

Introduction to dualPortal Endoscopic Spine Surgery

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Principles of Dual Portal Endoscopic Spine Surgery

Minimally Invasive Approach

- Minimize tissue damage and disruption-ultraMIS
- Two separate portals to access the spine, reducing the need for extensive muscle dissection and sparing surrounding tissues.

Direct Visualization

- Direct visualization of anatomical structures in real-time, and perform targeted interventions
- “Spine Dream”

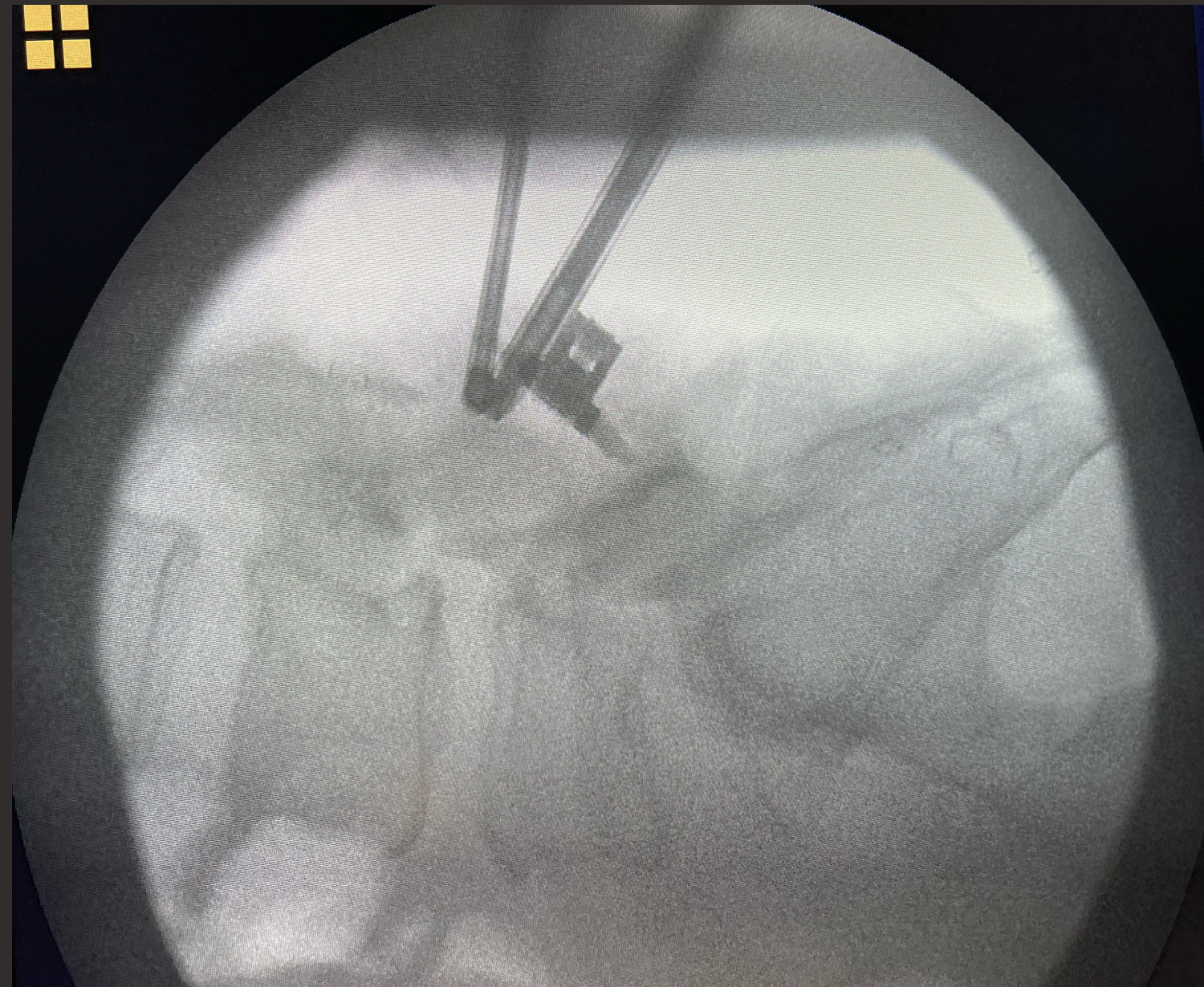
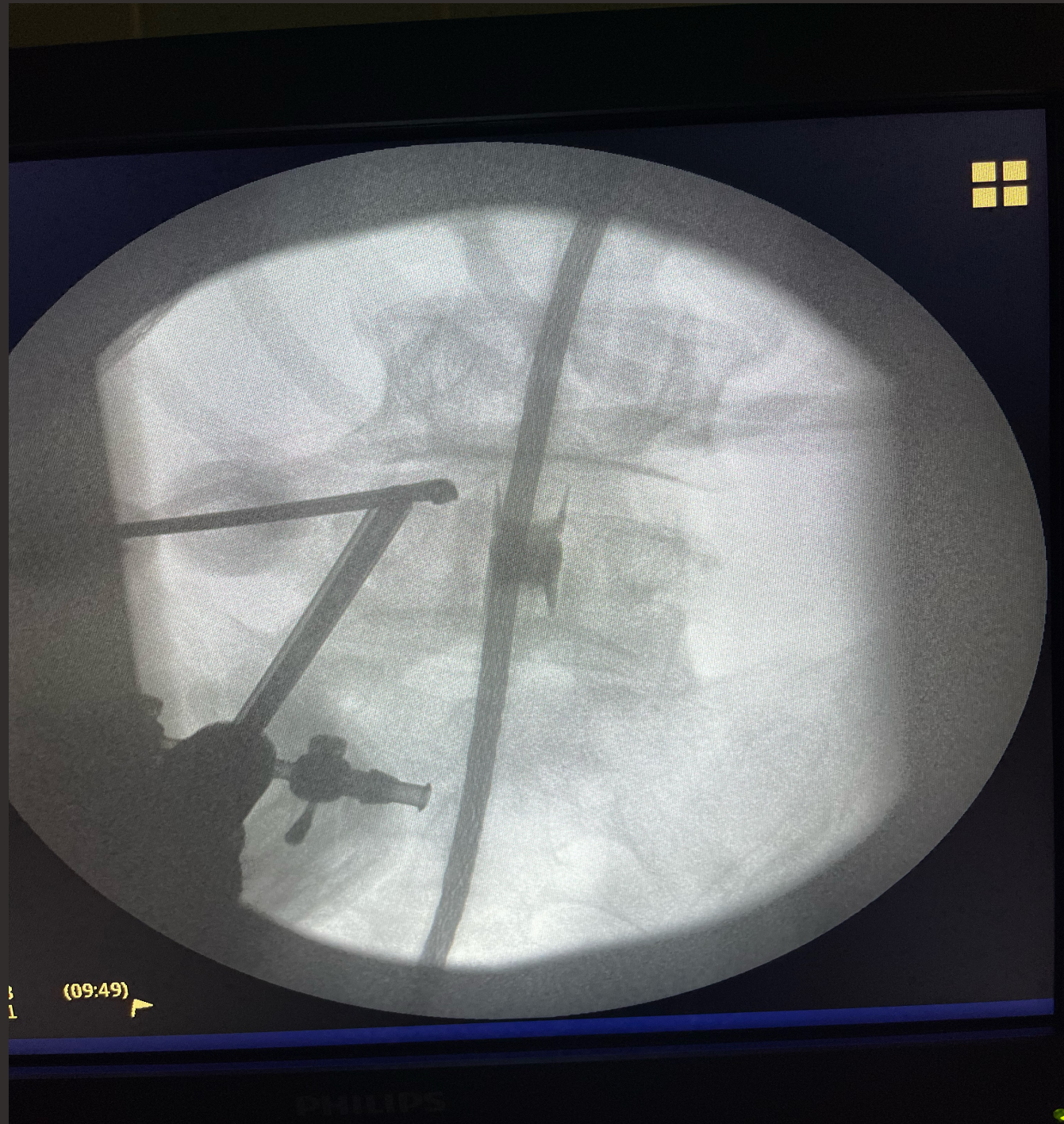
Tissue Preservation

- Aims to preserve the natural anatomy of the spine, leading to potentially reduced postoperative pain and faster recovery for patients.
- Muscle and ligament sparing

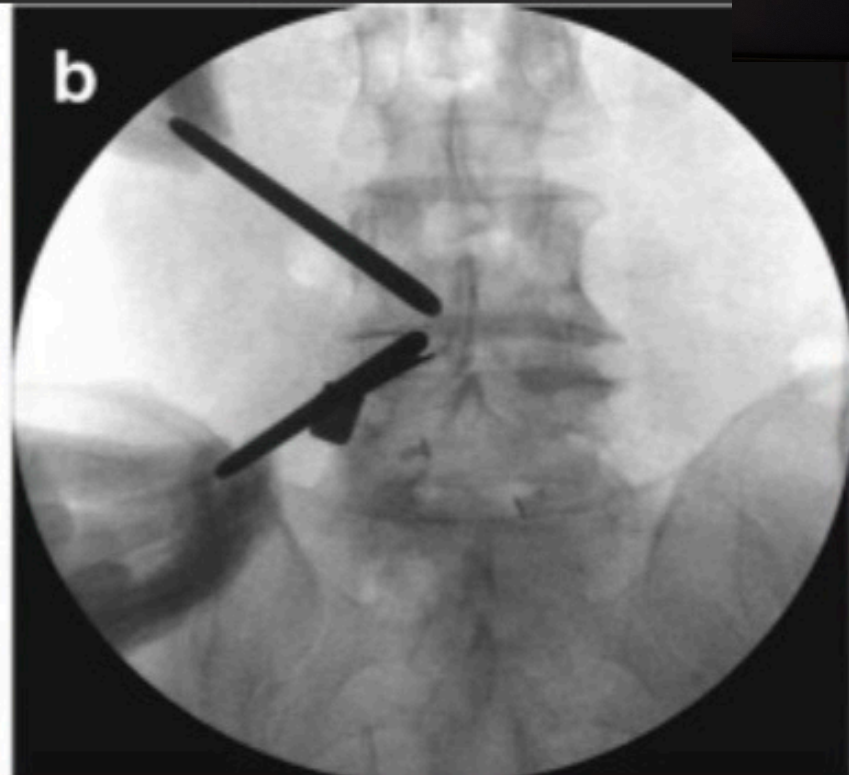
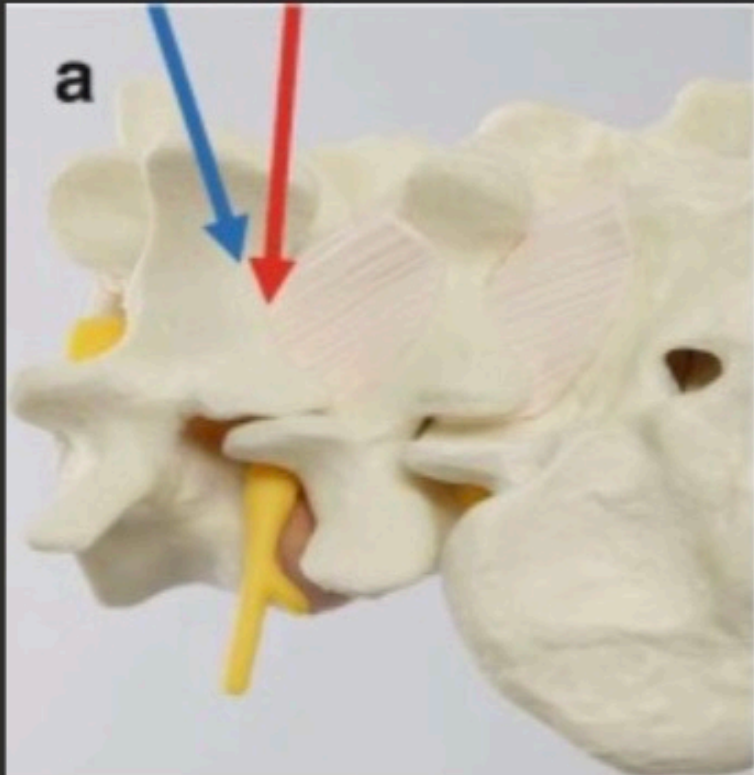
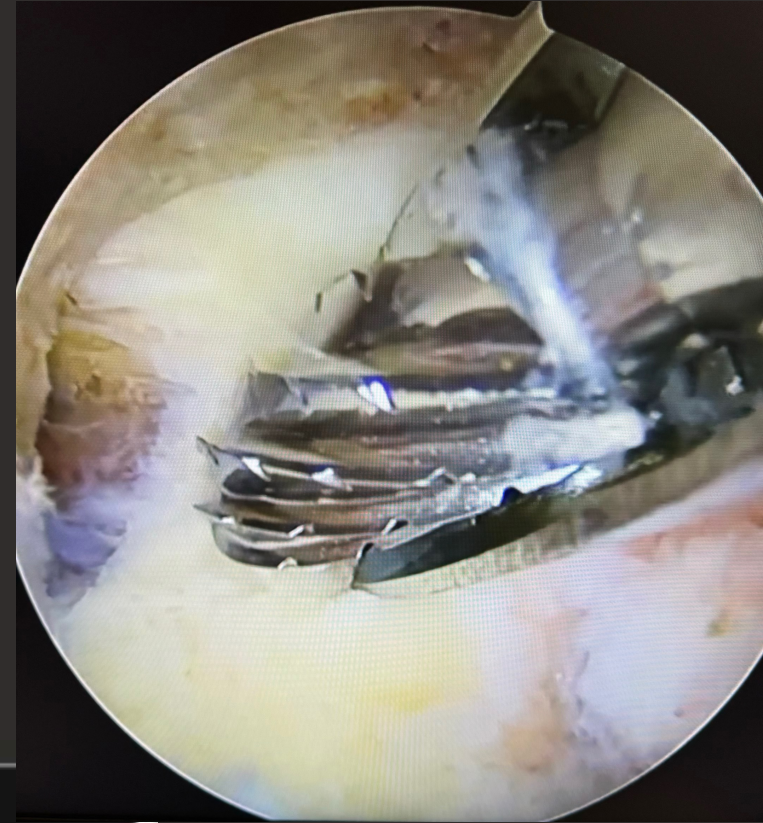
Comprehensive Decompression

- Comprehensive decompression of neural structures with meticulous care and precision.
- Preservation of facet joints (maintain stability)

Anatomy of the Spine Relevant to Dual Portal Endoscopic Surgery



Anatomy of the Spine Relevant to Dual Portal Endoscopic Surgery



Indications and Contraindications for Dual Portal Endoscopic Spine Surgery

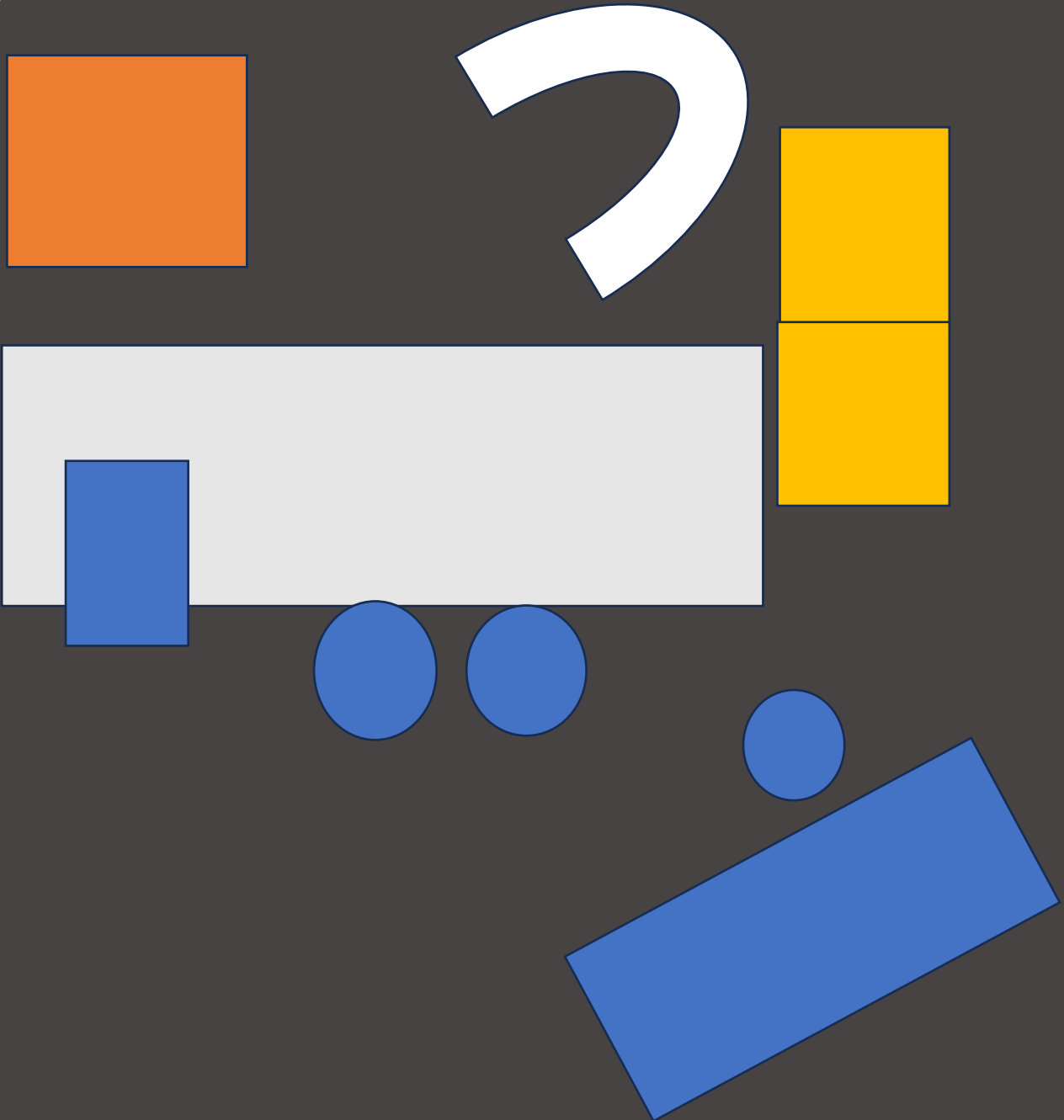
Indications for Dual Portal Endoscopic Spine Surgery

- Various pathologies including herniated discs, spinal stenosis, foraminal stenosis, facet joint cysts, and other degenerative spinal pathologies
- Beneficial for patients who wish to avoid traditional open surgery, as it offers reduced blood loss, faster recovery times, and minimal scarring

Contraindications for Dual Portal Endoscopic Spine Surgery

- Patients with severe spine instability, advanced spinal cord compression, or complex anatomical variations may not be suitable candidates for this approach.
- Furthermore, individuals with infections near the surgical site, uncontrolled coagulopathies, or unrealistic expectations regarding the outcomes should be carefully evaluated for alternative treatment options.
- Morbid obesity

Dual Portal Endoscopic Spine Surgery Workflow



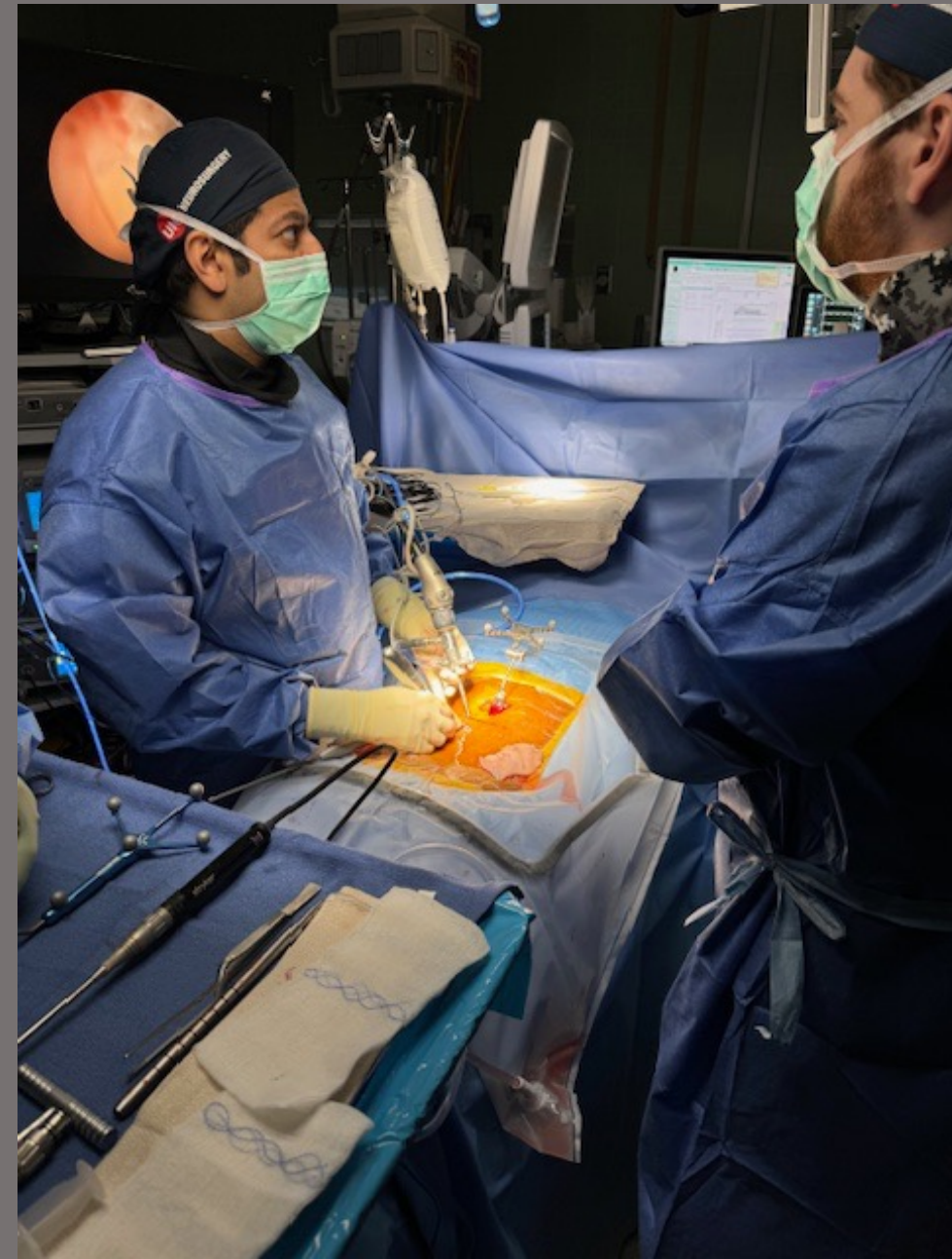
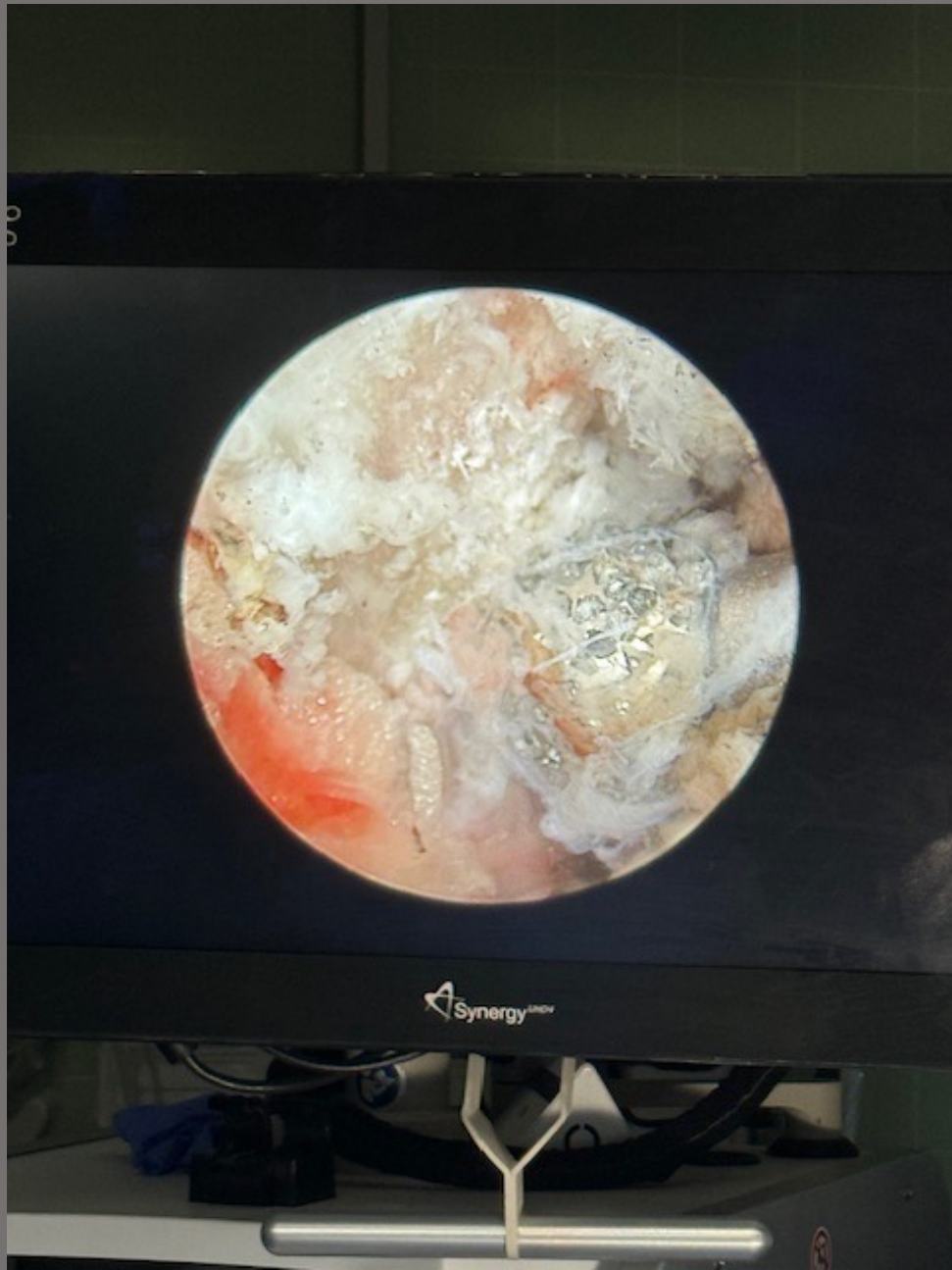
Complications and Management of Dual Portal Endoscopic Spine Surgery

Complication	Management
Nerve injury	Immediate re-evaluation, conservative treatment, potential surgical intervention
Dural tear	Repair during the procedure, postoperative monitoring for CSF leak
Infection	Prophylactic antibiotics, thorough aseptic technique, prompt treatment
Hematoma	Surgical evacuation, close monitoring for neurological deficits

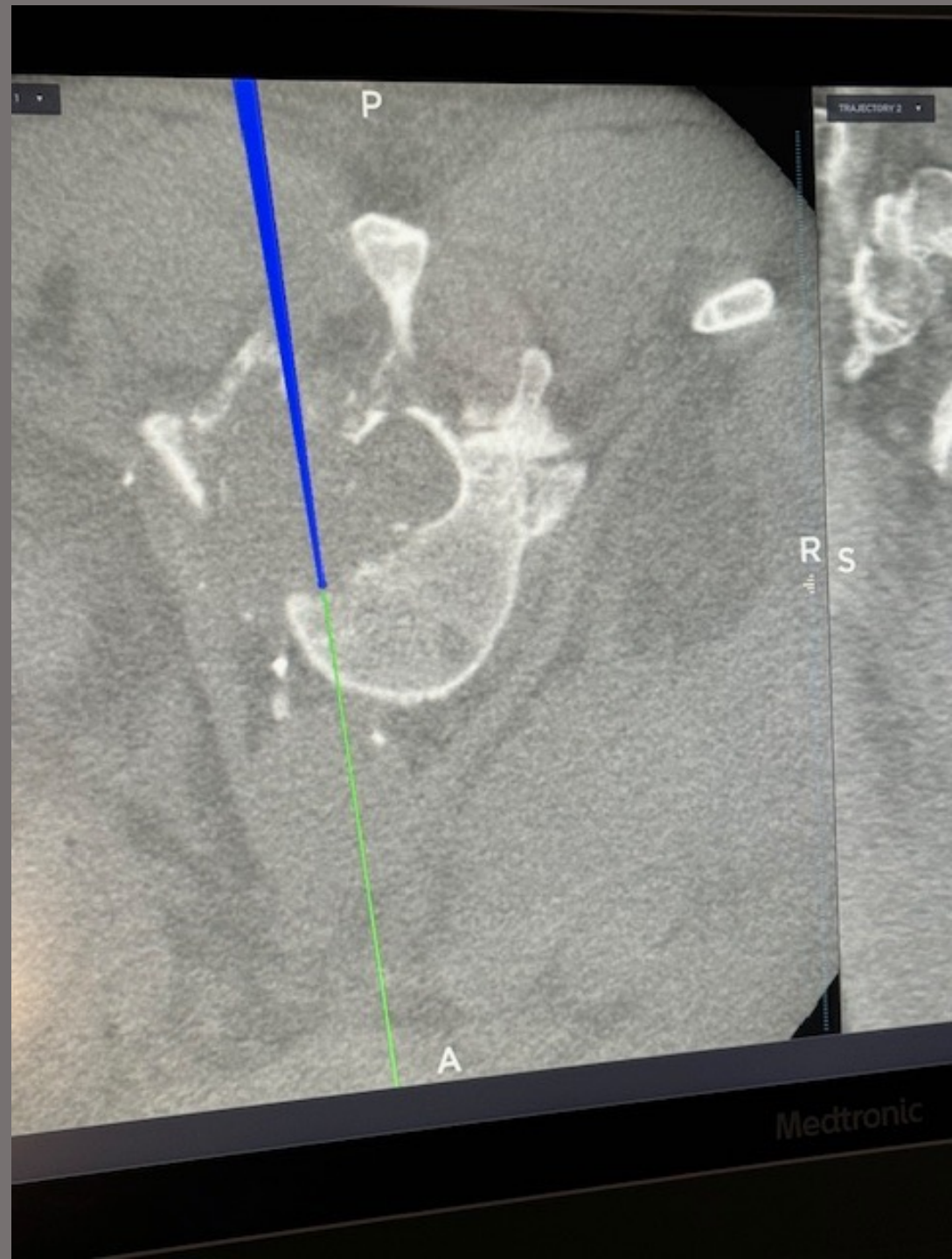


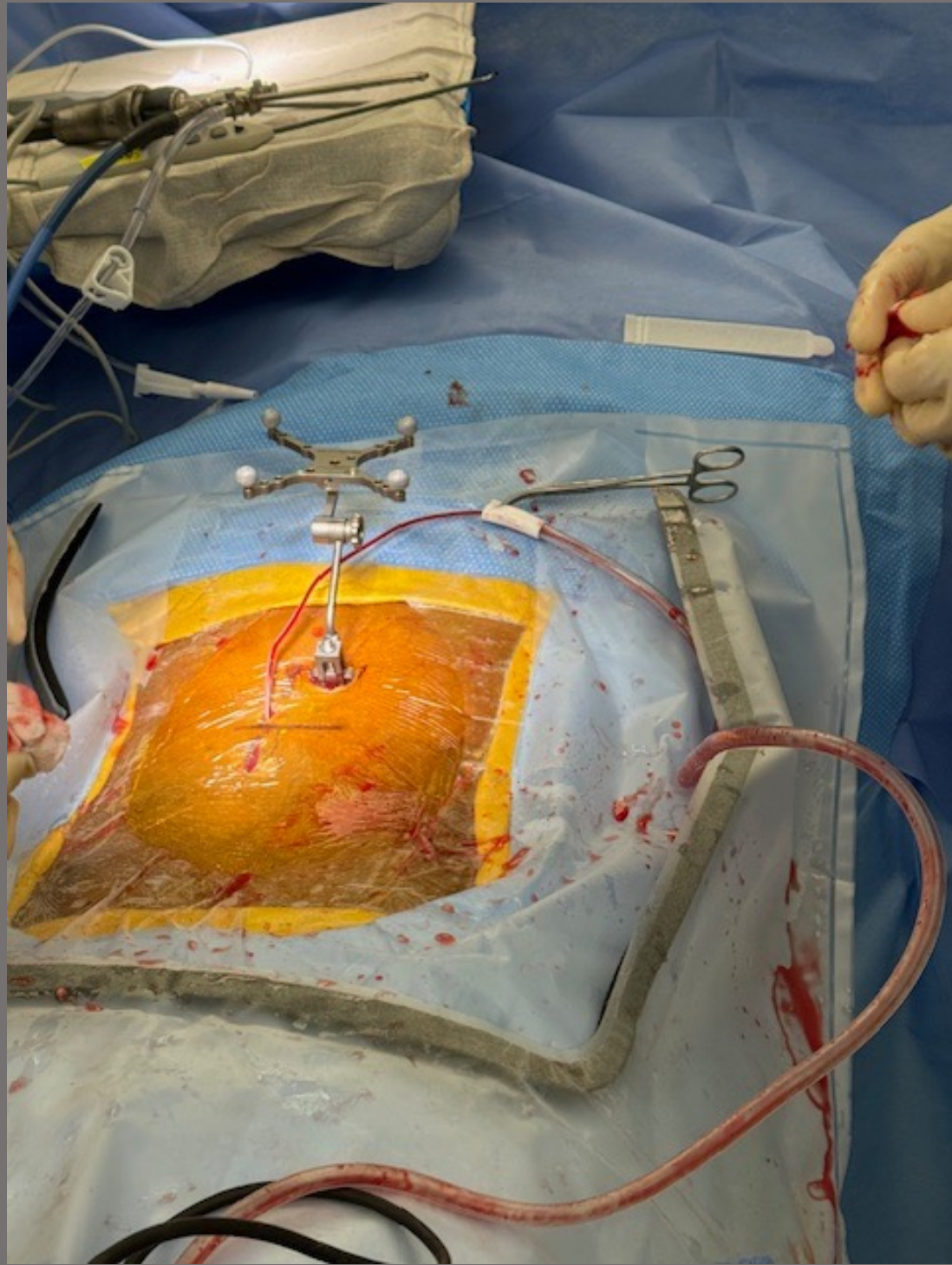


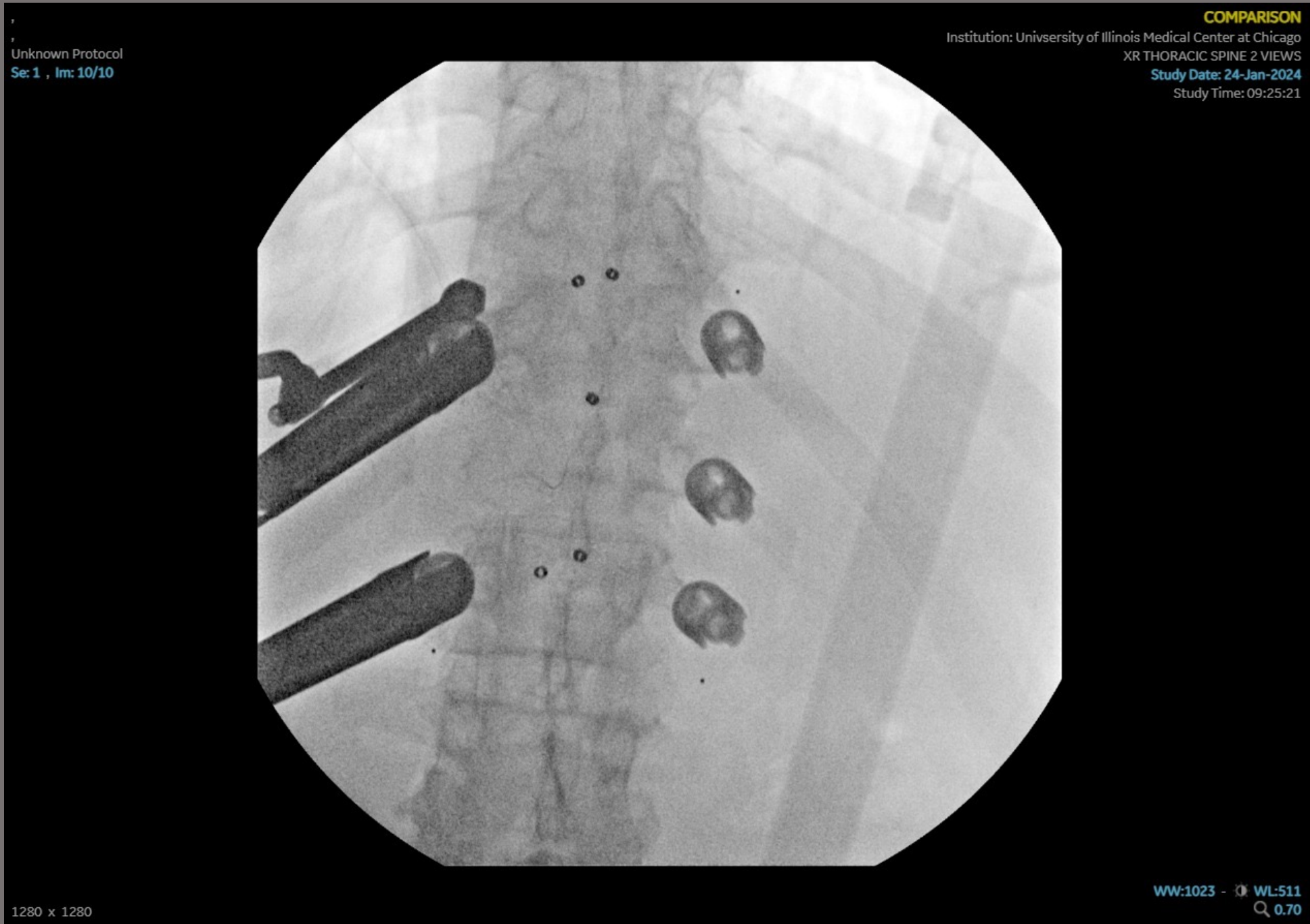












Unknown Protocol
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COMPARISON

Institution: University of Illinois Medical Center at Chicago
XR THORACIC SPINE 2 VIEWS
Study Date: 24-Jan-2024
Study Time: 09:25:21

1280 x 1280

WW:1023 - WL:511
0.70

