

# LAA closure with 4D ICE guidance

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84 year old man with PMH of persistent atrial fibrillation on anticoagulation and primary squamous cell carcinoma of larynx with surgical resection and chemotherapy/radiation. He has a tracheostomy and voice box, which needs exchange every 4 months and bleeding occurs with exchange.

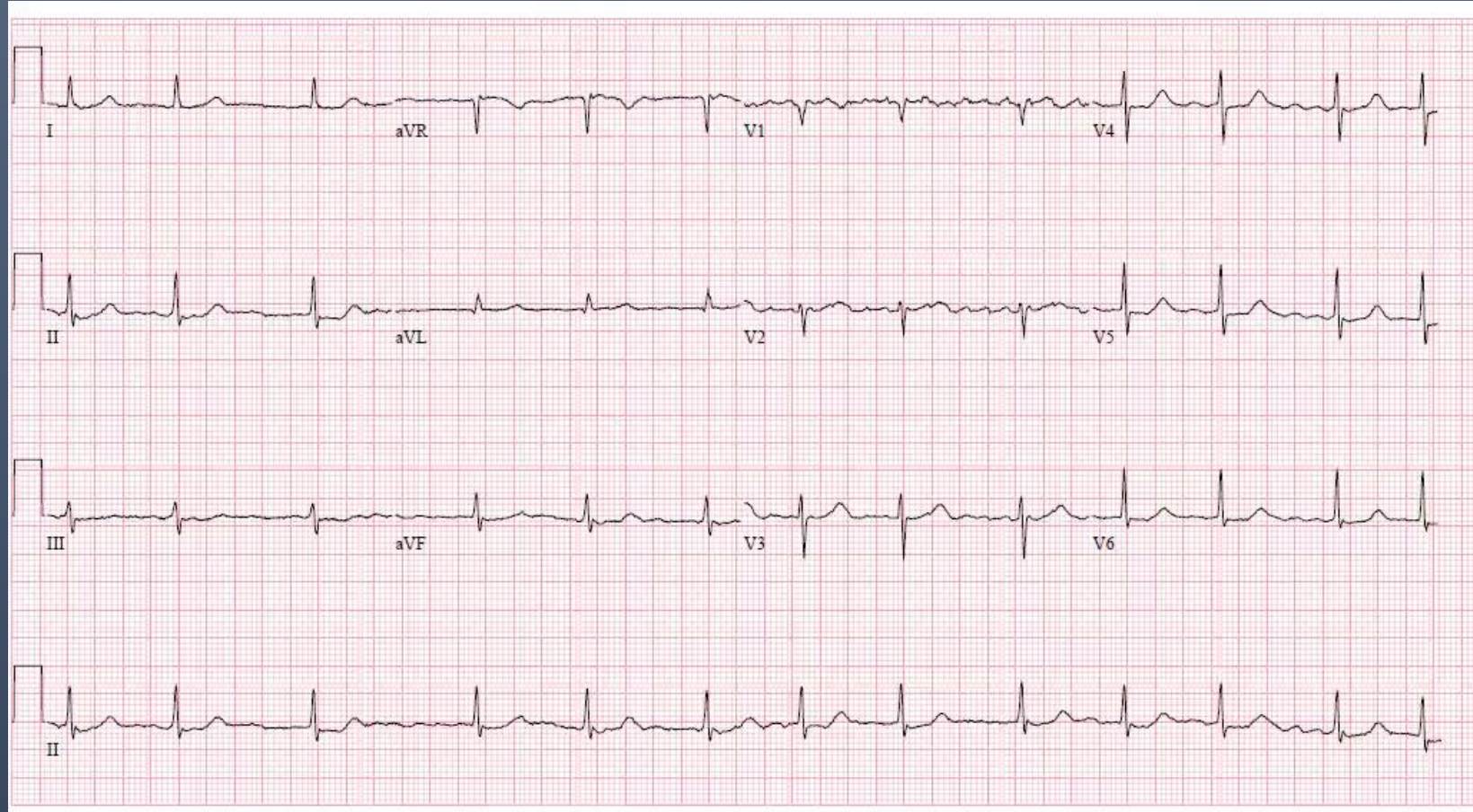
## PMH

Persistent atrial fibrillation (CHADS2Vasc is 4) and HASBLED is 4

Hypertension

Type 2 Diabetes

- Labs: Hgb of 12, Hct of 38.2, plt of 172. Basic metabolic panel is normal.

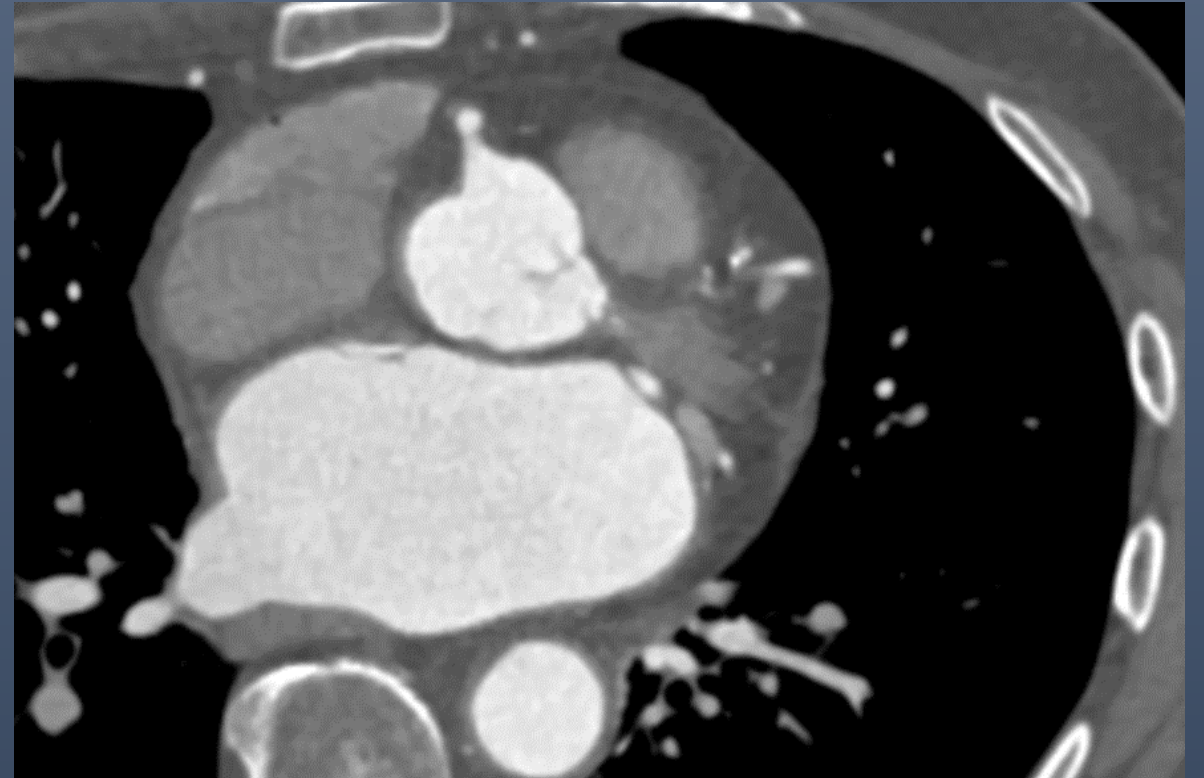
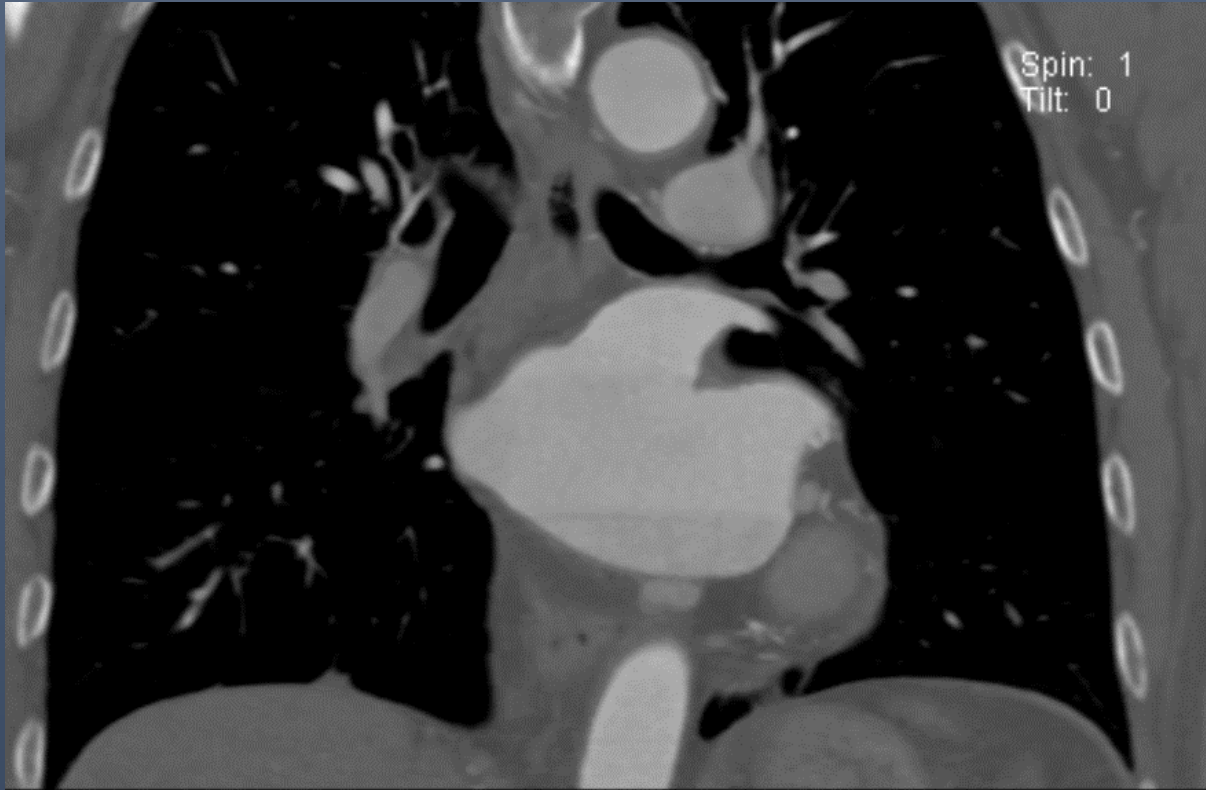


Given his recurrent bleeding around tracheostomy site, he was evaluated for left atrial appendage closure and was found to be a good candidate

He underwent pre-operative CT scan in anticipation of the procedure



## Pre-operative CT scan



No thrombus, chicken wing and appropriate for percutaneous left atrial appendage closure

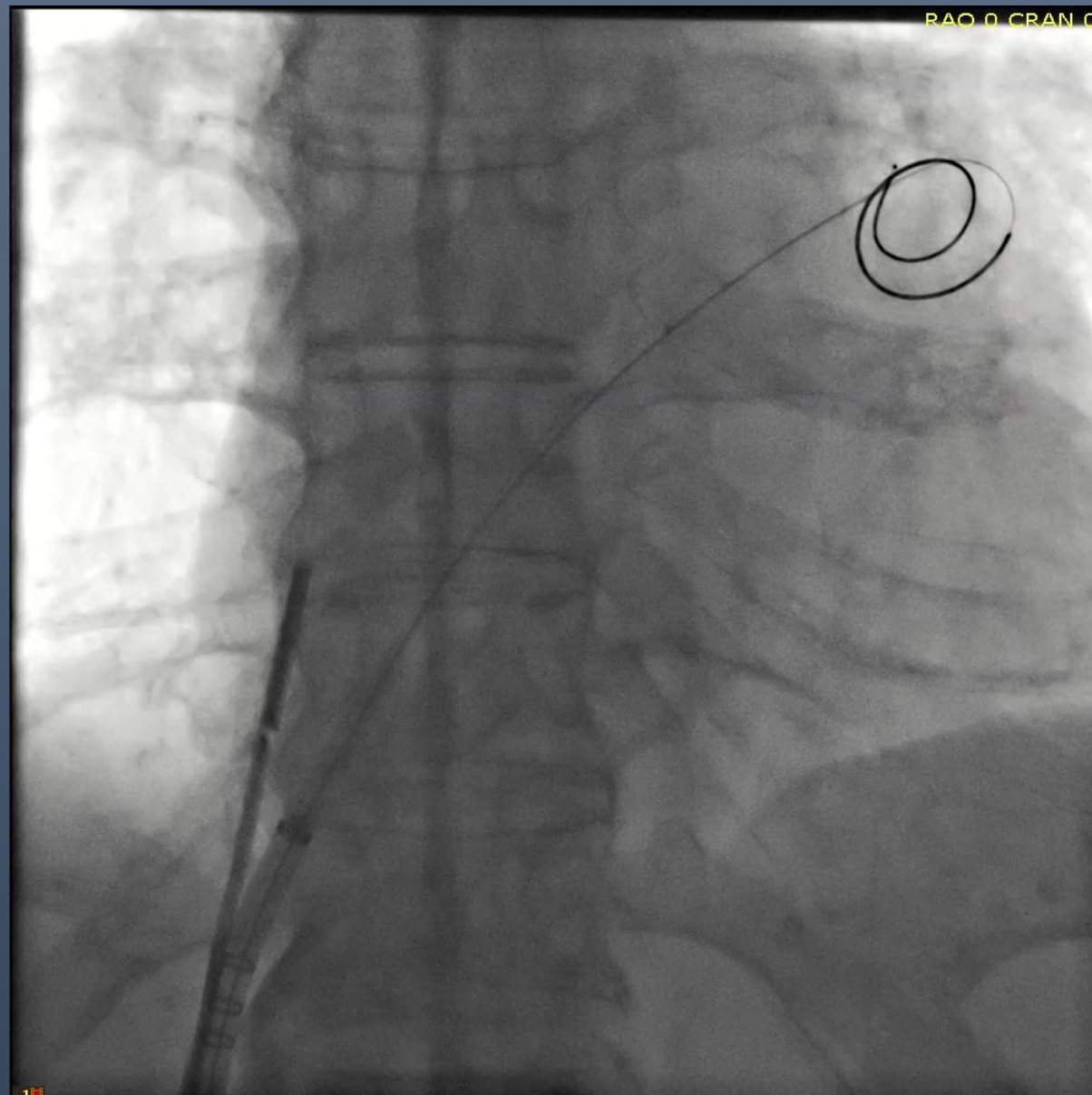
Patient was brought to the cath lab but the procedure had to aborted due to difficulty to pass TEE probe past the pharynx

Patient was brought to the cath lab for a second time, and underwent serial dilatation by ENT but the pediatric probe couldn't be advanced.

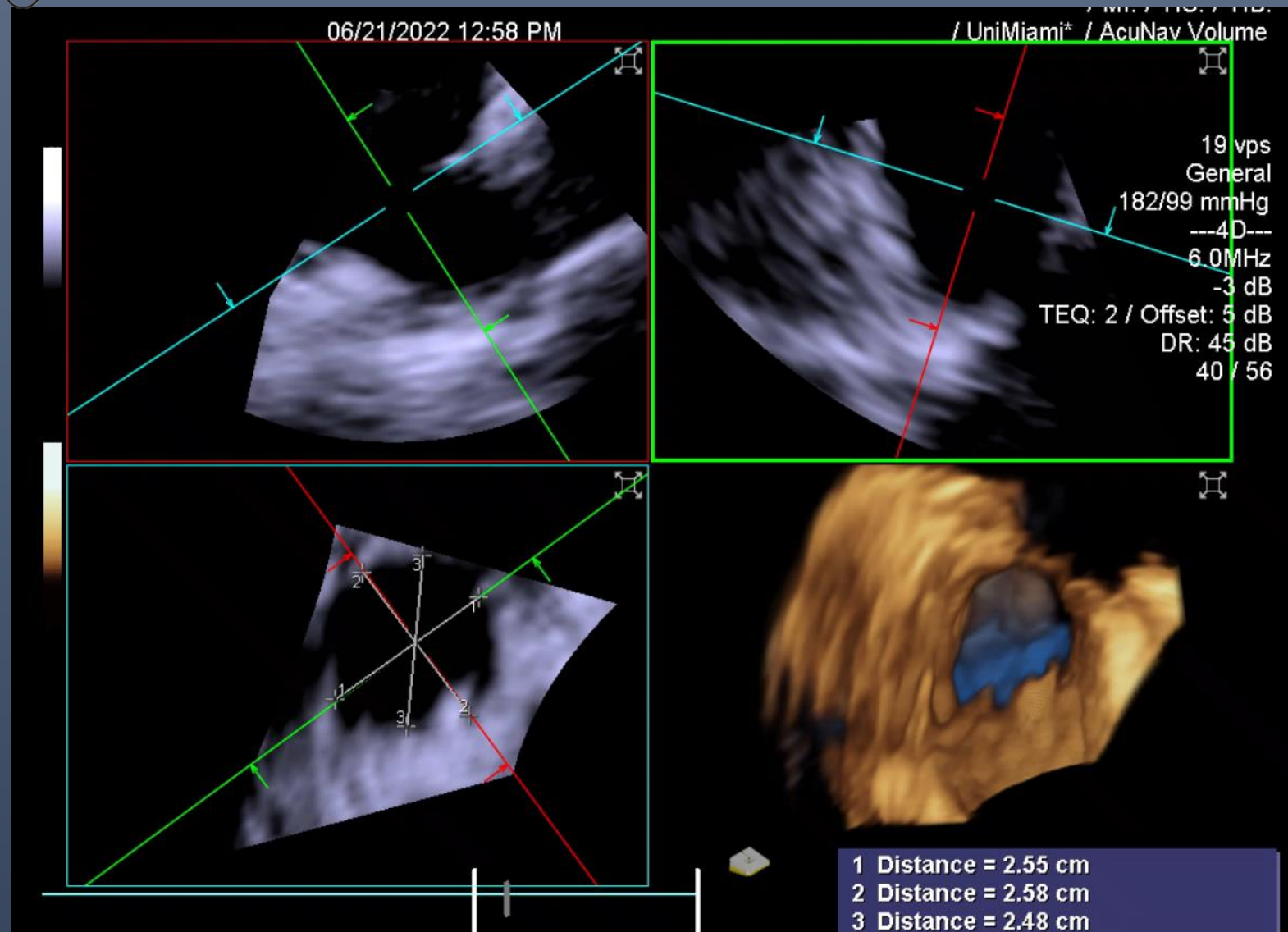
Barium esophageal study showed esophageal stricture and thus we decided to proceed under **ICE guidance**

# Transeptal puncture

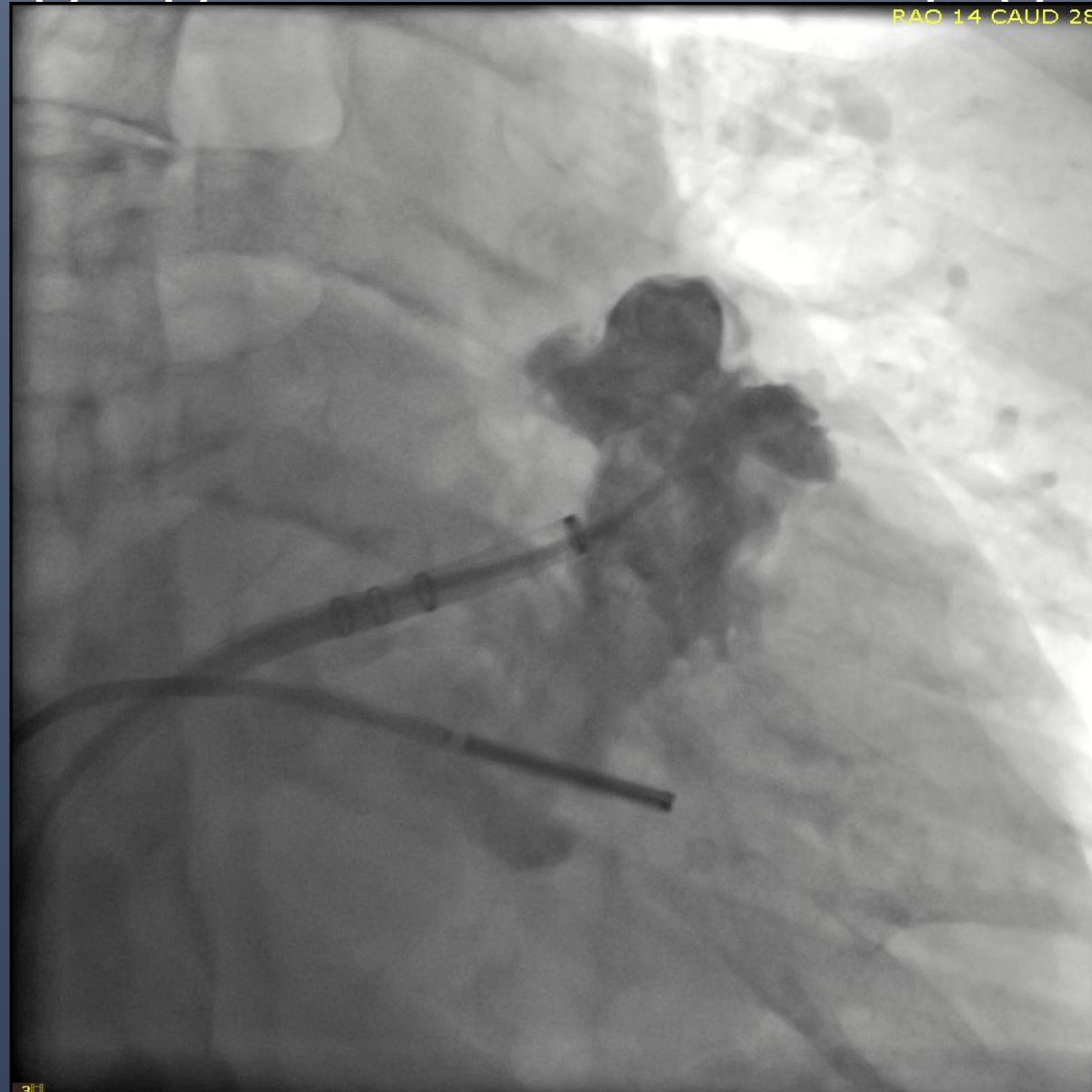






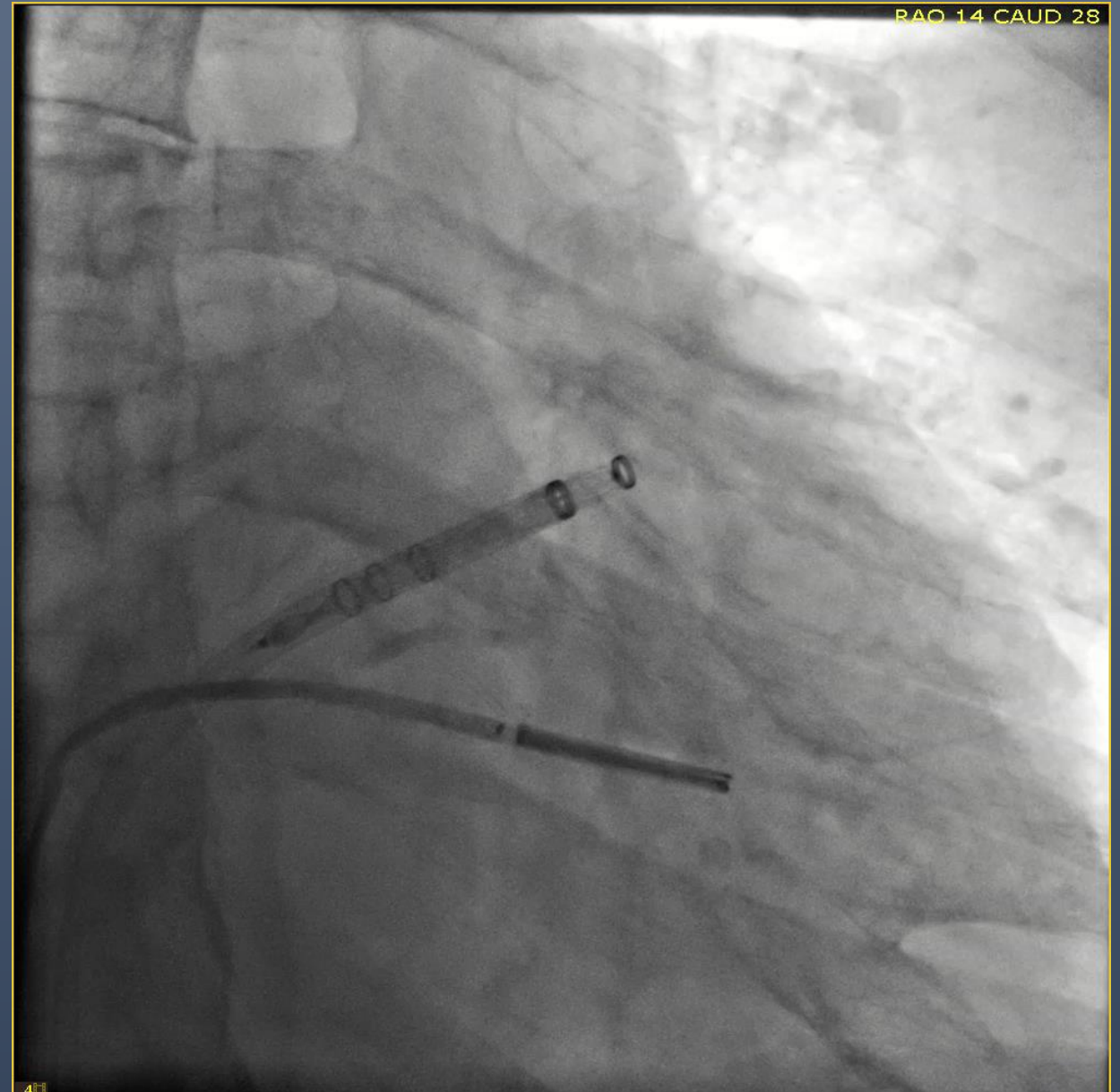


# Angiogram of LAA with pigtail



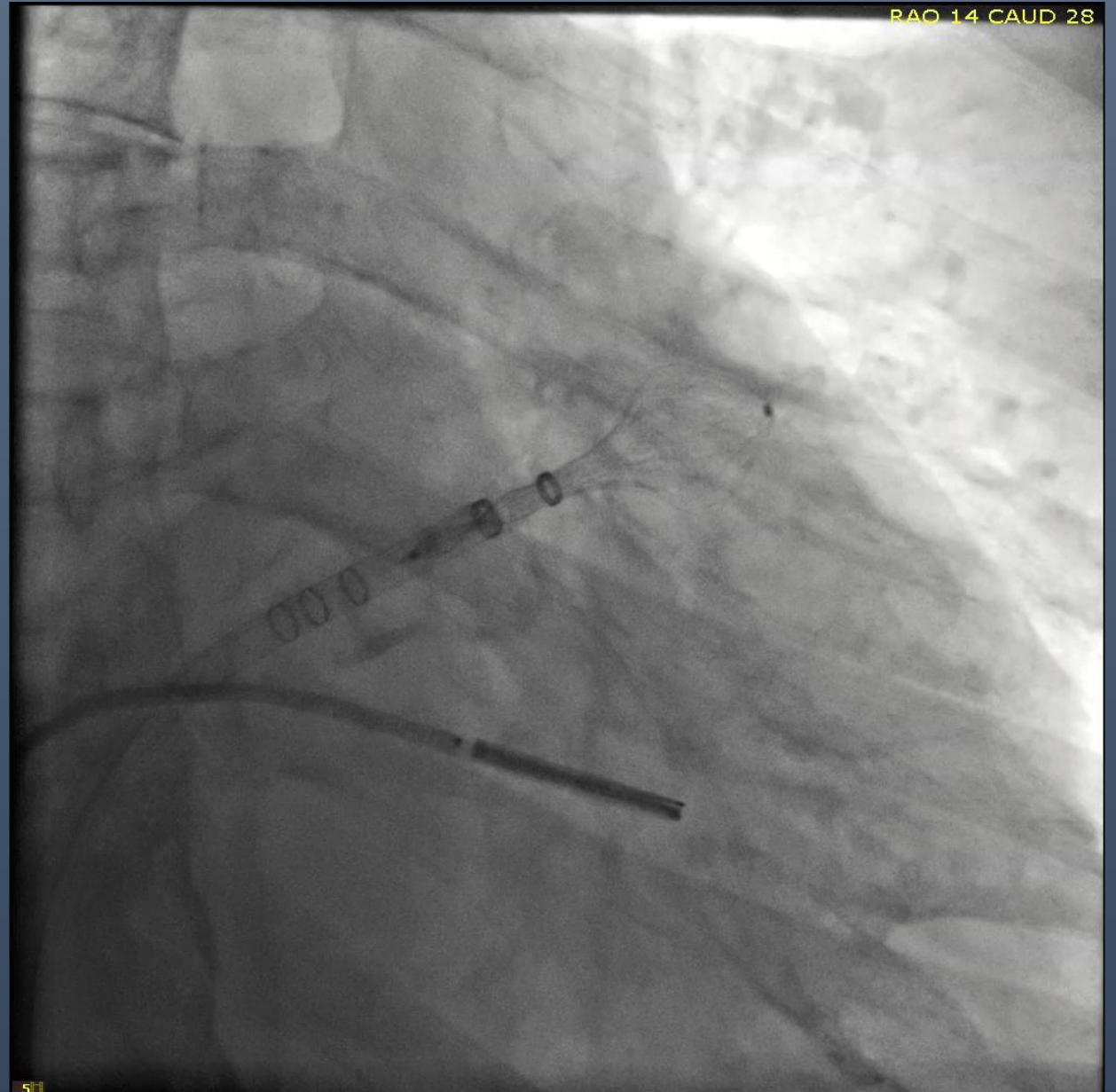


# Deploying the initial step

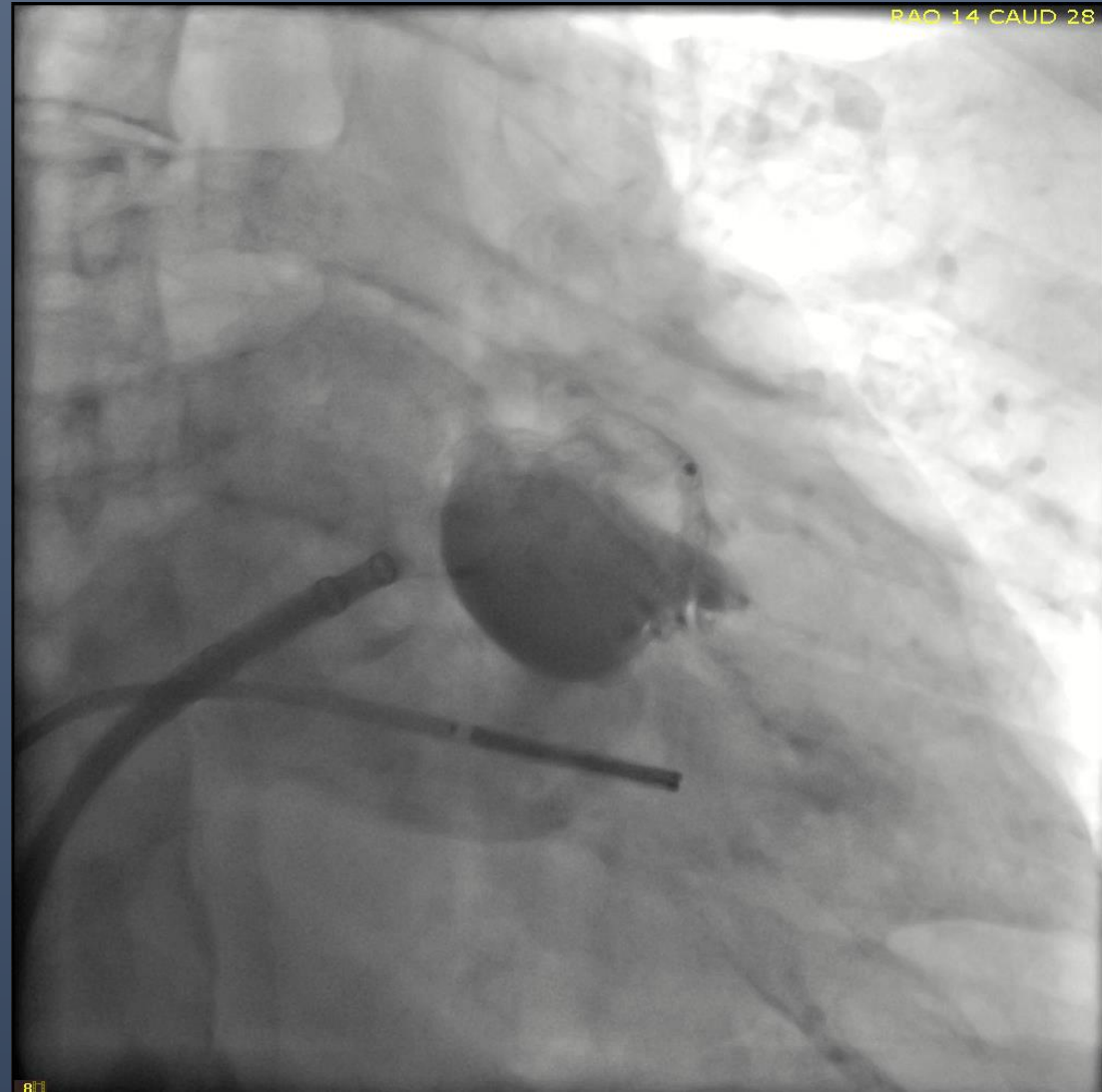


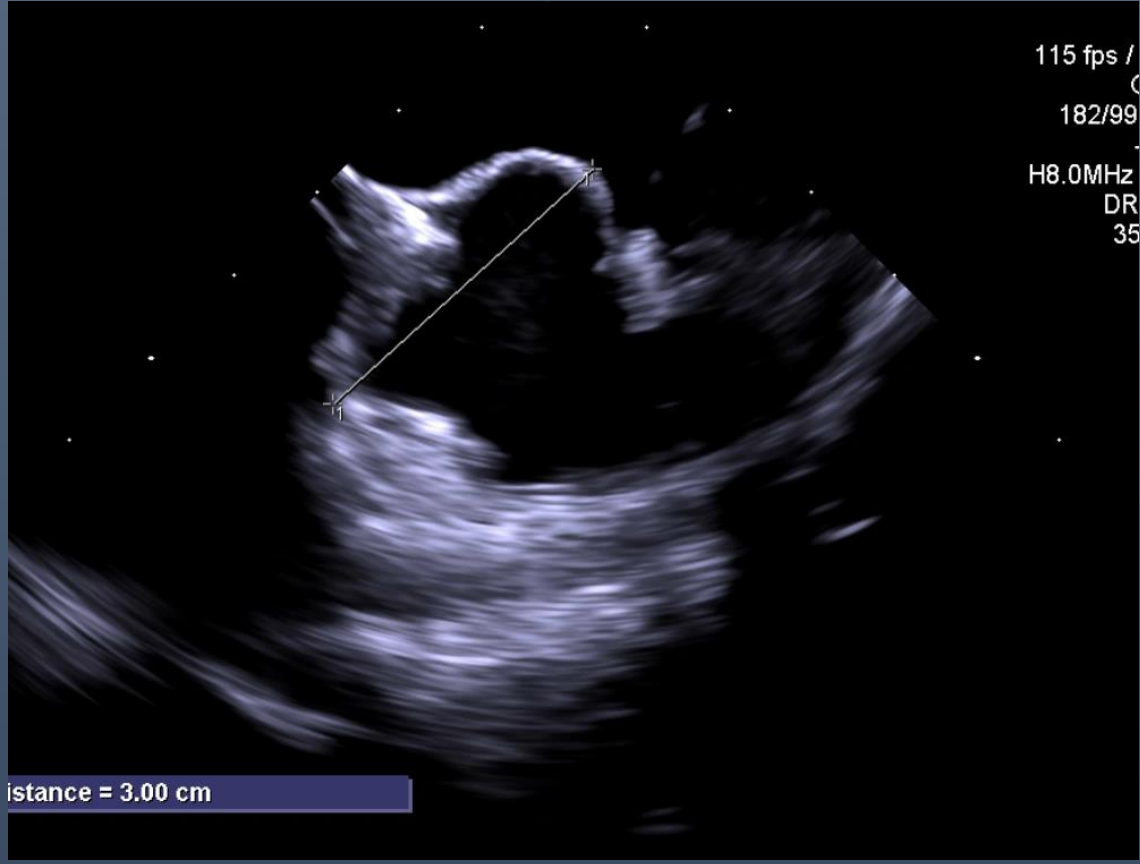


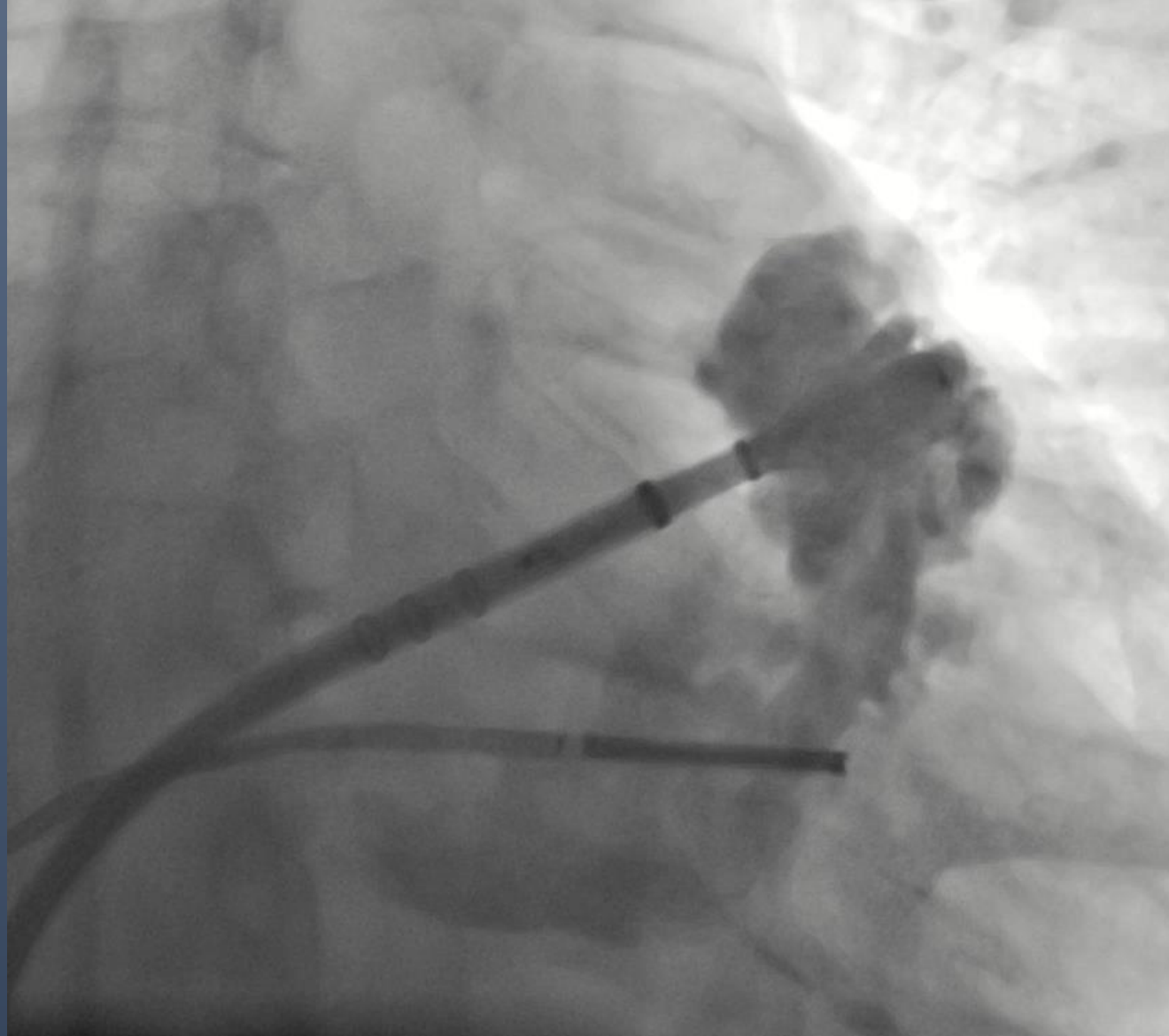
31 mm  
watchman  
FLX device



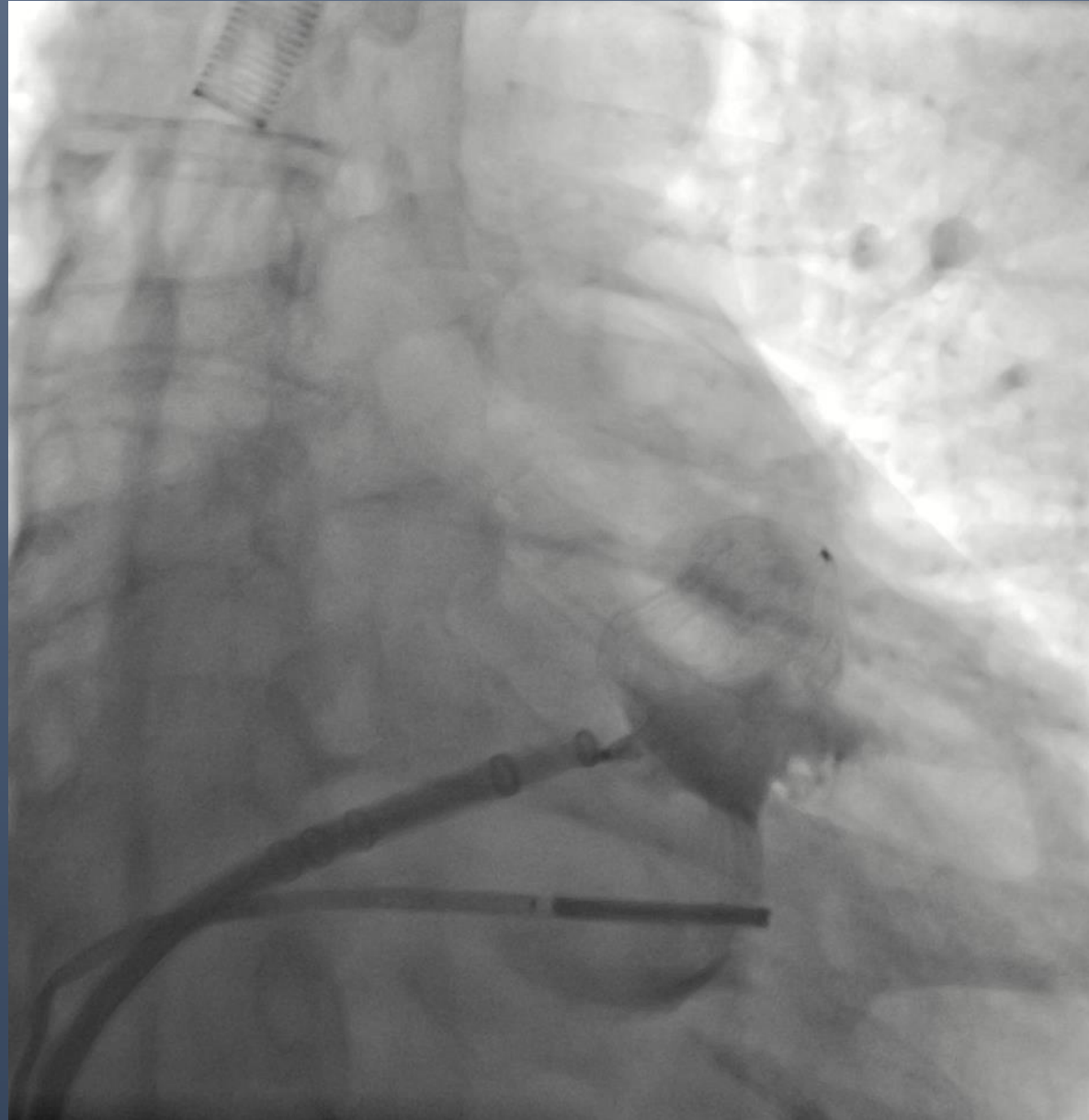




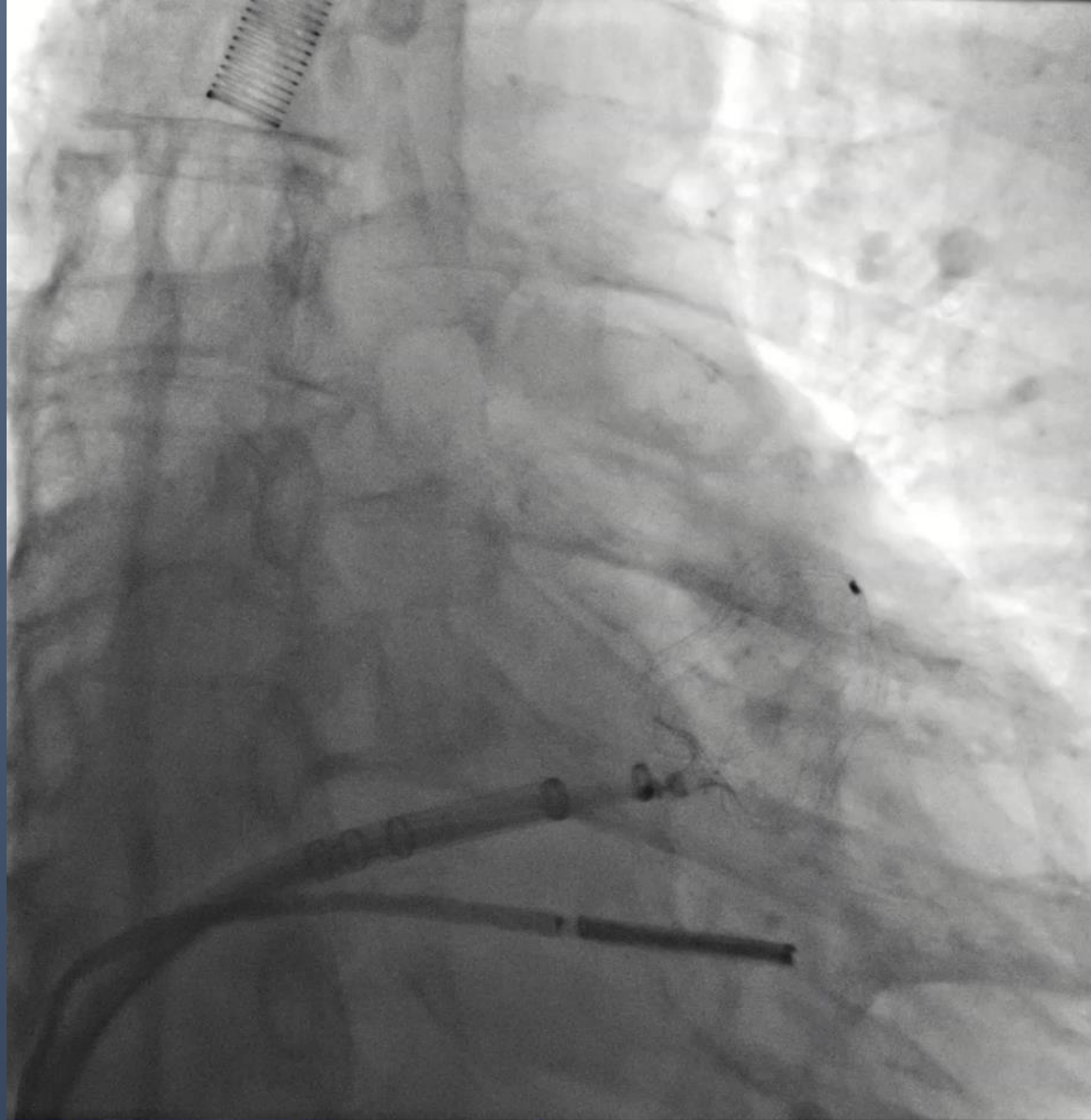












*All criteria must be met prior to device release (PASS)*

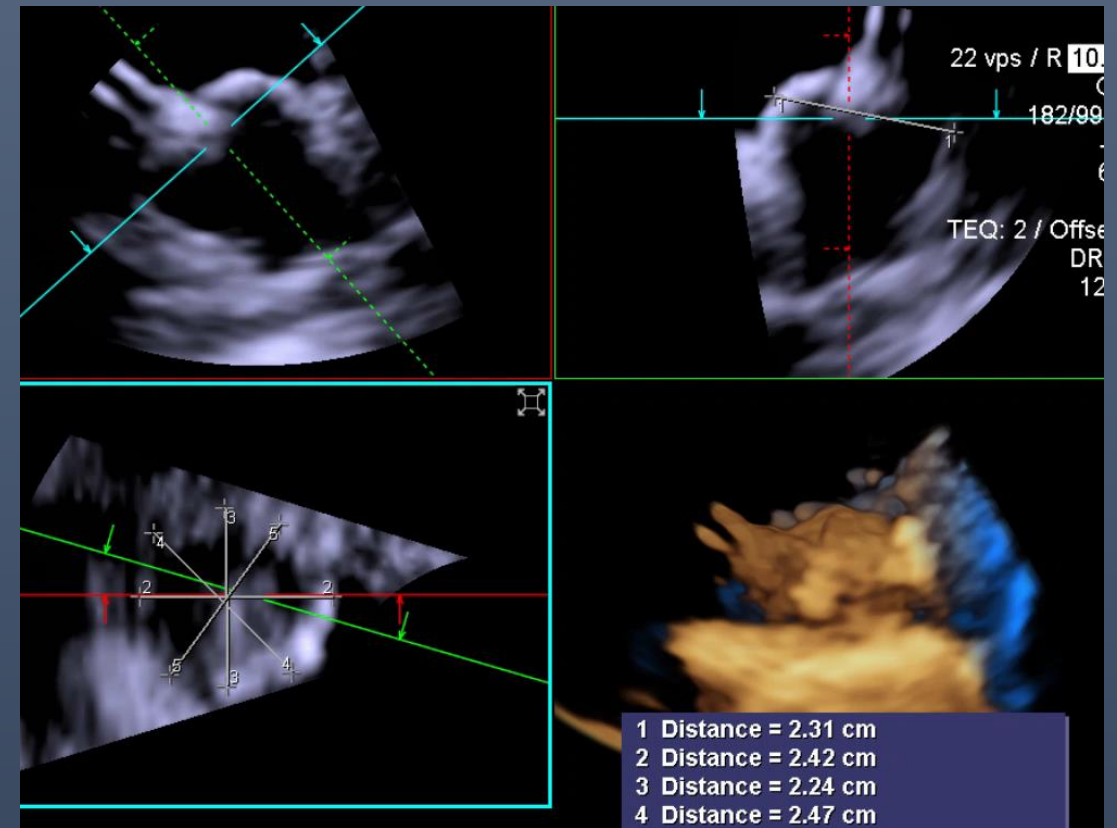
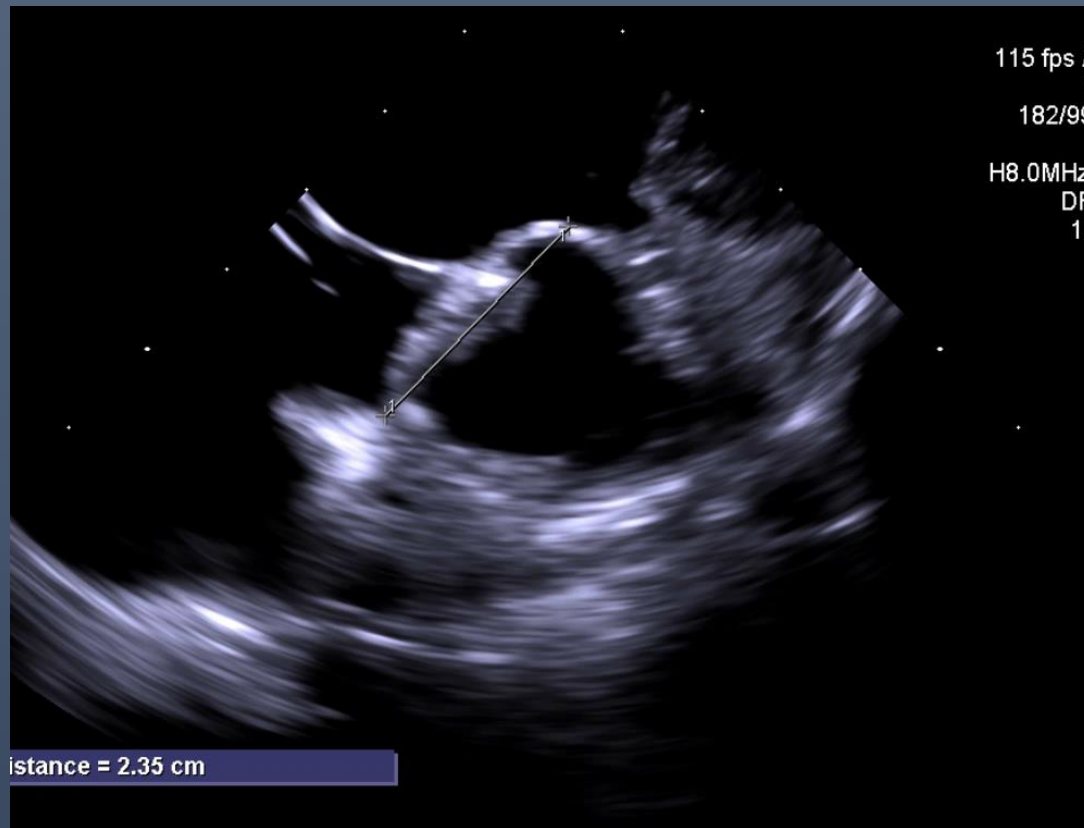
**Position** – device is at the ostium of the LAA

**Anchor** – fixation anchors engaged / device is stable

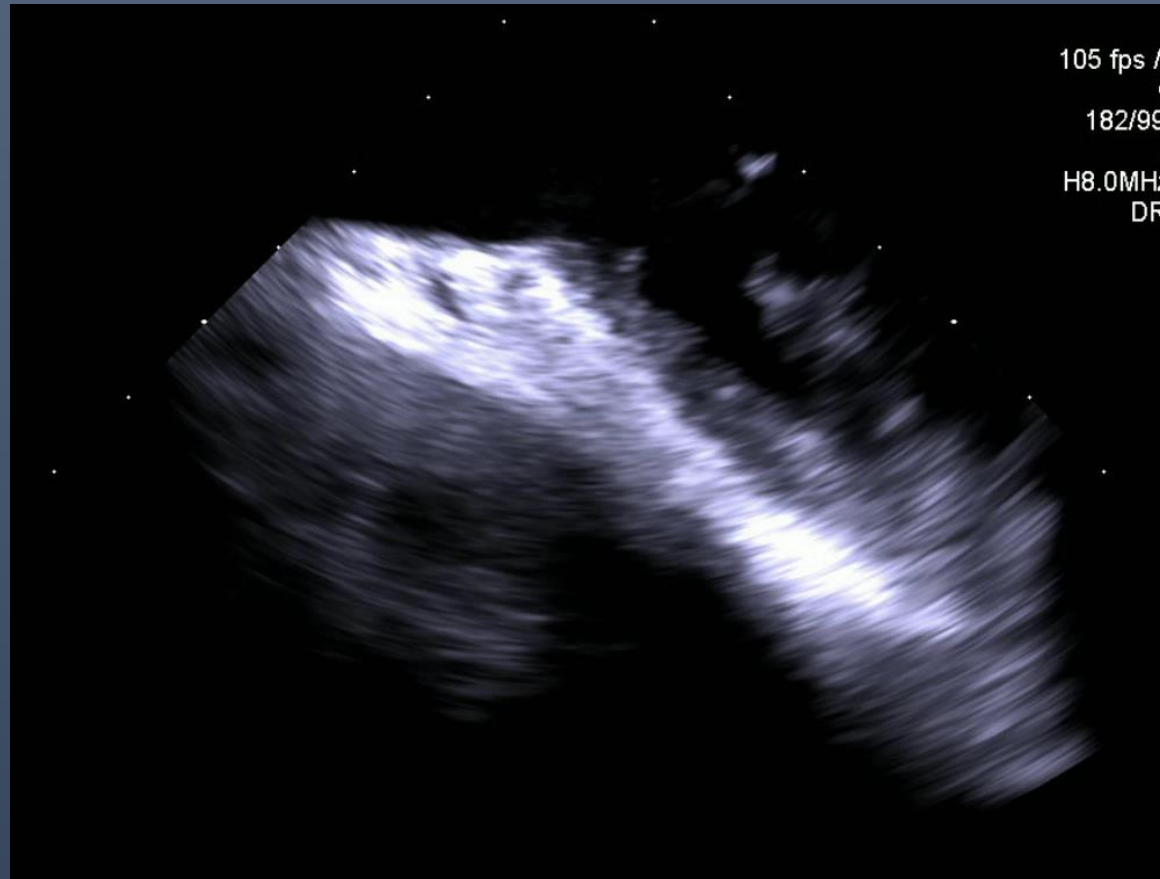
**Size** – device is compressed 20% of original size

**Seal** – device spans ostium, all lobes of LAA are covered

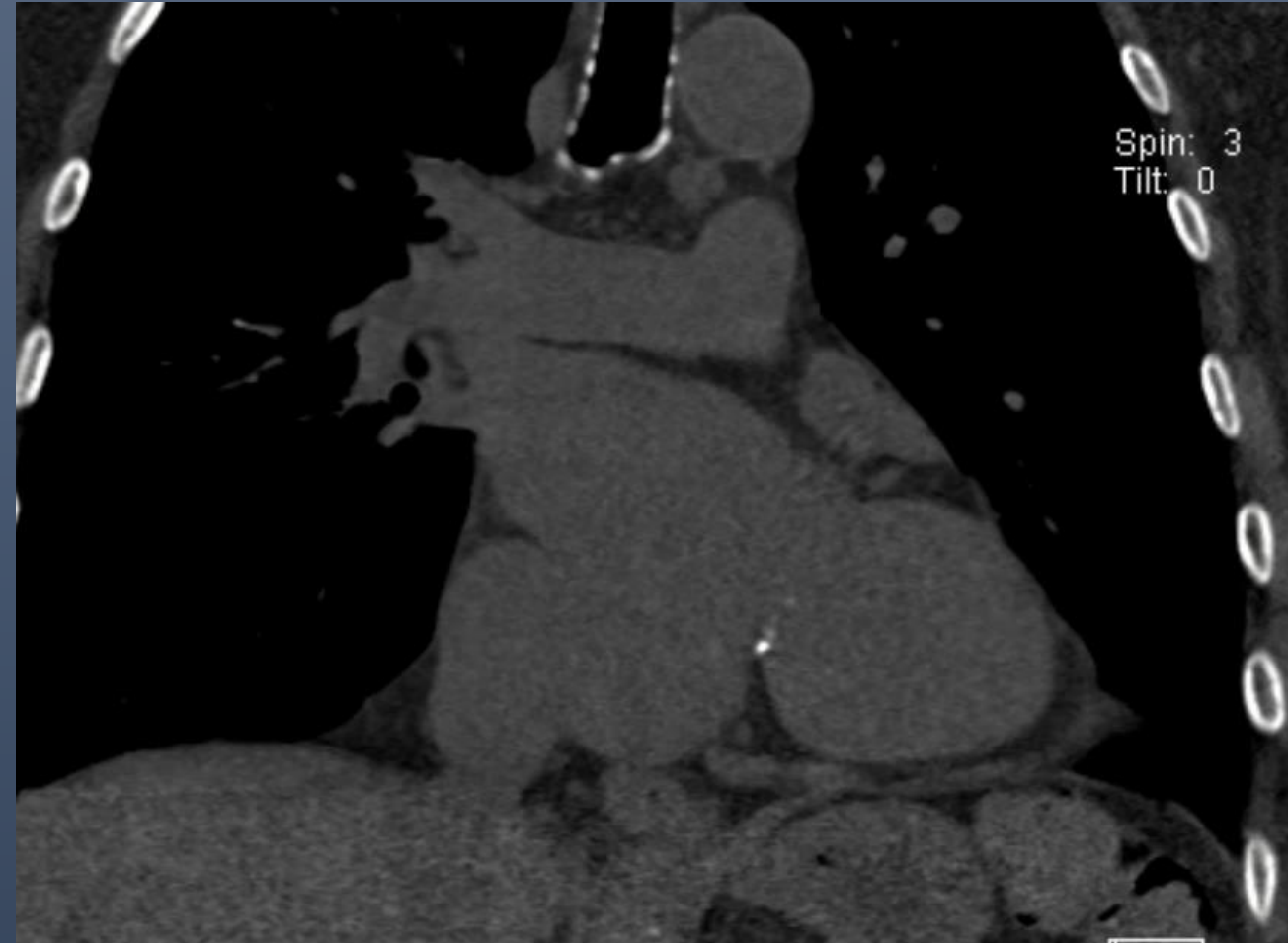
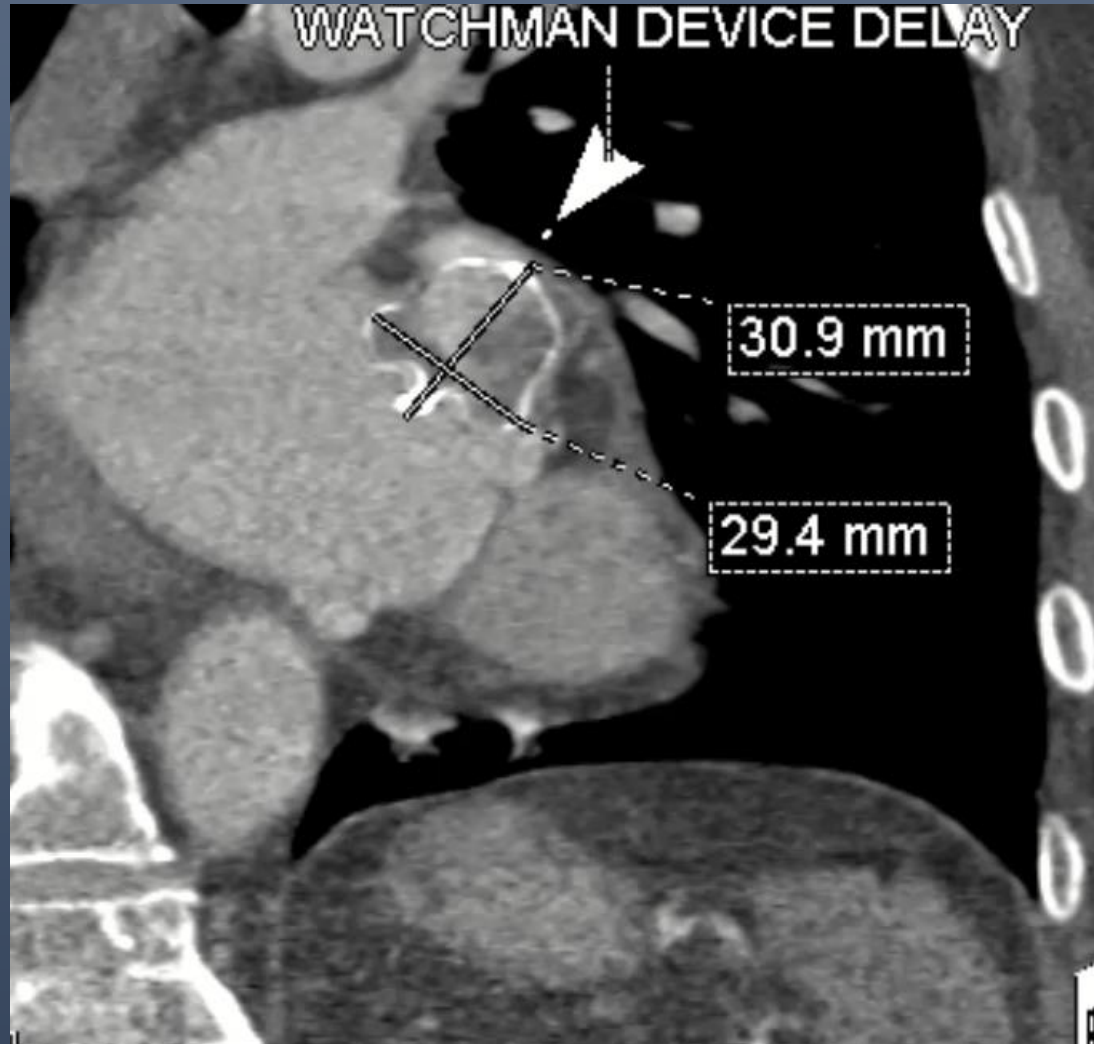
# Post release measurements



# No pericardial effusion



## 45 day CT scan







There is evidence of contrast enhancement of the left atrial appendage on the early scan with progressive filling in of contrast on the delayed scan, consistent with a **para device leak** at the left atrial appendage neck. The para device leak is located at the posterior left aspect of the left atrial appendage neck and measures approximately **5.3 x 3.0 mm** in short axis diameters.

What will the panel do in terms of anticoagulation?