術野に尿管が出現する可能性  
XLIFで10% OLIFで16%

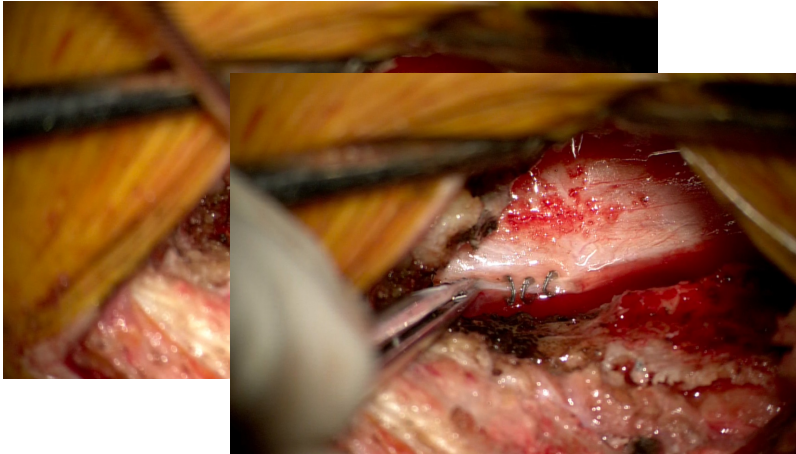
KYOTO UNIVERSITY

■ Detection of a Dural Defect by Cinematic Magnetic Resonance Imaging and Its Selective Closure as a Treatment for a Spinal Extradural Arachnoid Cyst

Masashi Neo MD, PhD,\* Takashi Koyama MD, PhD,† Takeshi Sakamoto, MD,\*  
Shunsuke Fujibayashi MD, PhD,\* and Takashi Nakamura MD, PhD\*

Spine 2004

硬膜外くも膜嚢腫の術前診断



KYOTO  
UNIVERSITY



結果

- ① 脊椎外科医の右母指爪は左母指爪に比べ変色が多い
- ② 放射線被曝を受けない同世代の他職種者の爪に比べ変色が多い
- ③ 年齢および脊椎外科医経験年数と爪の変色が相関

KYOTO  
UNIVERSITY

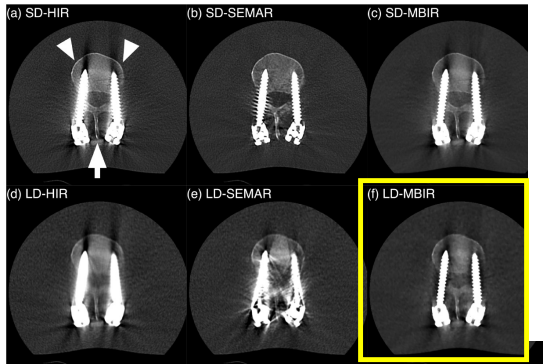


# 患者被曝に対する脊椎低侵襲CT

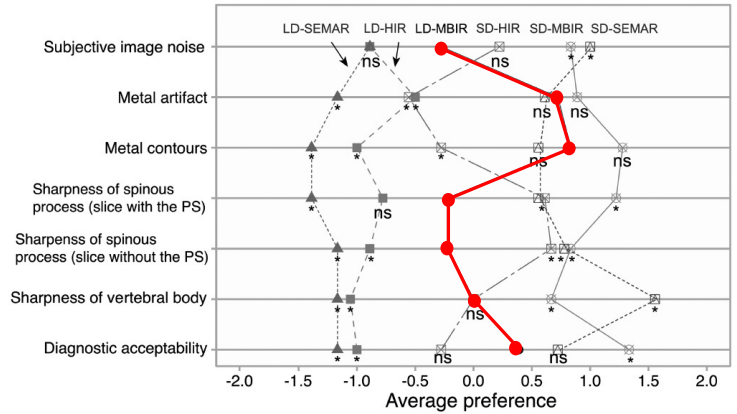
Usefulness of model-based iterative reconstruction in low-dose lumbar spine CT after spine surgery with metal implant: a phantom study

Acta Radiologica 2015

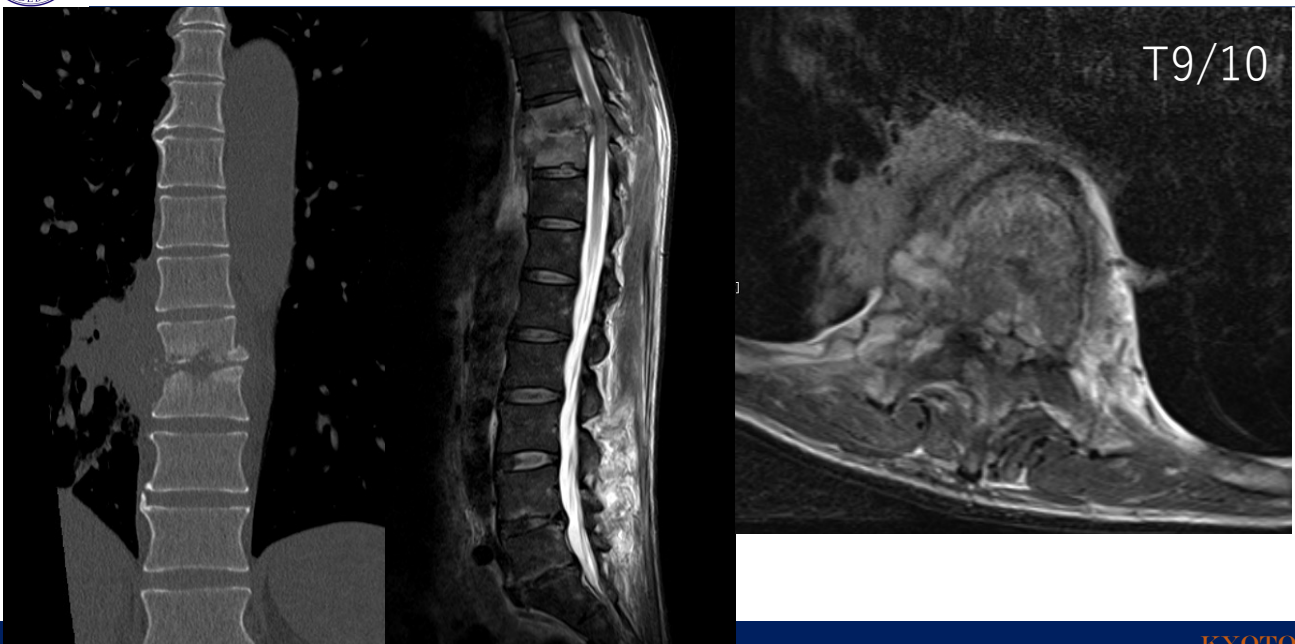
Yasuhiro Fukushima<sup>1</sup>, Akira Matsuda<sup>1</sup>, Koji Koizumi<sup>1</sup>, Maya Honda<sup>2</sup>, Kazutaka Masamoto<sup>3</sup> and Shunsuke Fujibayashi<sup>3</sup>



CT dose index: SD 10.2mGy vs. LD 1.2mGy



# 放射線科診断：LKの脊椎浸潤 r/o化膿性脊椎炎

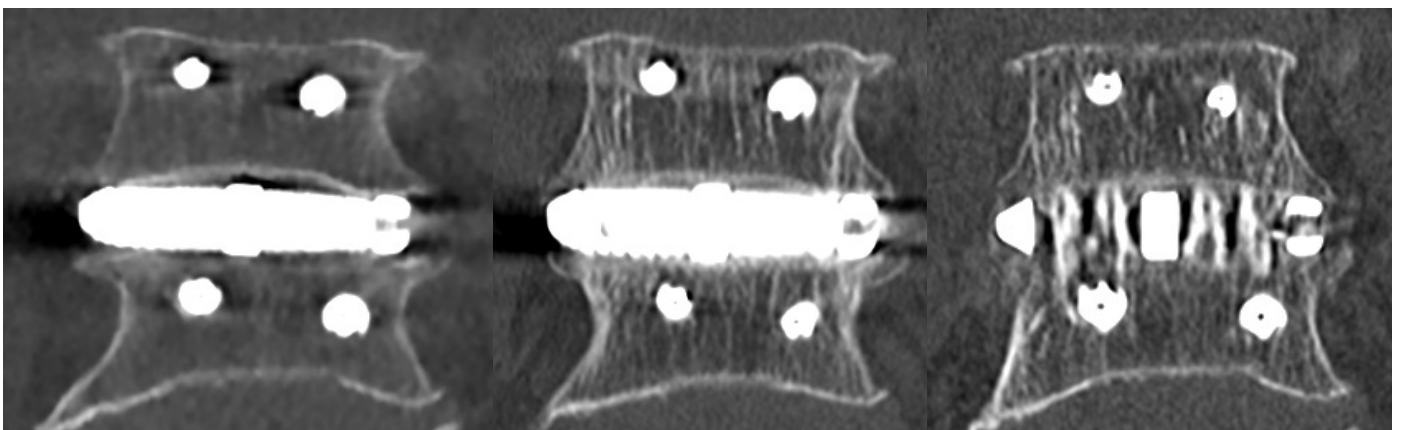




## 成人脊柱変形・術後



## X-TAL<sup>®</sup>のSEMAR像



術直後

術後1年 通常CT

術後1年 SEMAR