

A Case of Inadvertent Intra-discal Injection Occurring at an Adjacent Segment During a Properly Performed Transforaminal Epidural Steroid Injection

CASE DESCRIPTION:
75-year-old male with chronic low back pain and radiculopathy status post L3-L5 laminectomies and fusion presented with worsening axial and bilateral L5-S1 radicular symptoms after previously successful, uncomplicated S1 TFESIs. During repeat procedure the right S1 posterior neuroforamen was accessed and appropriate final needle position confirmed per SIS guidelines. Live fluoroscopy during contrast administration revealed appropriate epidural pattern; however, contrast was also confirmed to be within the L5-S1 intervertebral disc. The procedure was terminated, and patient was discharged with oral antibiotics. Differential for this contrast flow pattern included acute intervertebral disc herniation with significant inferior migration into S1 foramen, cystic structure or grade V annular tear allowing communication between epidural space and disc. Post procedure imaging showed left L5 pars defect and grade 1 anterolisthesis of L5 on S1 with associated vacuum phenomenon in the disc and a small central disc protrusion at L5-S1.

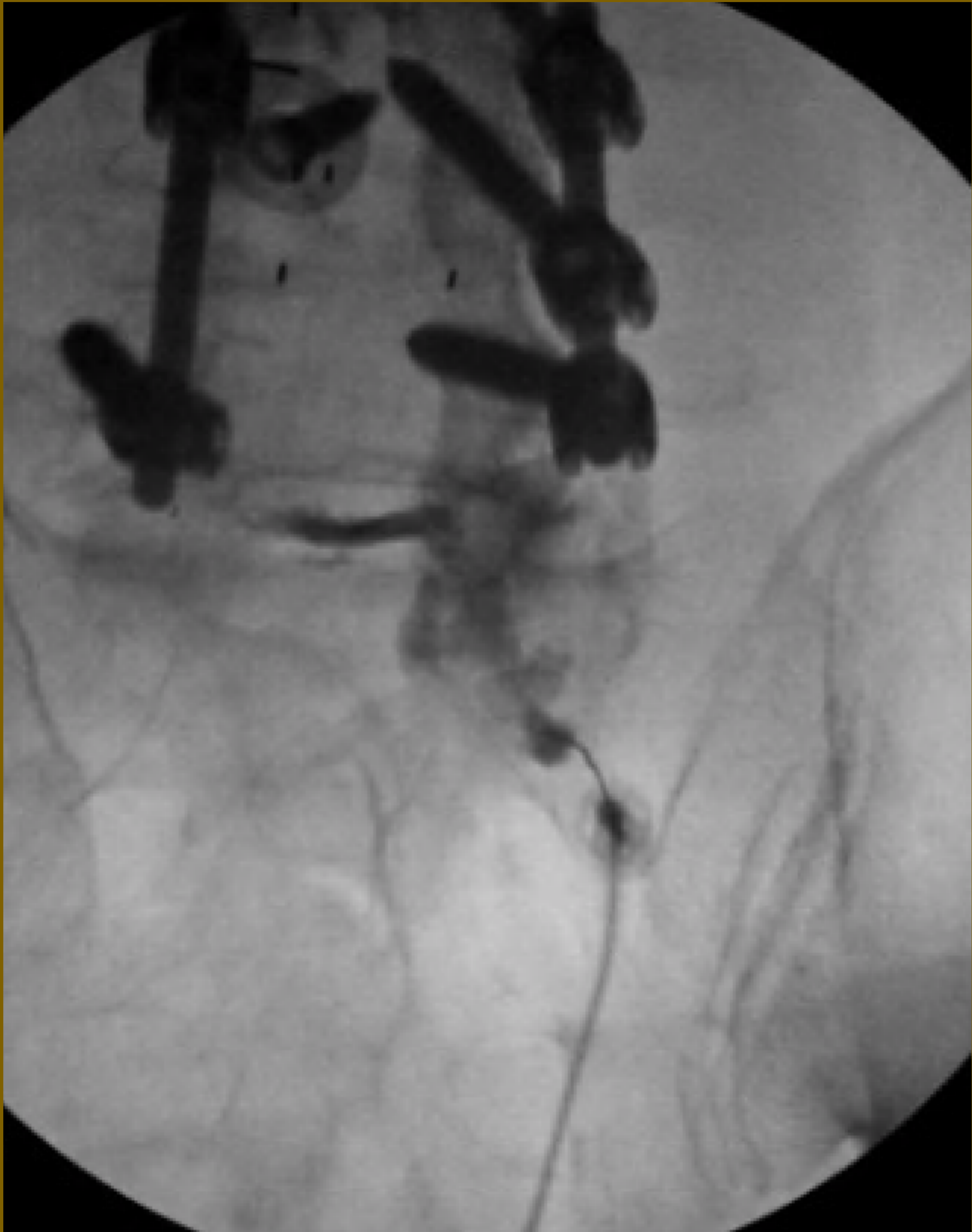
DISCUSSION:
Most likely mechanism, based on subsequent imaging, was a grade V annular tear in the setting of a vacuum disc. No cystic structures or intervertebral disc extrusion with inferior migration was detected on post-procedure imaging.

CONCLUSION:
Inadvertent intradiscal injection is a known complication of transforaminal epidural steroid injections, most commonly via an infraneural approach.

Even during a properly performed TFESI, an inadvertent intra-discal injection can occur at an adjacent segment in a patient with atypical anatomy. We recommend considering advanced imaging such as MRI prior to all spinal injections for pre-procedure planning in order to:

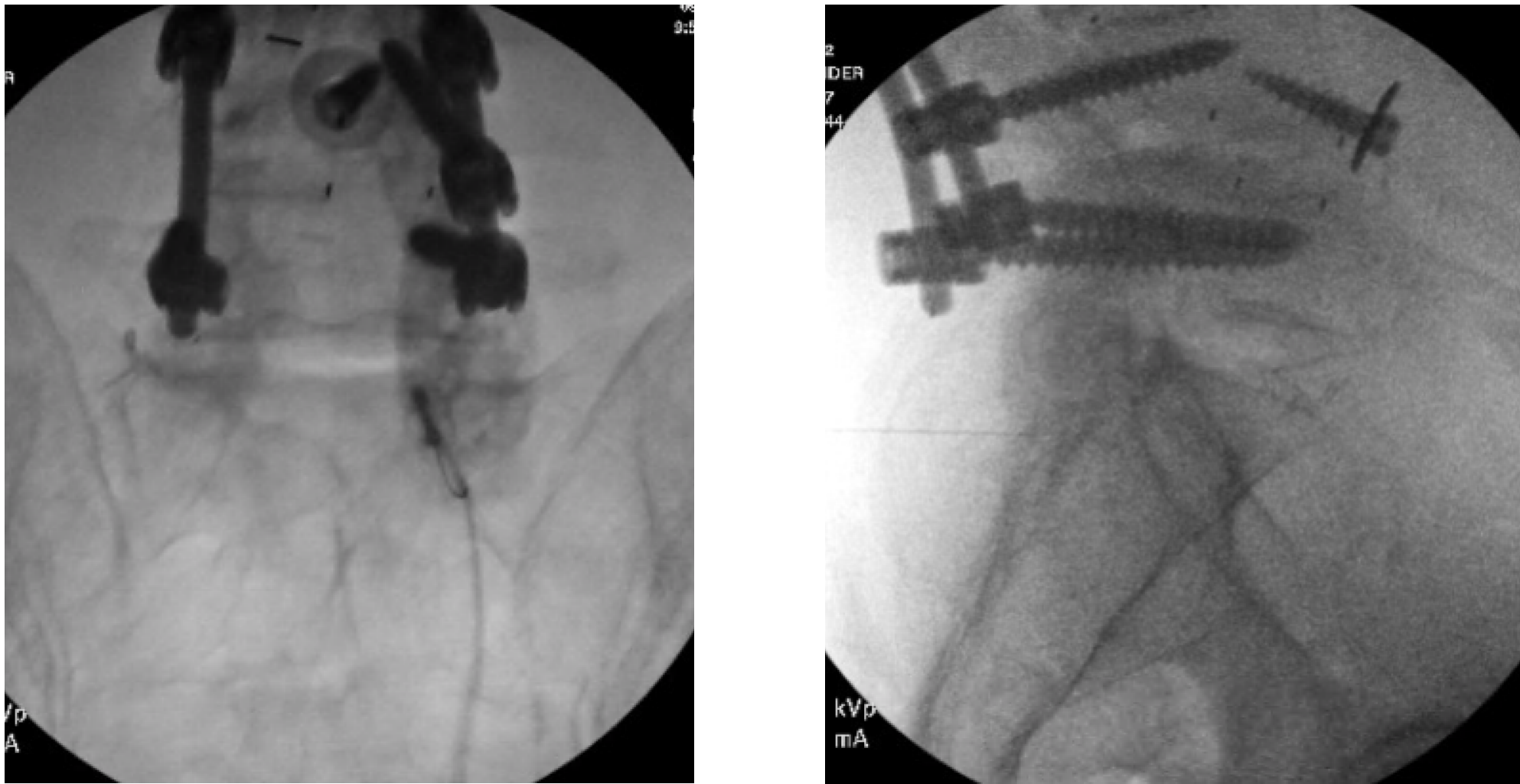
- To identify patients with atypical anatomy
- To improve probability of procedure success
- To reduce risk of complications or negative outcomes

A unique case of **inadvertent L5-S1 intra-discal injection** during a properly performed **S1 TFESI**

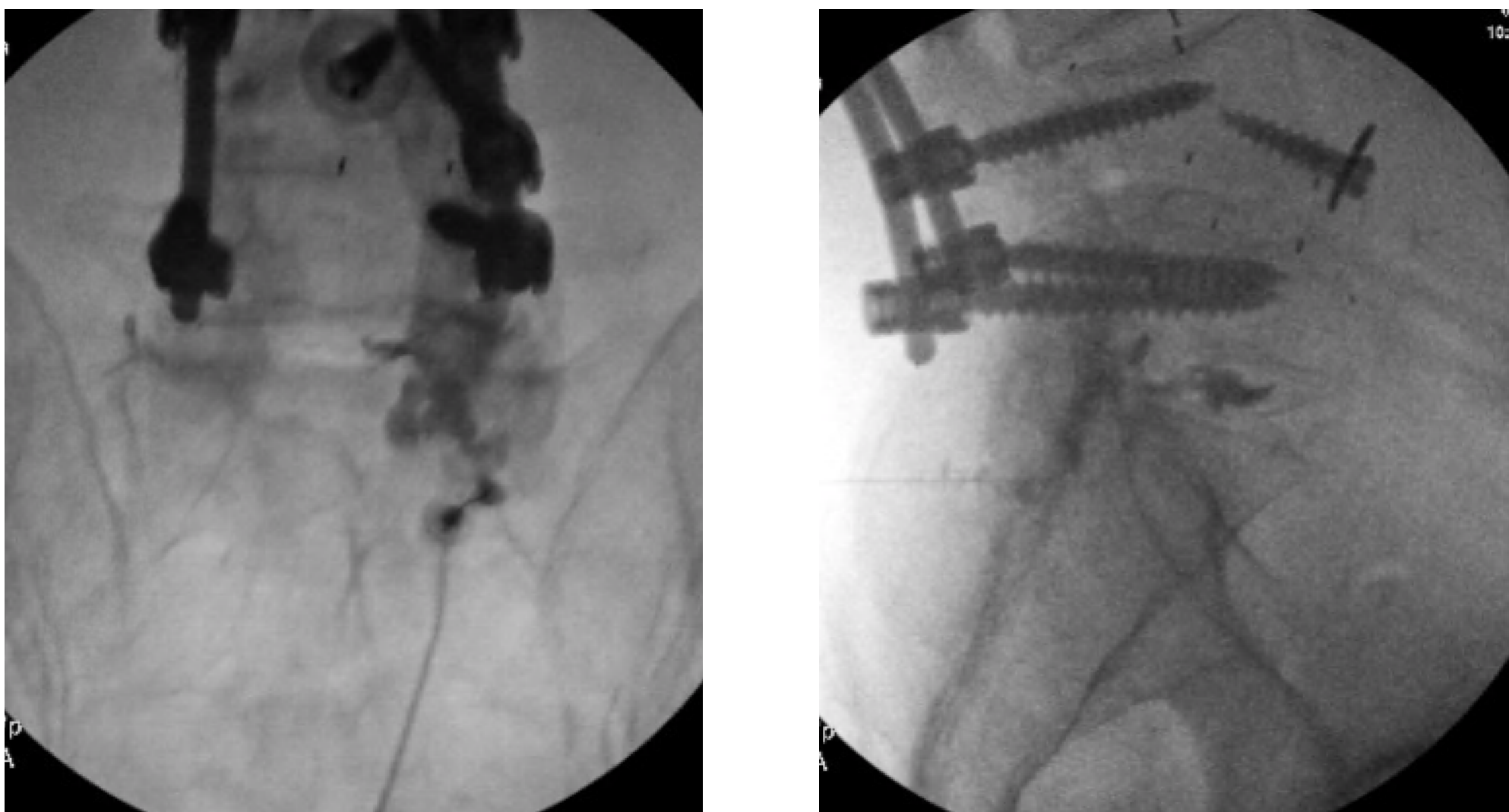


PROCEDURE IMAGES

PRE-CONTRAST



POST-CONTRAST



POST PROCEDURE IMAGING

