



# **Strategies on the Frontline Case**

## ***Illustrative Venous Case 2***

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*Kingsport, TN, USA*

# Disclosures

- ***Symposia Honoraria & Proctor Fees:***
  - Abbott, Endologix/ TriVascular
- ***Symposia Honoraria:***
  - Boston Scientific, Bard, Gore, CSI, Medtronic
- ***VIVA Board Member***
- ***National PI/Co-PI:*** Confidence, SAPPHIRE WW, CANOPY
- ***Research Grants, Stocks, Equity***
  - None

# Case Presentation

- Tremendously pleasant 66 yo male
- Hx Htn, DM (IR), AS s/p TAVR, CAD
- s/p PPM 2008 via LSCV
- Presents w/ *long-standing* L arm edema
- **Late** studies: multiple L arm AVF's, L arm DVT with occluded innominate vein and occluded LSC/Axillary veins
- Underwent attempted coiling L AVF's with some coils placed
- PPM now “end of life”
- SEVERE left arm swelling and symptoms

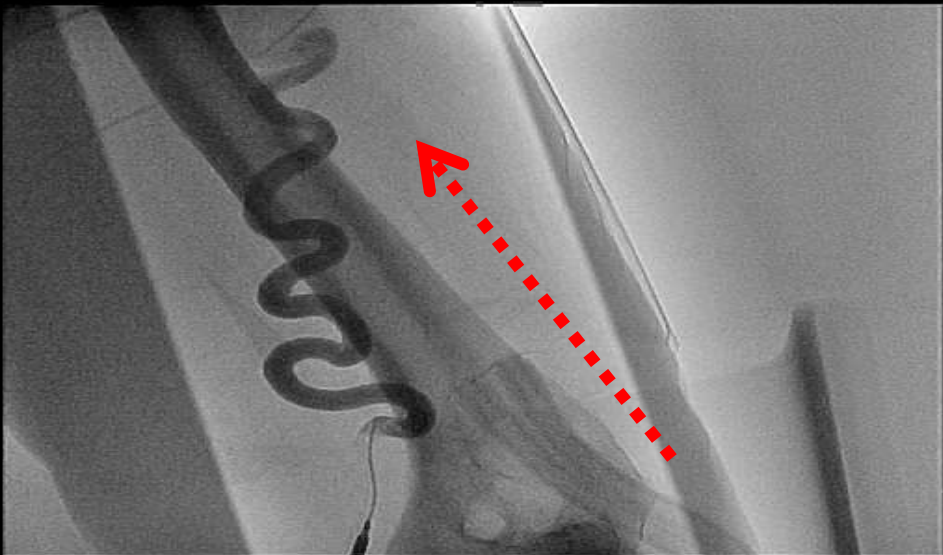


**Questions?? Thoughts?**

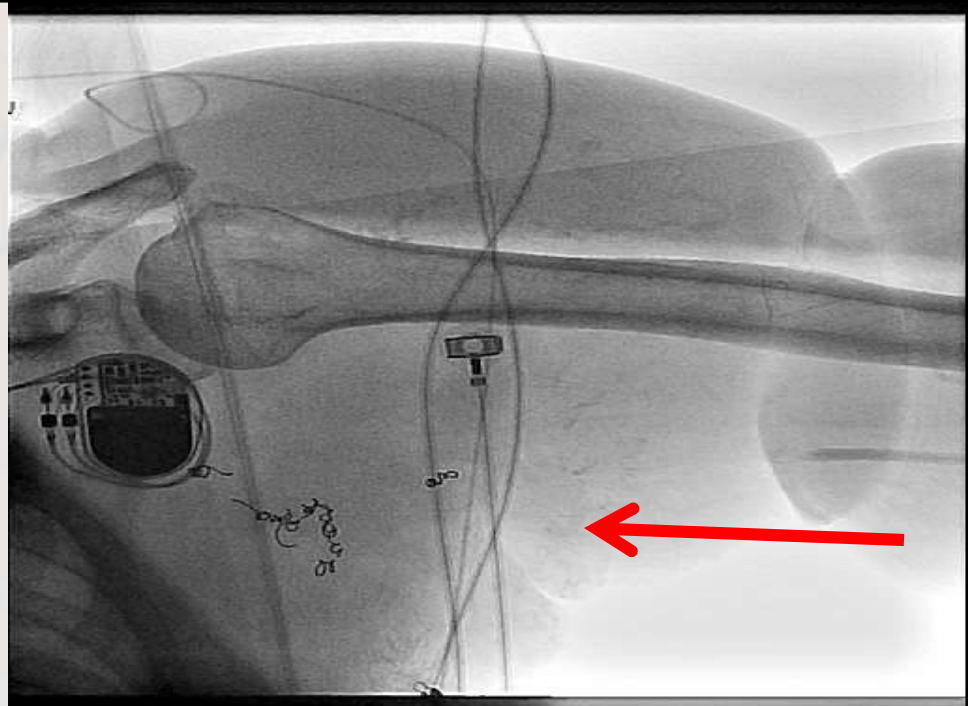
# Team Considerations

- Seen by EP (Dr. Shaffei), vascular surgery (Dr. Kappa), endovascular (CM), discussed extensively amongst TEAMS
- PLAN- with general anesthesia:
  - Place screw in Temp PM from right
  - Laser (EP) L lead removals (CTS backup)
  - AFTER L lead removal, place wire (after laser) from LSCV into RA/ IVC (EP)
  - R CFV access, “snare wire” from L SC vein
  - Access Left basilic vein (VS, endo)

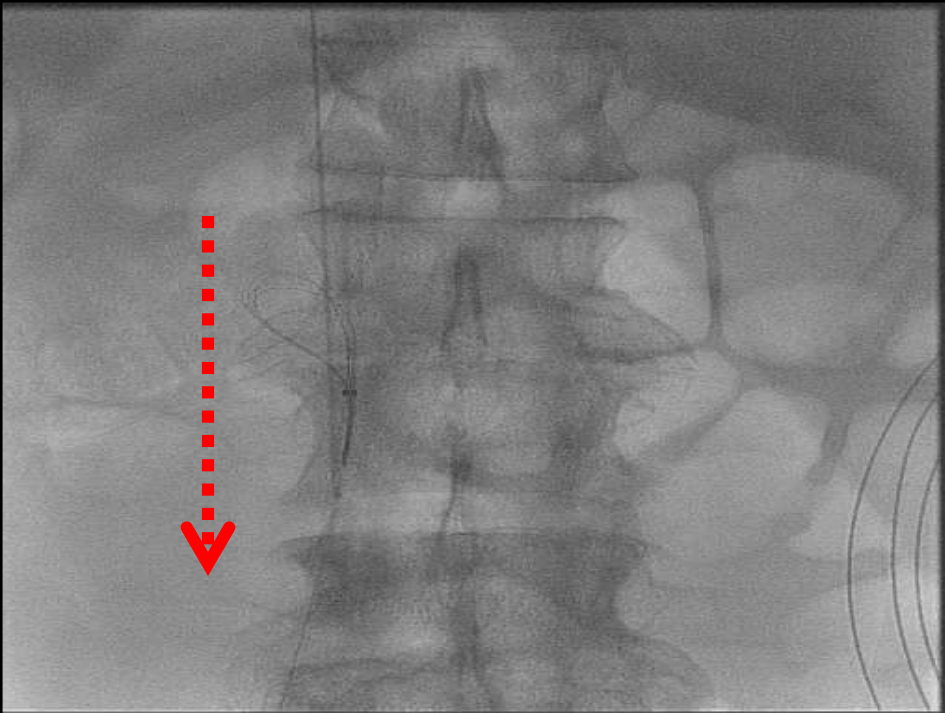




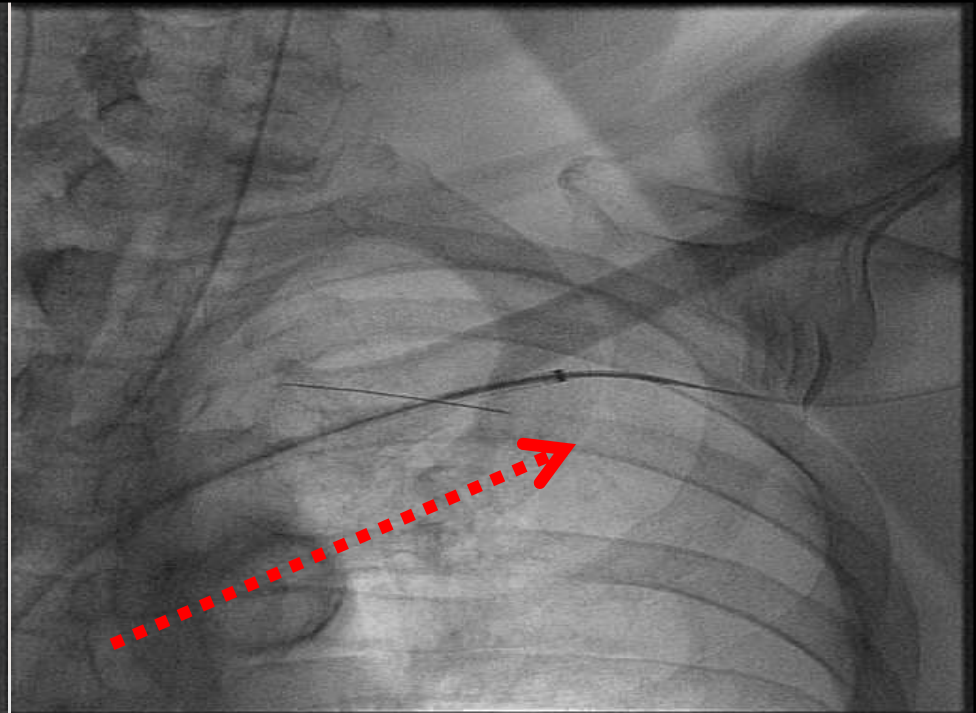
**IV in collateral vein**



**Vasc US access  
L basilic vein**



**Snaring wire from LSCV  
(EP) from R CFV (Endo)**

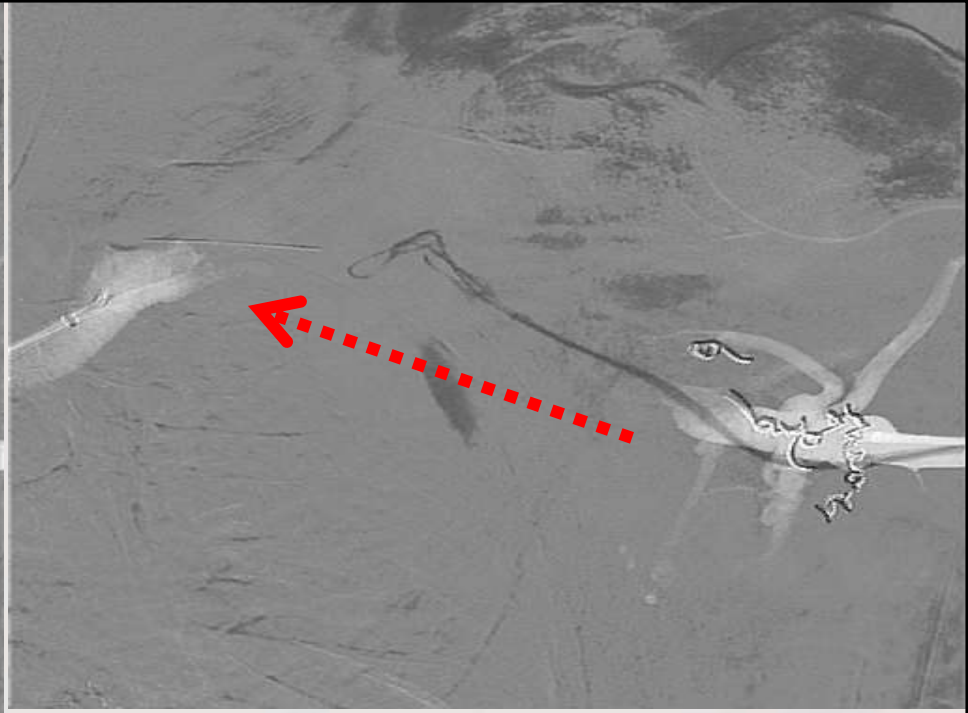
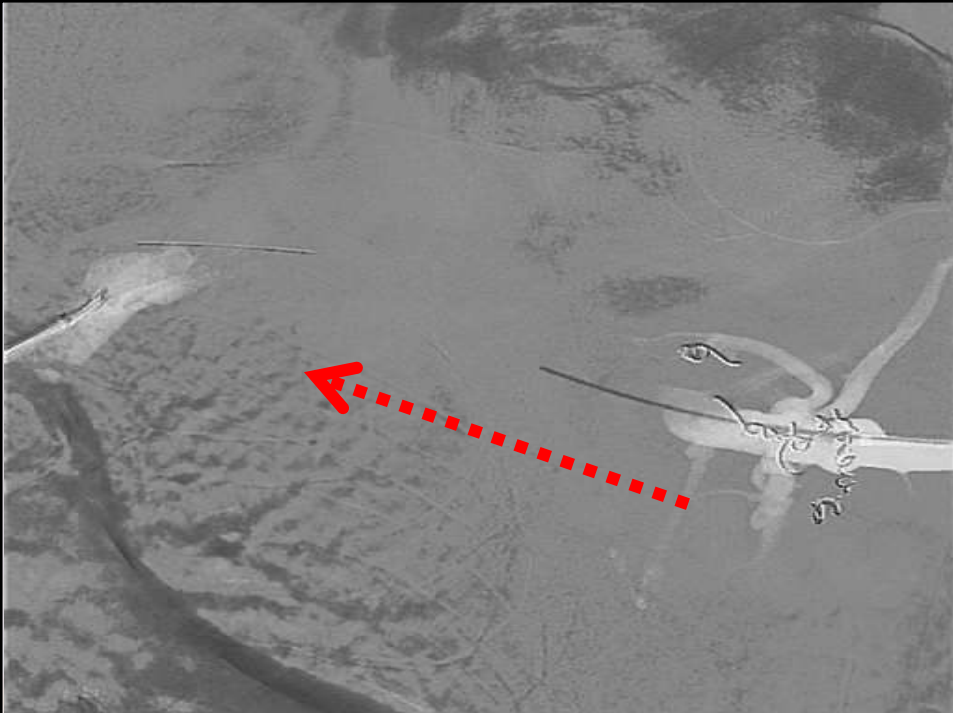


**8F Shuttle sheath  
advanced into innominate  
vein over externalized wire**

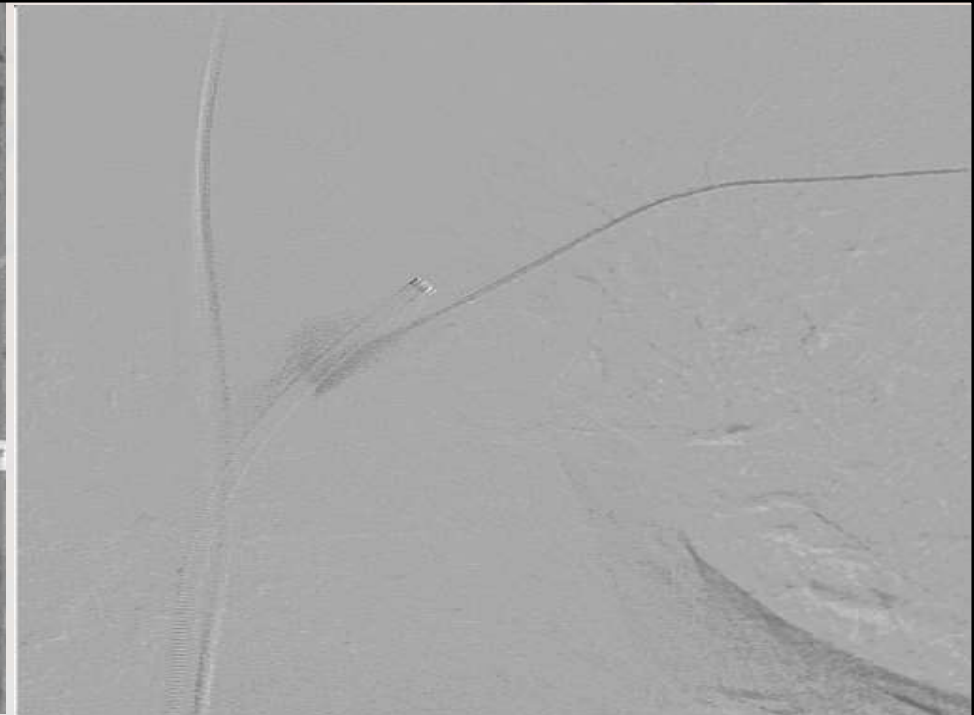
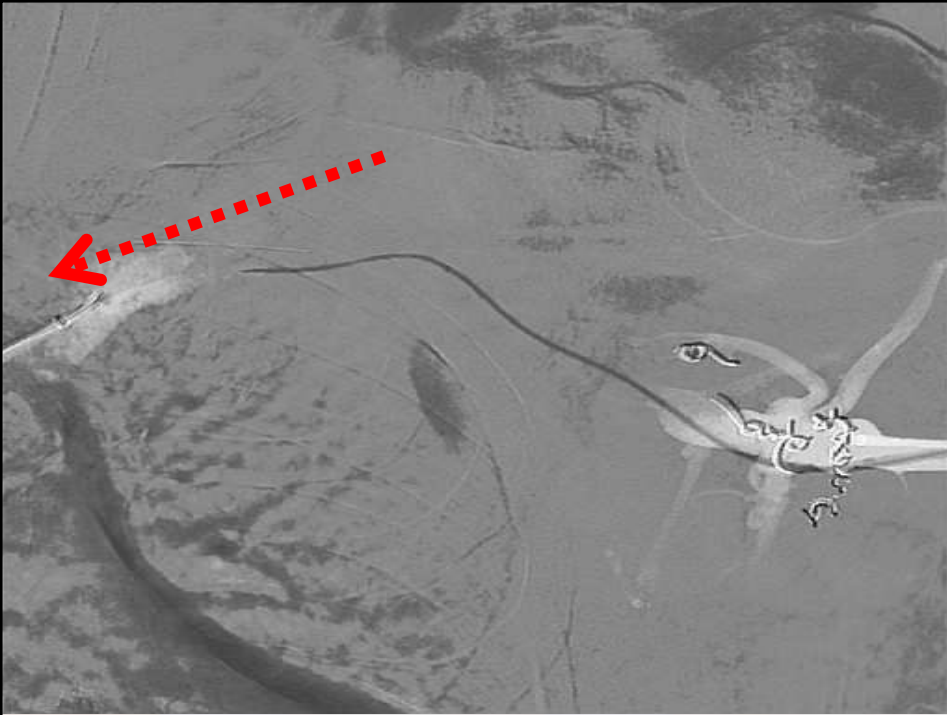


**“Dual angiograms” via Shuttle sheath and basilar sheaths**



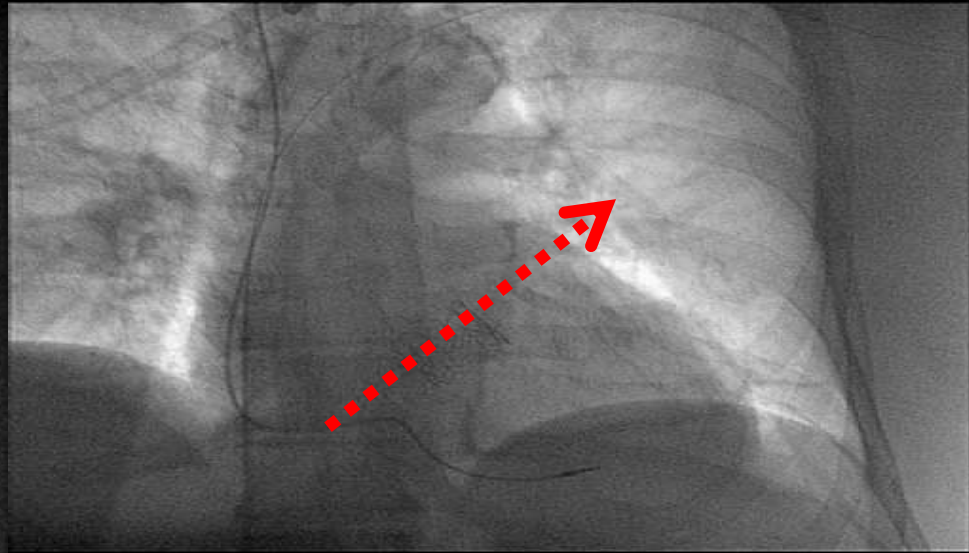
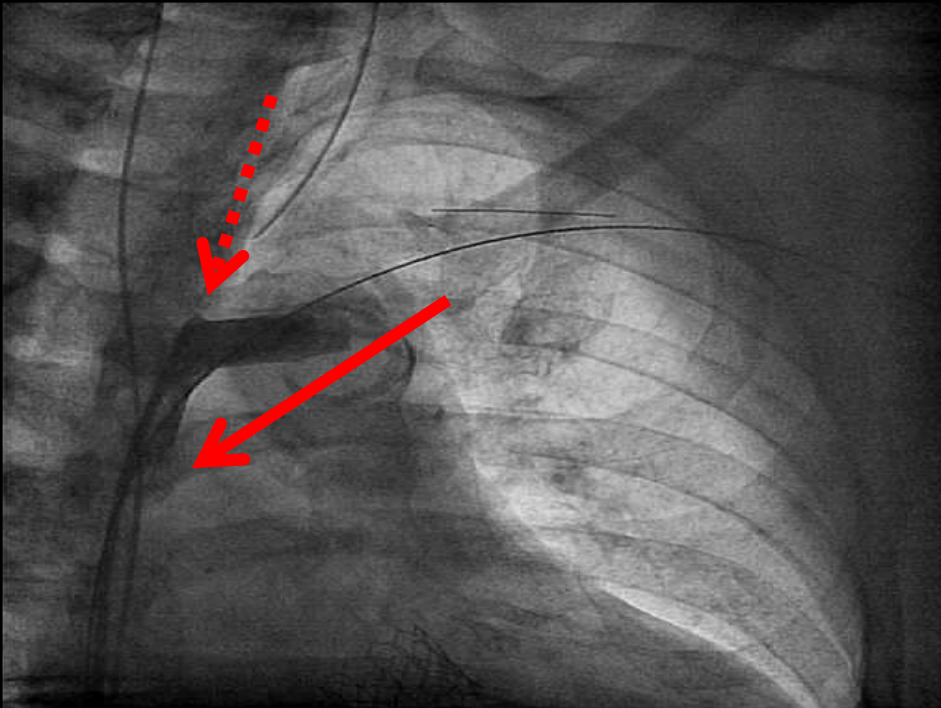


**Challenging crossing of 9 year occlusion**



**Crossing into  
brachiocephalic vein**

**Angio confirming  
intra-luminal position**



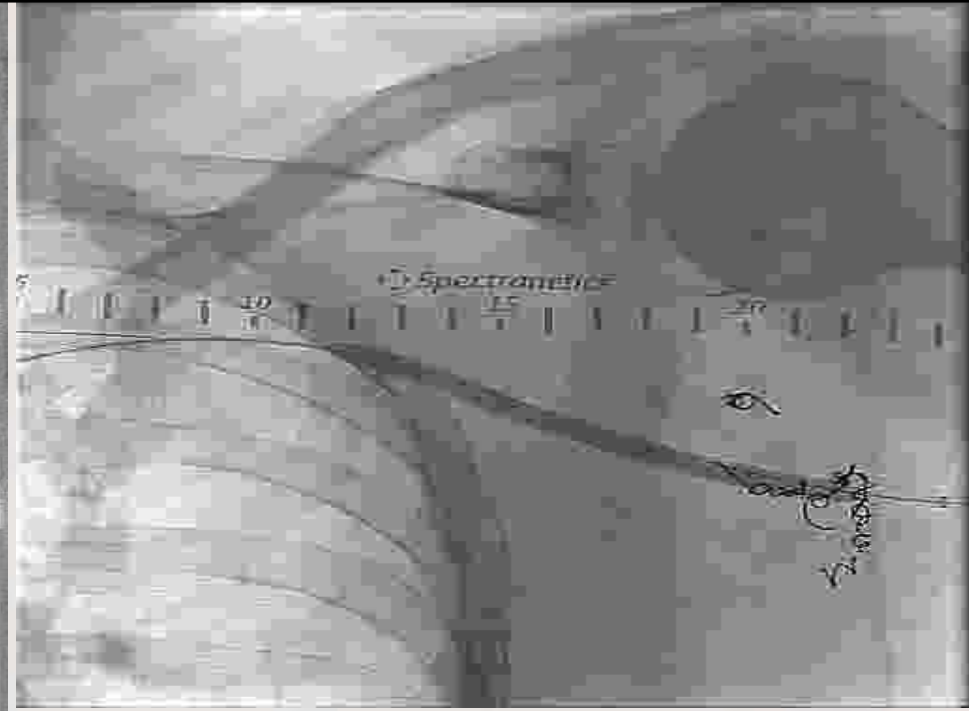
**Wire from left arm steered into sheath from R CFV, “externalized”**



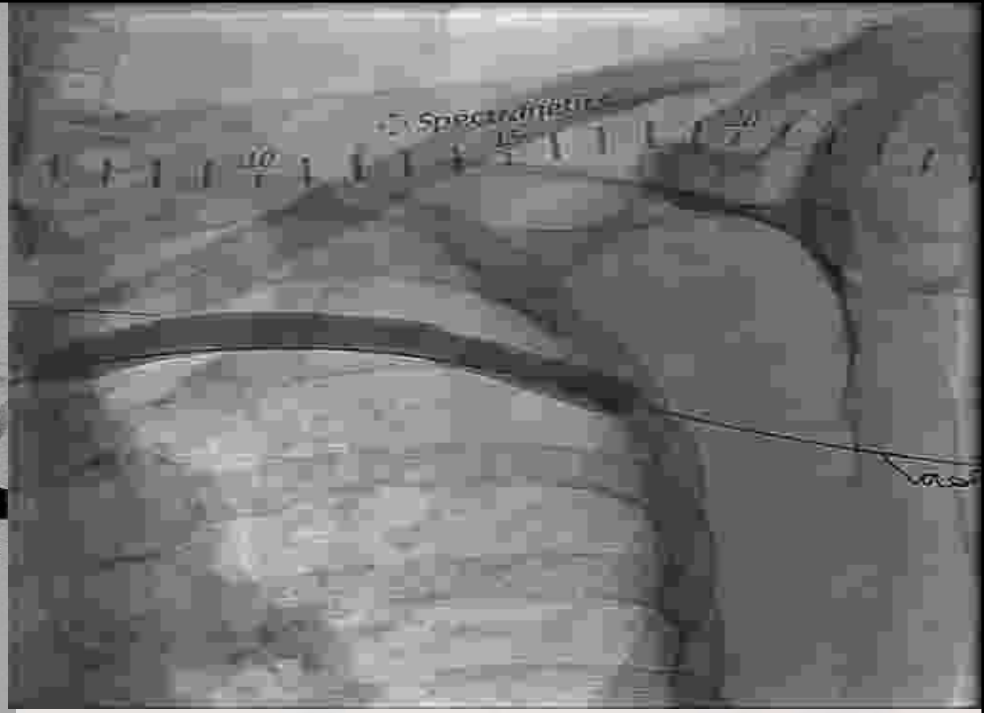
**“Dual angios”**

**PTA 1 on roadmap**



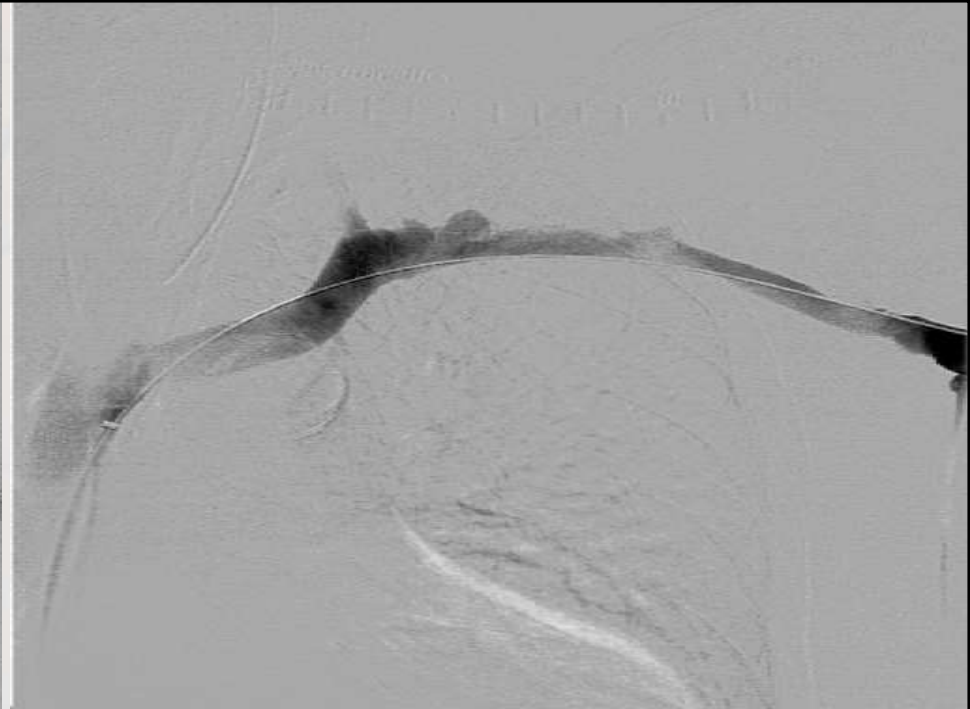






**Flow re-established**

**Long inflations with 6, 7,  
8, 9, and 10 X 100 balloons**



**Robust flow 😊**



# The Rest of the Story..

- Patient had new PPM next day on right
- MAJOR improvement in left arm symptoms and swelling
- On indefinite apixaban
- 3 month venous US widely patent L arm
- Very appreciative patient/ family

# Take Home Points..

- Important to recognize large vessel DVT
- Consider mechanical factors/ obstructions AND predisposing conditions/ diseases
- For important large venous occlusions, treatment may involve removing/ treating cause of occlusion, re-establishing venous flow, long-term anticoagulation, & venous Rx
- An experienced multi-disciplinary team approach optimizes good outcomes



# Thank You for Your Attention!!



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