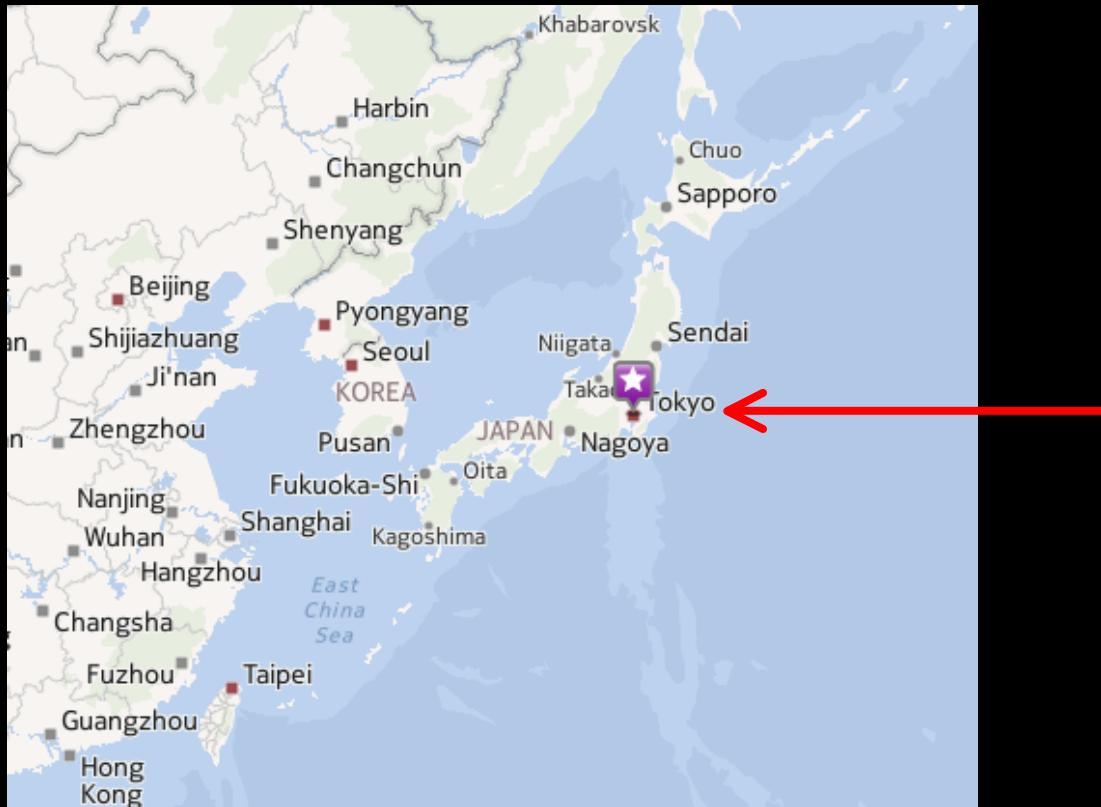




# Microendoscopic XLIF and percutaneous pedicle screw system for adjacent segment disease

Latest techniques and technologies in endoscopic spine surgery

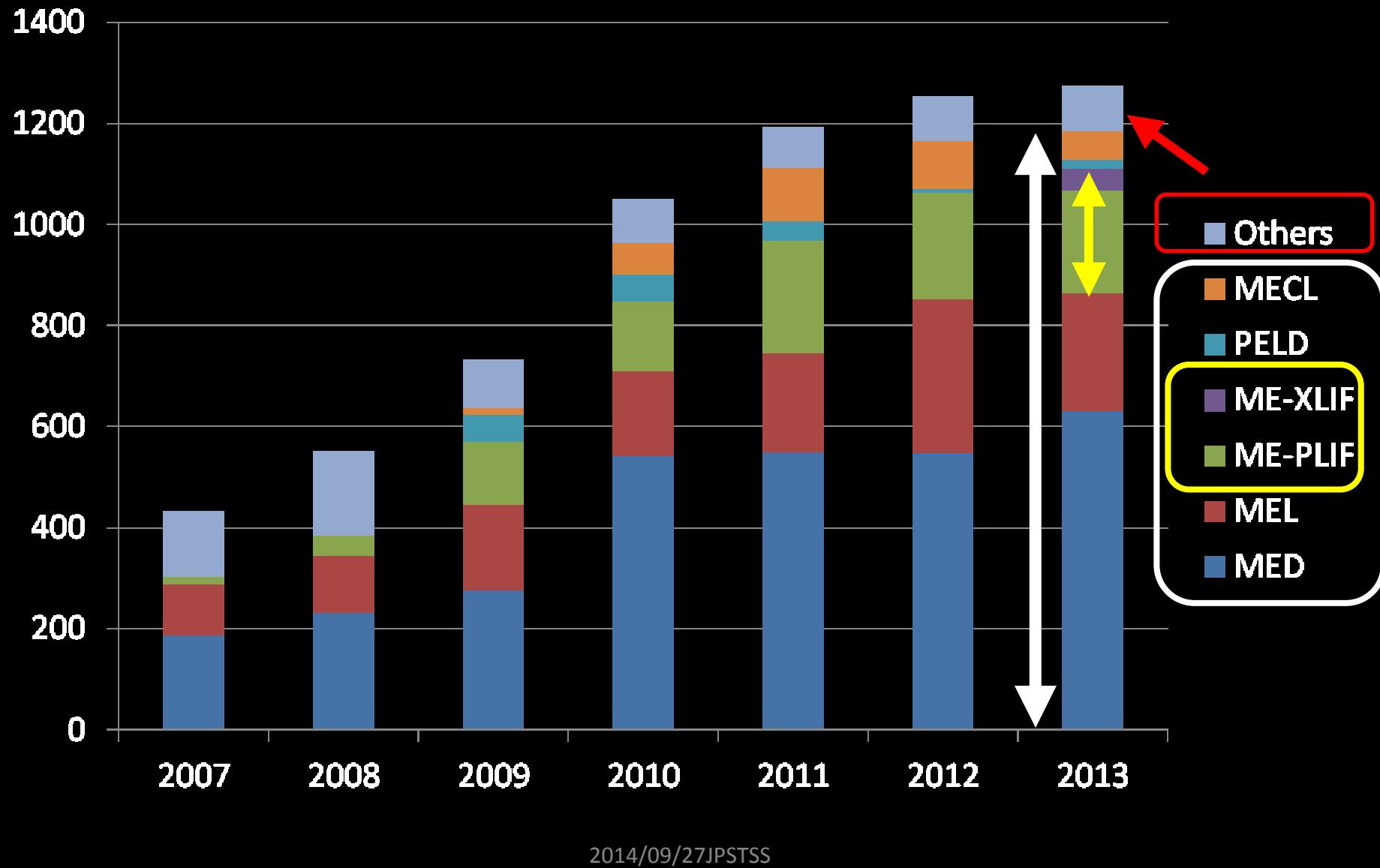


Iwai Orthopaedic Medical Hospital

Takano Y, Inanami H, Ryutaro S, Hayashi A, Yuzawa Y, and Nonaka Y  
Yuichi Takano M.D. <http://www.iwai.com>

[CDI開示] 今回の発表に関連し、開示すべきCOI関係にある企業などはありません。

# Number of Spine Surgeries



# Microendoscopic Spine Surgeries for Complications

## ME-Decompression

MED

(Foley 1997)

MEL

(Yoshida 2002)

MILD

(Hatta 2003)

## ME-Spine fusion

> 1000 cases

ME-PLIF

(JSR 2010)

ME-TLIF

(JSR 2012)

Dural tear  
→

ME-Dural repair  
(JSSR 2012)

Recurrence  
Facet cyst  
→

ME-redecompression  
(JESMISS 2006)

SSI  
→

ME-irrigation  
(JPSTSS 2012)

Non union  
→

ME-revision and bone graft  
(JSSR 2012)

SSI  
→

ME-irrigation/removal of cages  
(JPSTSS 2012)

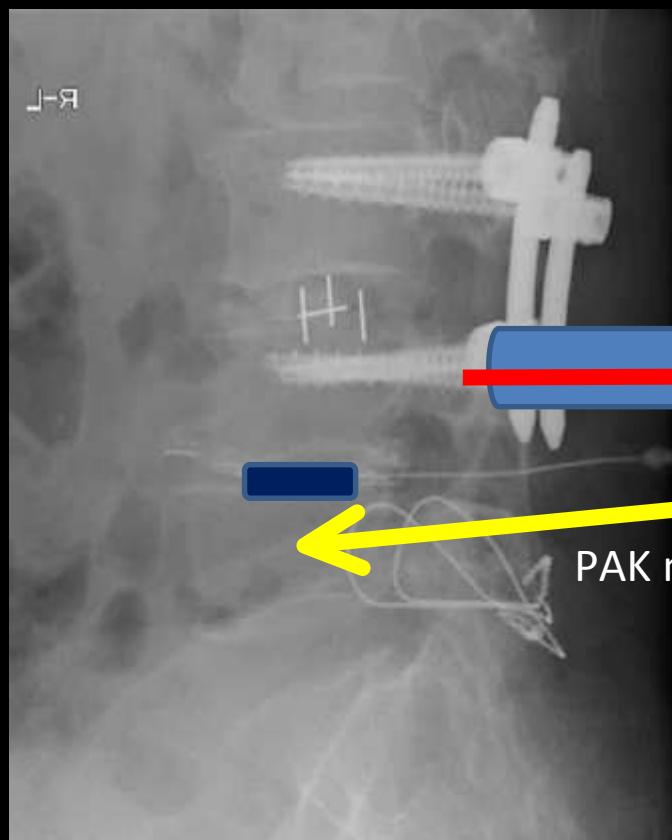
ASD  
→

ME-decompression (MED/L MILD)  
ME-PLIF + ME-PPS  
**ME-XLIF + ME-PPS**

**ME-XLIF**  
**Through MaXcess Retractor**

+

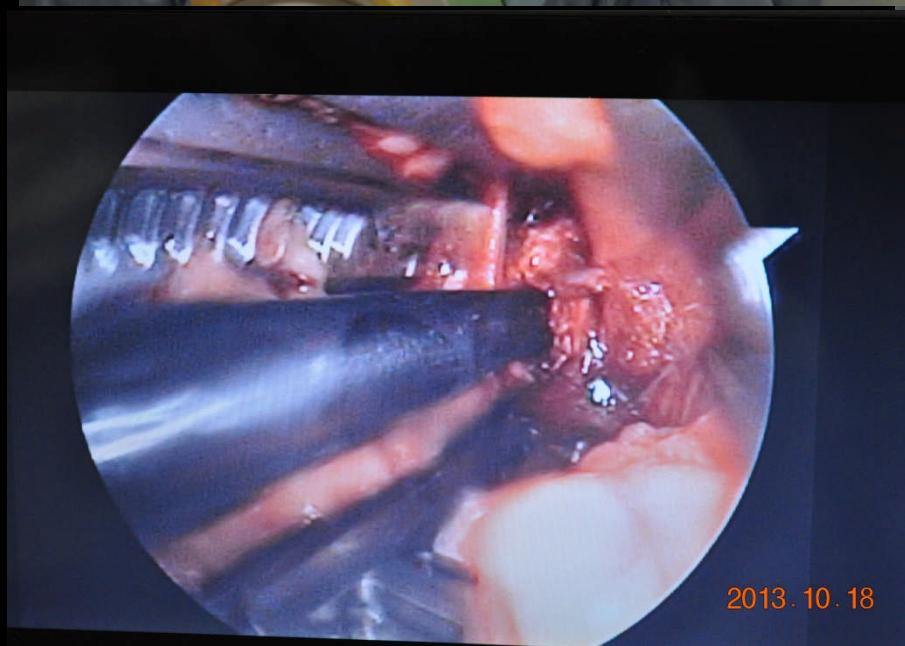
**ME-Removal of PPS**  
**Through 18mm Tubular Retractor**



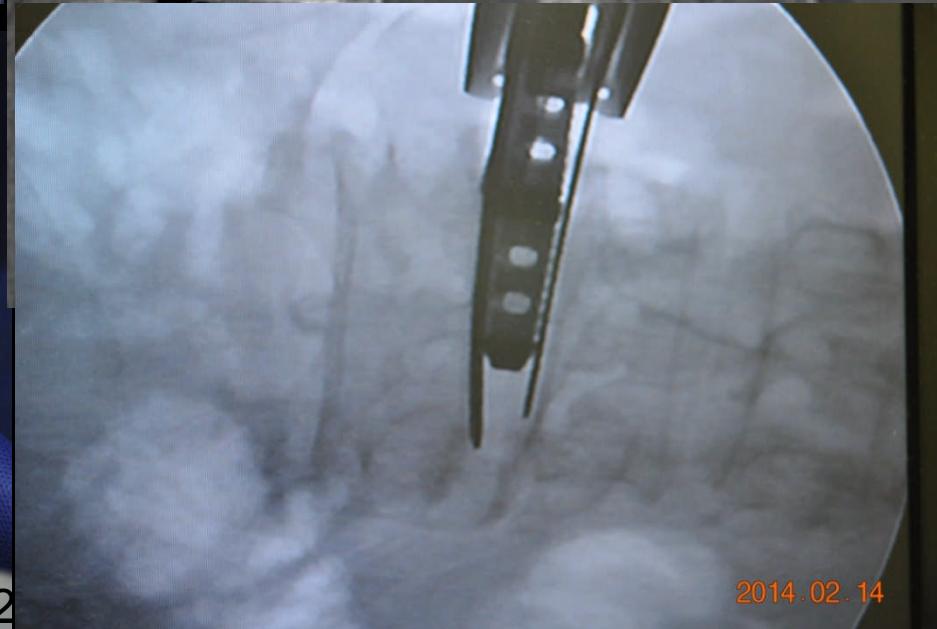
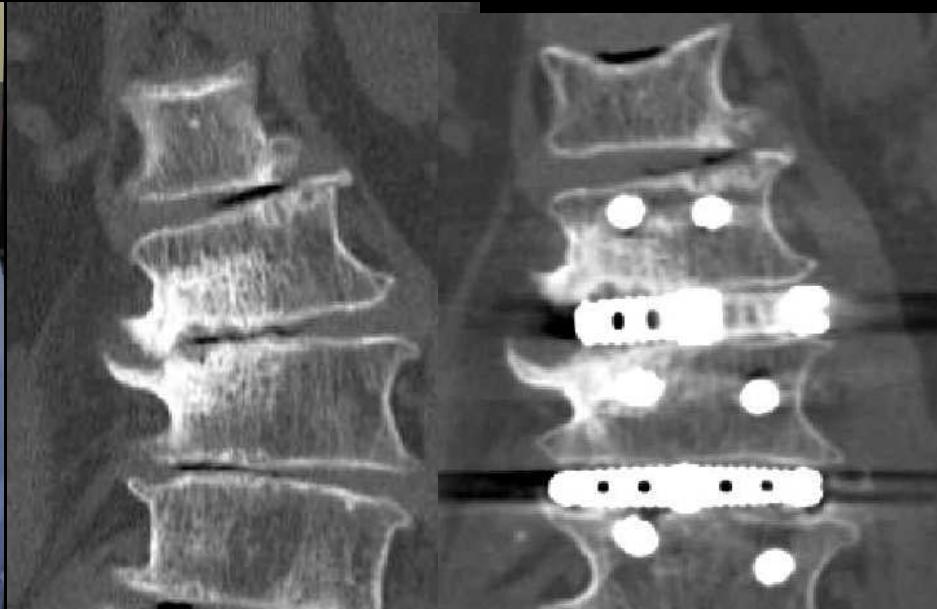
> 3 / 58 pts

(JSIS 2013)

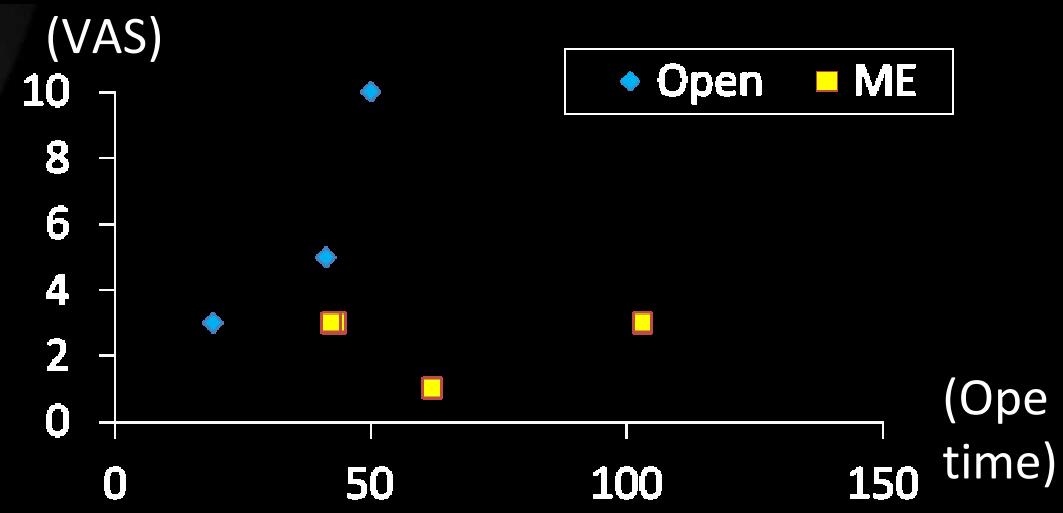
# Microendoscopic XLIF



# Microendoscopic XLIF



# Microendoscopic Removal of PPS (JSIS 2013)



# Results

## PPS replacement

- 1) L3/4PLIF → L4/5XLIF + L3/4/5 PPS 2 cases
- 2) L4/5PLIF → L3/4XLIF + L3/4/5 PPS 1 case

## Mean operation time

- 1) ME-XLIF 67.7 min (65~73)
- 2) Change posture 25.7 min (24~28)
- 3) Replacement of PPS 68.3 min (52~85)

# Case 1

78 y.o. male



2010



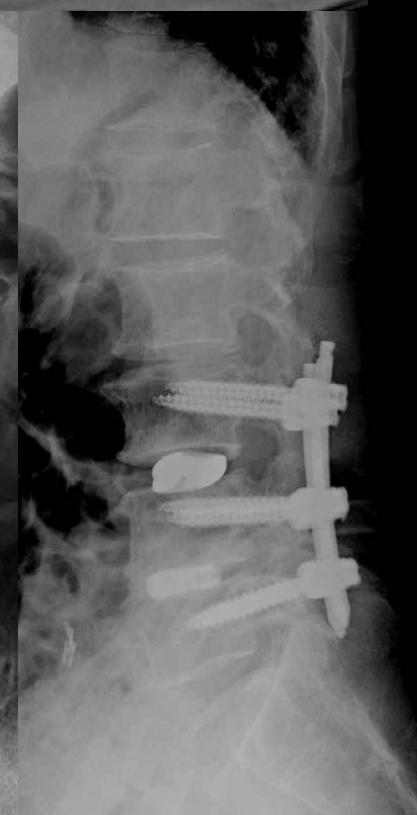
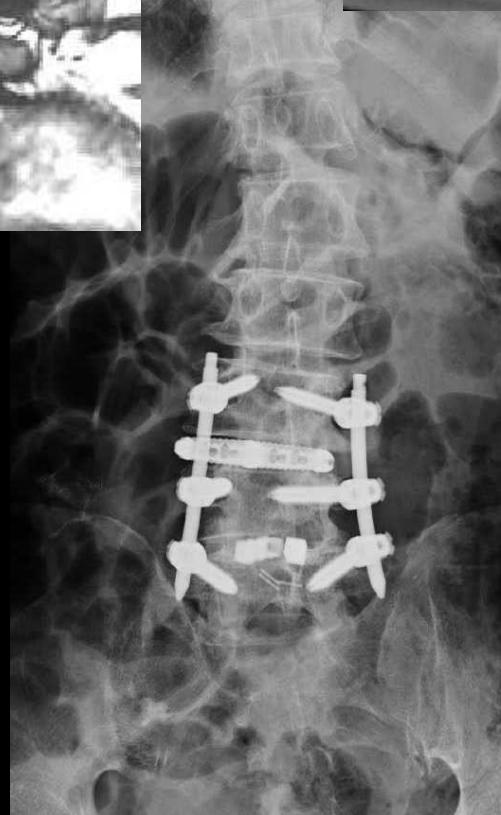
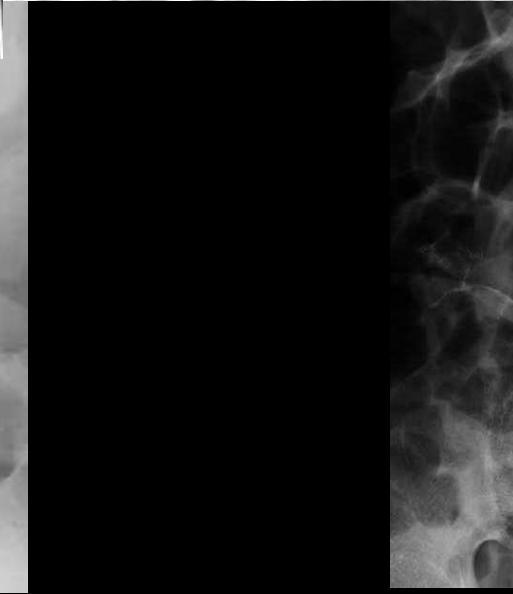
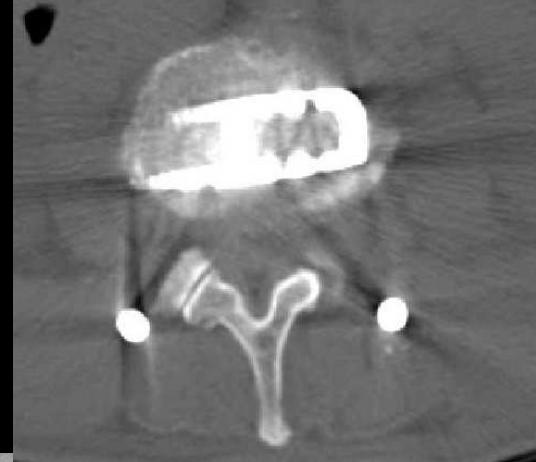
2011



2014

# Case 1

L3/4XLIF +L3/4/5 PPS

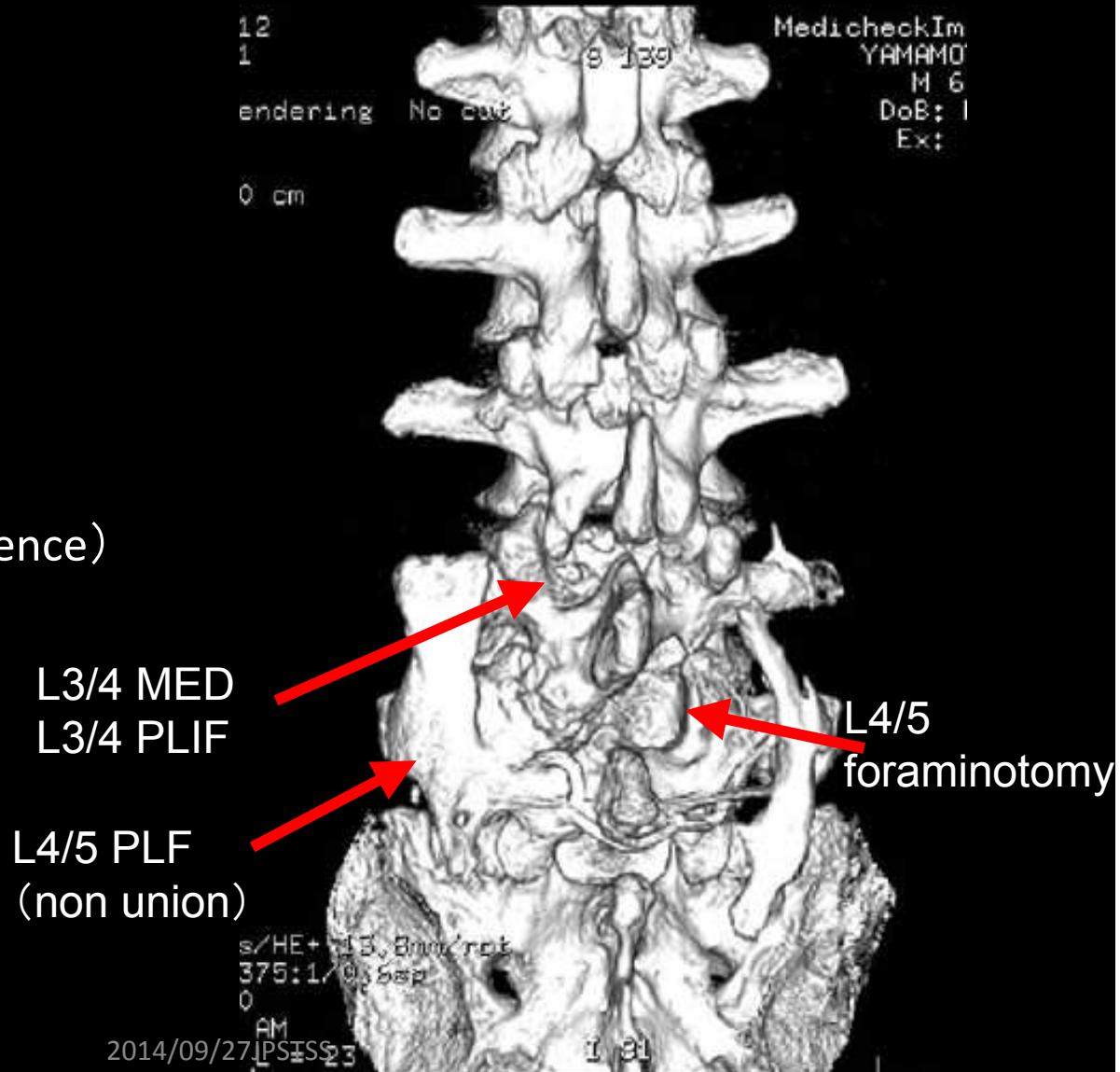


# Case 2

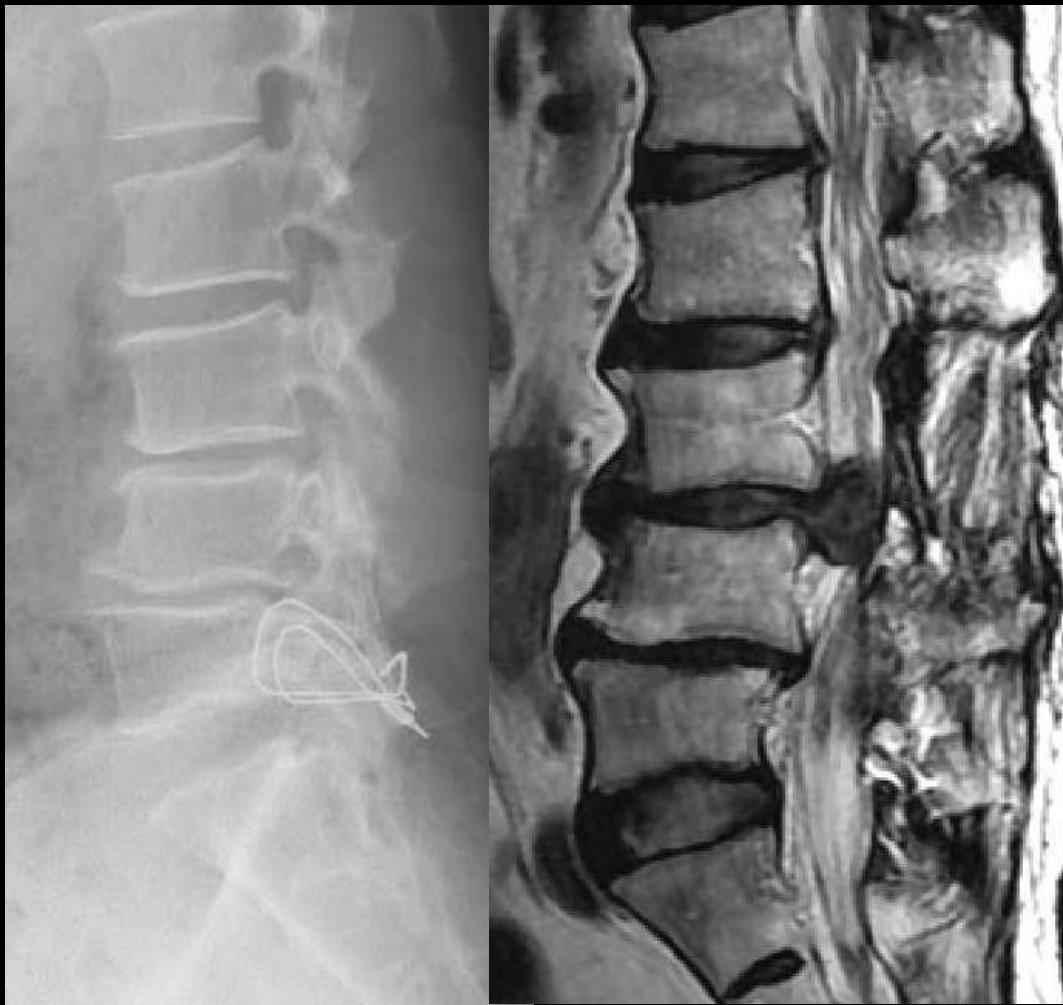
**61 y.o male L4/5 LSS+L4/5 instability**

## Past History

- 20 y.o L4/5LDH
- 42 y.o L5 repair(PLF?)
- 57 y.o. SCS
- 59 y.o. SSI of SCS
- 60 y.o. L3/4MED
- 60 y.o. L3/4PLIF(recurrence)



L3/4 LDH



Recurrence of L3/4 LDH

MED  
→



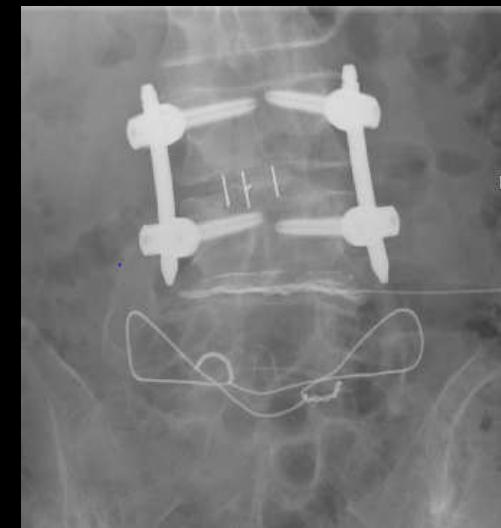
Recurrence of L3/4 LDH



PLIF  
→

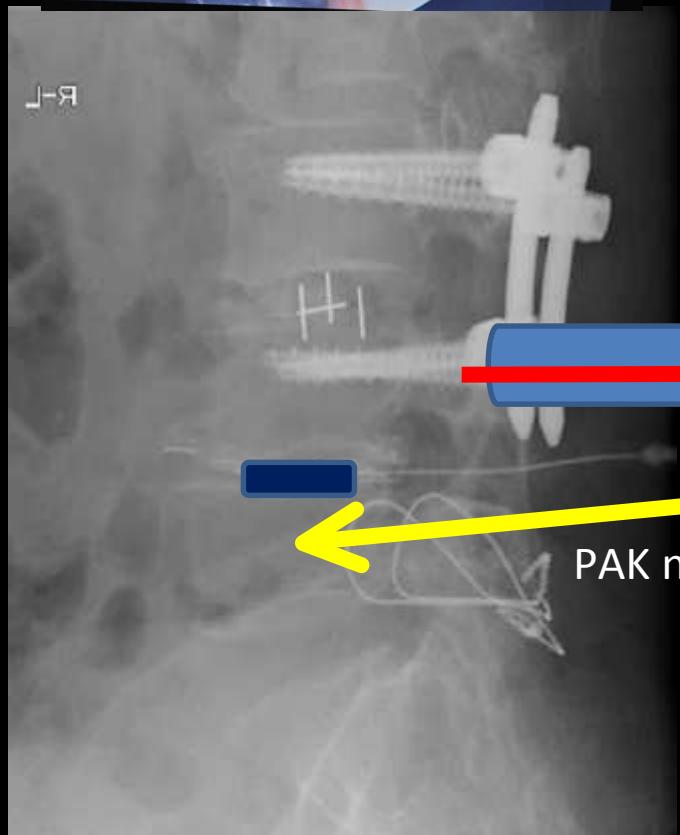
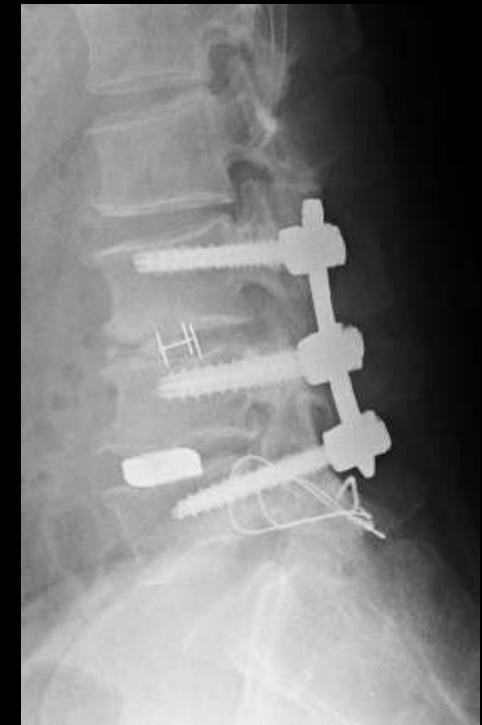
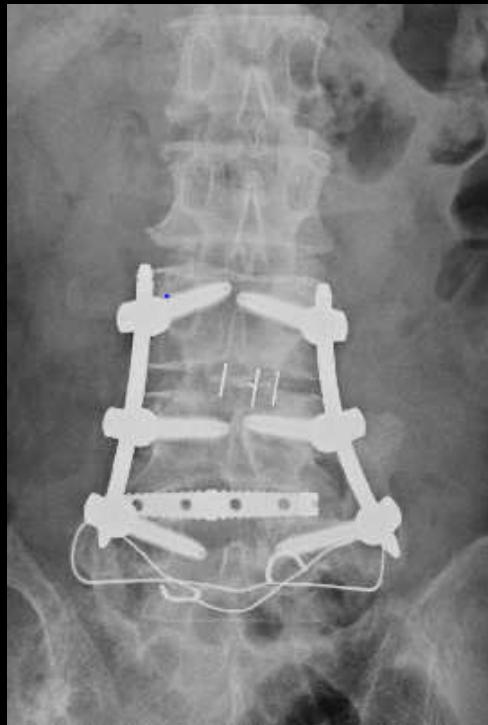
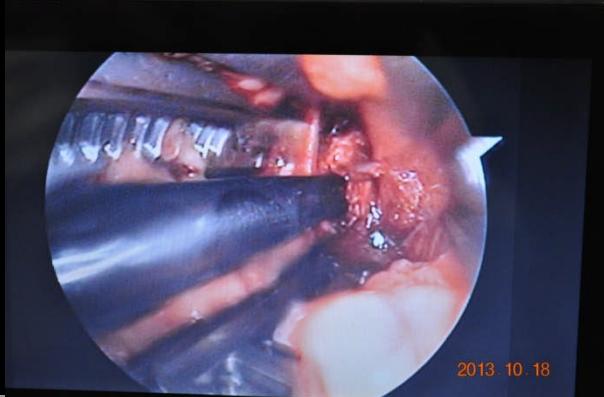


L4/5 LSS  
L4/5 DDD



Disco block

# L4/5 XLIF



**PPS removal**

**L3/4/5  
PPS**

2014/09/27JPSTSS



# Discussion

Adjacent Segment Disease after PLIF

- MED/MEL/MILD
- Microendoscopic PLIF (Takano 2012)

Microendoscopic XLIF (Inanami 2013)

→ Indirect decompression (no dural decompression)

Microendoscopic removal of PPS (Takano JSIS 2013)



ME-XLIF + ME-removal of PPS + PPS replacement

# Conclusion

- Microendoscopic XLIF with PPS replacement was one of the promising procedures for ASD after spinal fusion surgery.
- 関東MIS研究会
  - 第4回(高野裕一) 2015年1月10日 虎ノ門ヒルズフォーラム



- 日本低侵襲脊椎外科学会(JASMISS)
    - 第17回(名古屋佐藤会長) 2014年11月28・29日 神戸ニチイ
    - 第18回(山梨大江幡会長) 2015年11月26・27日 品川プリンスホテル
    - 第19回(高野裕一) 2016年11月24・25日 都内未定
- 旧称は日本内視鏡低侵襲脊椎外科学会(JESMISS)