

Indications For Lateral Approach

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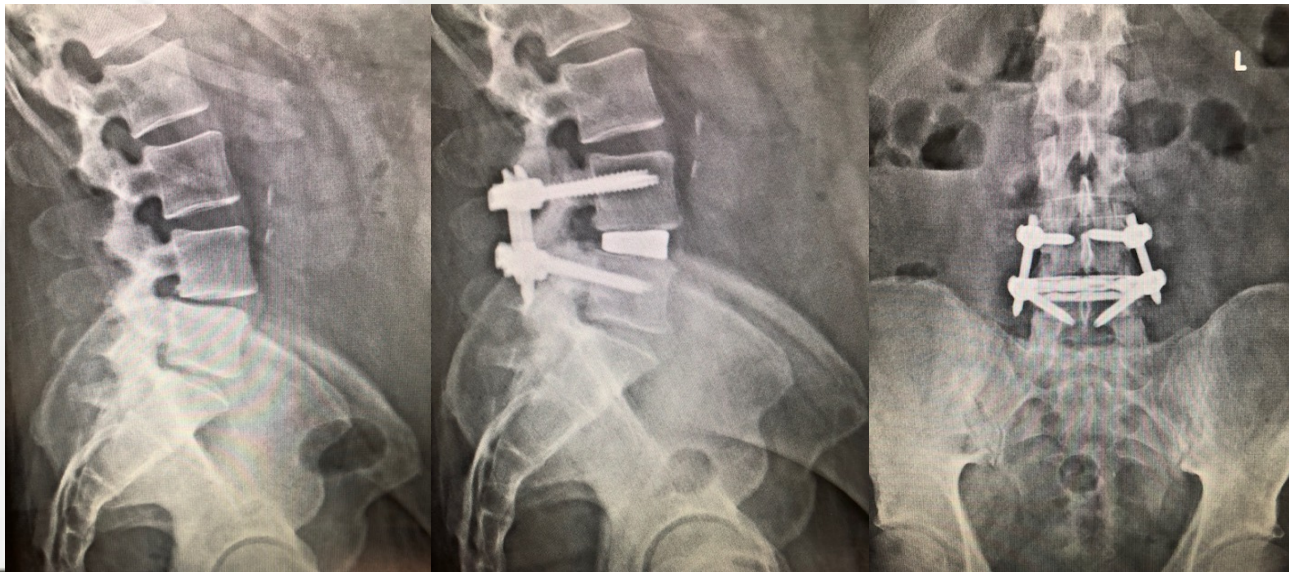
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Disclosures

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Consultant for Carvature



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Background

Lateral lumbar interbody fusion is a well described treatment option for numerous conditions of the lumbar spine

- Higher fusion rate (larger interbody)
- Indirect decompression
- Minimally invasive
- Good for obese patients
- BMP-2 use on label
- Adjacent segment disease at L3-4
- Reduction of spondylolisthesis (current study utilizing expandable cages)



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Patient Selection: Basics

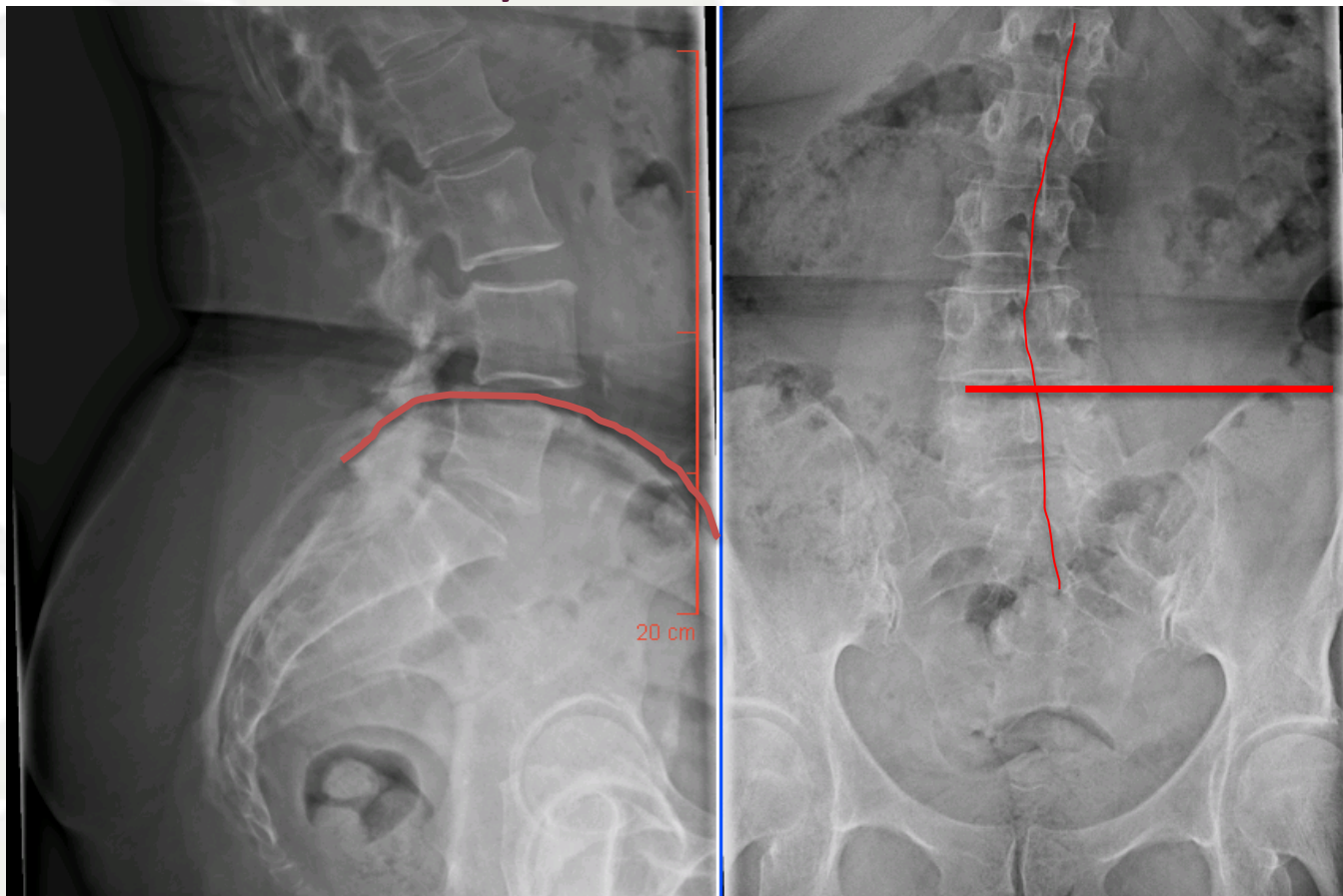
Patient factors relevant to lateral surgery:

- Obesity?
- Prior surgery such as laminotomies or adjacent level disease
- Smoker?
- Diabetic?
- Steroids?
- Medical issues?
- Osteoporosis?



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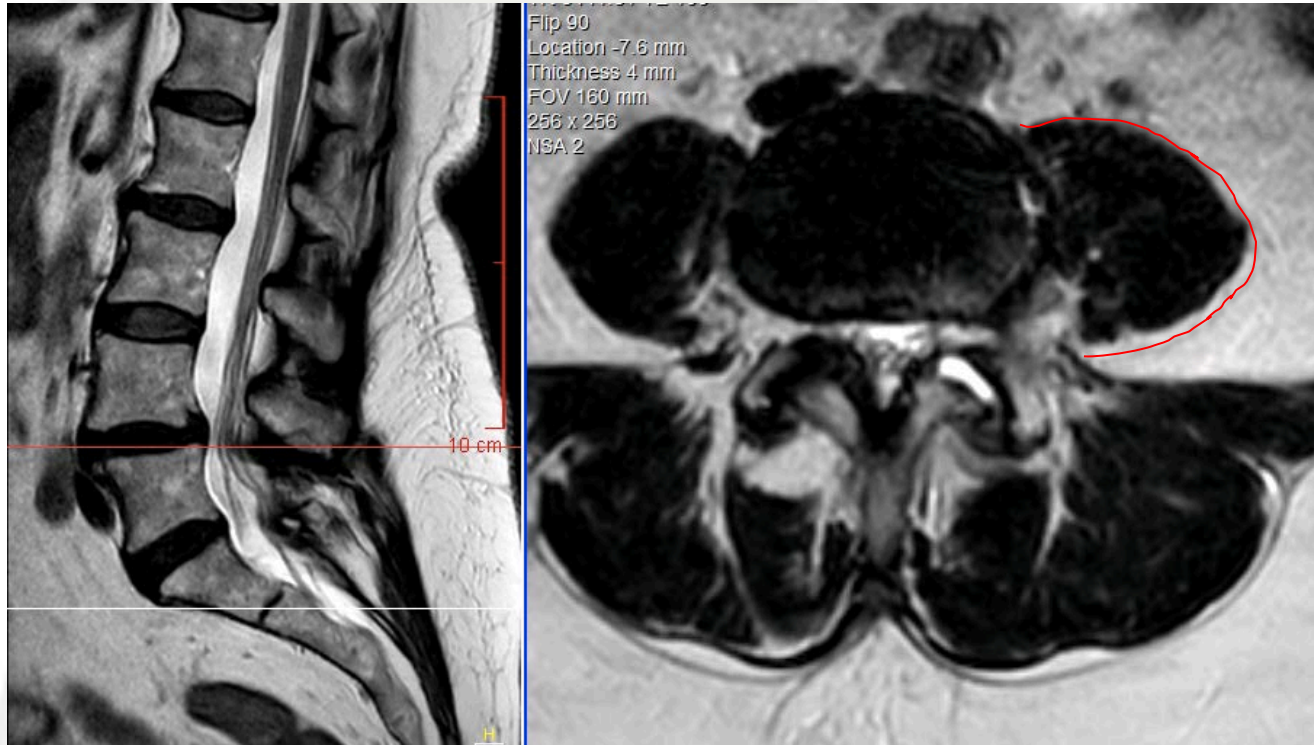
Patient Selection: Xrays



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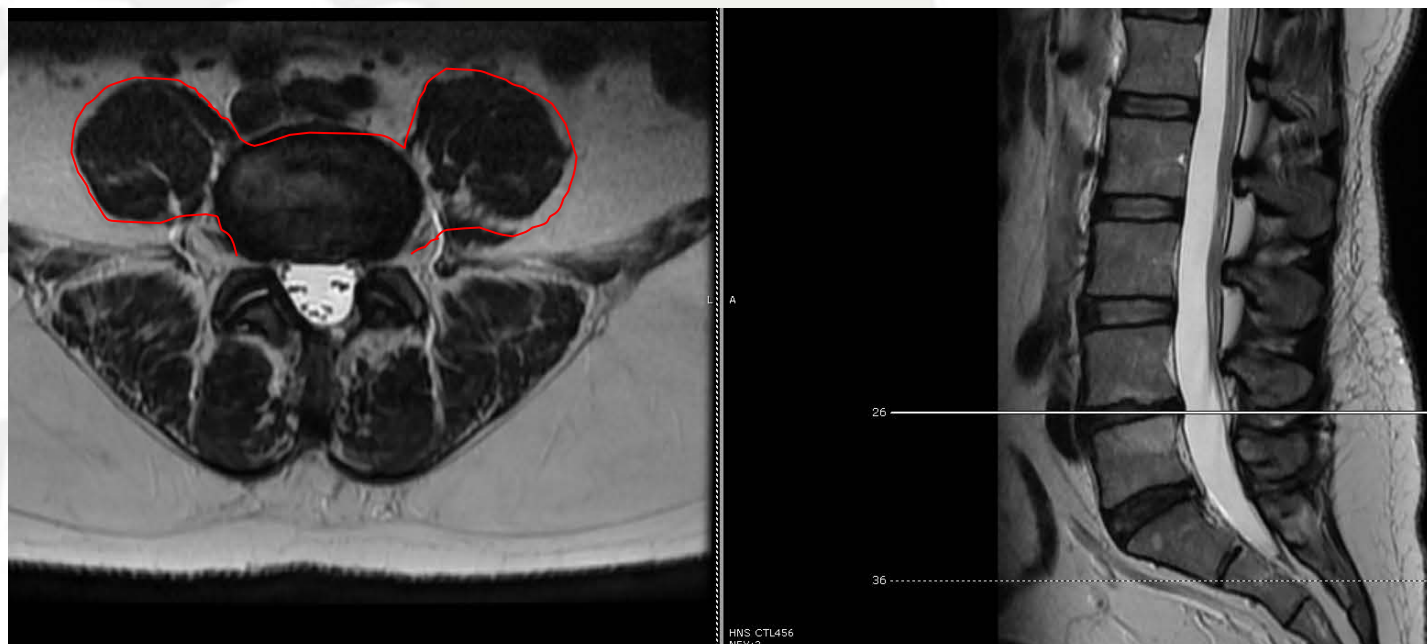
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Patient Selection: MRI



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Patient Selection: MRI



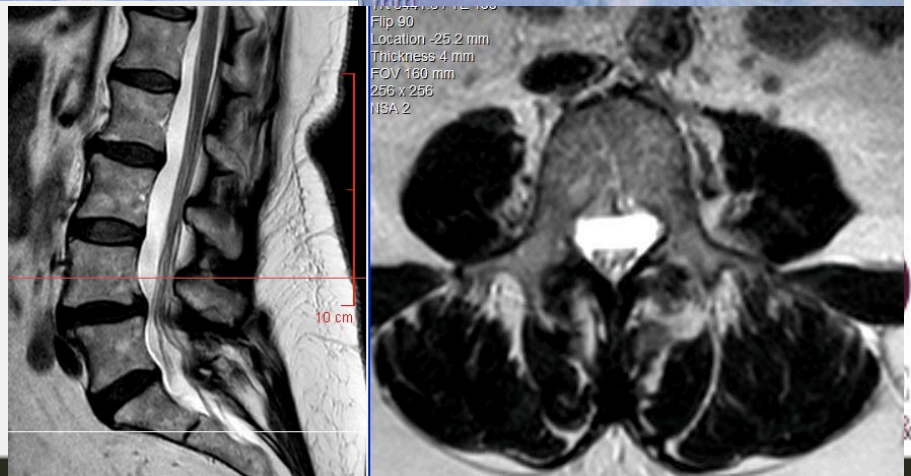
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Patient Selection: MRI



With break in bed, vessel was in surgical field



Iliac Crest

Strategies:

- Positioning- break in bed location
- Approach- expose superior aspect
- Angled instruments- for some
- Crest resection with Kerrison- bone wax and repair over it to minimize pain
- Crest osteotomy with fixation for repair



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Psoas

Strategies:

- Minimize disruption
- Stim with probe if concern for nerve location
- Sweep anterior to posterior with dilator



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Preoperative plan

Plan ahead:

- Approach: Right versus left
- Implant sizing: Cage sizing, lordosis, height
- Retractor depth estimate
- Idea on iliac crest potential to add time and complexity
- Location of vessels
- Location of nerves
- Idea on where to position centering wire based on goals of surgery and patient anatomy

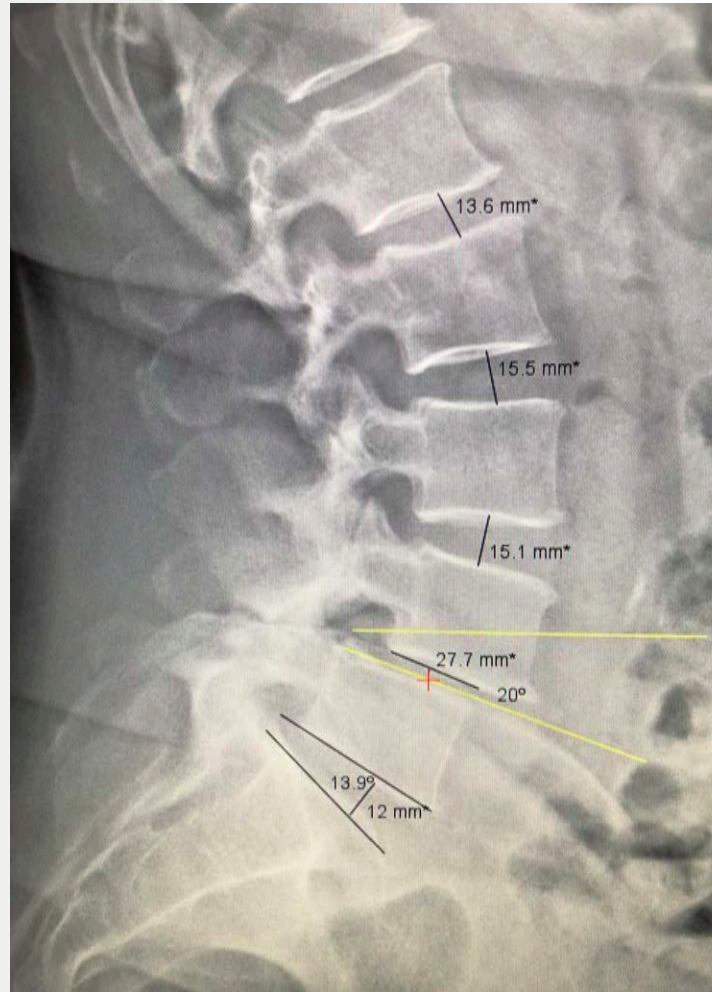


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Pre-operative planning

Xrays:

- Disc heights
- Lordosis
- Cage position
- Goals
 - Indirect decompression
 - Lordosis
 - Staged?

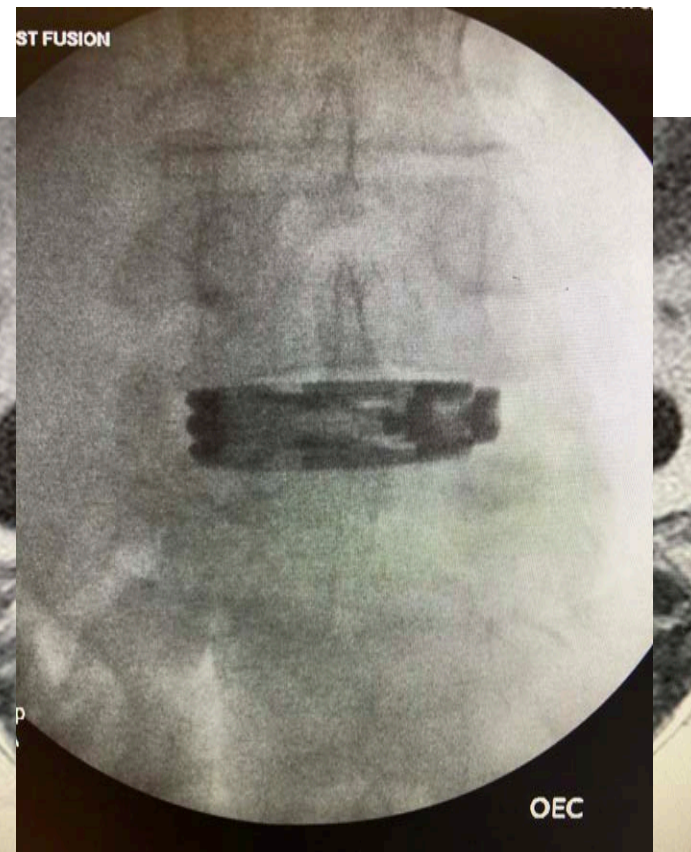


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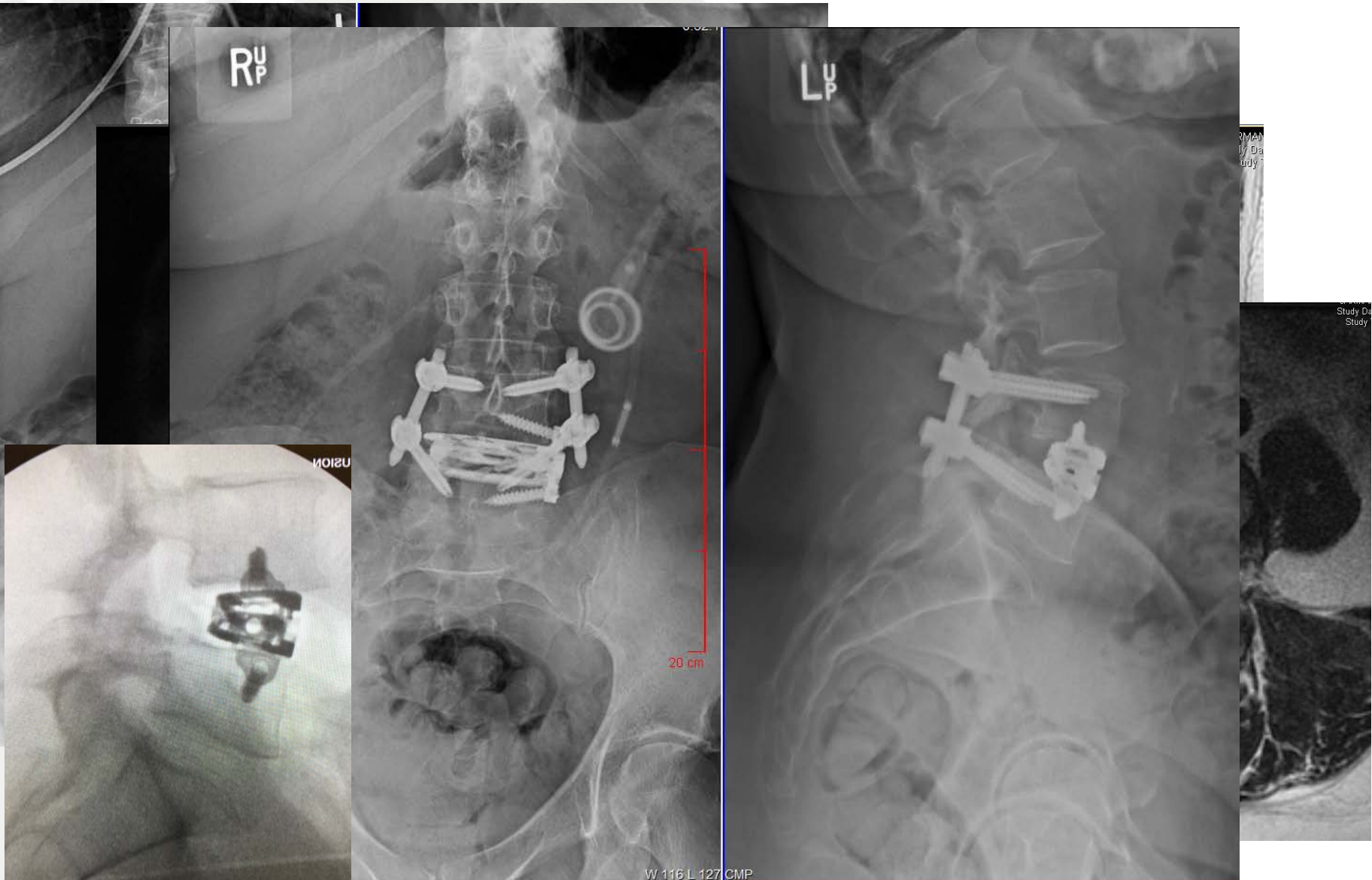
Pre-operative planning

MRI:

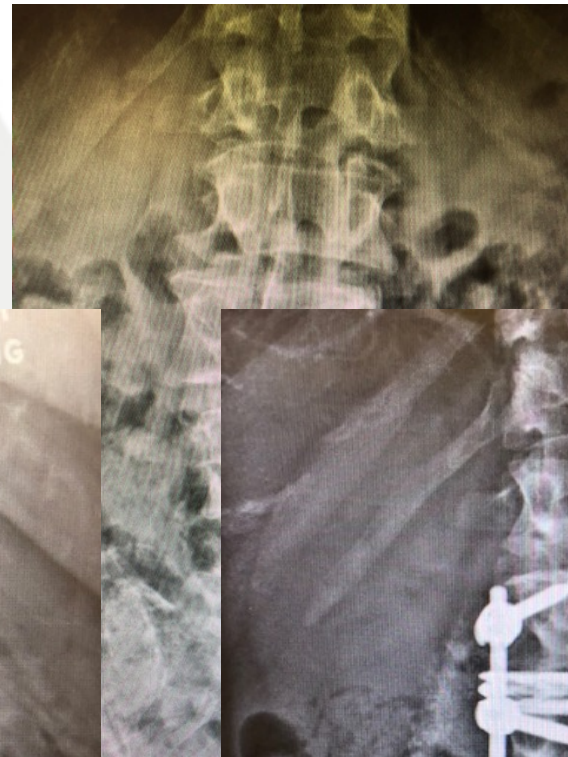
- Cage size
- Vessels
- Nerves
- Psoas



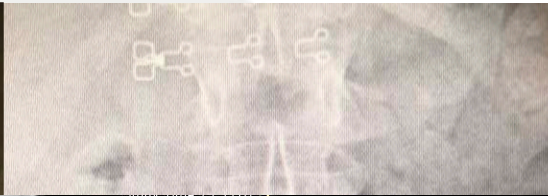
Case Example



Case Example

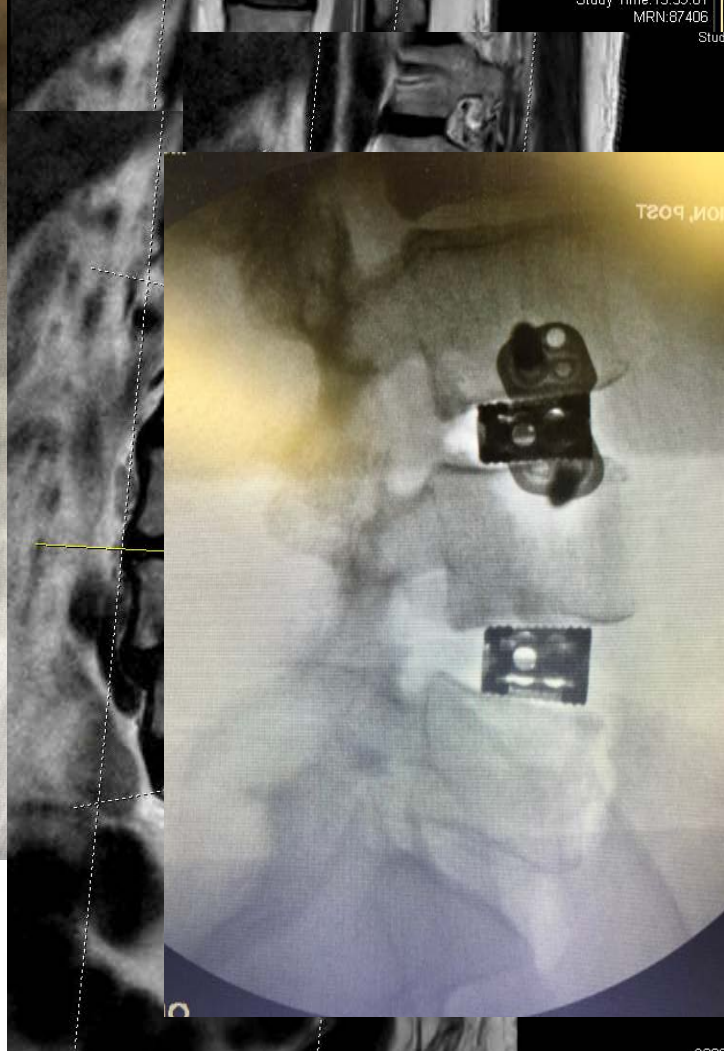


Case Example



Study Time: 13:39:01
MRN: 87406

Study Time: 13:39:01
MRN: 87406



ION POST



IB FUSION, POST

0 kVp
10 mA

OEC

Discussion

Lateral surgery provides powerful correction of local disc height and lordosis, a high fusion rate and is minimally invasive.

Very often avoid open posterior decompression and utilize percutaneous screws which leads to faster recovery, improved patient outcomes, and potentially outpatient surgery.



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