

When ALL the veins are gone: Where to go?

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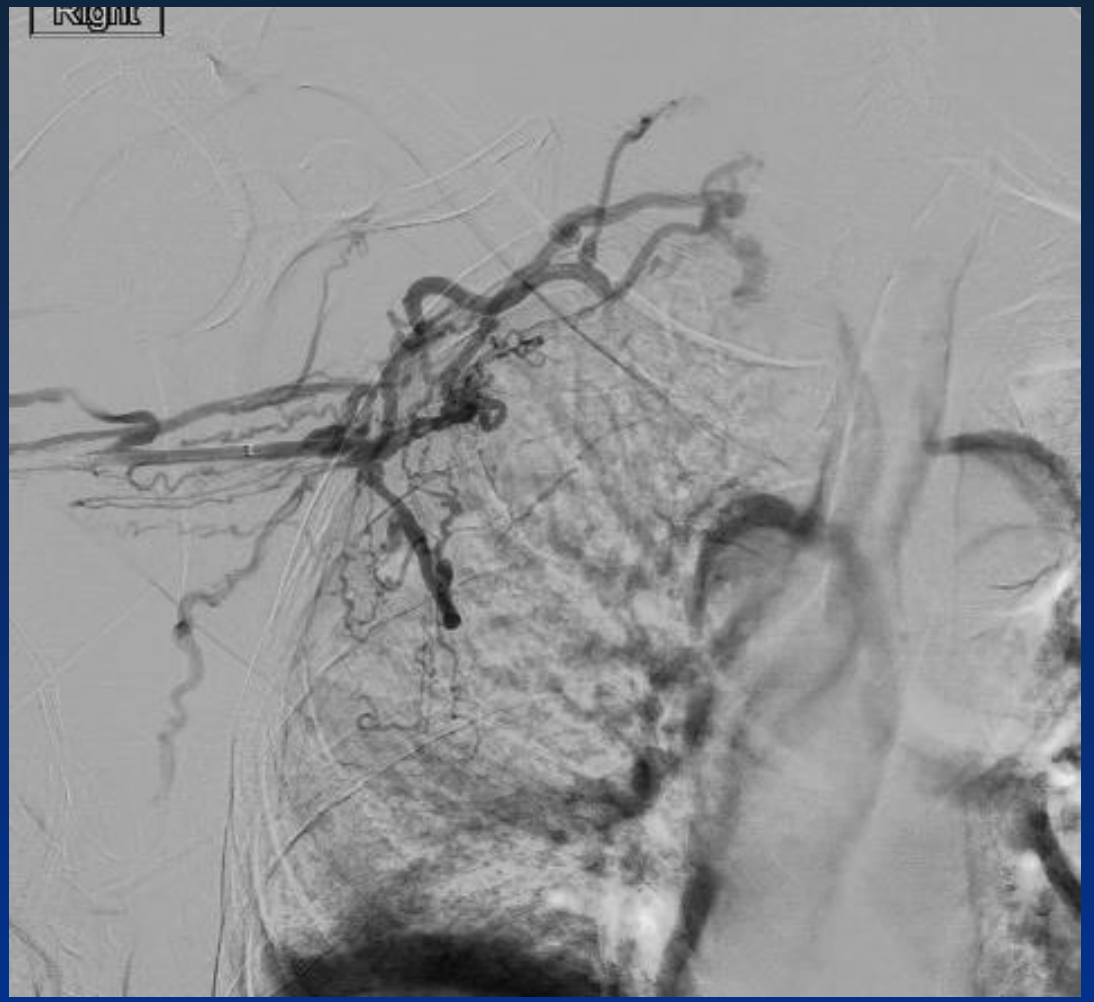
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Disclosures

- Disclosures related to this presentation: Baylis Medical, consultant

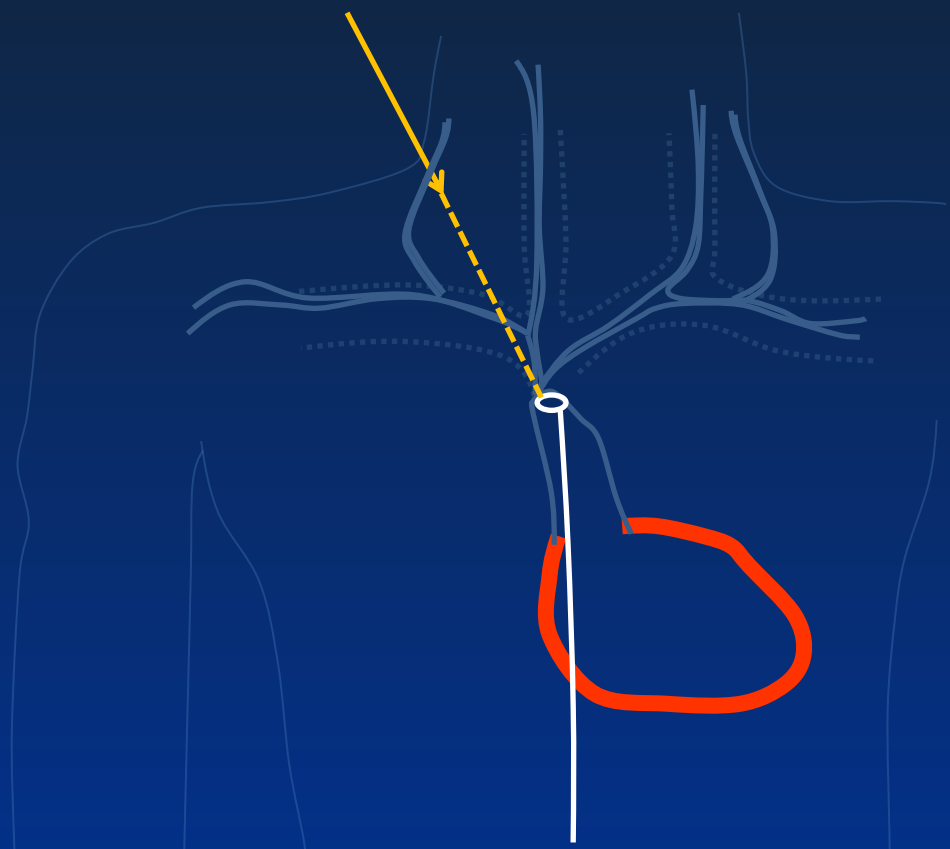
Need TDC but chronic venous occlusions

- Blunt recanalization
- Sharp recanalization
- RF guidewire recanalization
- What to do when recanalization attempts fail?
- No TDC = hospice

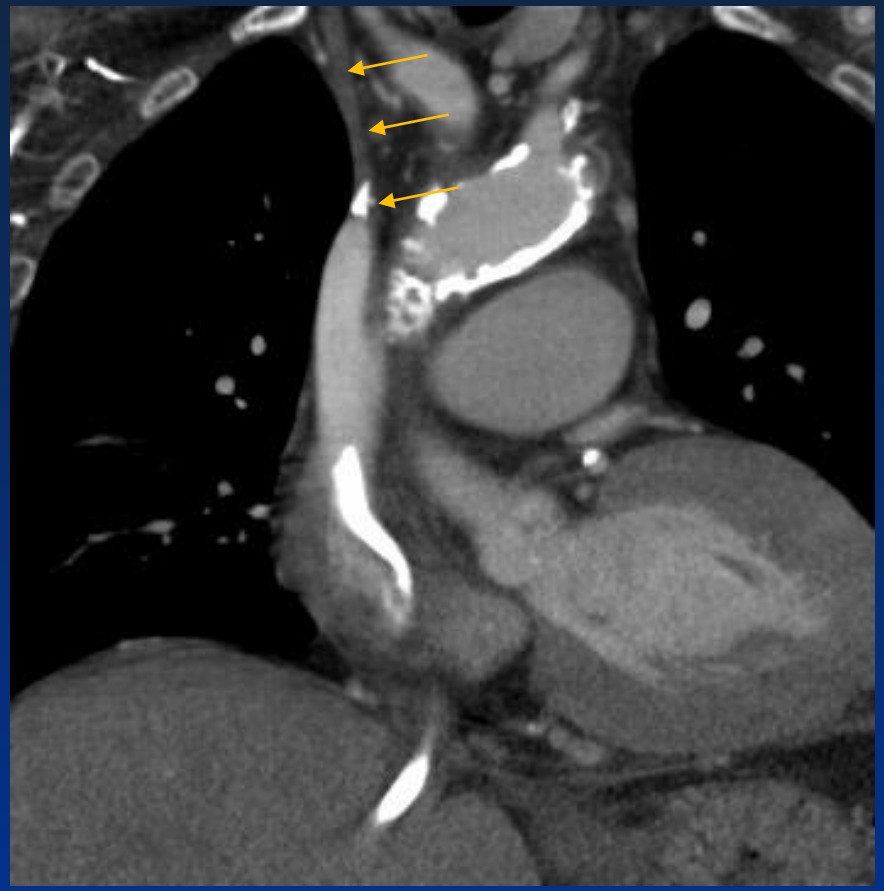


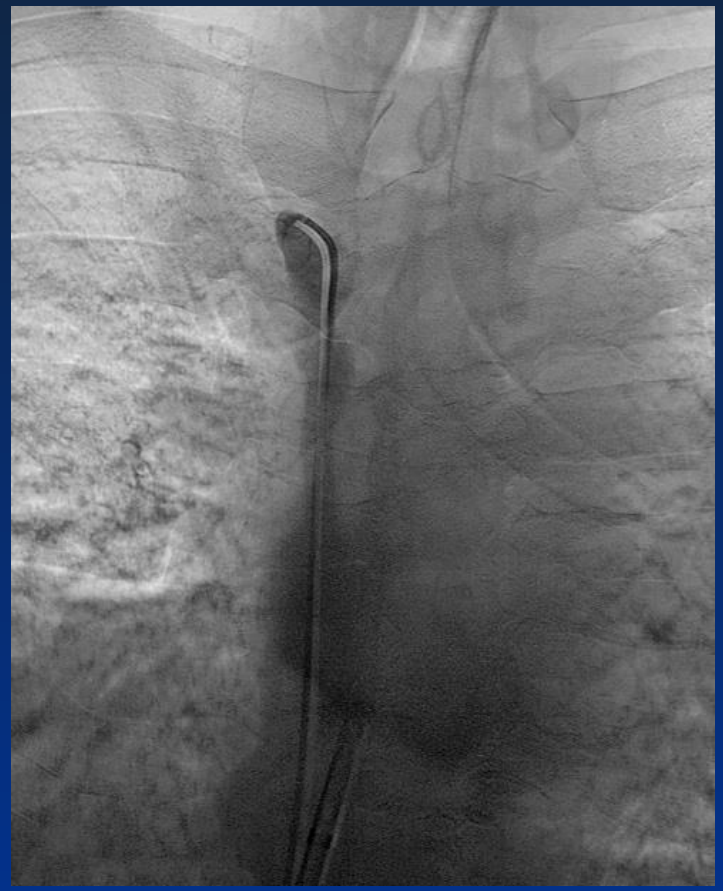
Percutaneous transmediastinal access

- (No supraclavicular vein for access)
- **Pre-procedural imaging
- Choose supraclavicular entry site
  - Ultrasound – know location of carotid
- Radiopaque target
- Advance 22 ga needle
  - Stay in coronal plane
  - Stay close to posterior clavicle

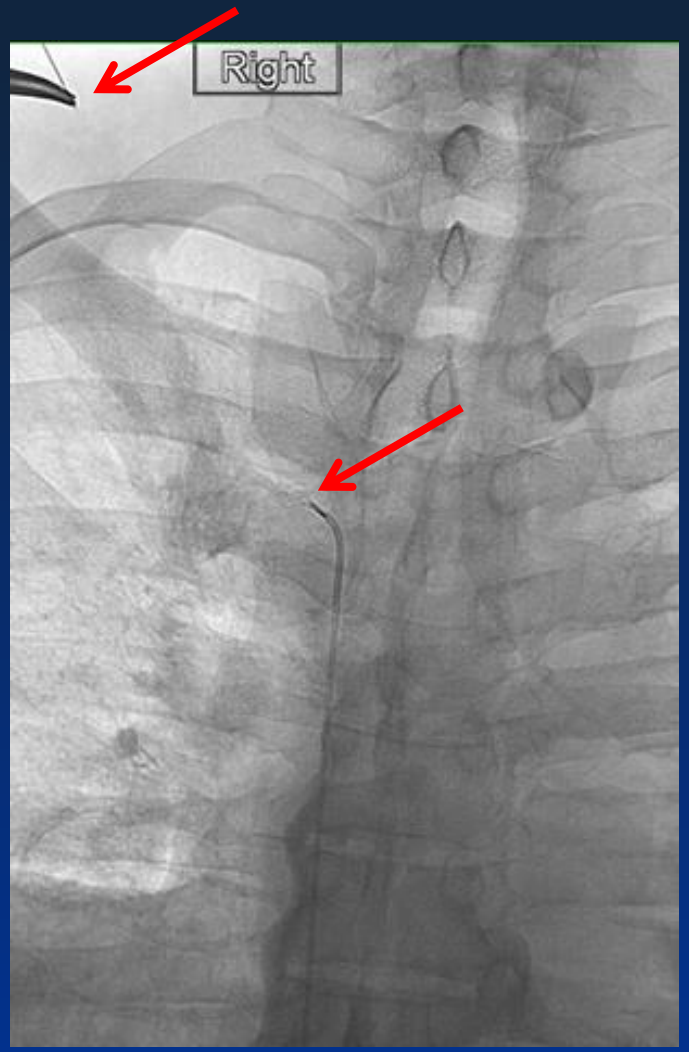


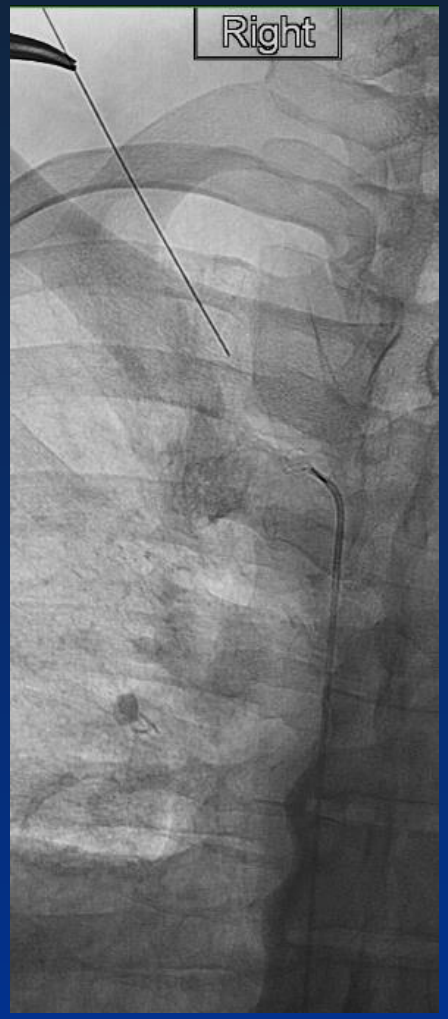
Chronically occluded supra-azygous SVC, bilateral brachiocephalic, subclavian, IJ, and EJ veins

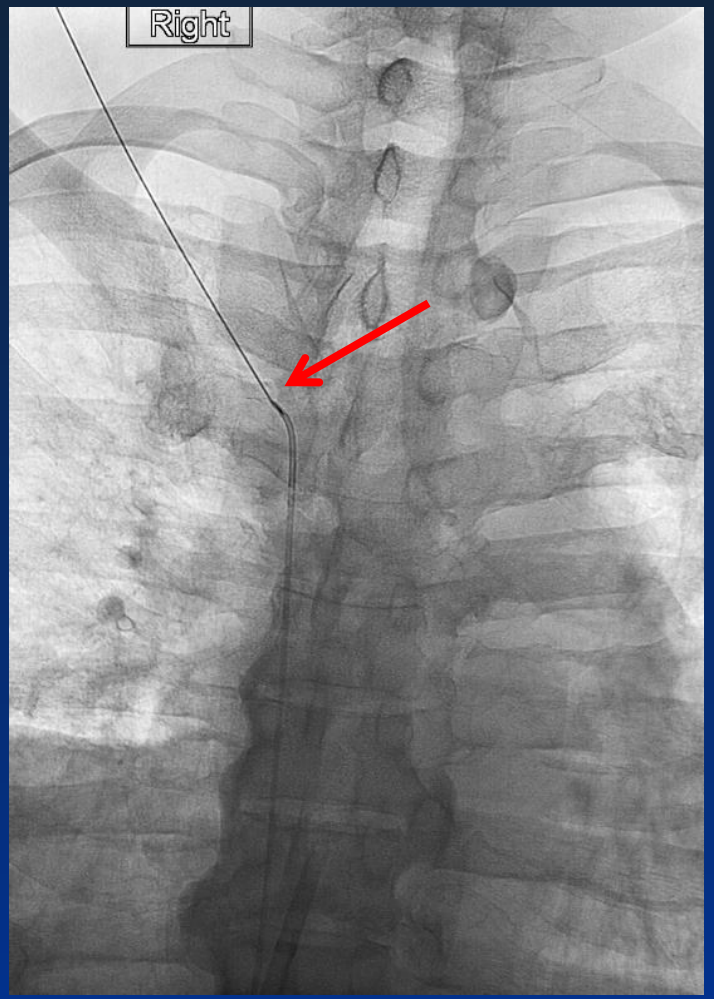


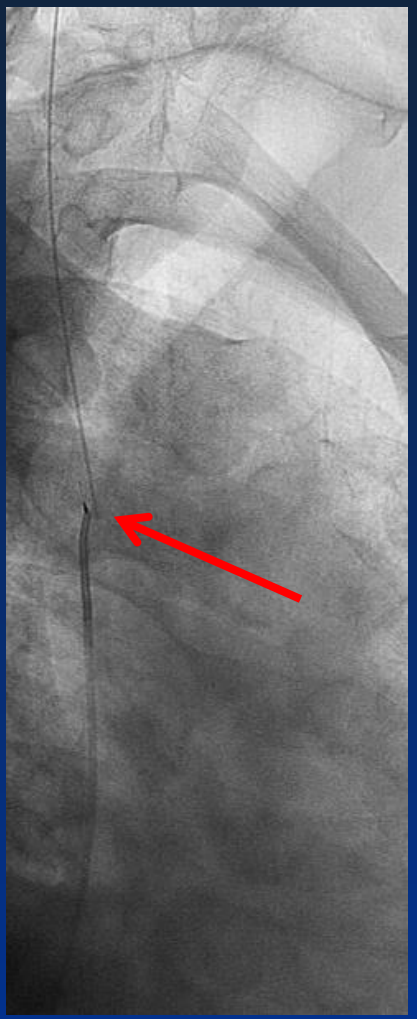


Fluoroscopic triangulation



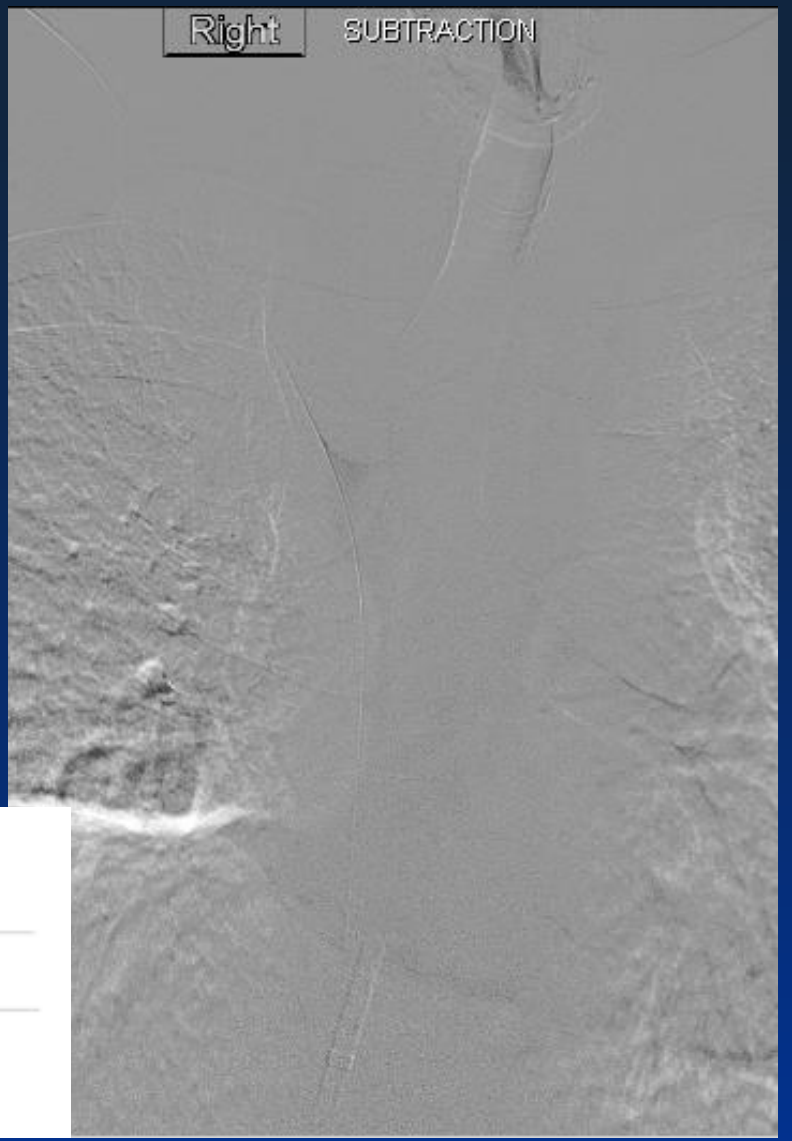


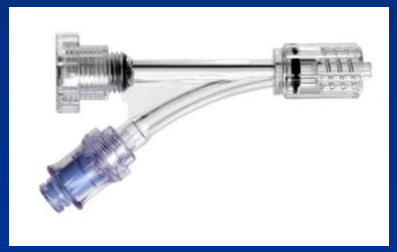




DSA Tractogram

- Critical for long-distance sharp recanalization
- 0.014” guidewire
- Y-adaptor
- Inject forcefully during pullback
- Use DSA

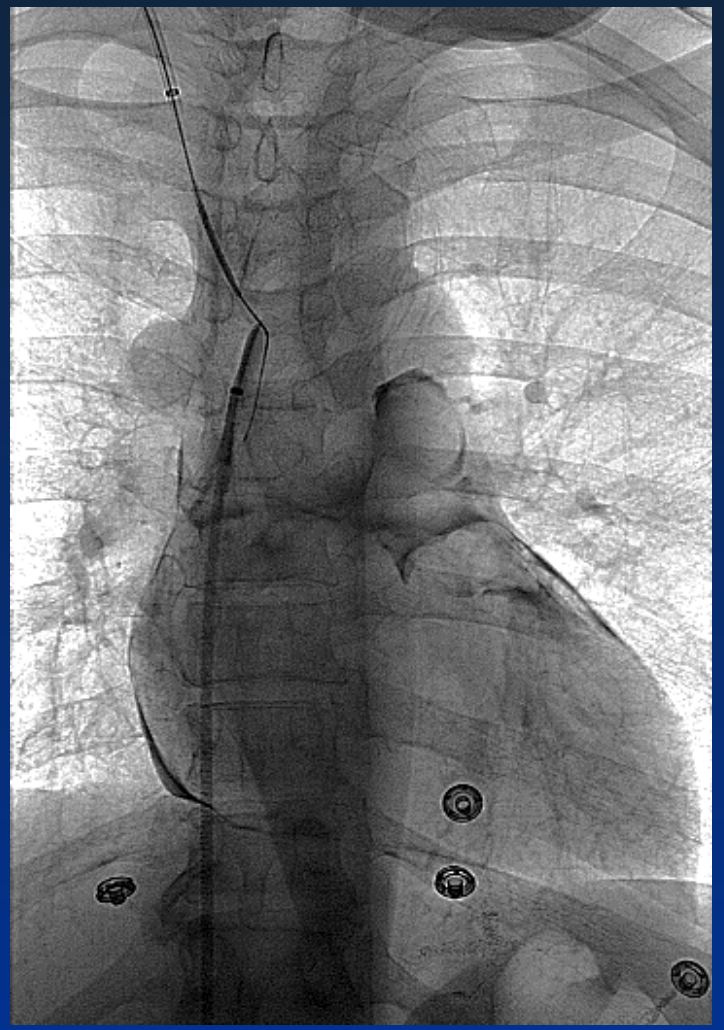






bad





(artery)

Blunt transmediastinal dissection

- Why do we perform blunt dissection?
- Blunt mediastinal dissection: Dissect through mediastinal fat with stiff glidewire with buckled tip
  - Cannot pierce artery / pleura / pericardium
- Traverse mediastinum around occlusion





Transmediastinal dissection with RF reentry

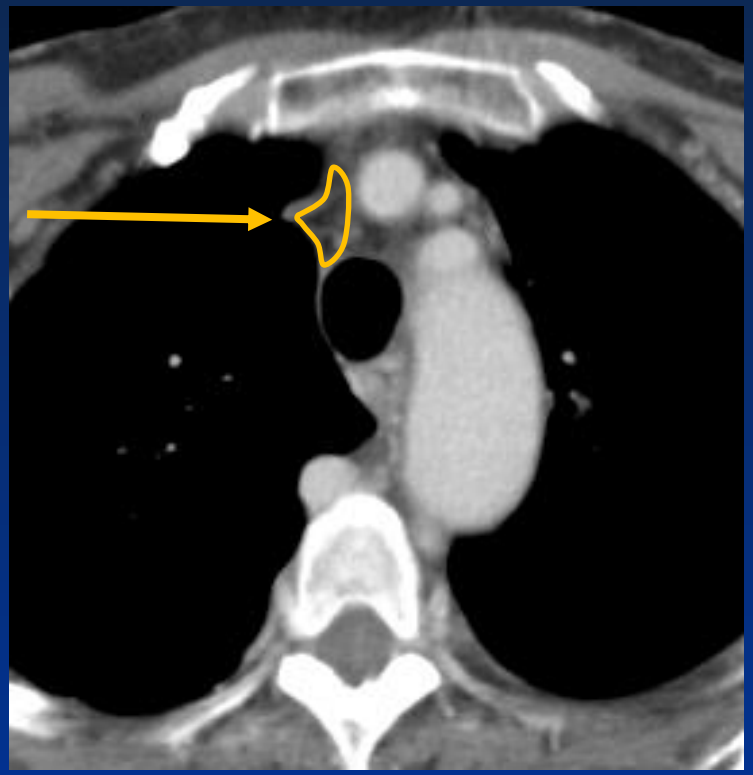
- When point-to-point traversal is not feasible/safe
  - Long segment
  - Intervening structures
  - Non-linear path
- Outside-in
- Perforate into paravascular mediastinal fat
- Dissect glidewire along fat plane until near patent target vein
- Use powerwire to re-enter vein

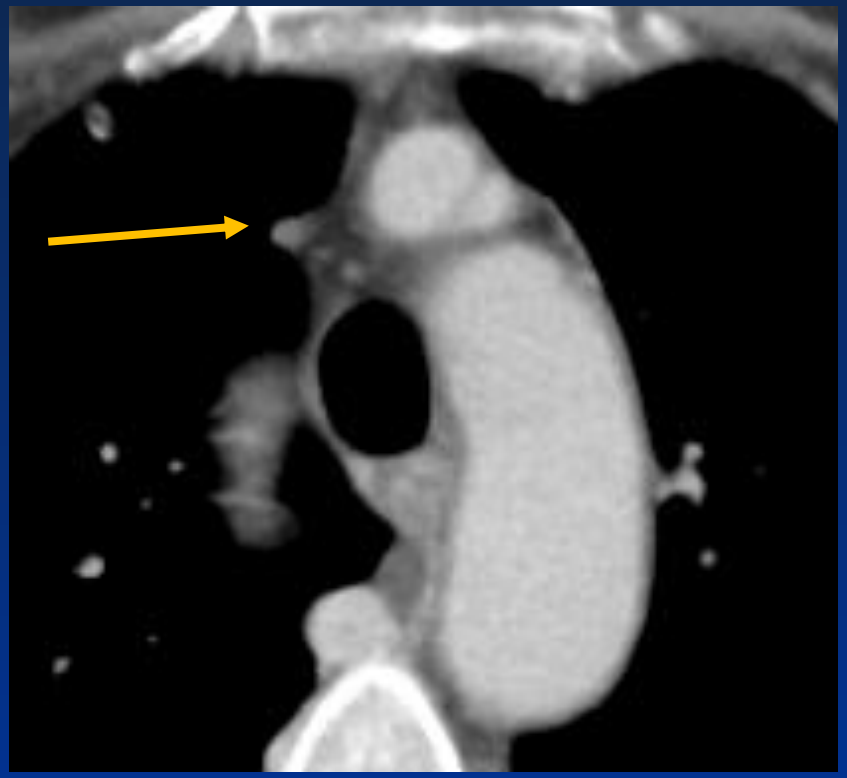


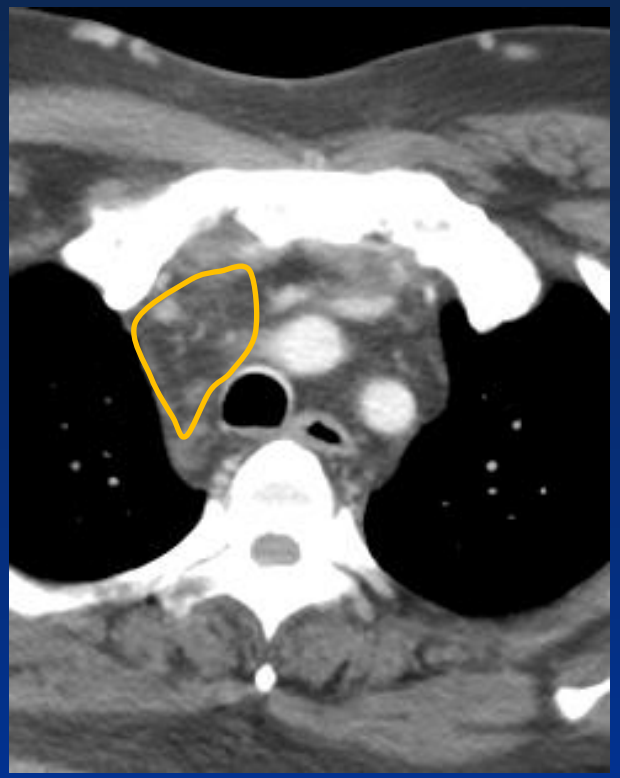
Dai R, Kim CY. J Vasc Interv Radiol. 2021 PMID: 33485769.

Chronically occluded supra-azygous SVC, bilateral brachiocephalic, subclavian, IJ, and EJ veins

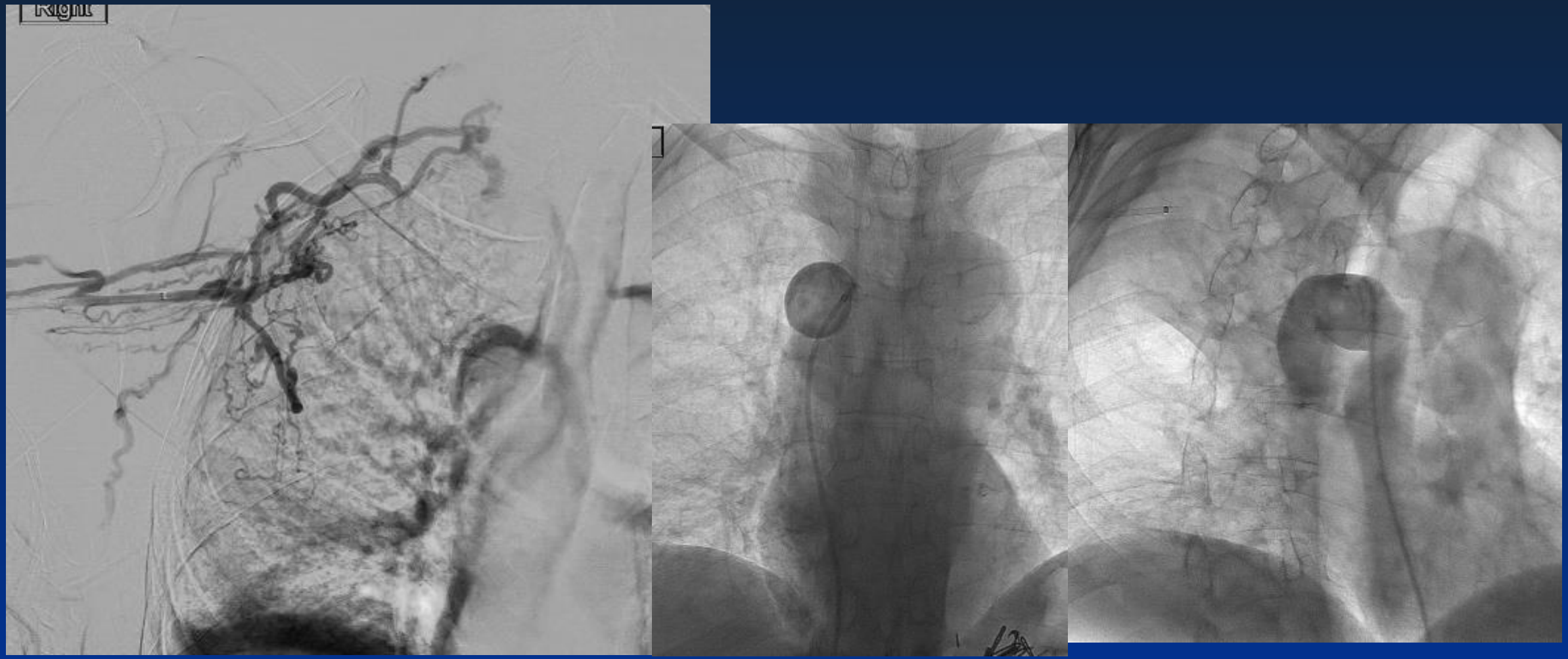
(ideal patient – fat mediastinum)



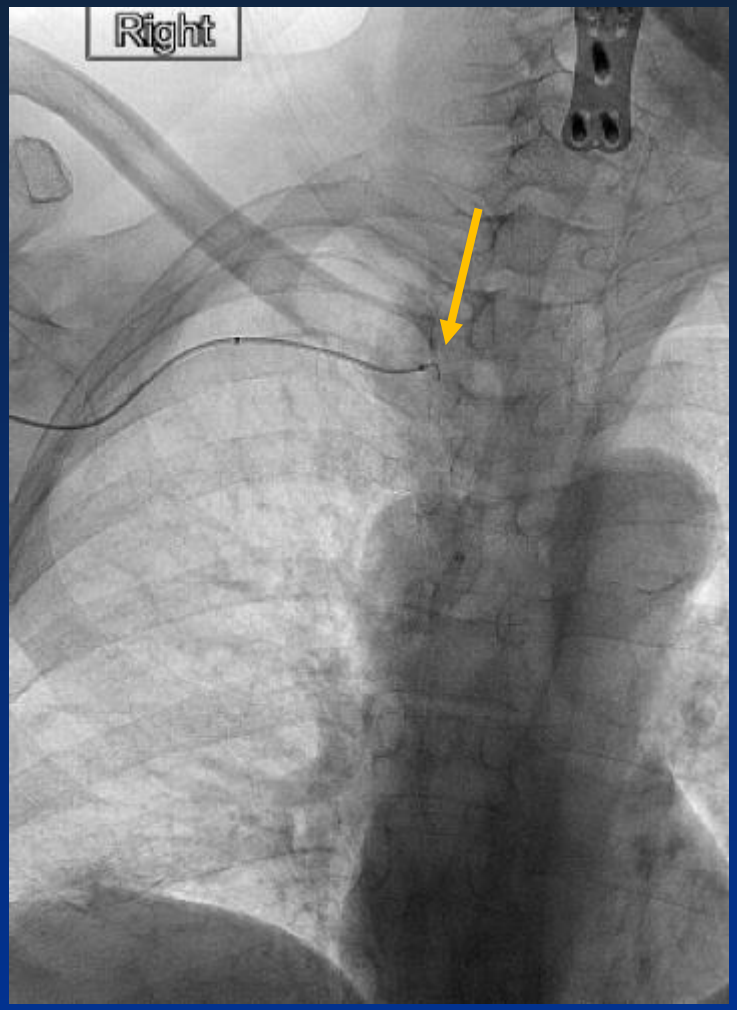


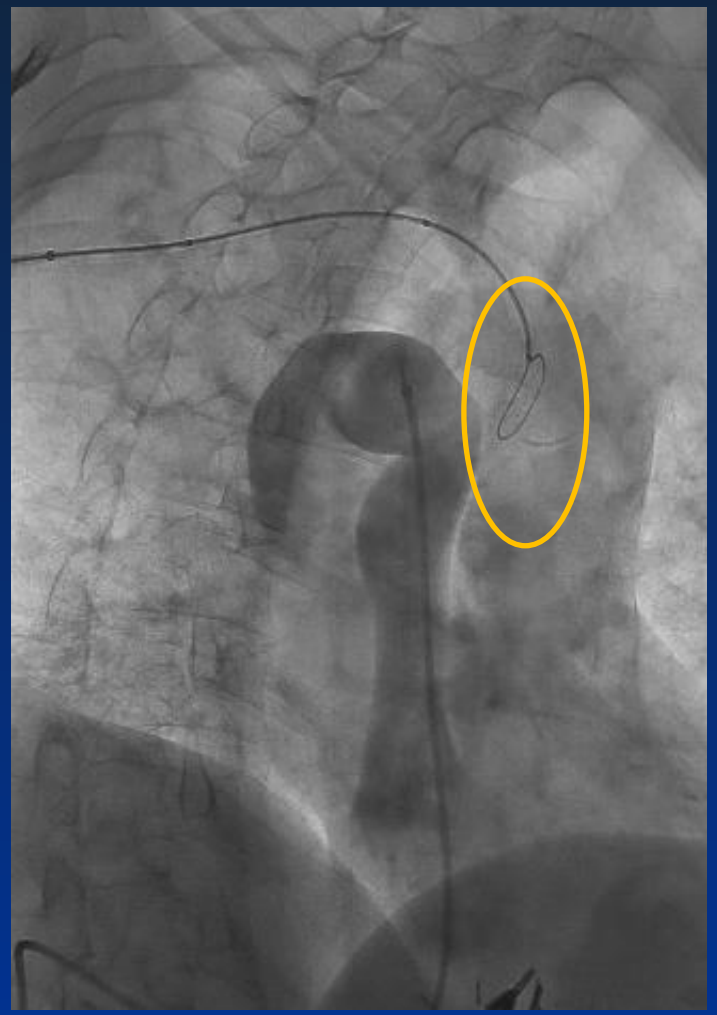


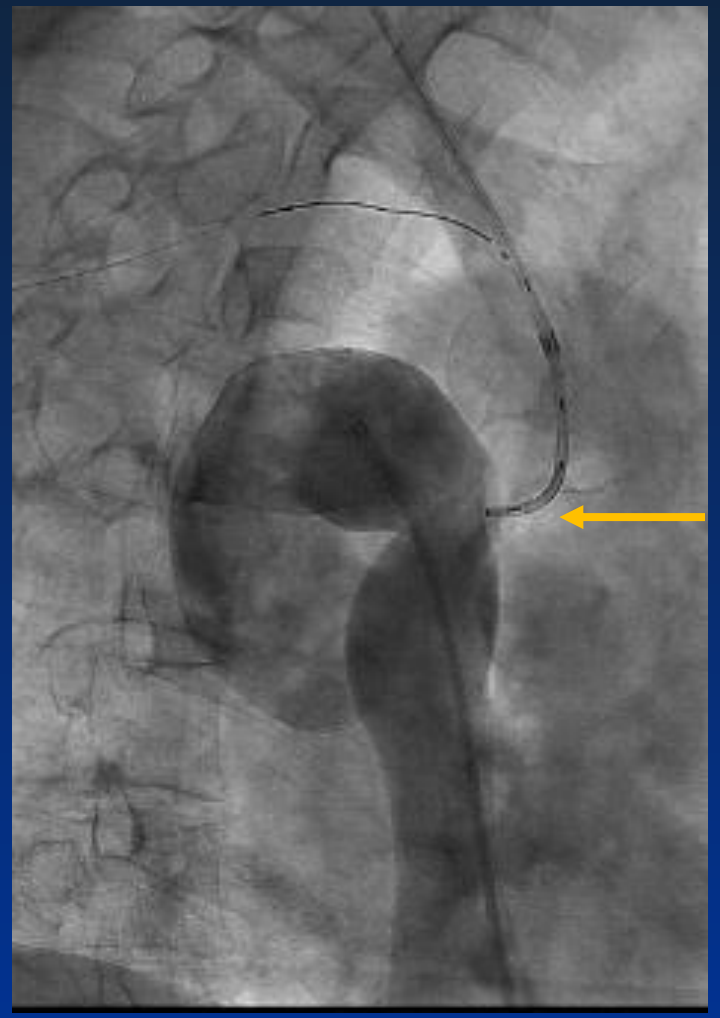
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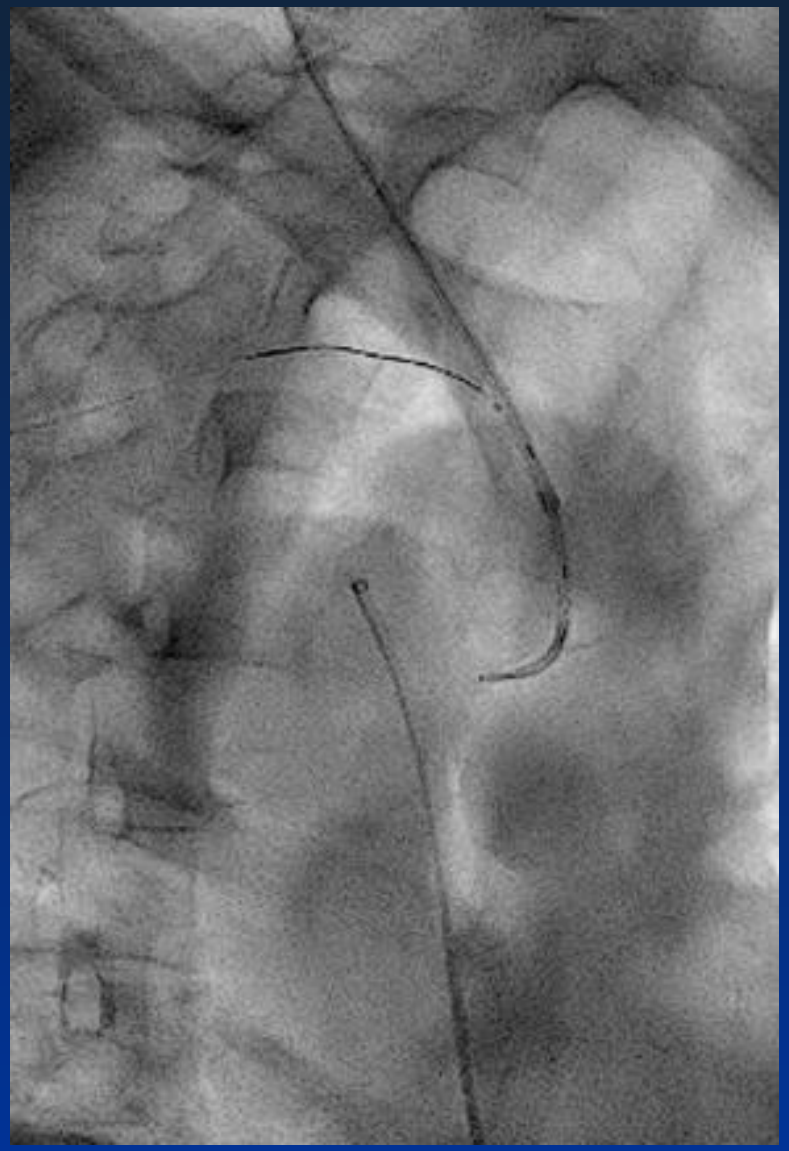
Transmediastinal dissection

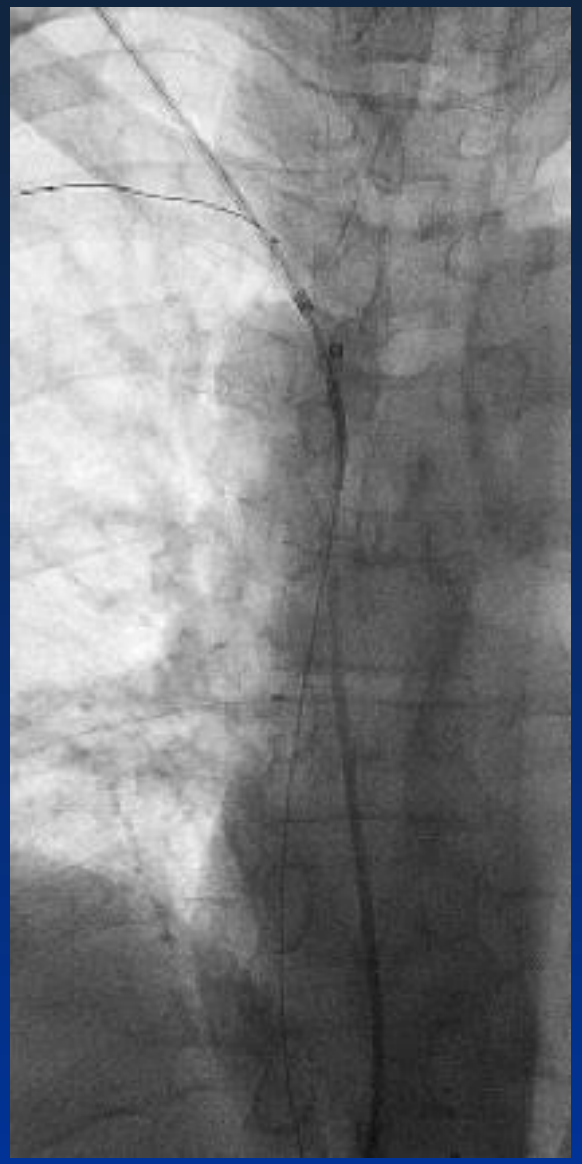




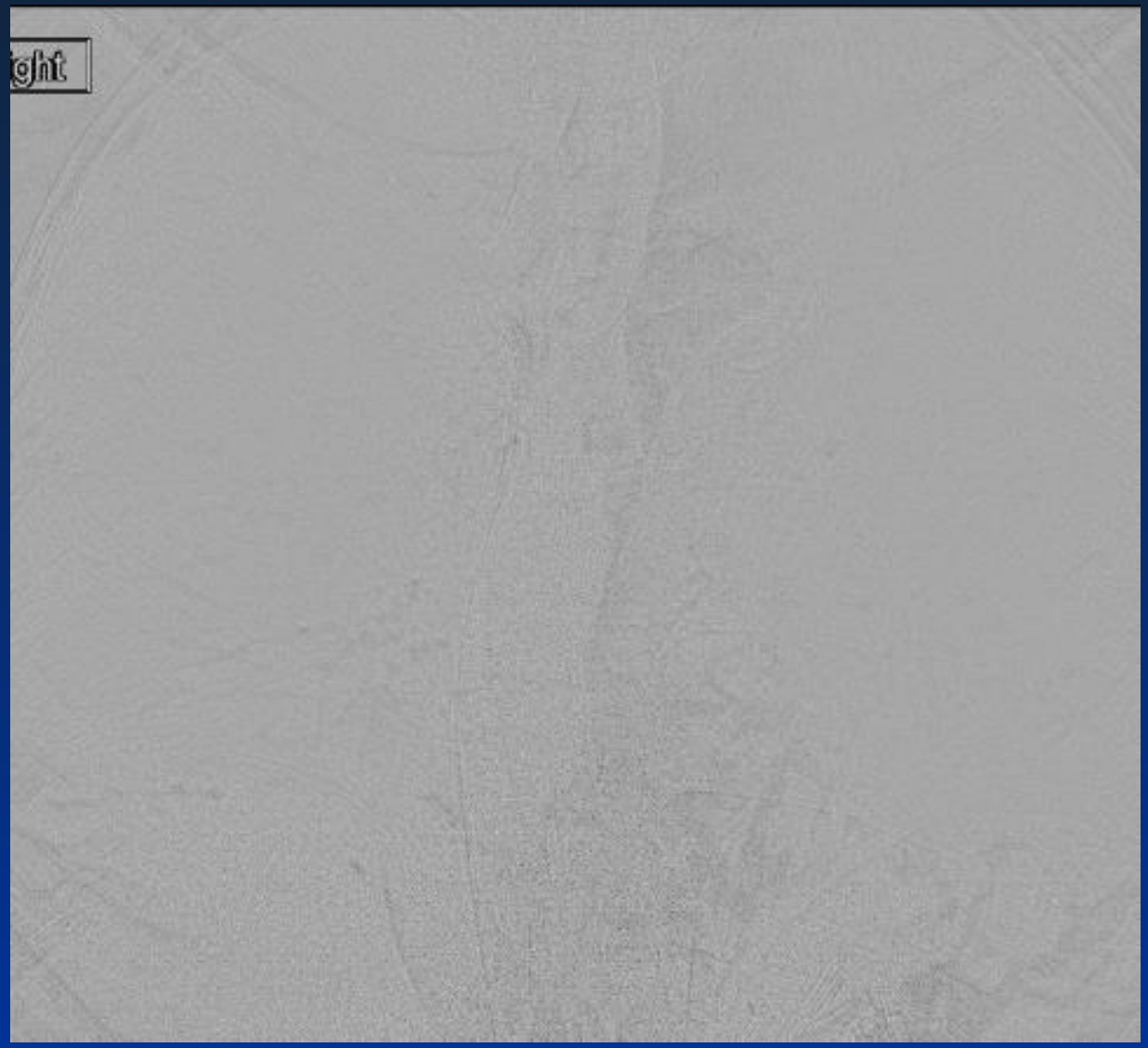


RF re-entry





DSA tractogram



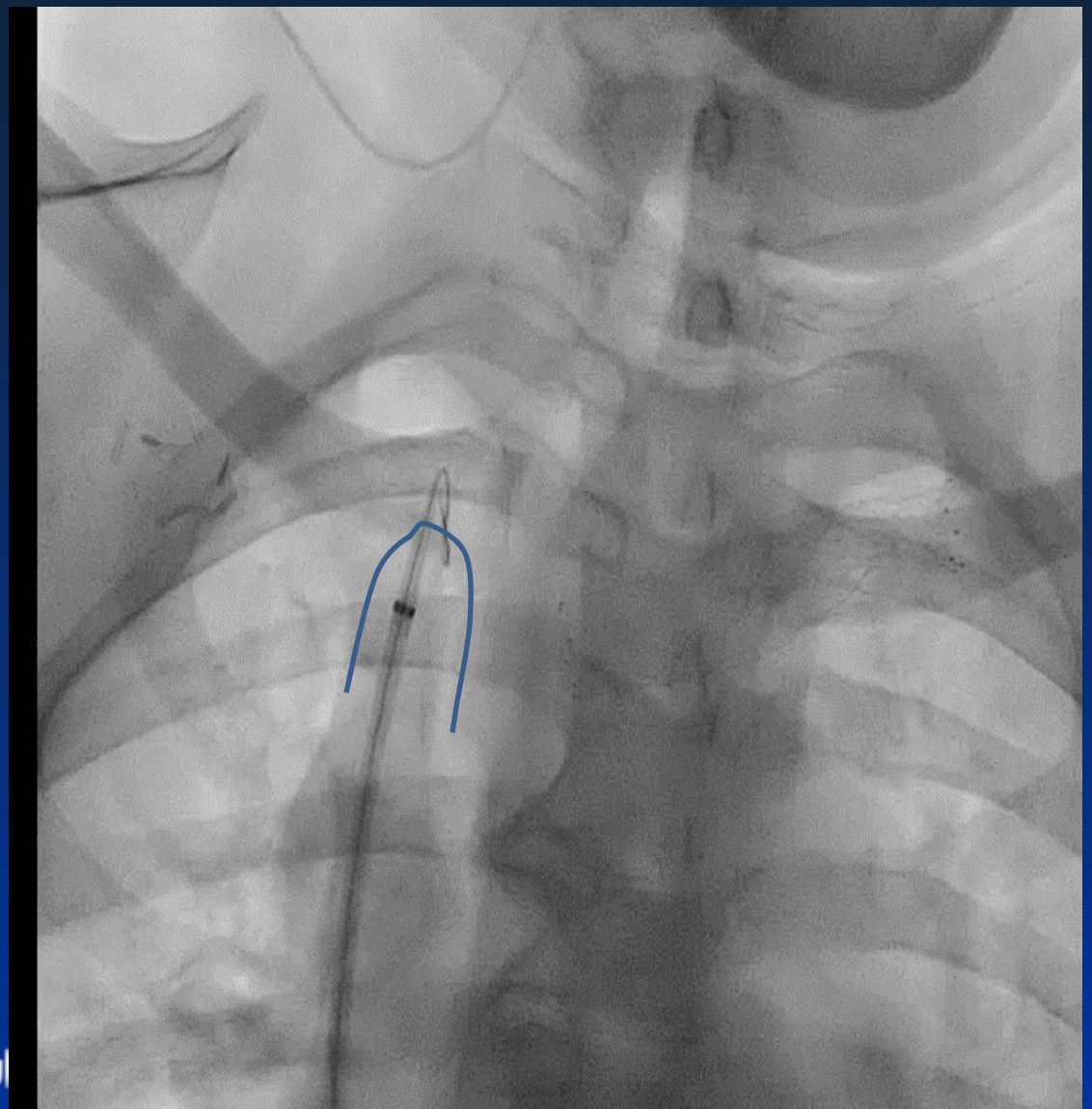
Mediastinal dissection with snare targeting

- Inside-out
- Dissect through mediastinum to supraclavicular
- Advance snare through catheter
- Fluoroscopically target snare

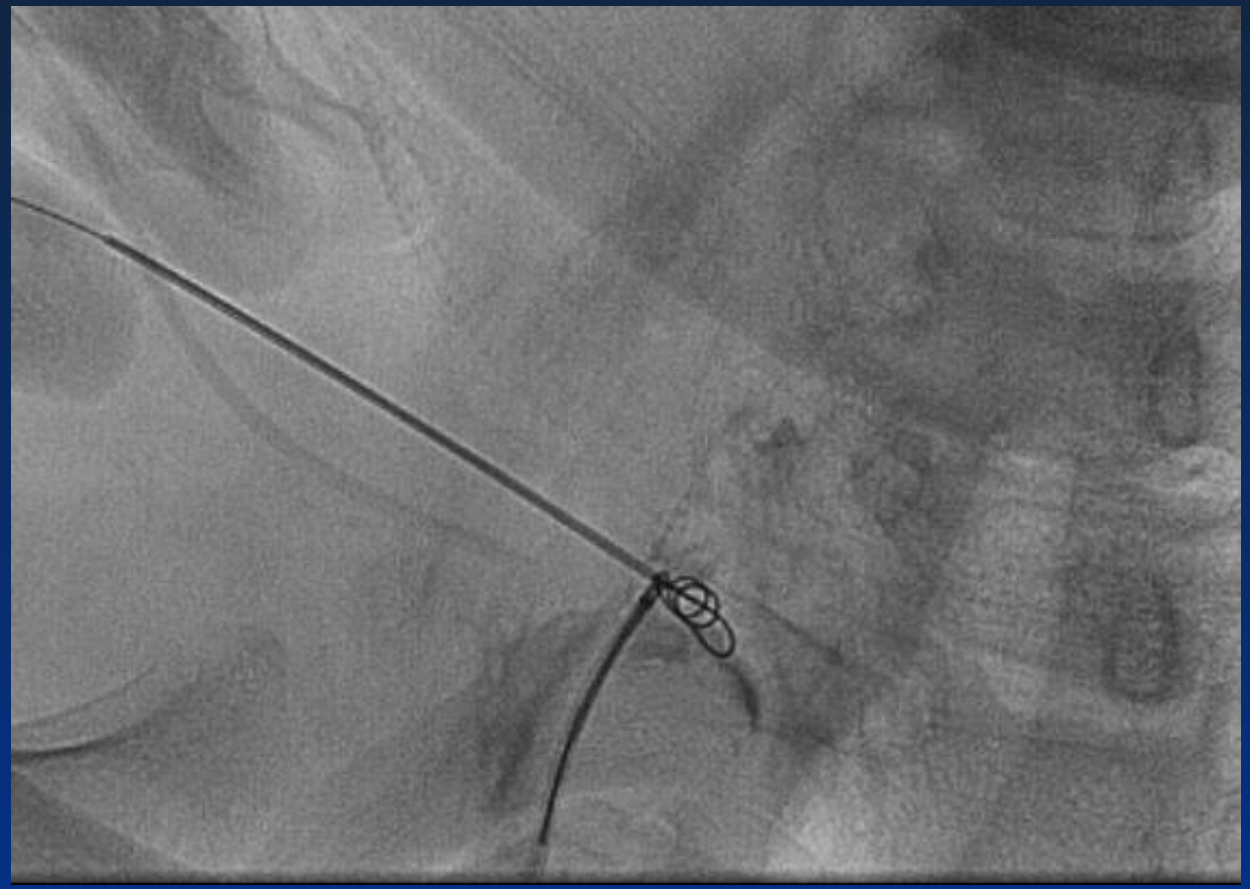


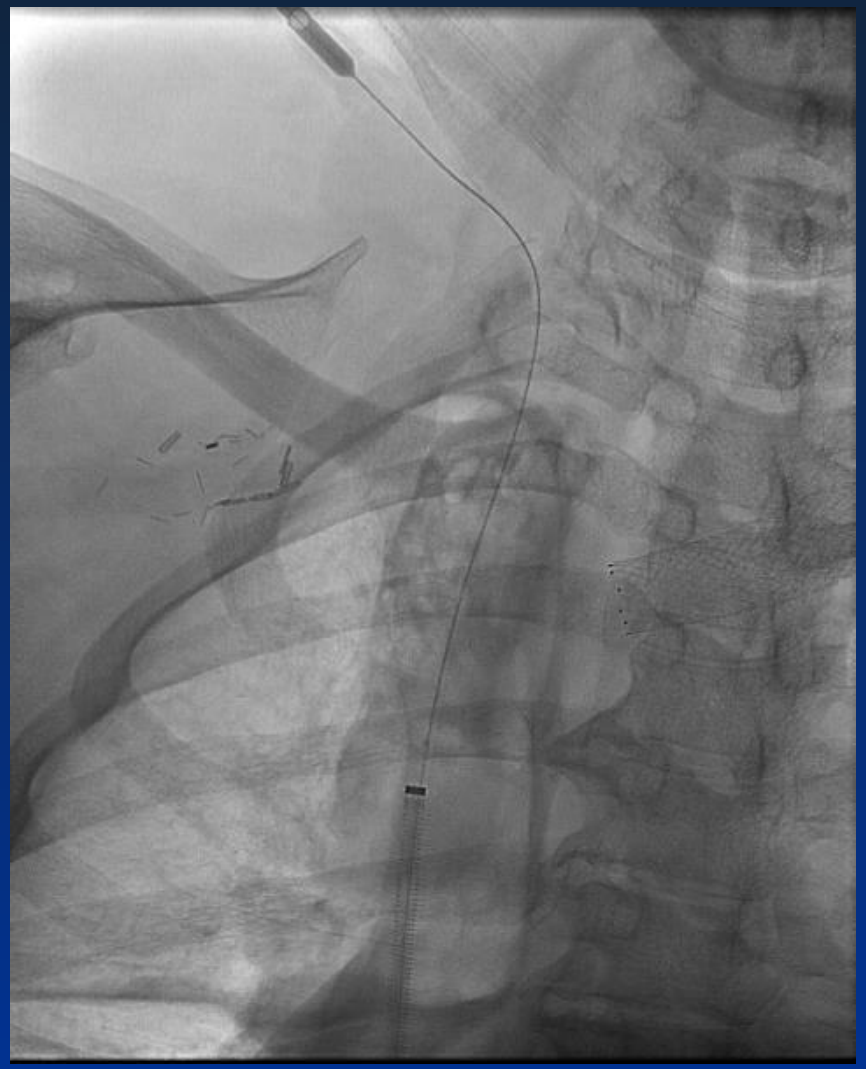
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Summary

- Pre-procedural CTV or MRV critical
- Long-segment – consider transmediastinal dissection
- DSA tractogram



Thank you

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