

OBJECTIVES

To emphasize the role of contrast fluoroscopy for:

- Confirming venous anatomy
- Ensuring procedural safety

PROCEDURES

62-year-old male with heart failure, renal failure, volume overload and failed peritoneal dialysis requiring urgent hemodialysis access.

Procedure: Tunneled central venous catheter placement using ultrasound and fluoroscopy.

Initial Attempt (Right Internal Jugular):

- Guidewire crossed midline towards left chest and then into right atrium raising concern for anomalous anatomy or arterial entry

Subsequent Attempt (Left Internal Jugular):

- Guidewire descended vertically downward mirroring the trajectory seen on right-sided placement

Confirmation of Venous Placement:

- Contrast injected via sheath demonstrated venous flow toward heart
- Aspiration + saline confirmed central venous access

Diagnosis: Persistent Left Superior Vena Cava (PLSVC) identified intraoperatively

CATHETER PLACEMENT

- Seldinger technique used
- Catheter placed without complications
- Post procedural imaging confirmed catheter tip position and venous return to right atrium

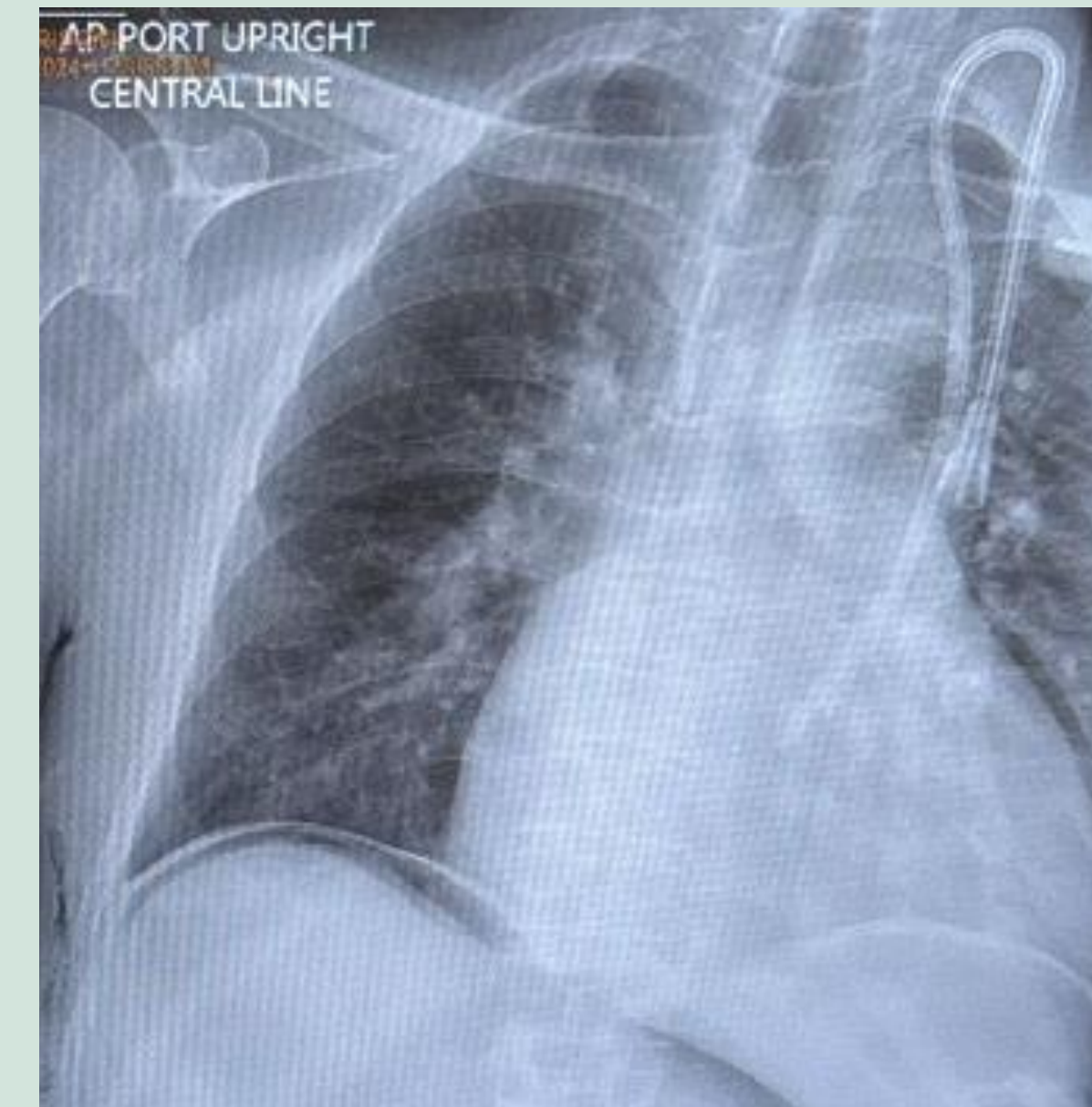


Fig. 1
Post procedure Chest Xray

CONCLUSIONS

- PLSVC is often identified incidentally
- Aberrant guidewire trajectory → suspect venous variants
- Real-time fluoroscopy + contrast reliably:
 1. Distinguishes venous from arterial placement
 2. Excludes malposition
 3. Delineates anomalous anatomy
 4. Guides safe procedure completion

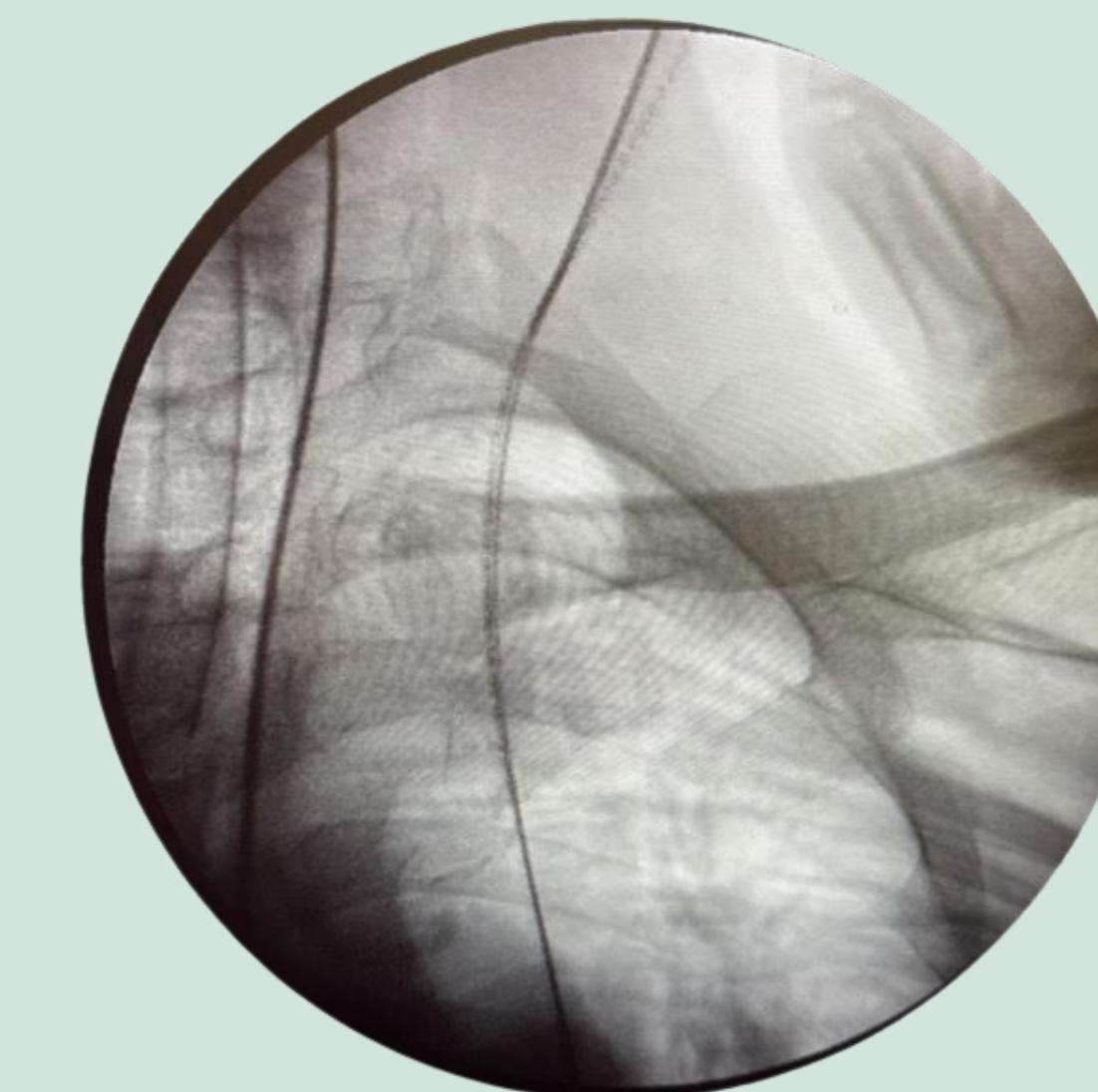


Fig. 2
Left IJ guidewire with vertical trajectory

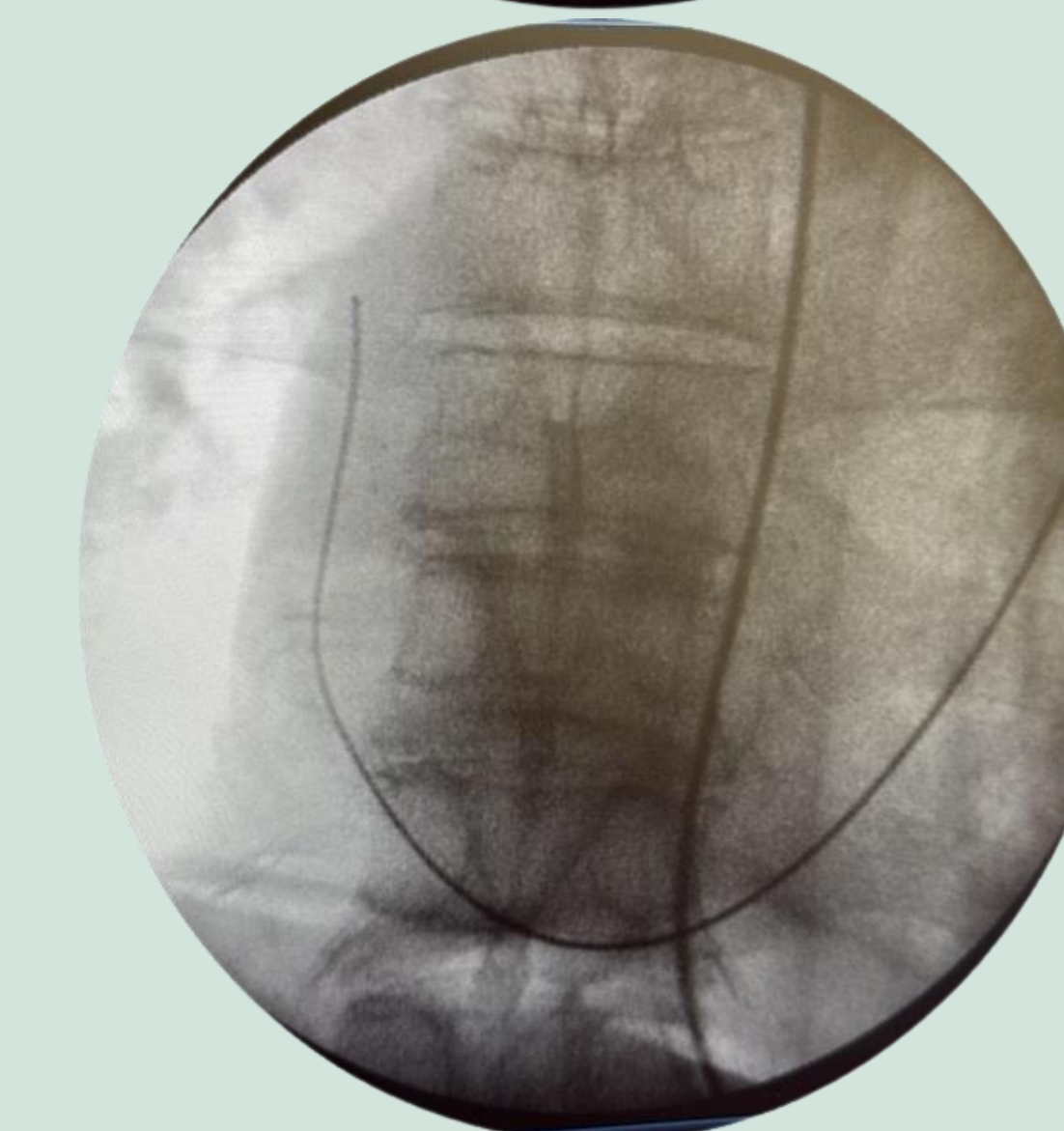


Fig. 3
Left IJ guidewire in the right atrium

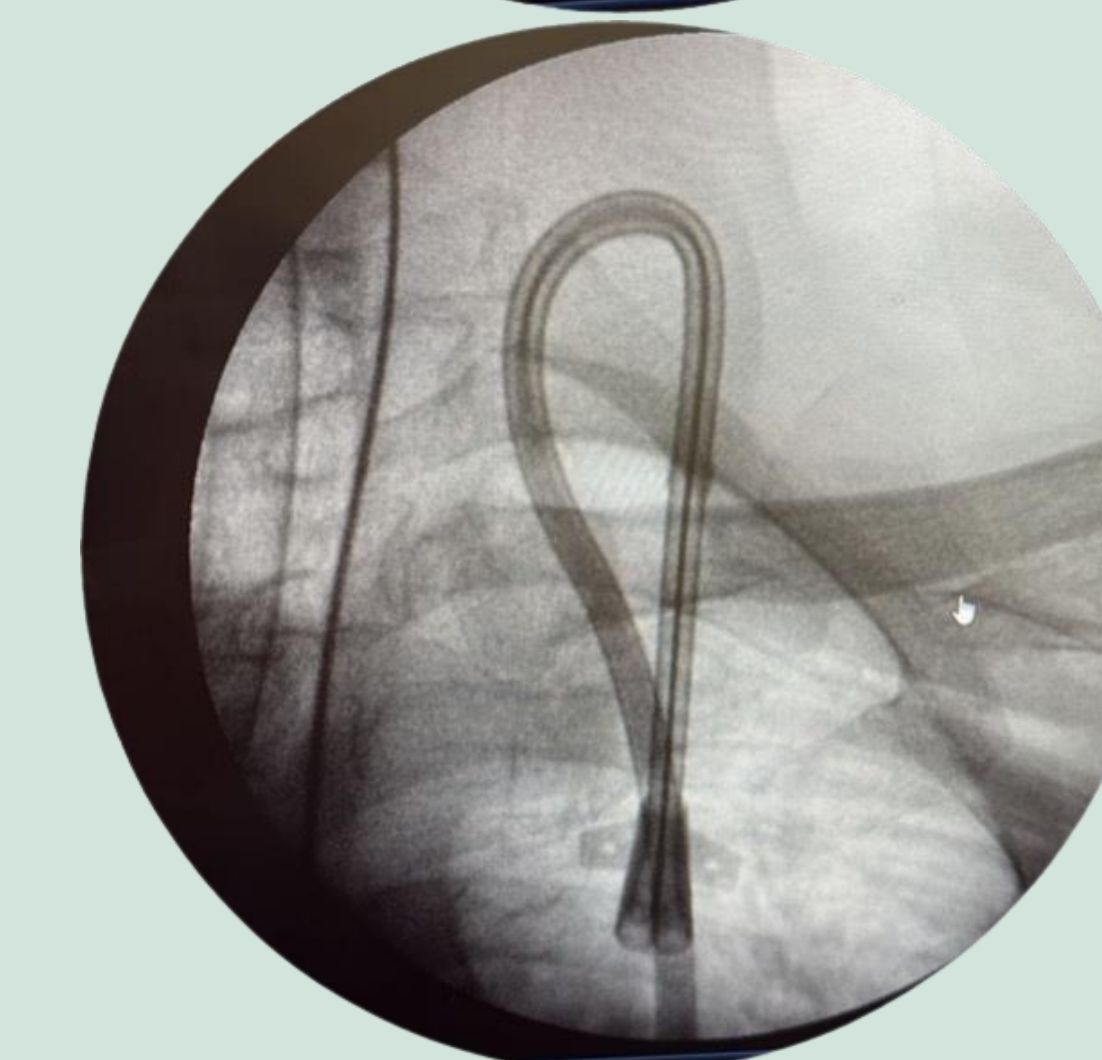


Fig. 4
Left IJ hemodialysis catheter

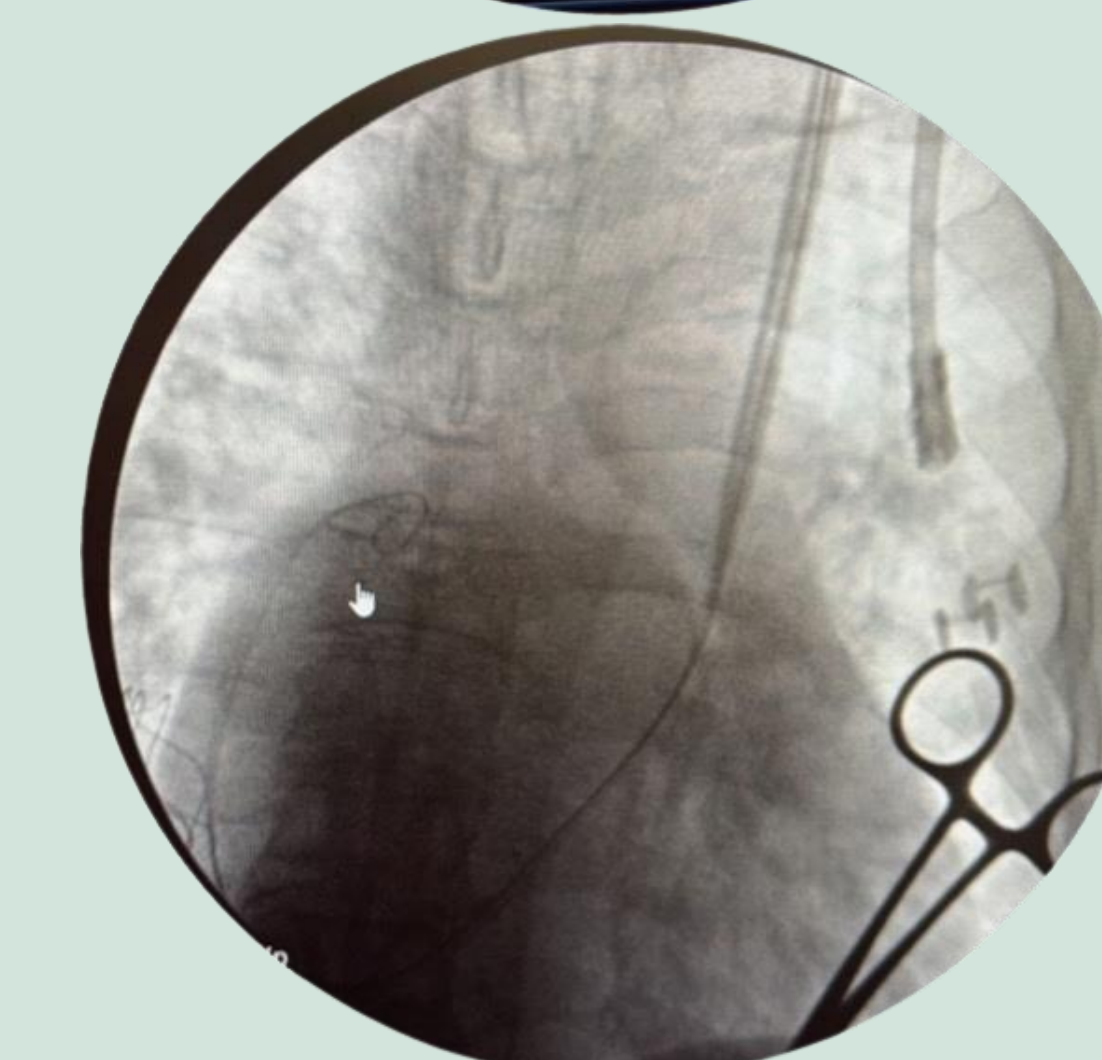


Fig. 5
Tip of catheter overlying left superior vena cava

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