

Percutaneous fixation of thoraco-lumbar fractures: 2 year follow-up

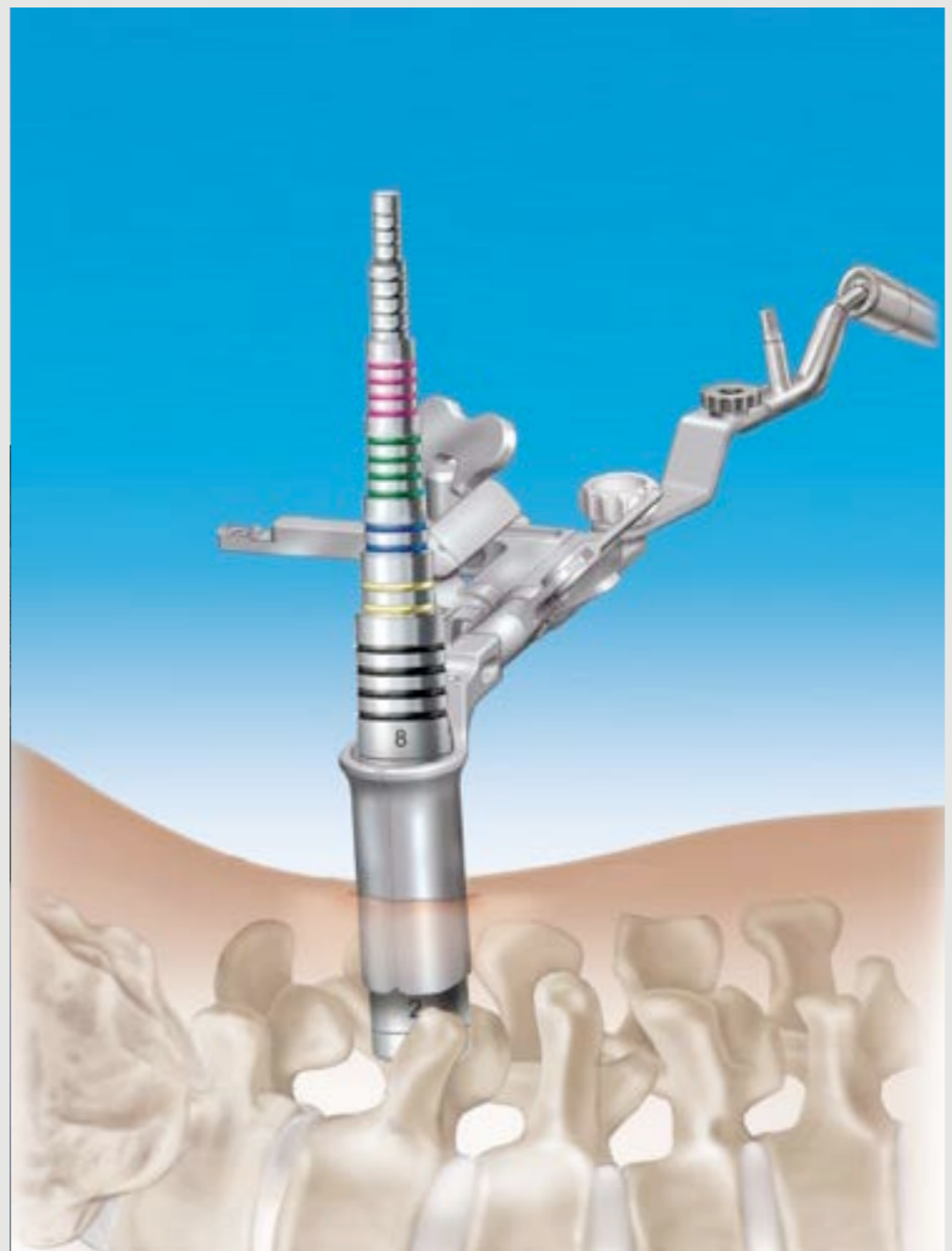


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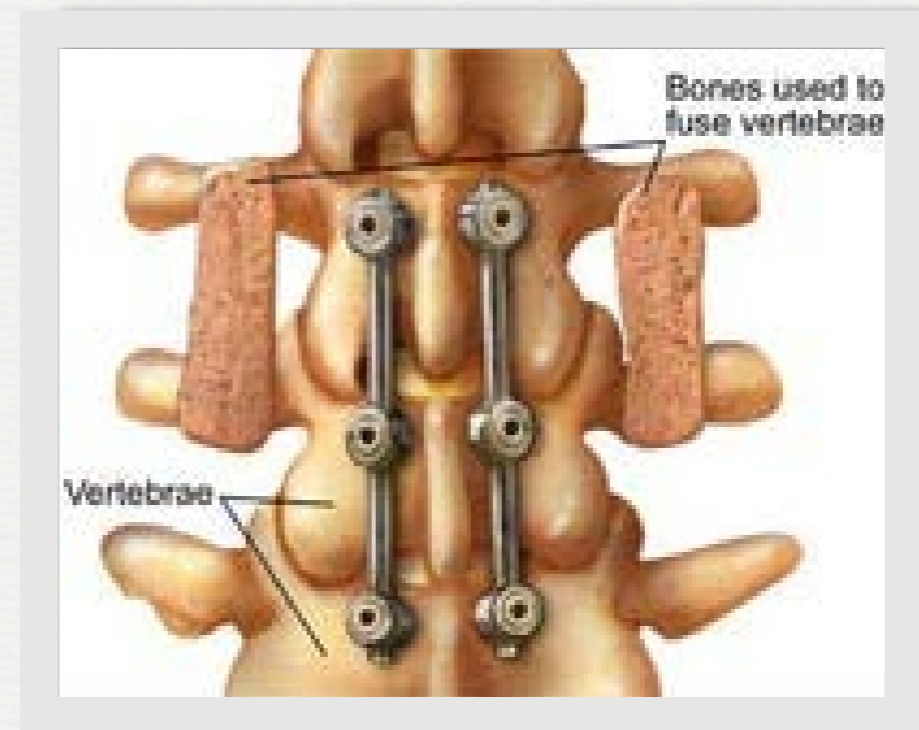
Introduction

- Evaluate our experience with minimally invasive surgical technique for posterolateral fusion (MIS-PL fusion)



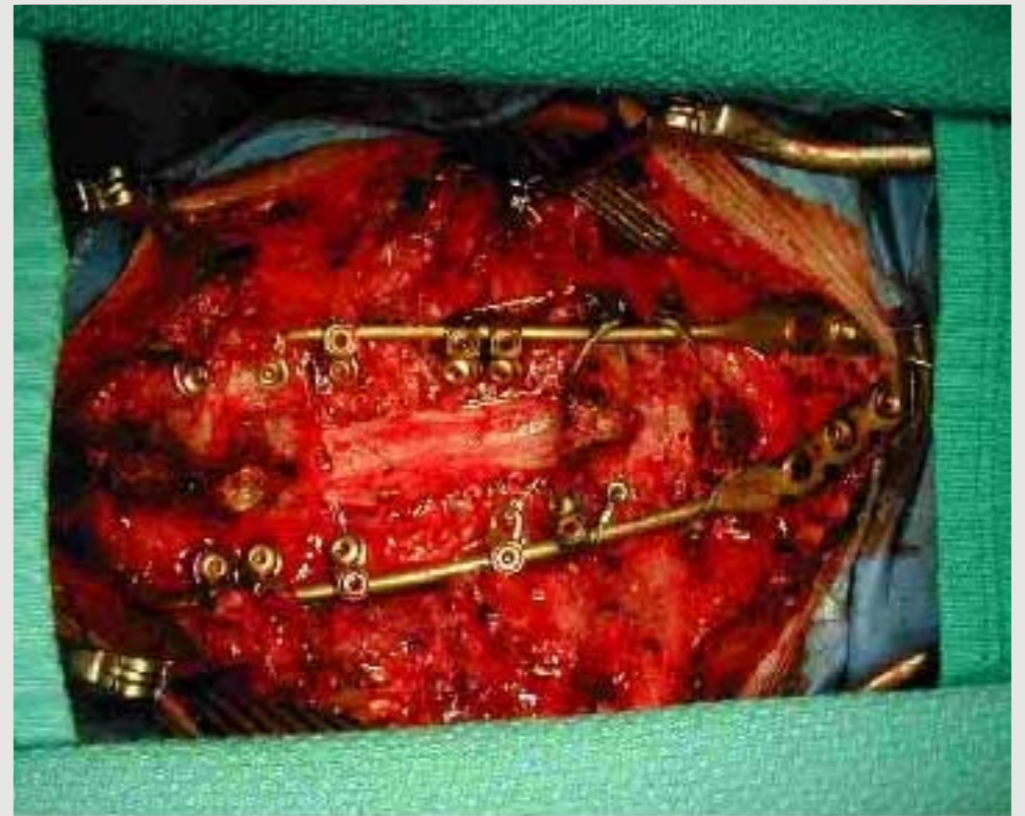
BACKGROUND

- Posterior Lateral Fusion long proven technique for stabilization of spinal segments
- Can be used as a stand-alone technique or in association with other approaches



DRAWBACKS OF OPEN PL FUSION

- Potential for significant intraoperative blood loss
- Significant post-operative pain
- Prolonged length of stay
- Long-term paraspinal muscle atrophy



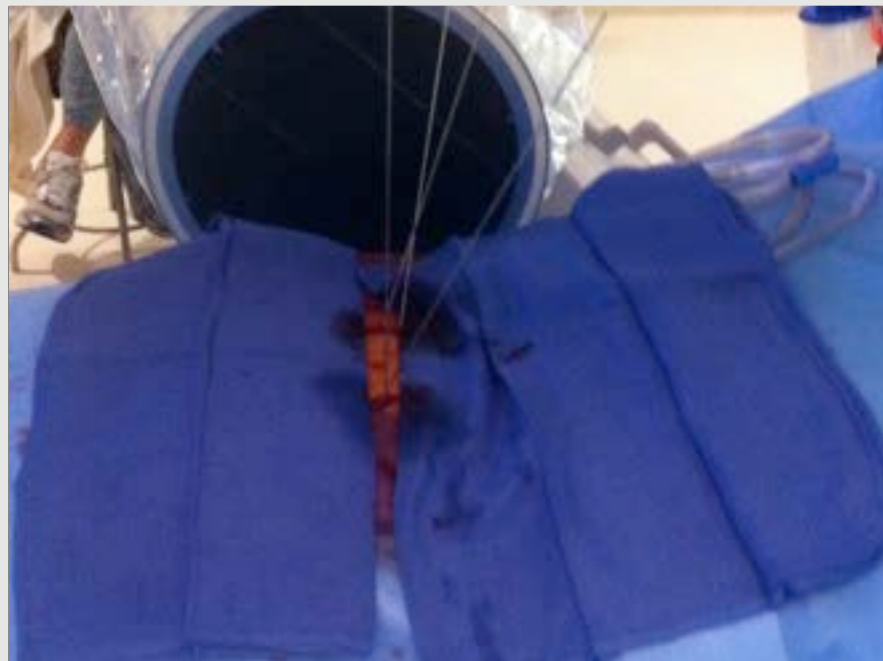
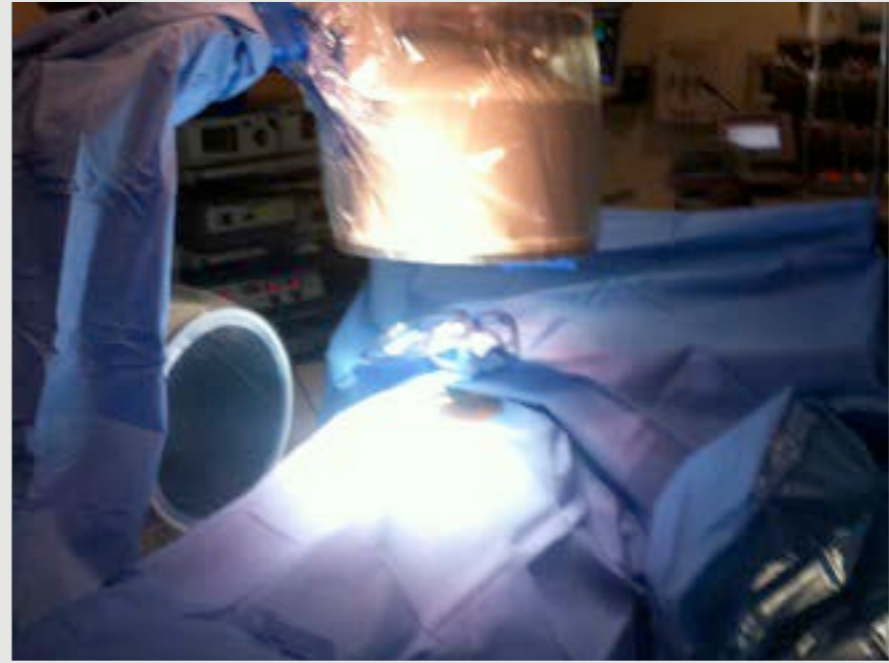
METHODS

- 2 year retrospective review of thoraco-lumbar fractures fixed with MIS-PL fusion.
 - 21 patients identified
- Etiology of fractures included metastatic tumor, primary tumor and trauma.
- Outcomes measured:
 - Visual analog pain score (VAS) pre-operatively, at 1 month and 2 years, estimated blood loss (EBL), length of stay (LOS), operative time, # of levels fused.
- Pseudoarthrosis, infection, re-operation rates tracked

TECHNIQUE



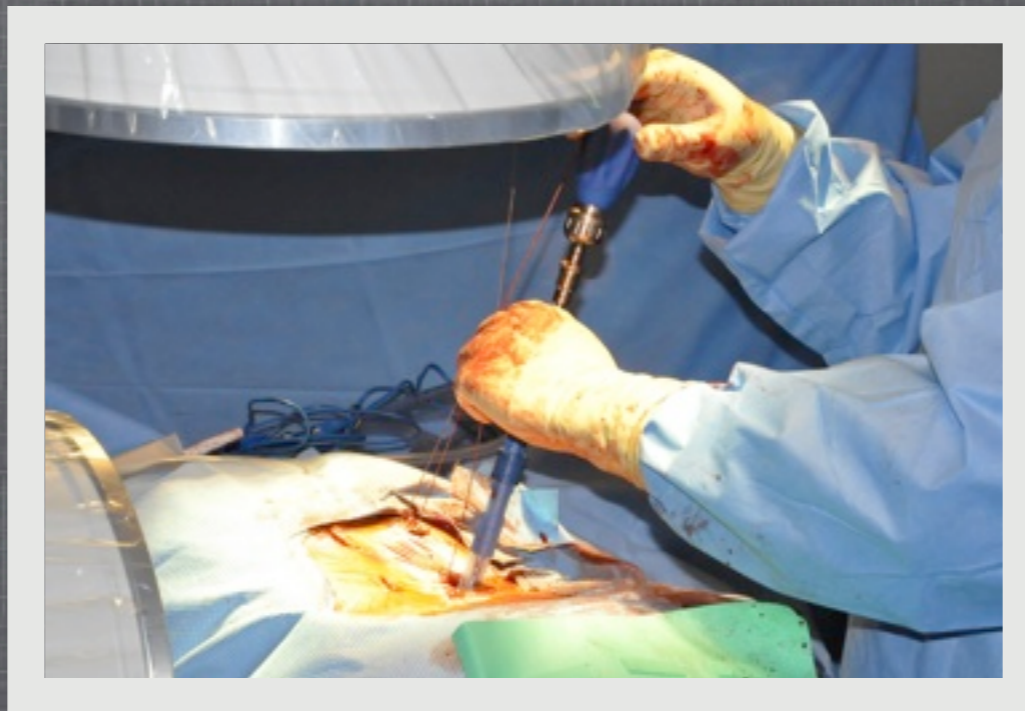
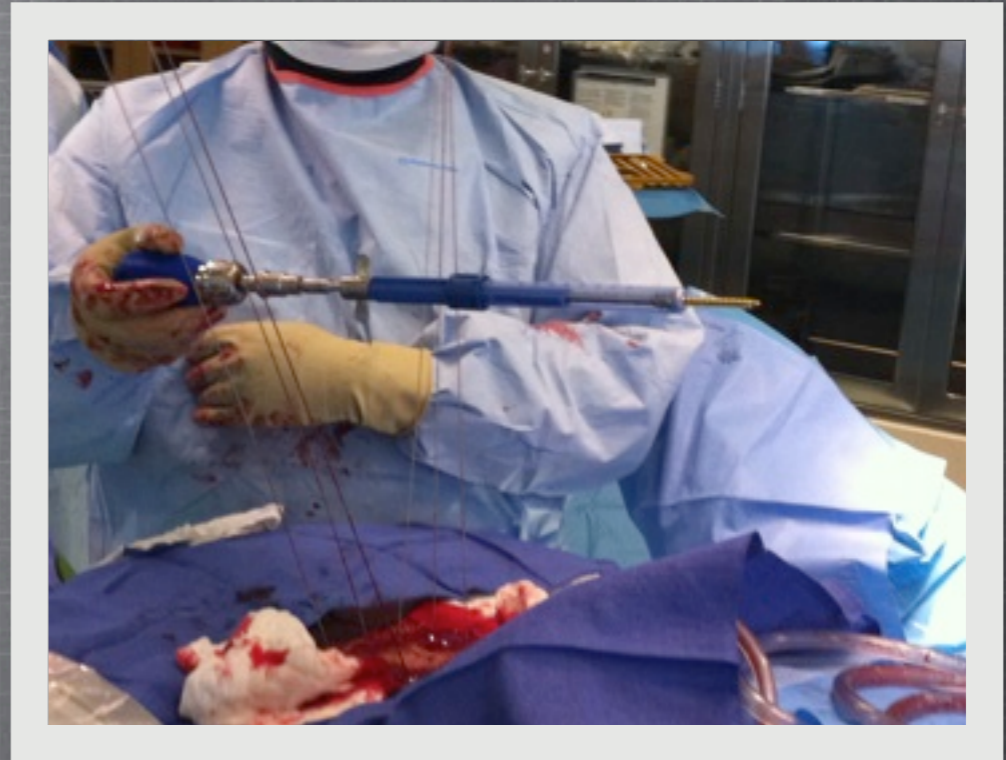
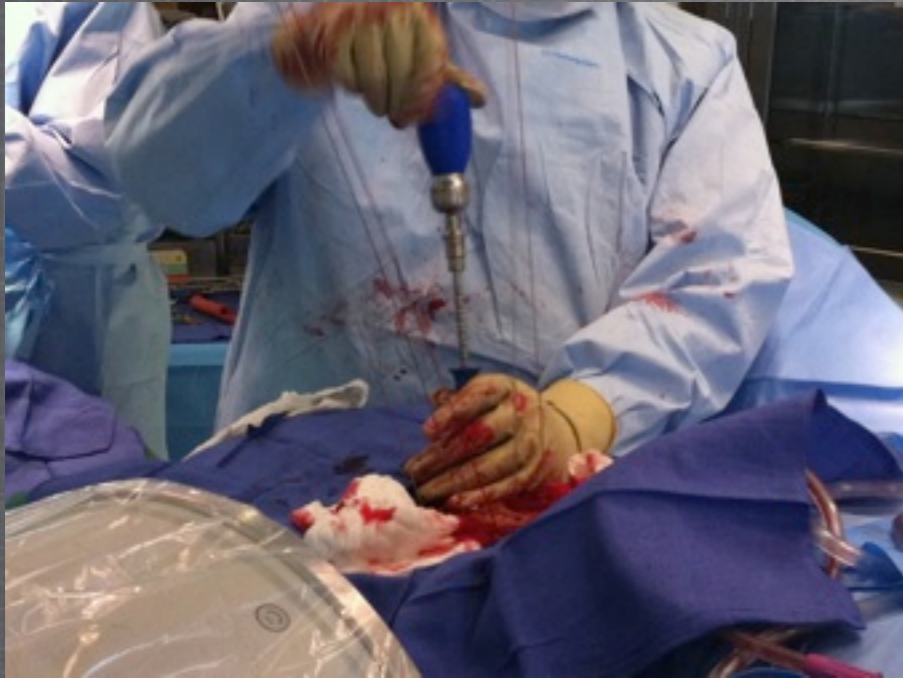
2 Fluoro
Units



Perc
Fixation



TECHNIQUE



Percutaneous Screw Fixation

GRAFT PREP AND PLACEMENT TOOLS



DECORTICATION OF TRANSVERSE PROCESSES



PLACEMENT OF BONE GRAFT



TECHNIQUE

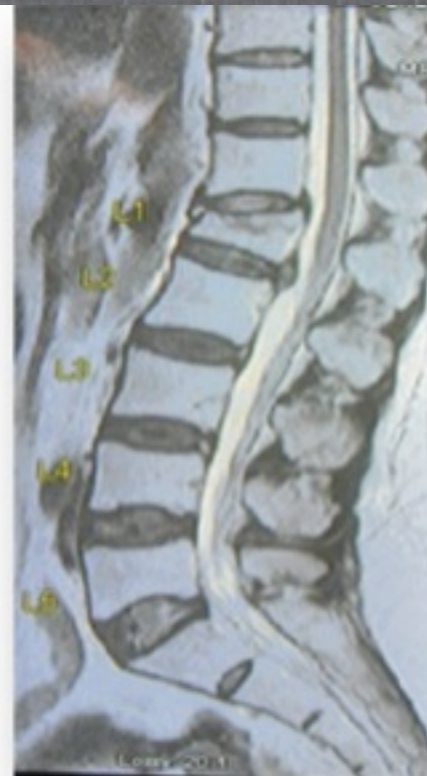
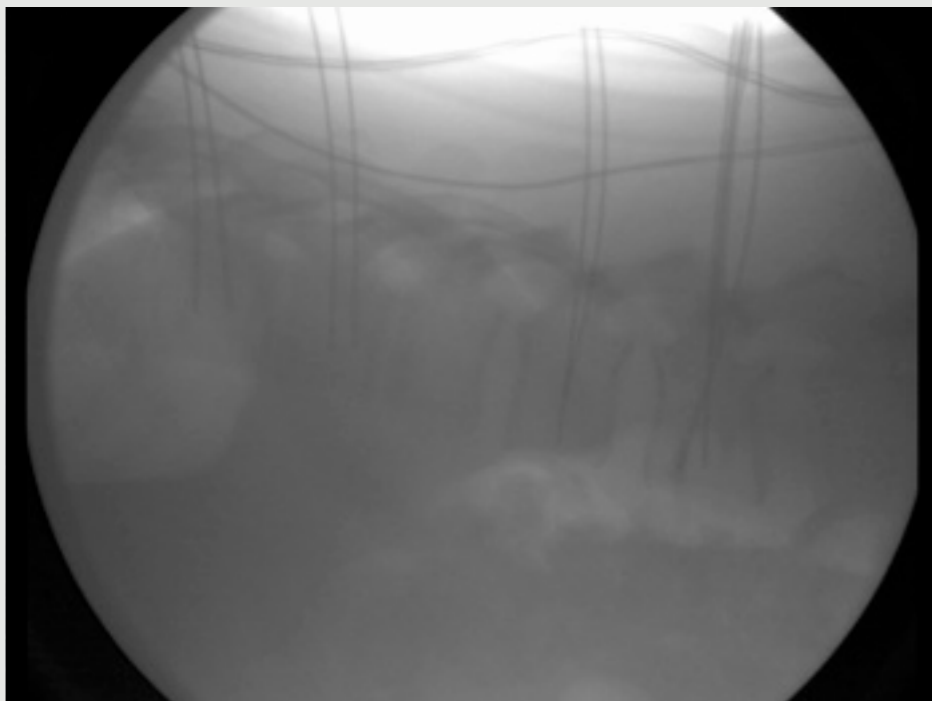
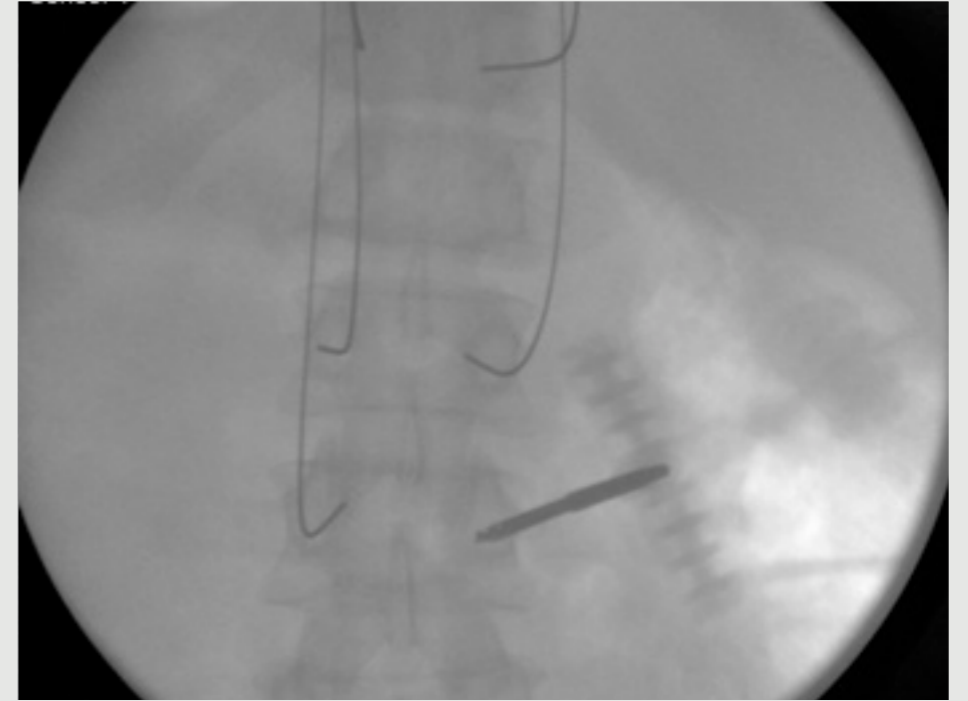
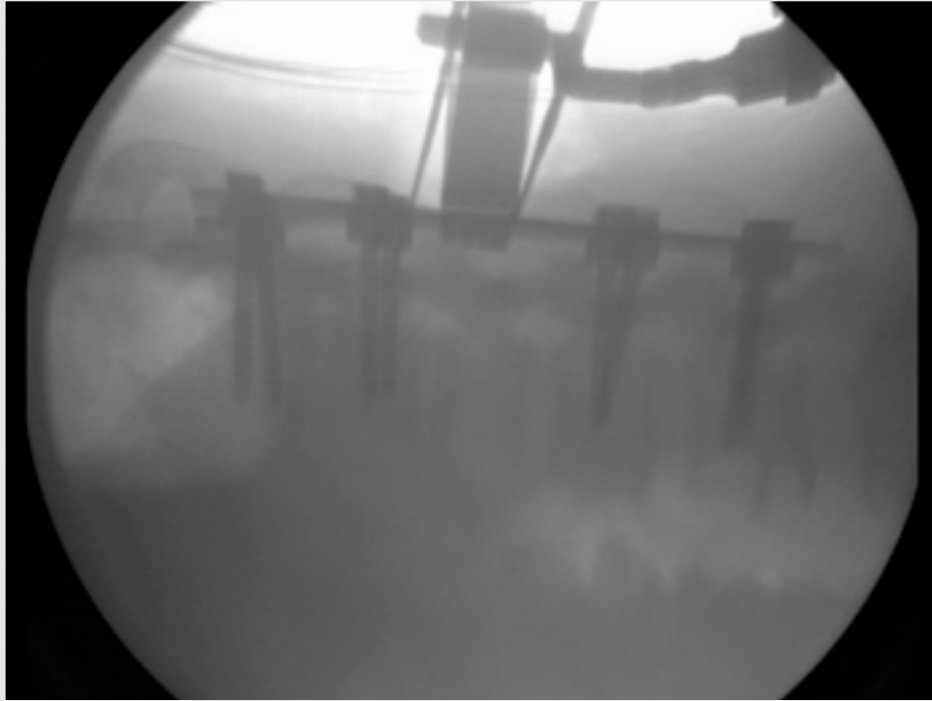


Figure 1. Pre-Op MRI

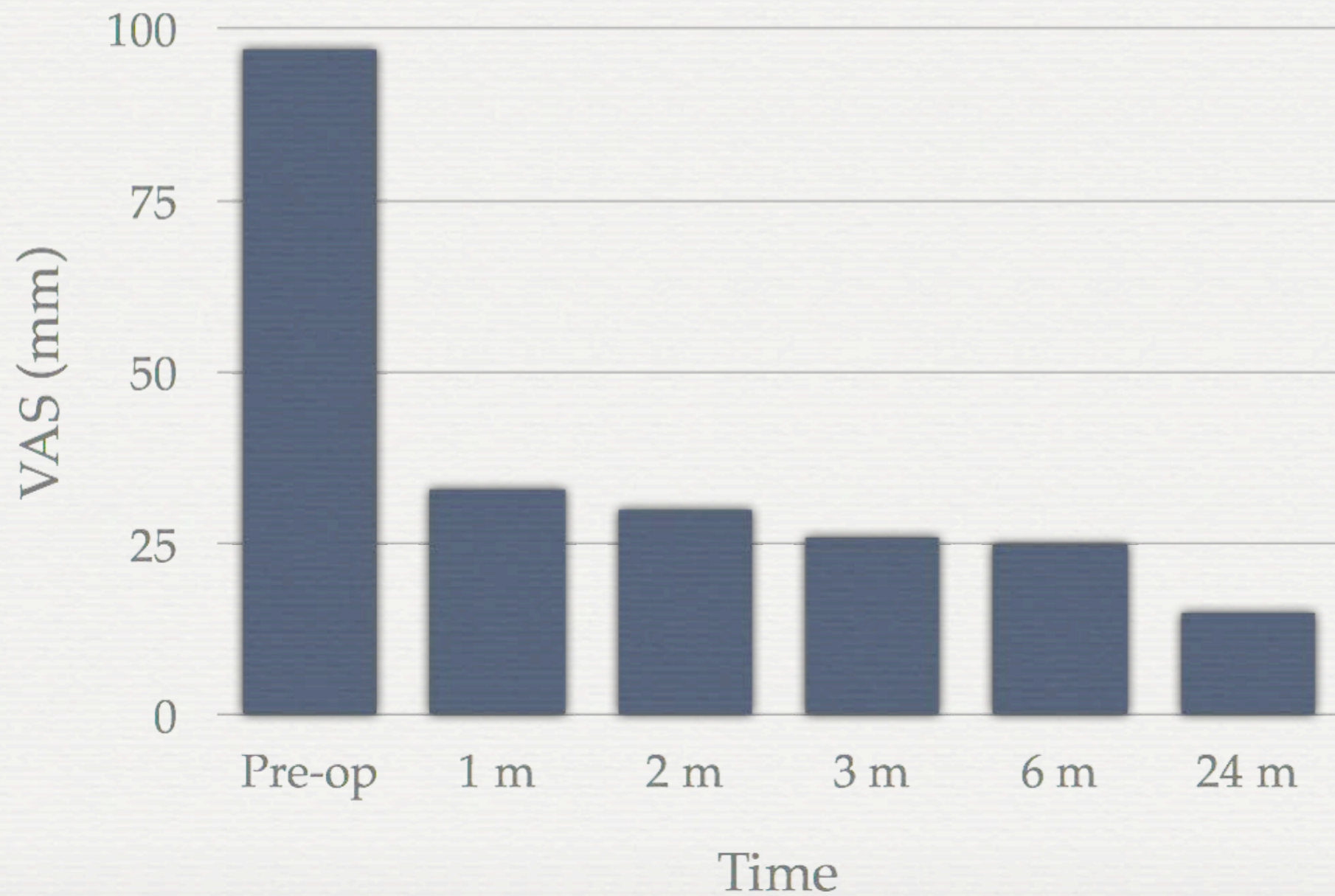
Figure 2. Post-Op AP

Figure 3. Post-Op Lateral

RESULTS

- 21 patients identified
- Mean number of segments stabilized 3.9 (range 2-5)
- Mean EBL was 57 ml (range 0-100 ml)
- Mean OR time 93 minutes (range 82-106 mins) - 26 minutes per segment
- **Average Length of Stay 1.6 Days**
- **No reoperation for pseudoarthrosis**
- **No infections**

Visual Analog Score



CONCLUSION

- MIS-PL fusion is a safe, effective and less invasive alternative to traditional open PL fusion.
- It succeeds in providing significant pain relief and shortens the length of stay considerably.
- Allows for rapid mobilization of the multi trauma patient



Disclosures

- Dr. Faisal Siddiqui - Consultant for K2M, Lanx
- Dr. Mudit Sharma - Consultant for Lanx
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- Dr. Joseph White - None
- Sohail Safdari - None