

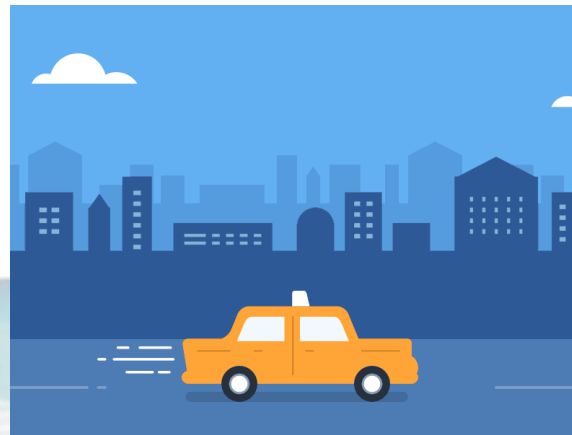
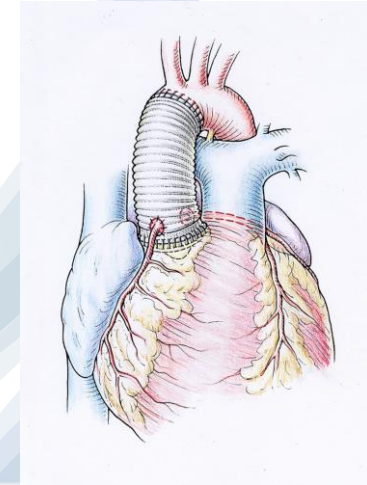
Valve In Valve In A Complex Anatomy

Walid Ibrahim.MD
Interventional Cardiology fellow
JMH/UMH



Clinical history

- A 74-year-old Man from China, retired taxi driver.
 - History of Bentall procedure for aortic insufficiency status, 2010.
 - Presented with decompensated heart failure.
-
- PMH: HTN , CKD.



Physical exam:

BP: **170/60**, pulse 73, temperature (36.9 °C), RR:22.

General exam: raised JVD.

CV: S1, S2, **early diastolic murmur**.

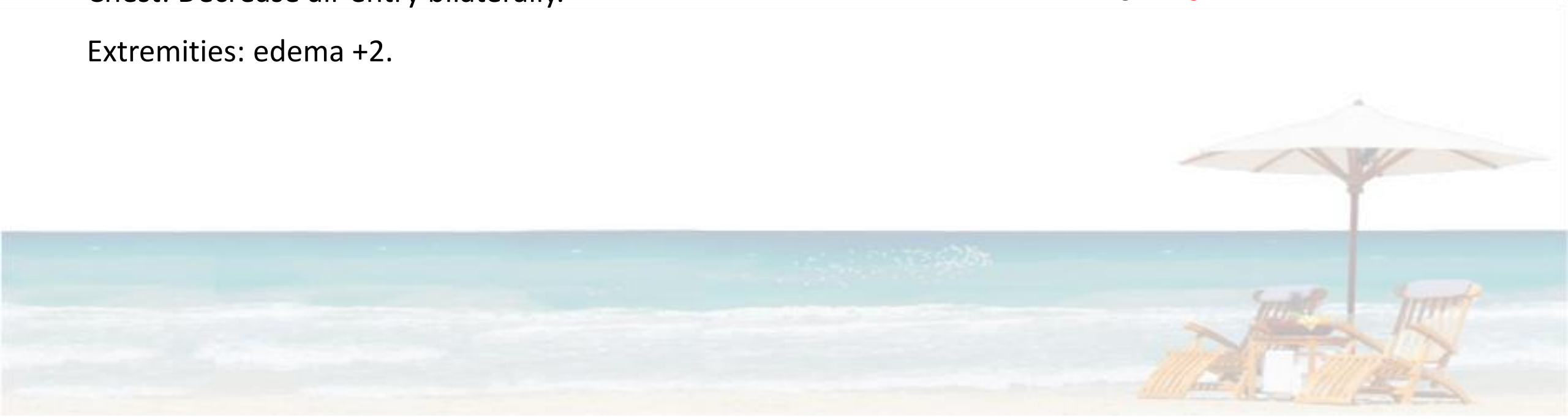
Chest: Decrease air entry bilaterally.

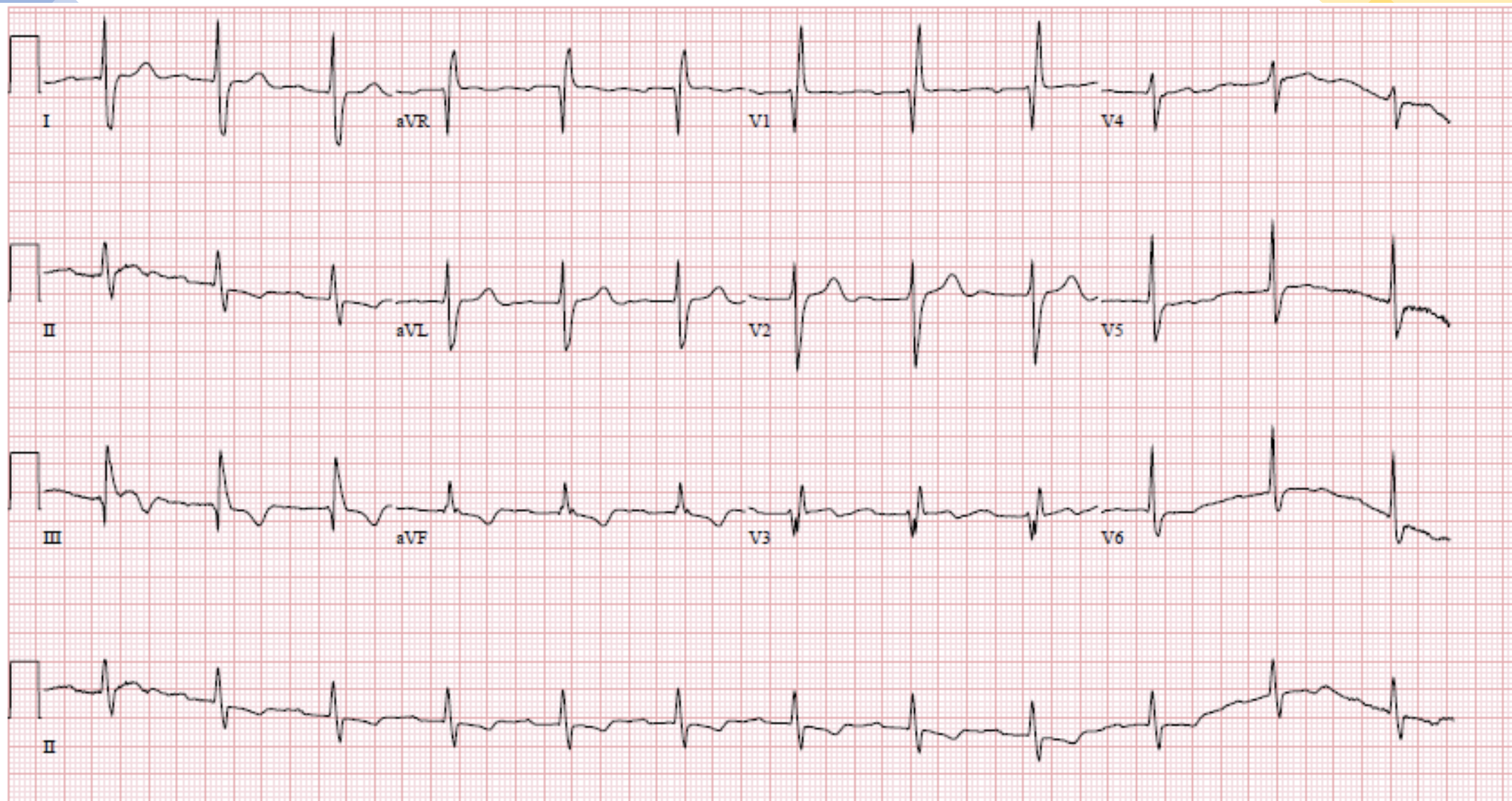
Extremities: edema +2.

Labs:

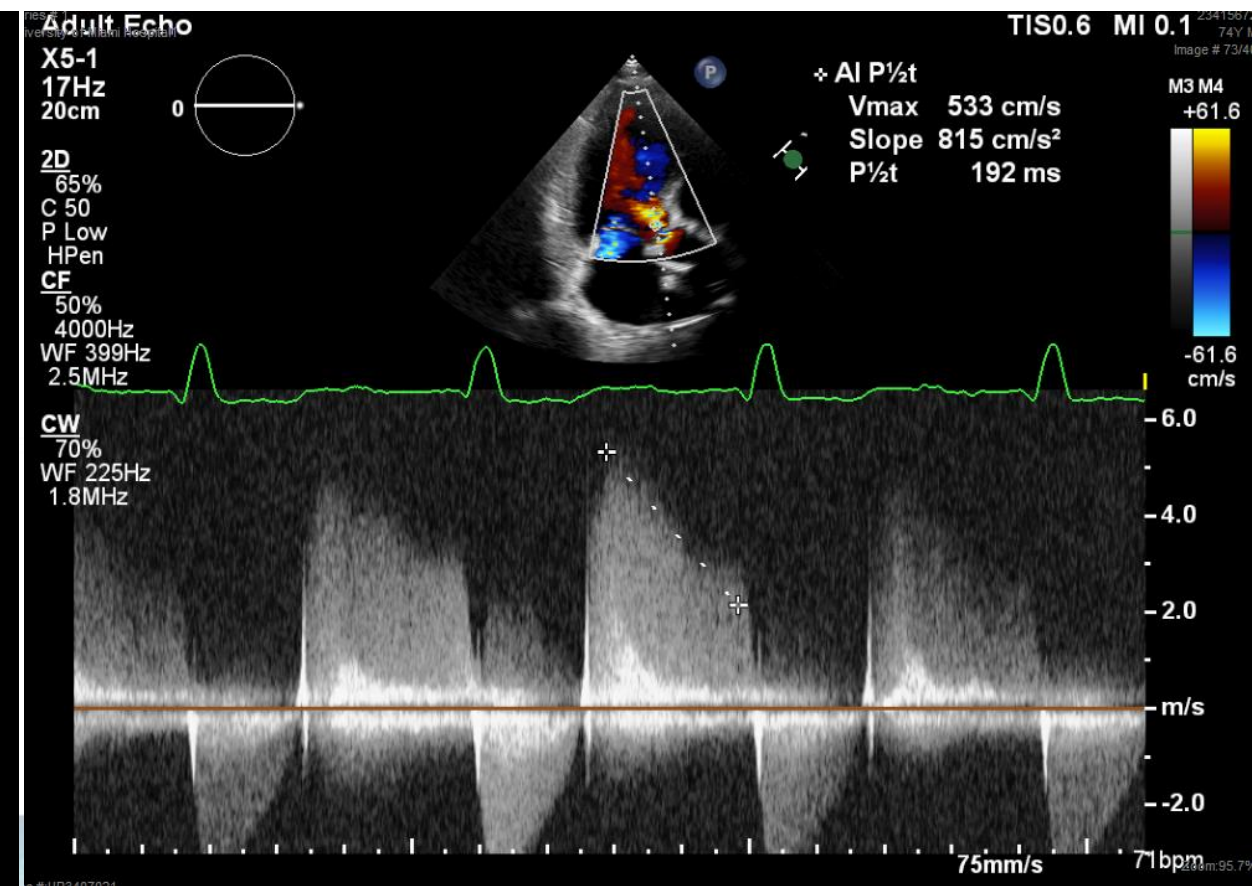
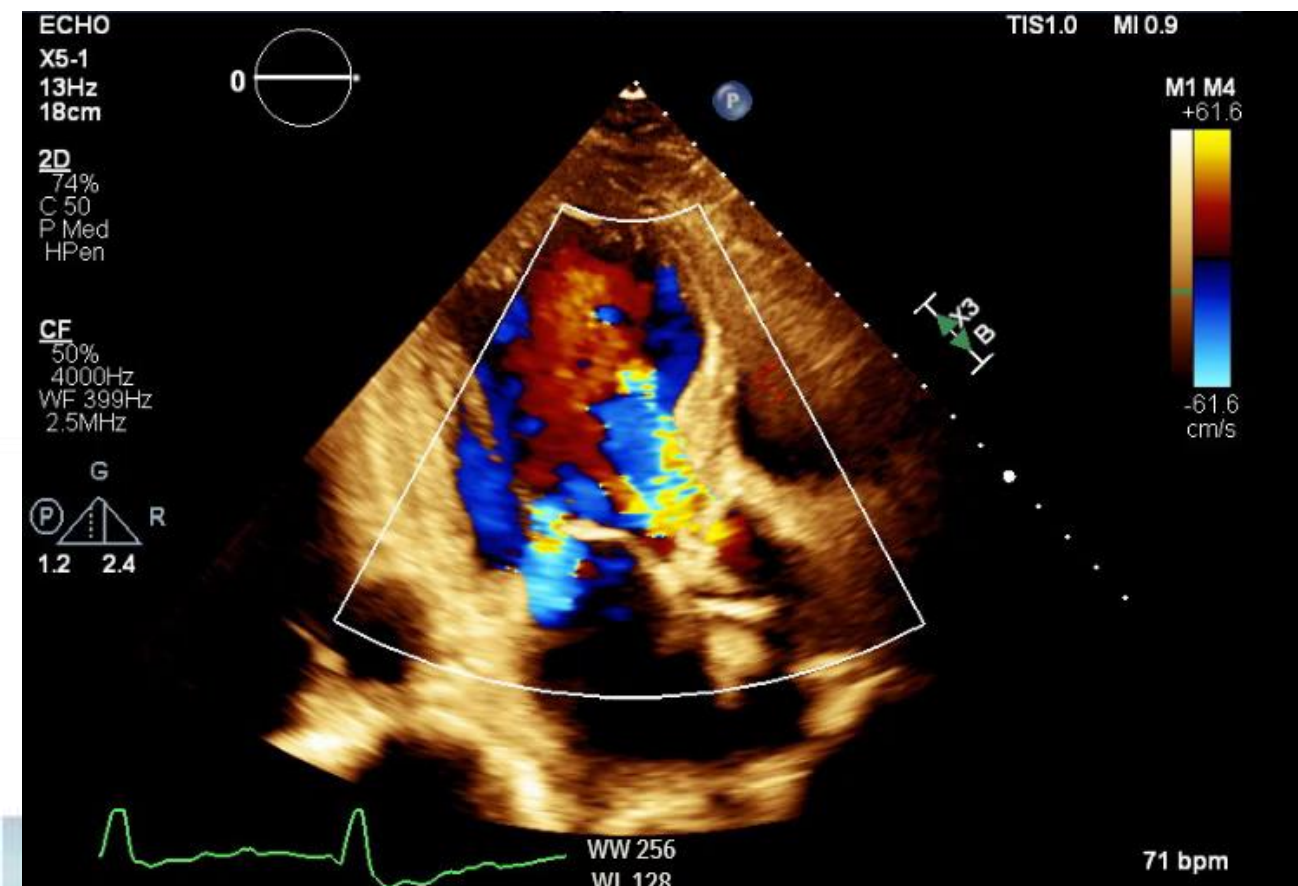
NT-ProBNP: **7240**.

Cr: **1.73**



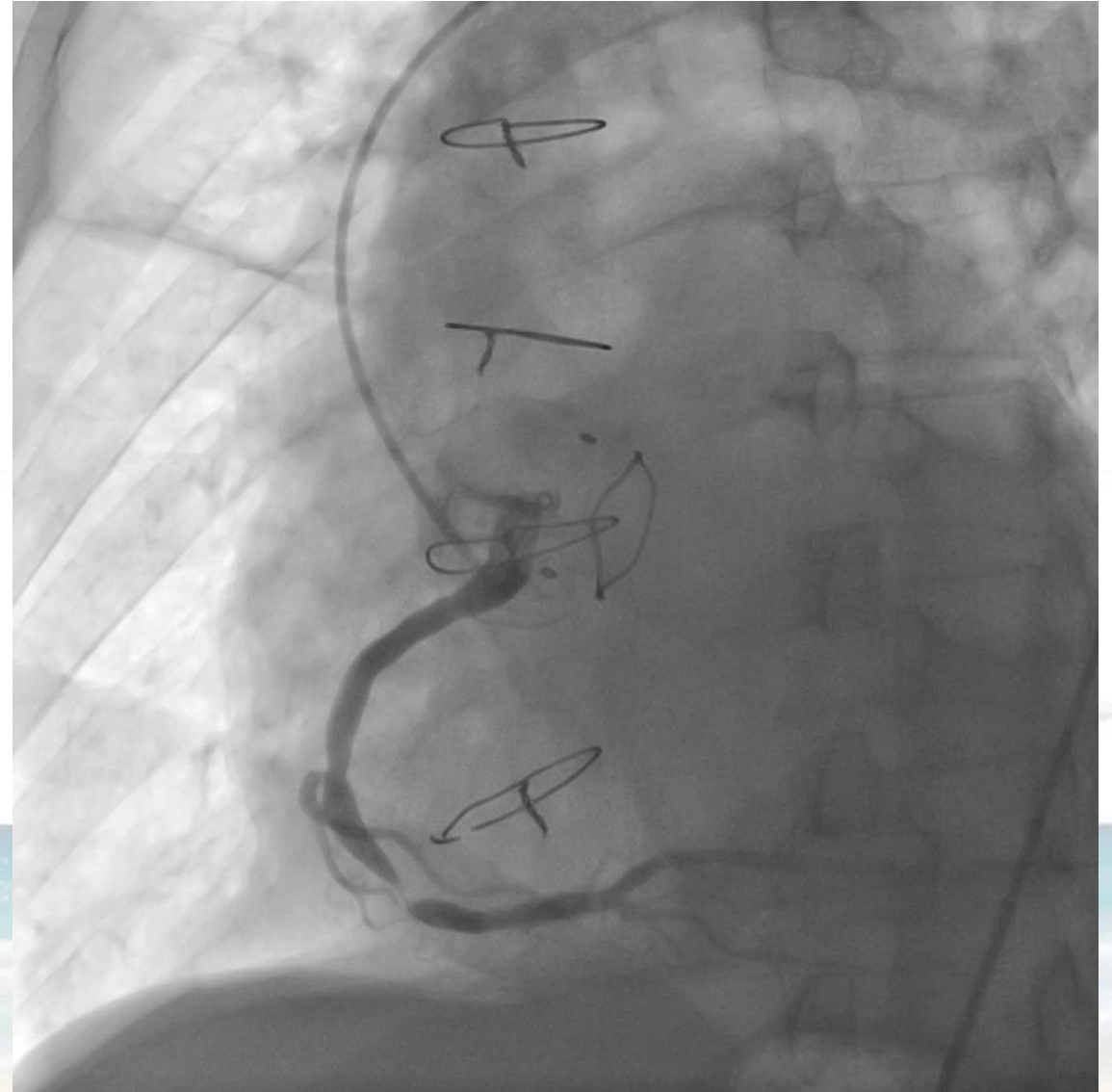
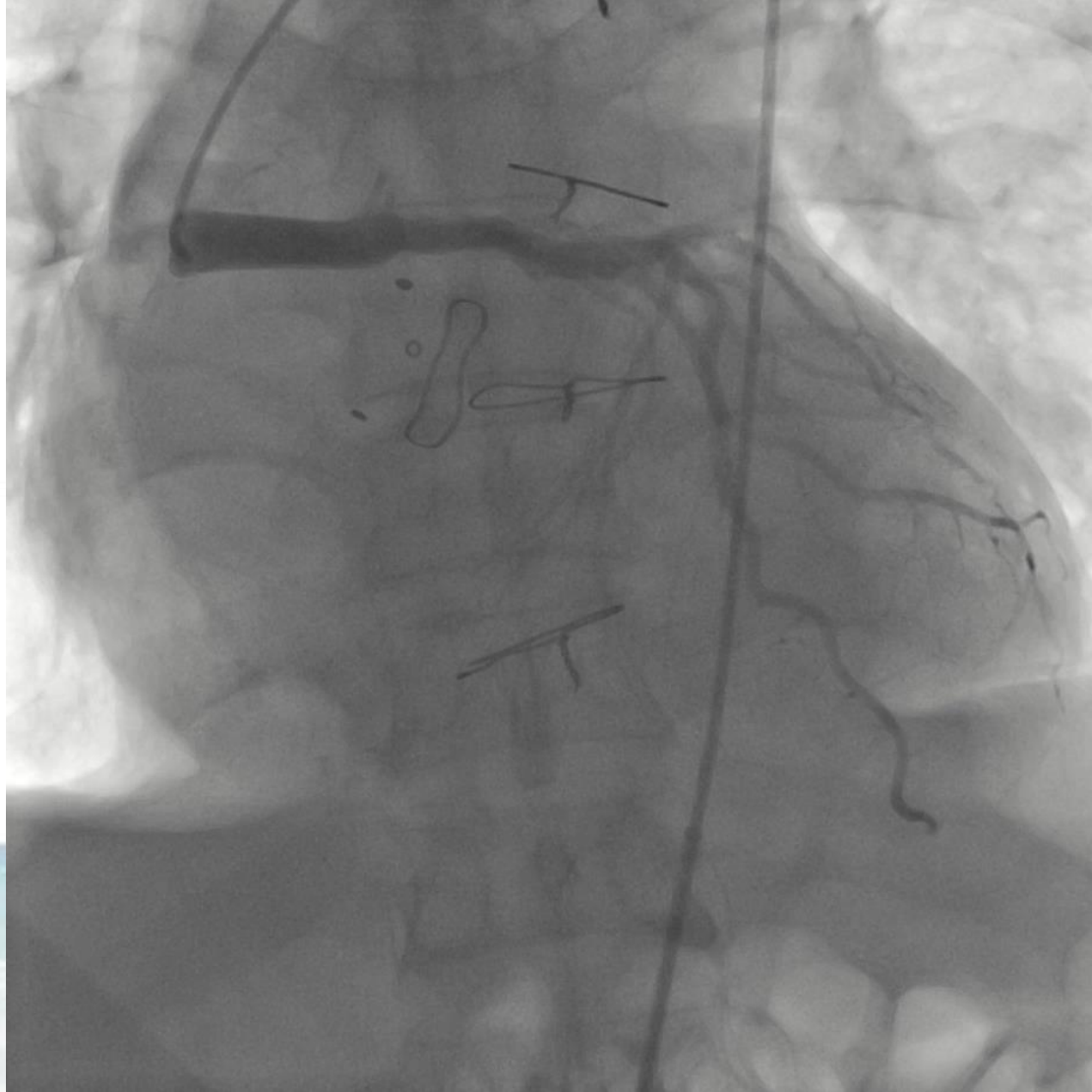


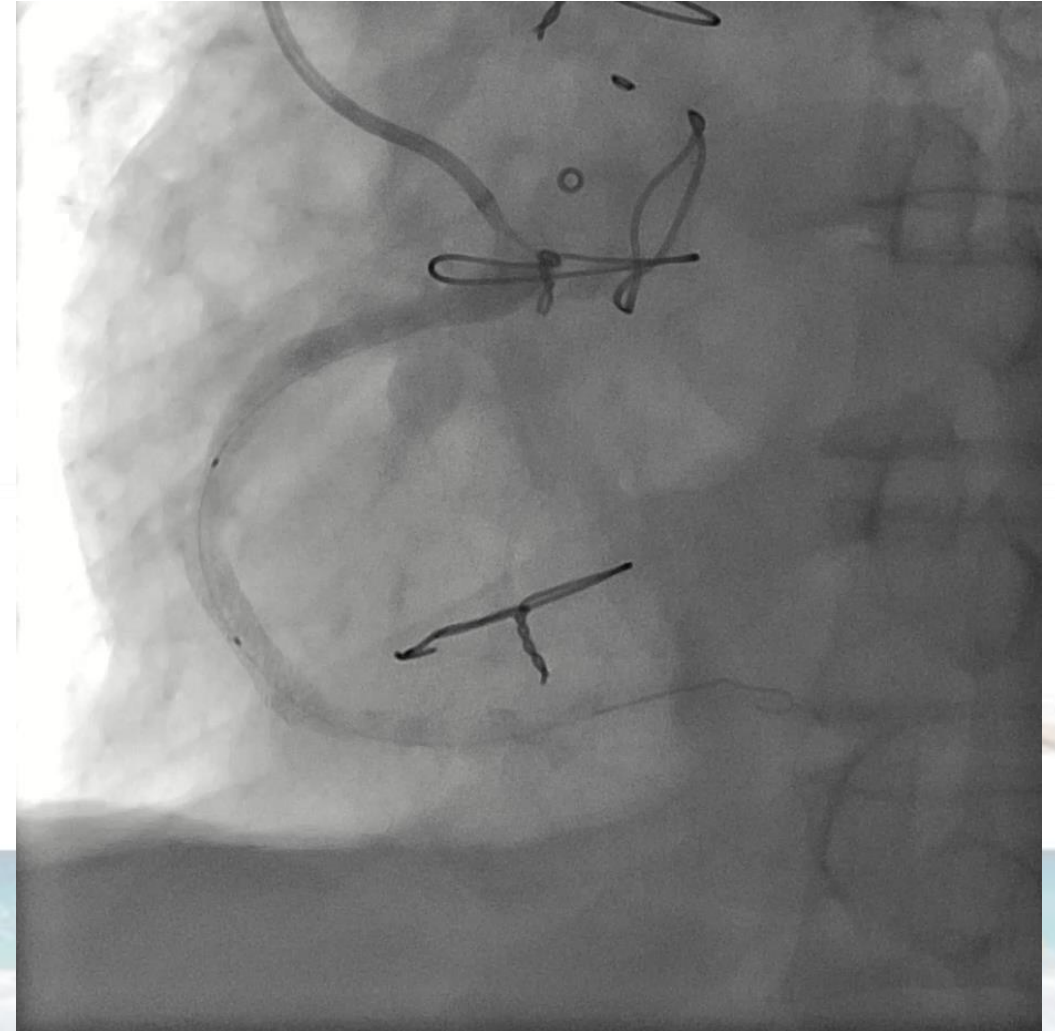
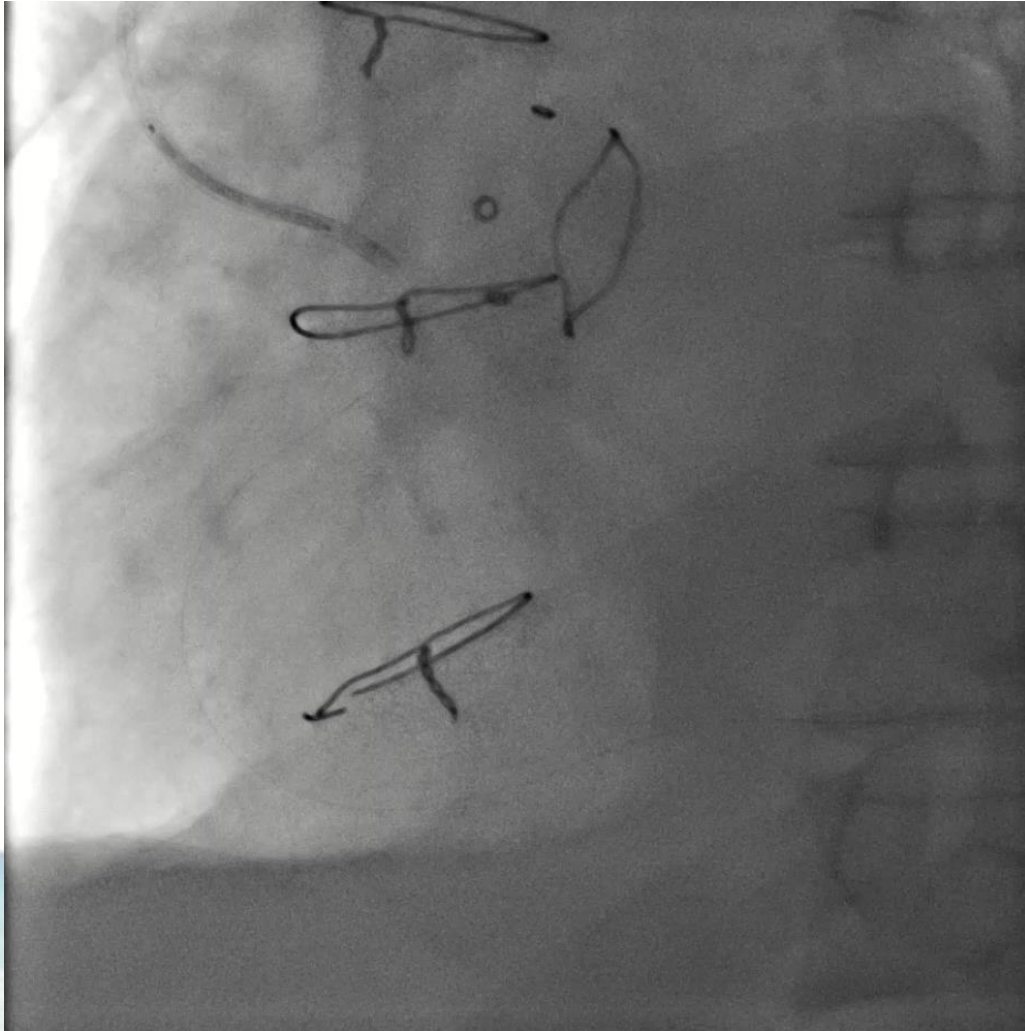
SR with FD AVB, RBBB, QRS duration : 140ms.



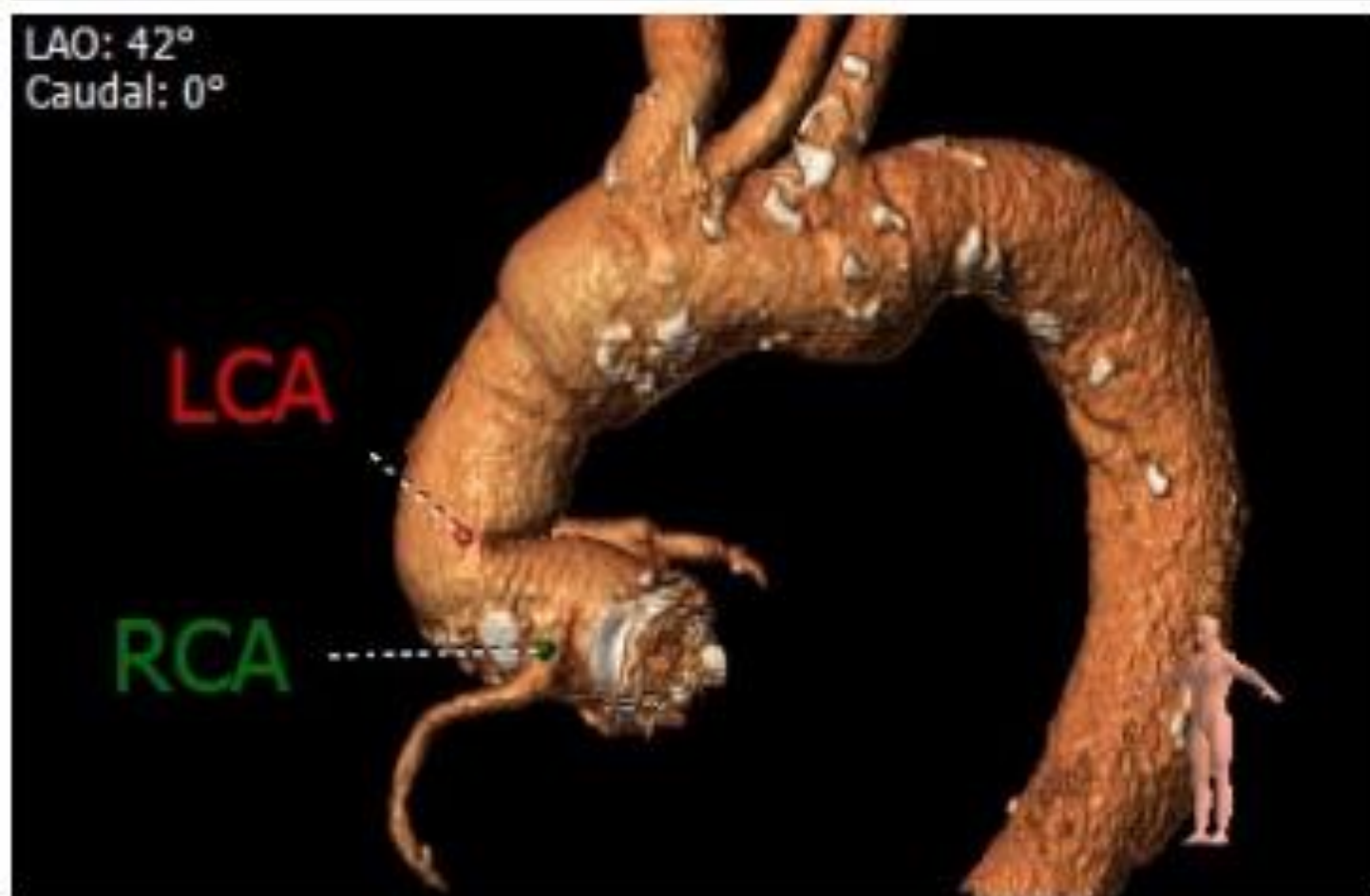
EF: 40-45%

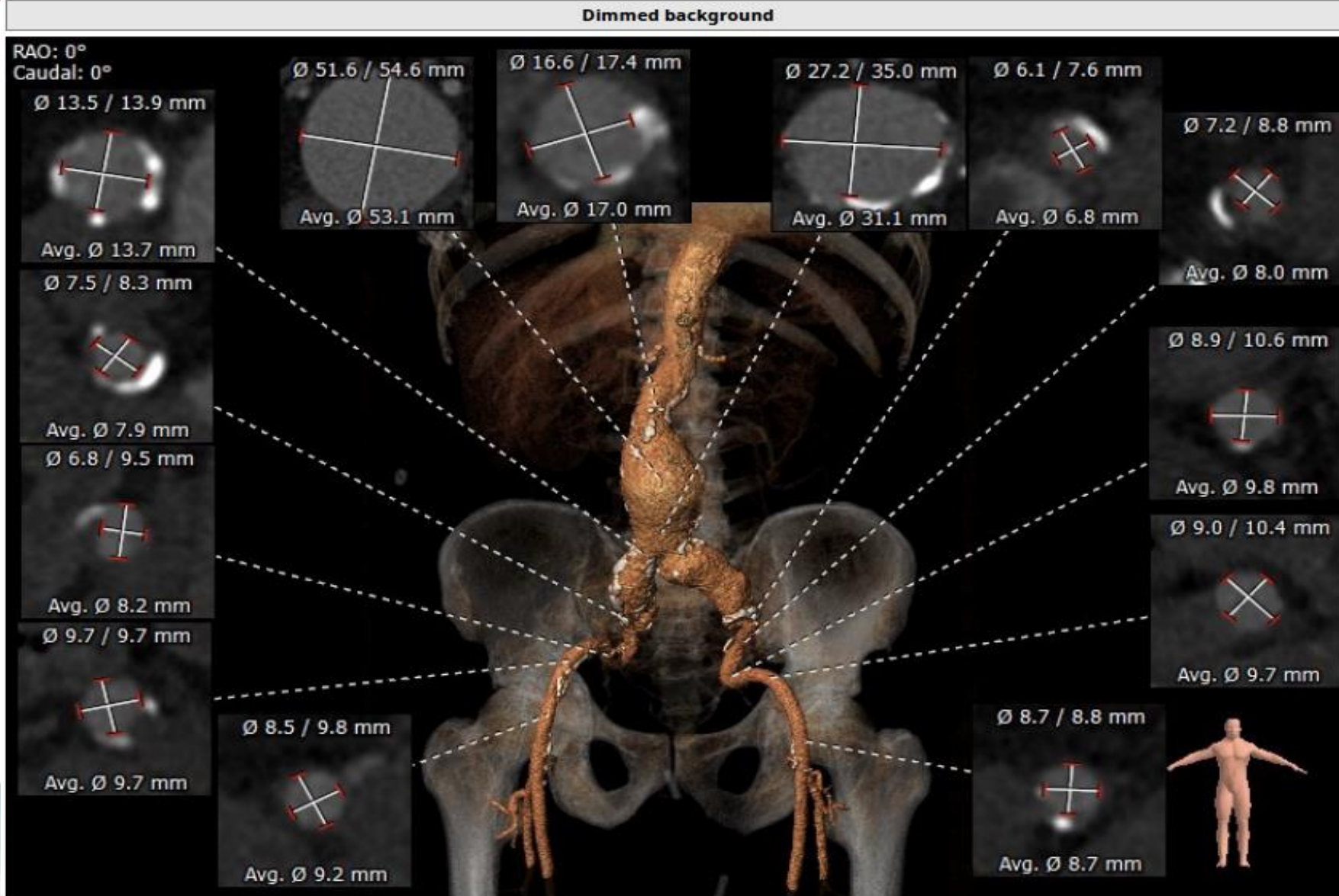


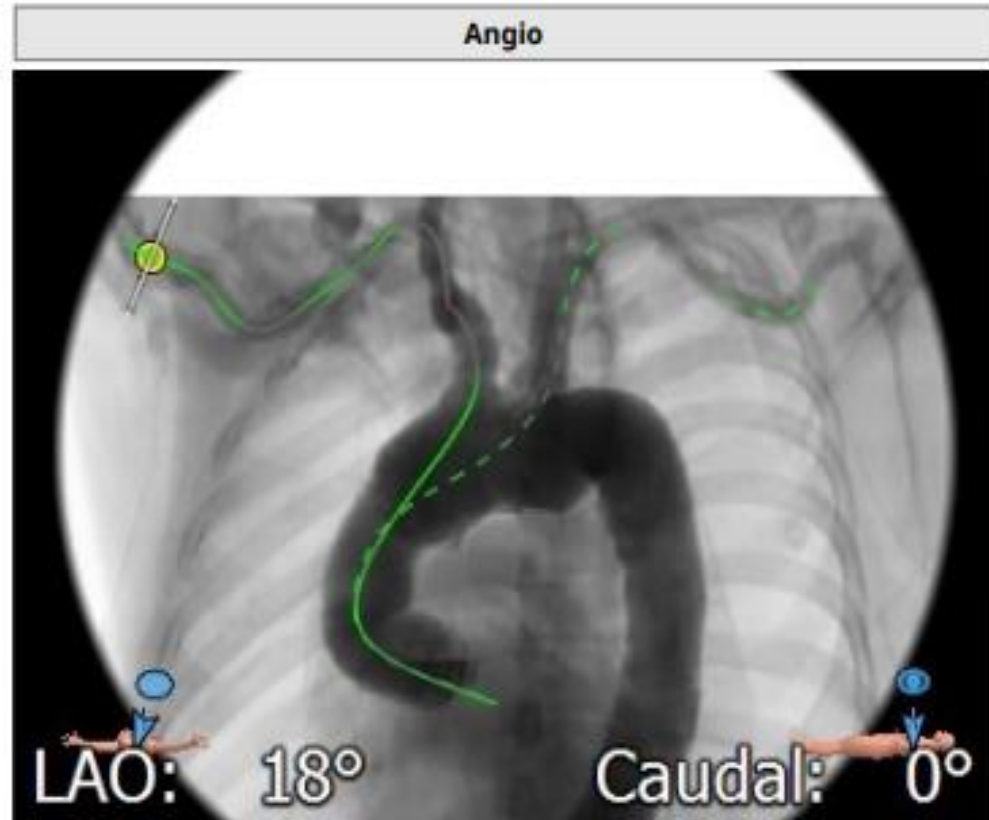
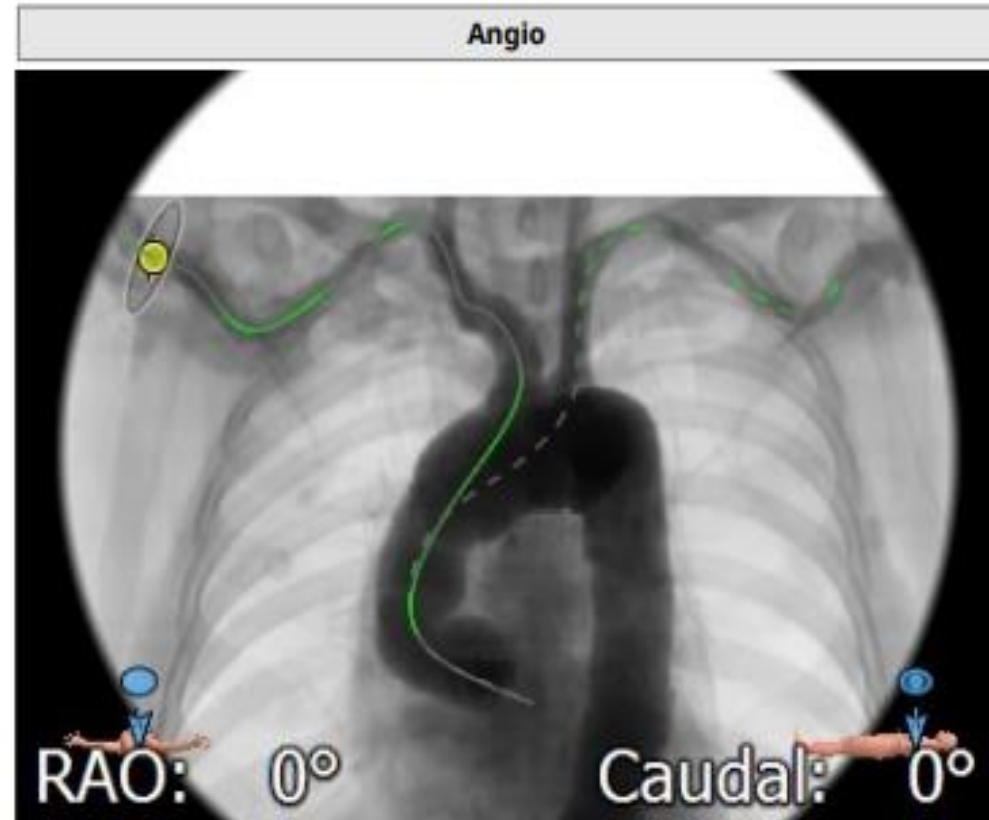




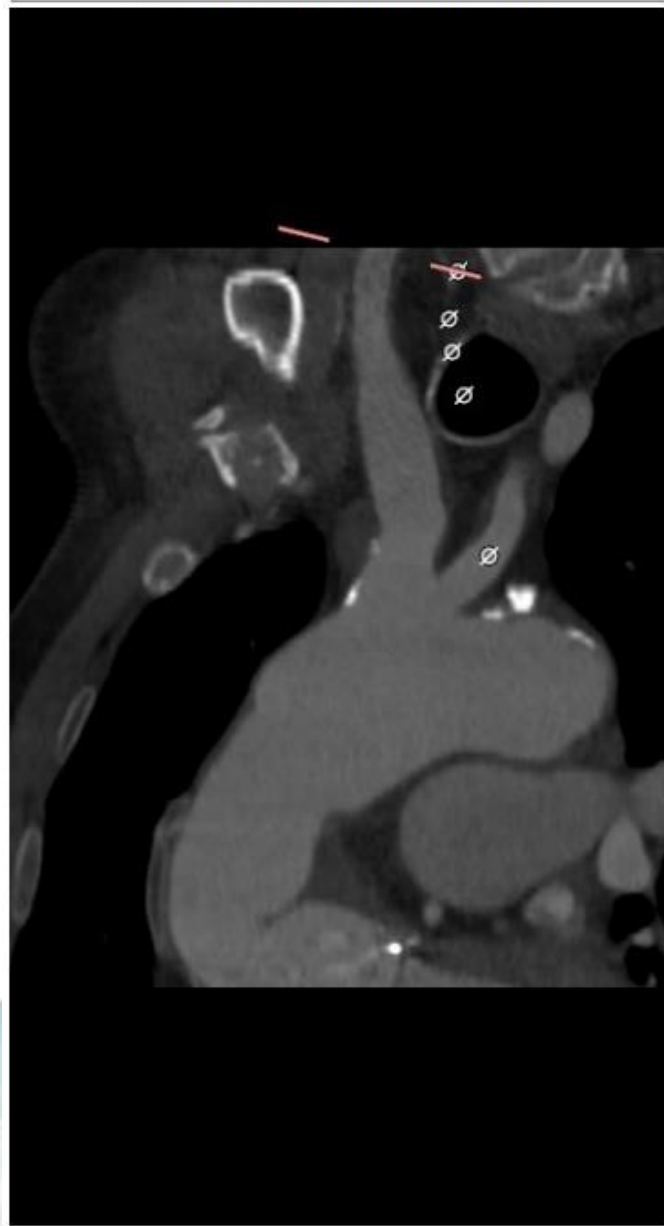




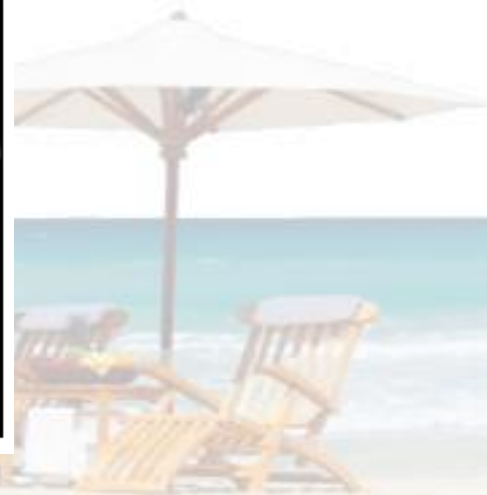
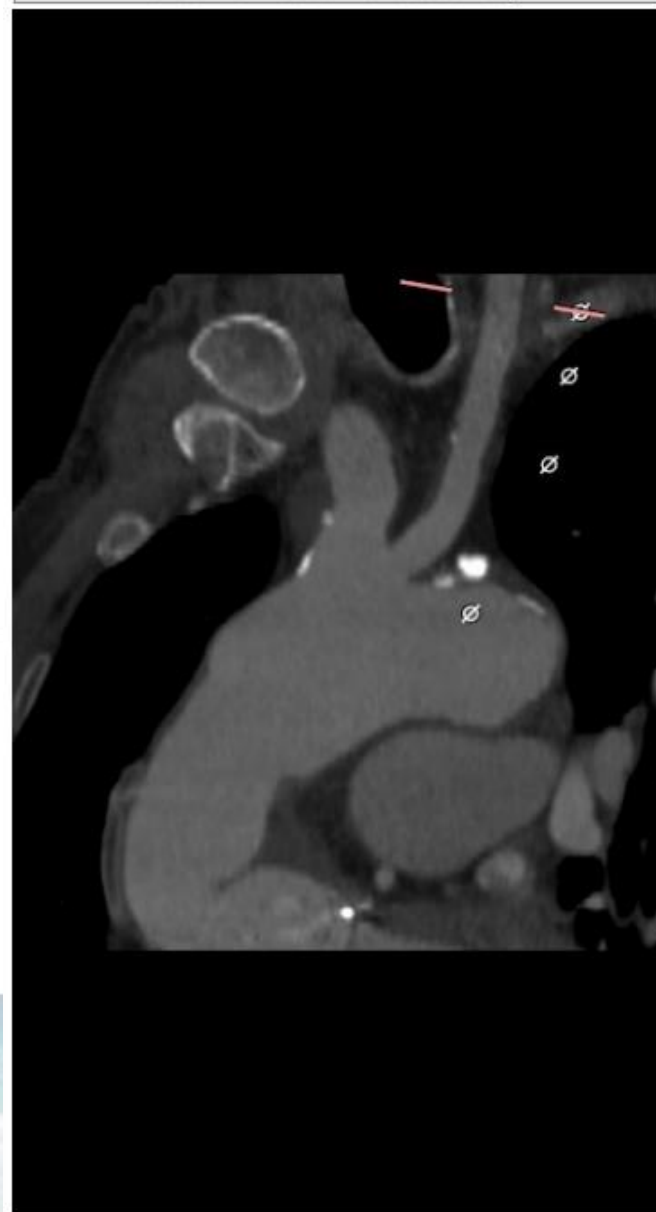




Snake View - Right Common Carotid Artery

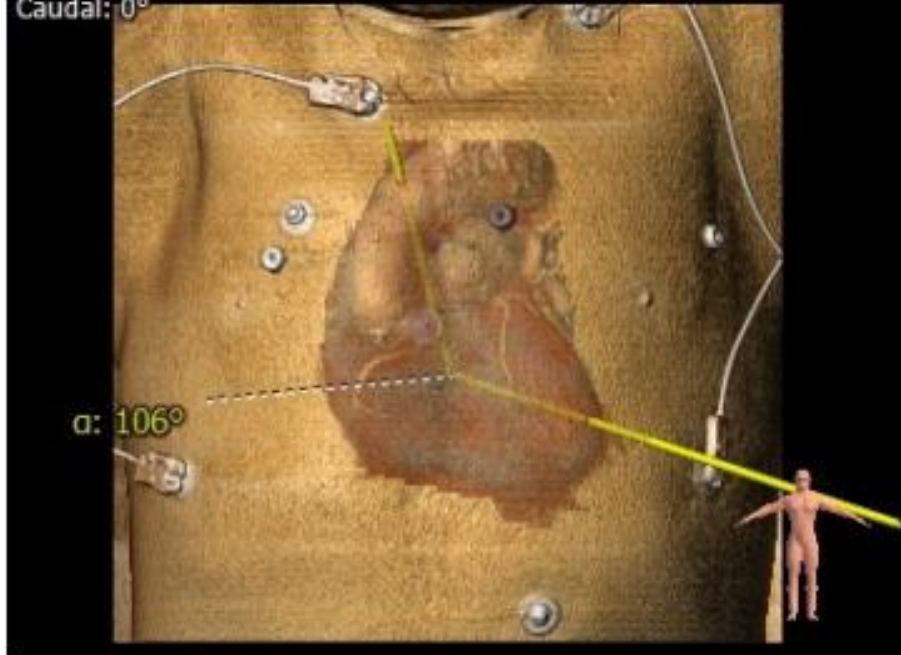


Snake View - Left Common Carotid Artery



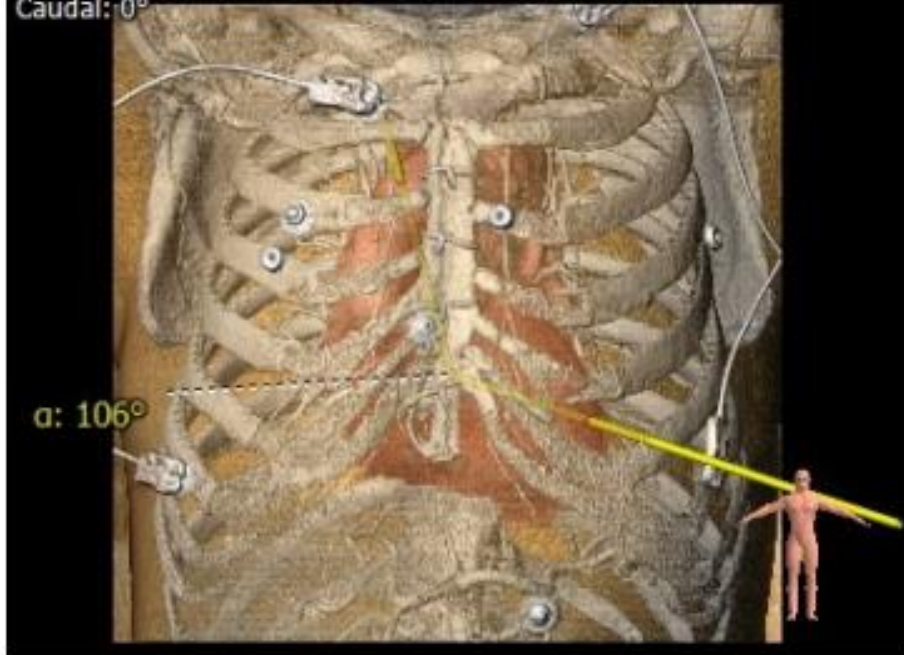
Skin & Heart

RAO: 0°
Caudal: 0°



Skin & Bone

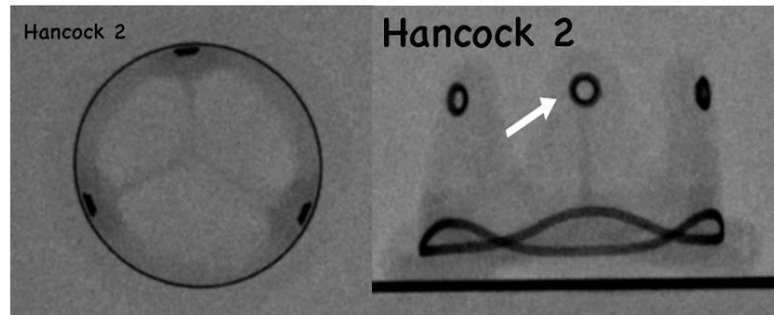
RAO: 0°
Caudal: 0°





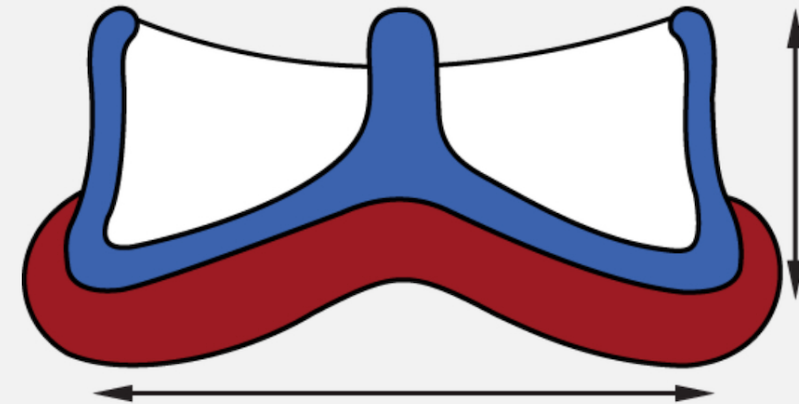
Hancock II

Left image shows the complete sewing ring marker of the Hancock 2. Right image shows the perfectly circular eyelet ring of the Hancock 2



Annulus perimeter : 66.1 mm
Annulus Area: 345.3 mm².

Size: 23



Stent ID	Height	True ID i
20.5	16	19

Non-Fracturable

True Balloon Size: N/A



STS Calculation

7.336%

Adjusted TAVR In-Hospital Mortality Risk

[Click here for info about this risk model](#)

Patient's Risk

4.07%

National Average

4% as of May 2015

In the United States, the average mortality of all patients undergoing this procedure is **4%**.

Taking into account the patient's specific clinical condition, the statistical estimate that he might not survive the procedure is **4.07%**.

This means that for every 100 patients having a similar clinical makeup, there would be **4.07** who did not survive.

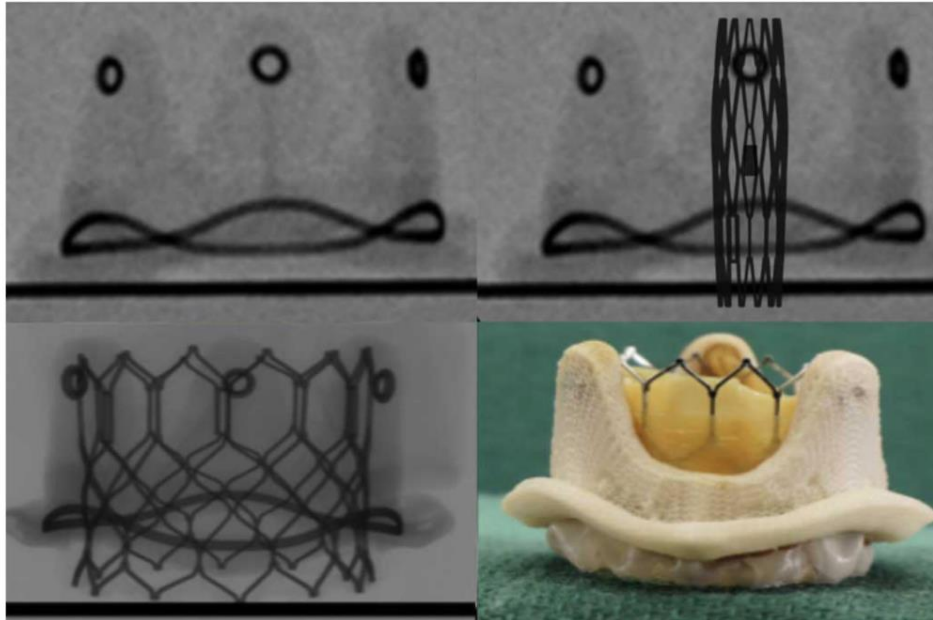


How do you approach this ?

What is your valve choice ?

S3 Ideal Placement

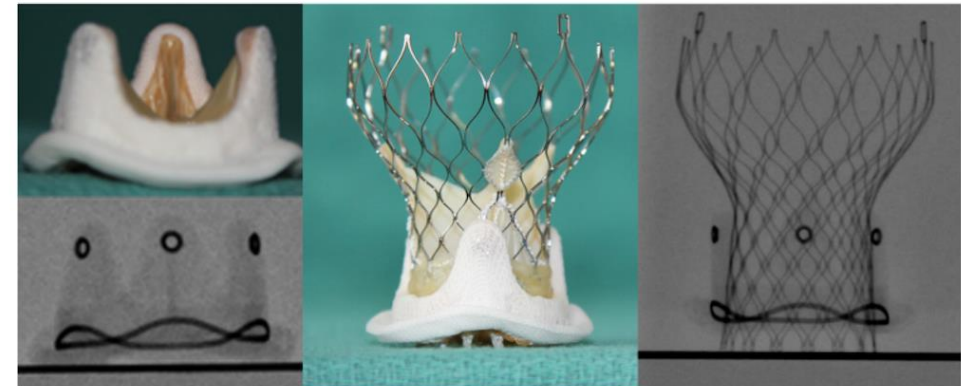
Bottom row of 'small cells' below the fluoroscopic sewing ring marker.



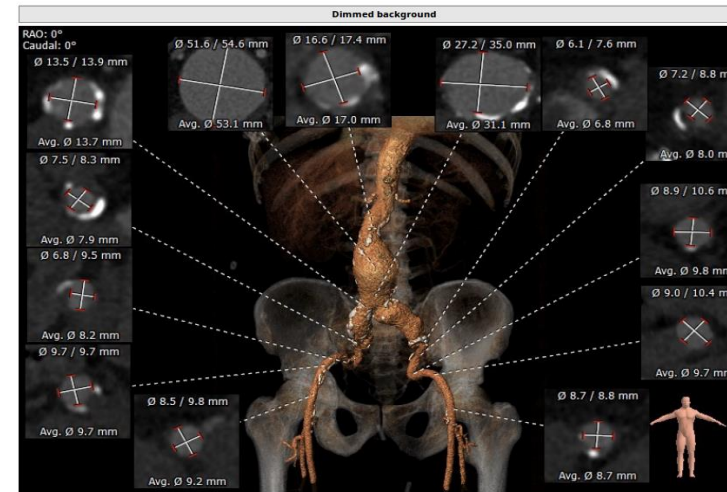
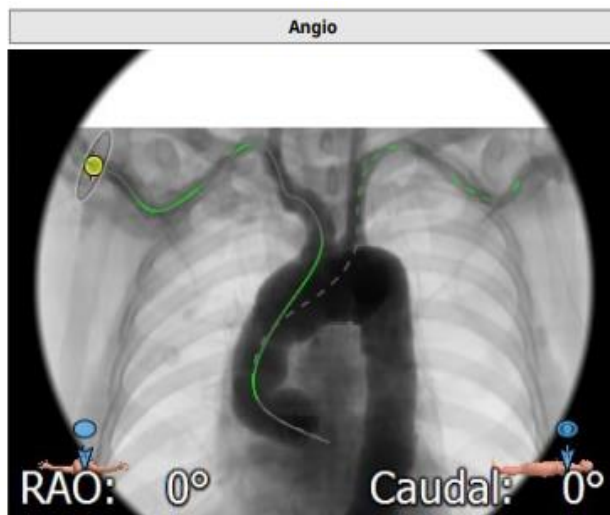
S3 23 mm

Evolut Ideal Placement

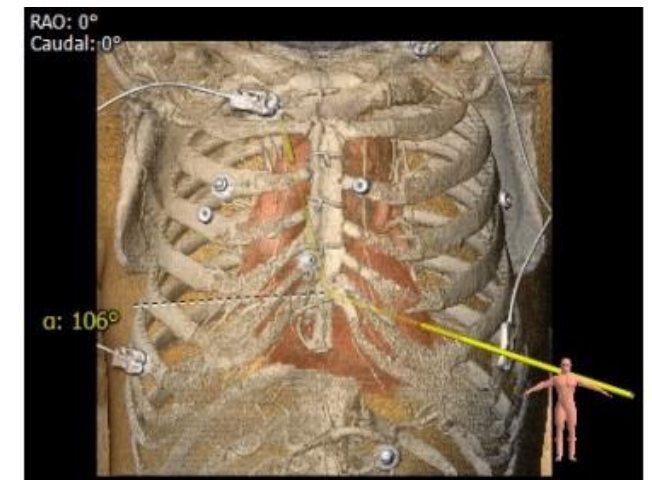
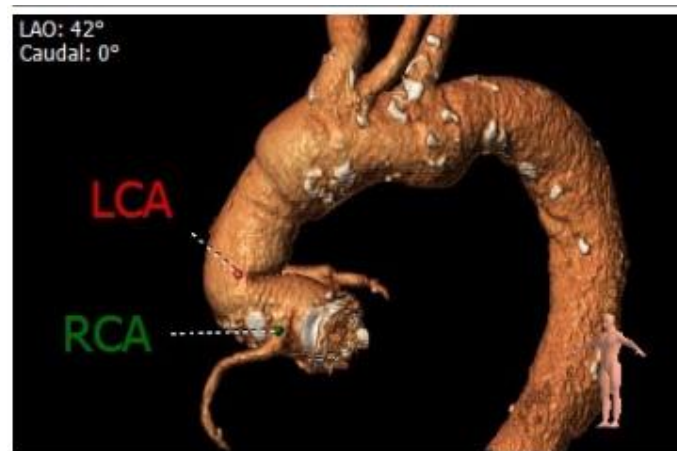
If recommendation is two sizes, choose the valves size depending on the size of sinus of valsalva. Place Evolut 4 mm below the fluoroscopic marker in the sewing ring.



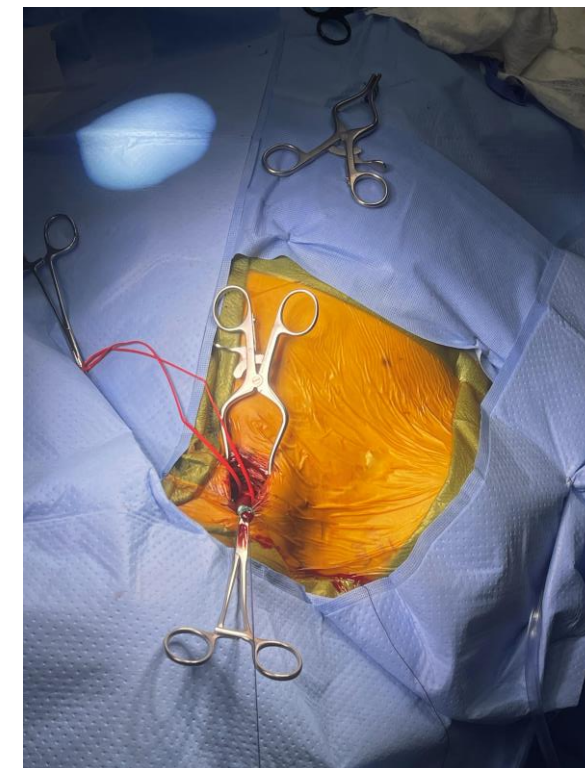
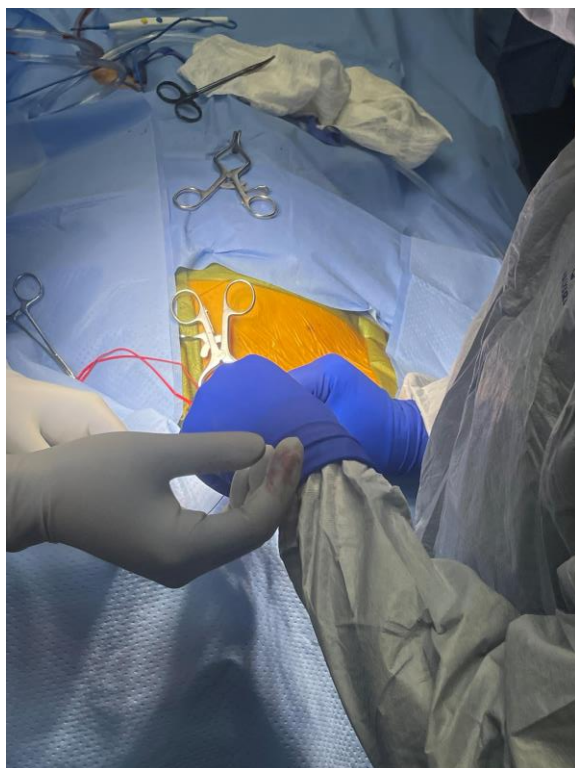
26 mm Evolute Pro

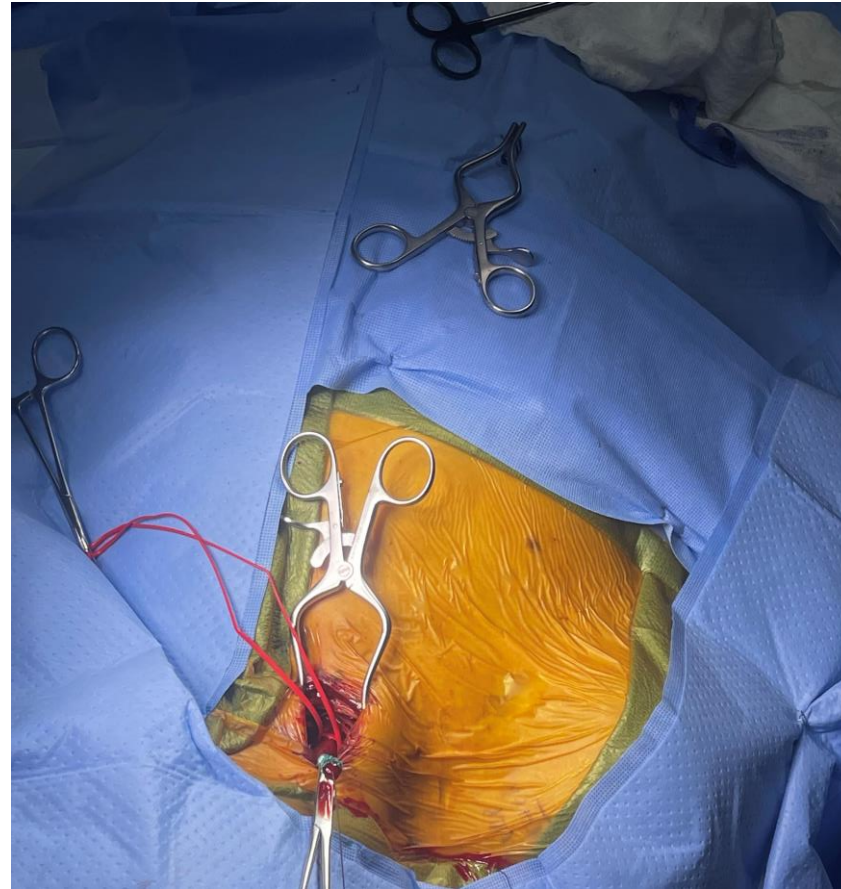
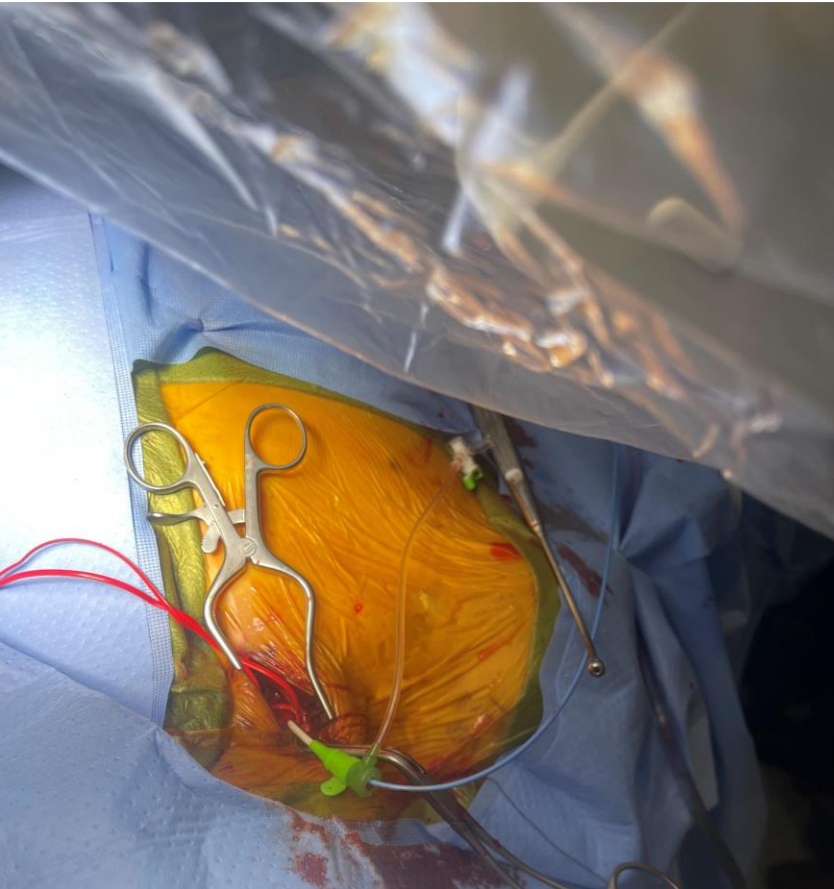


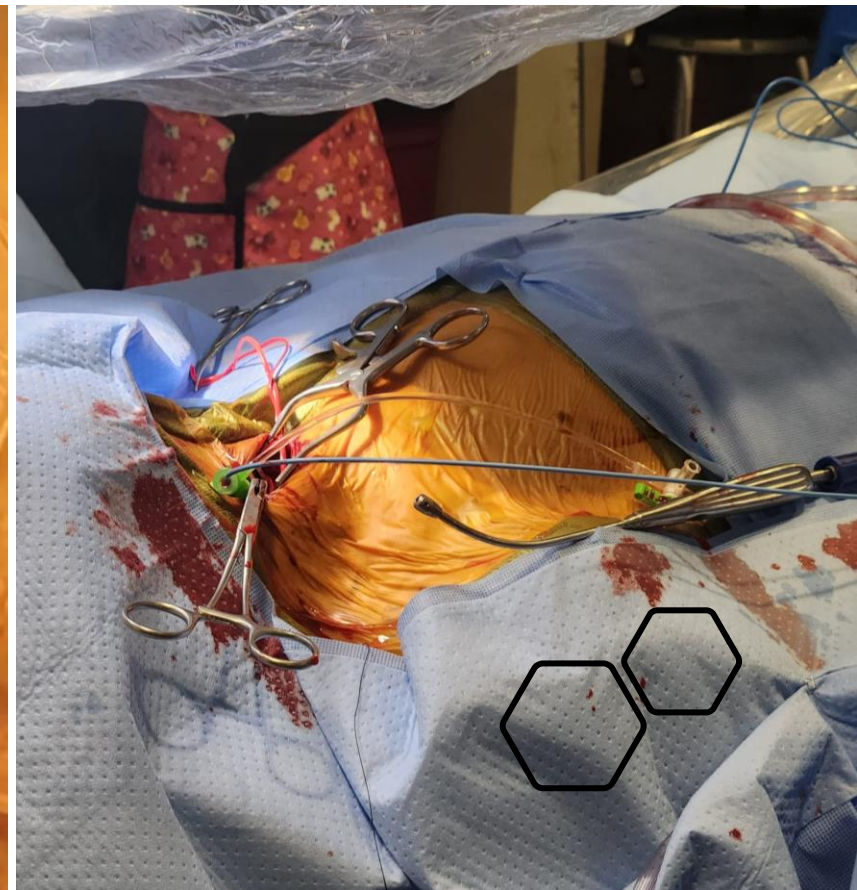
What is your access choice?

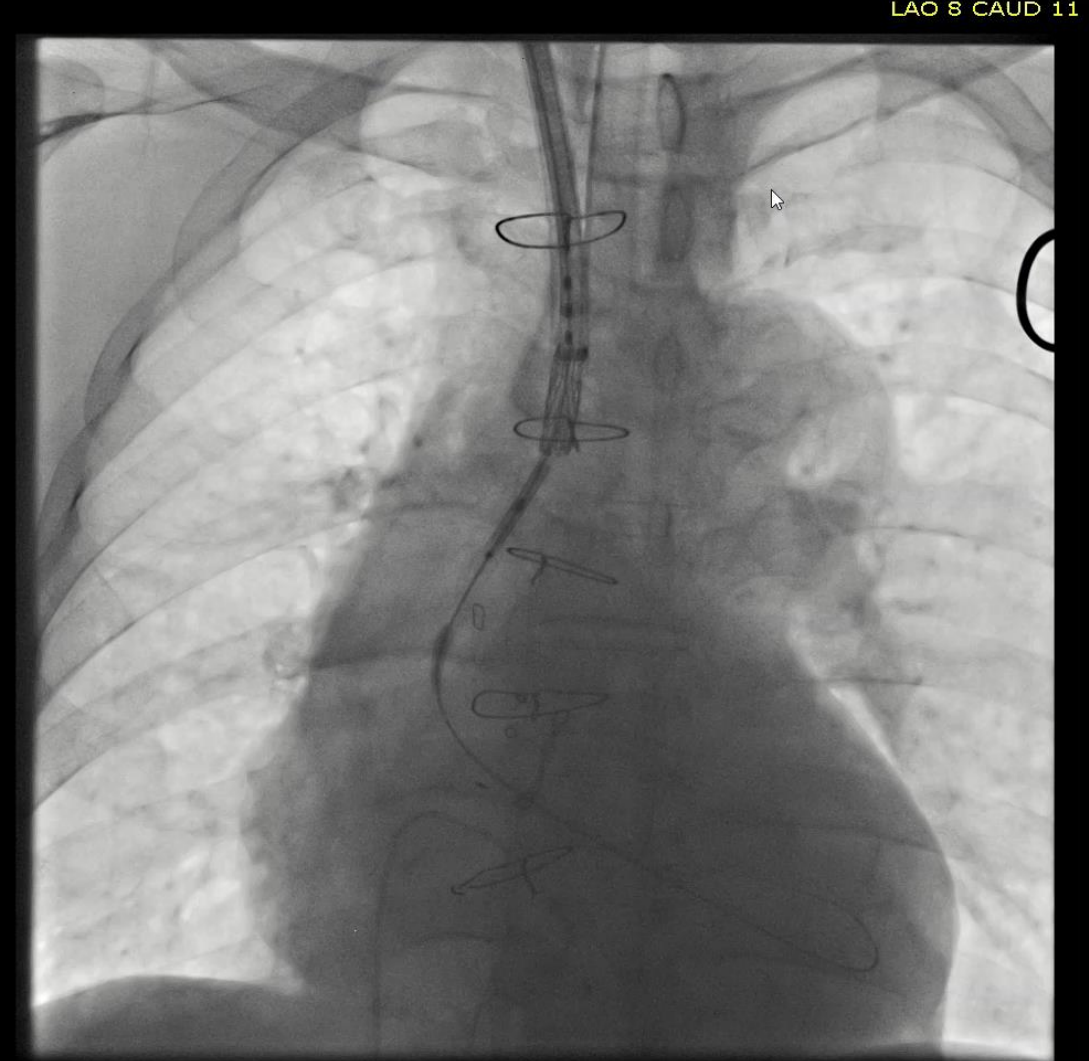
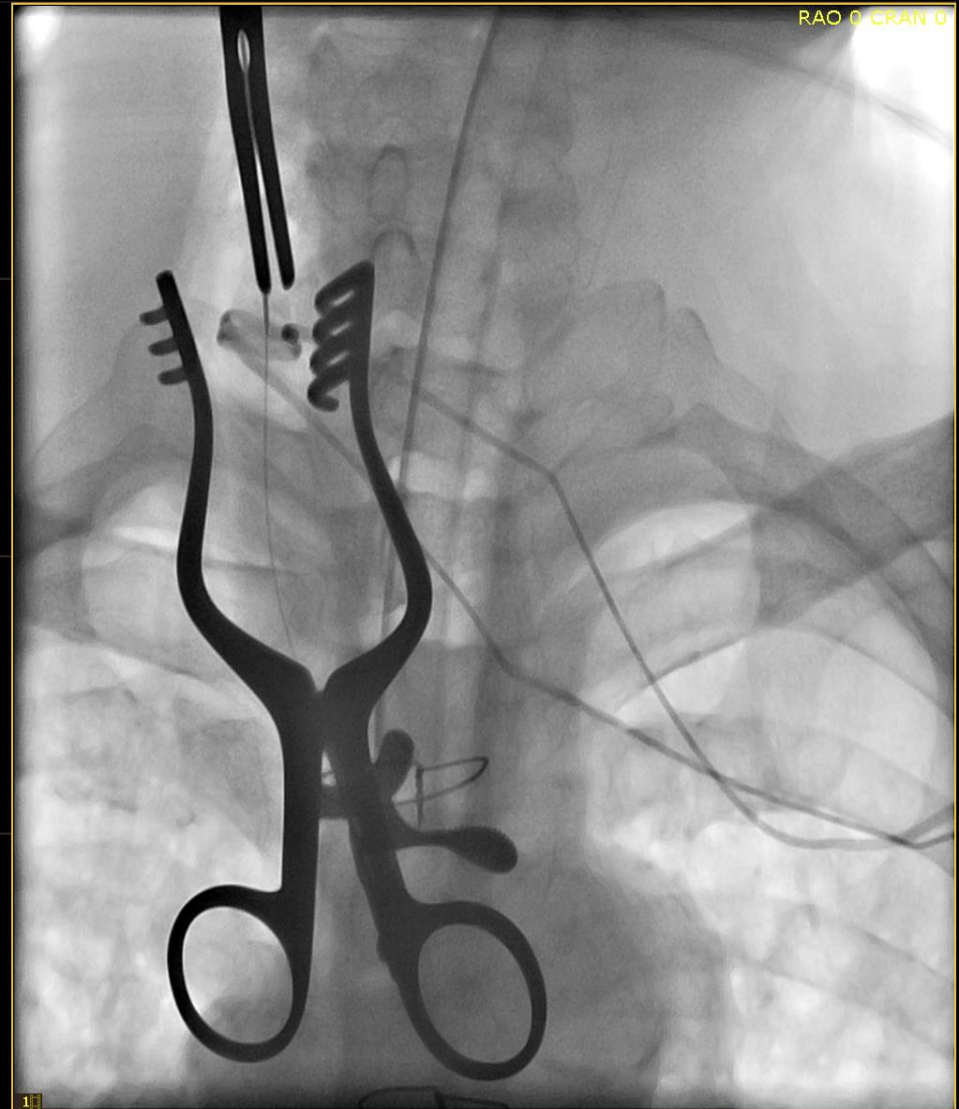


Right Internal Carotid cut down

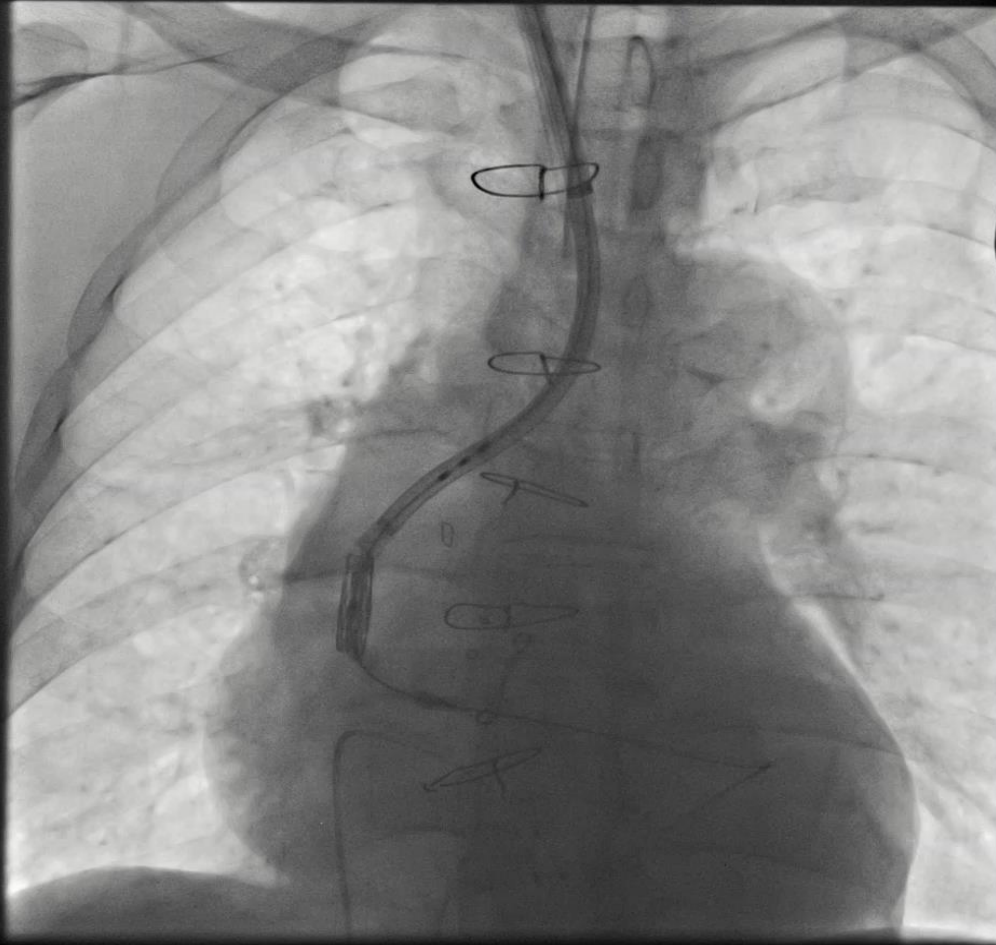




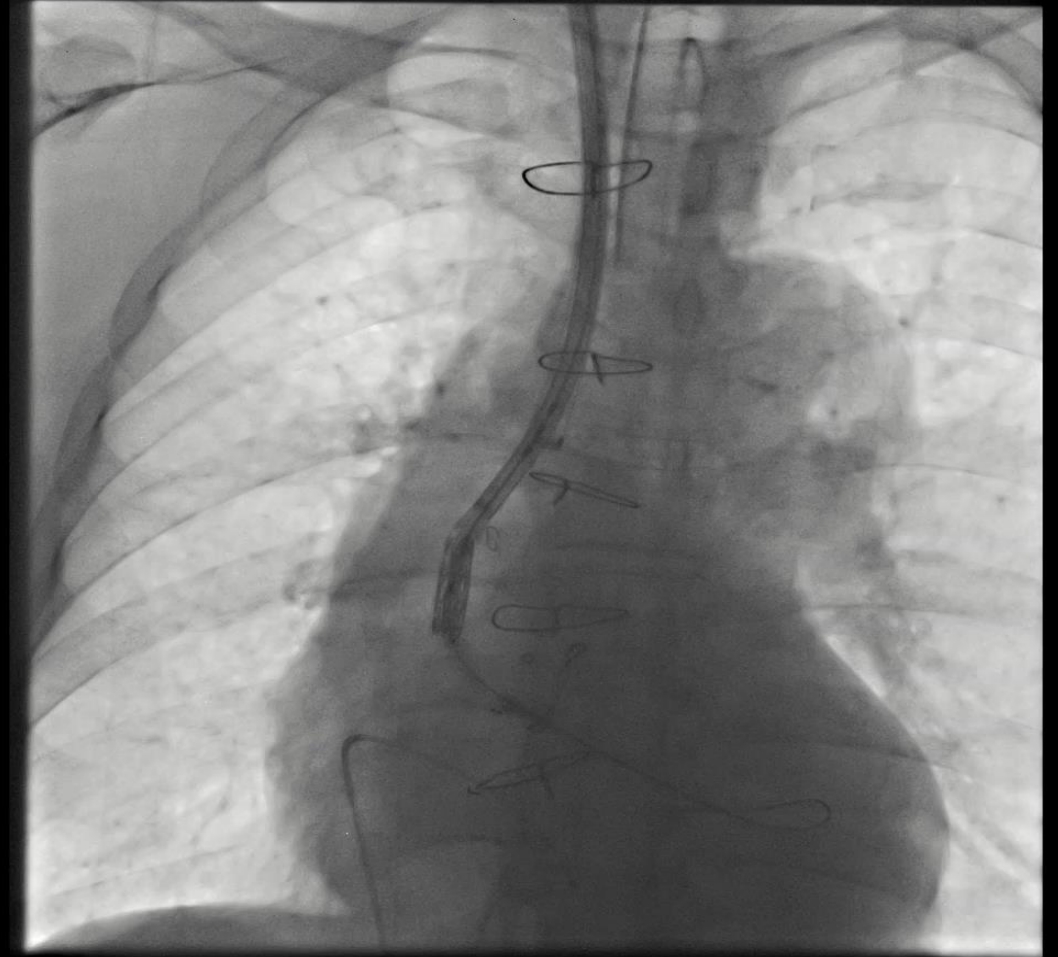




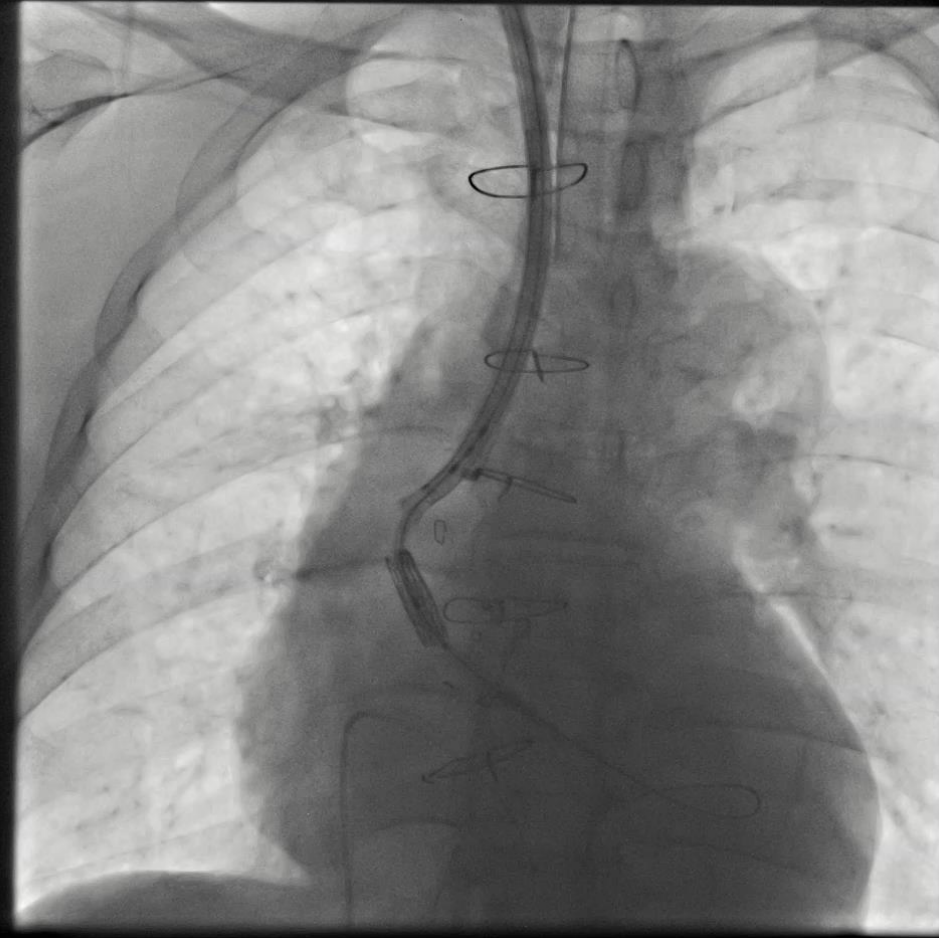
LAO S CAUD 11



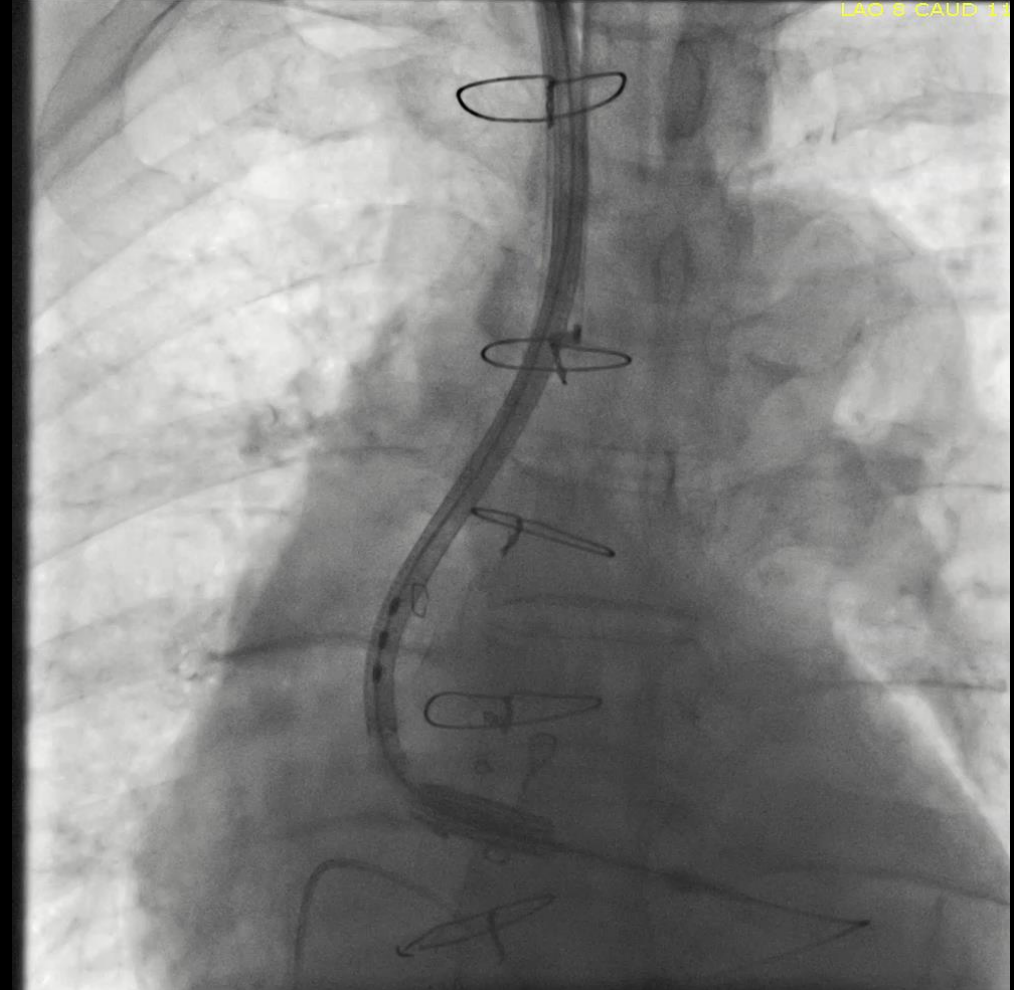
LAO S CAUD 11

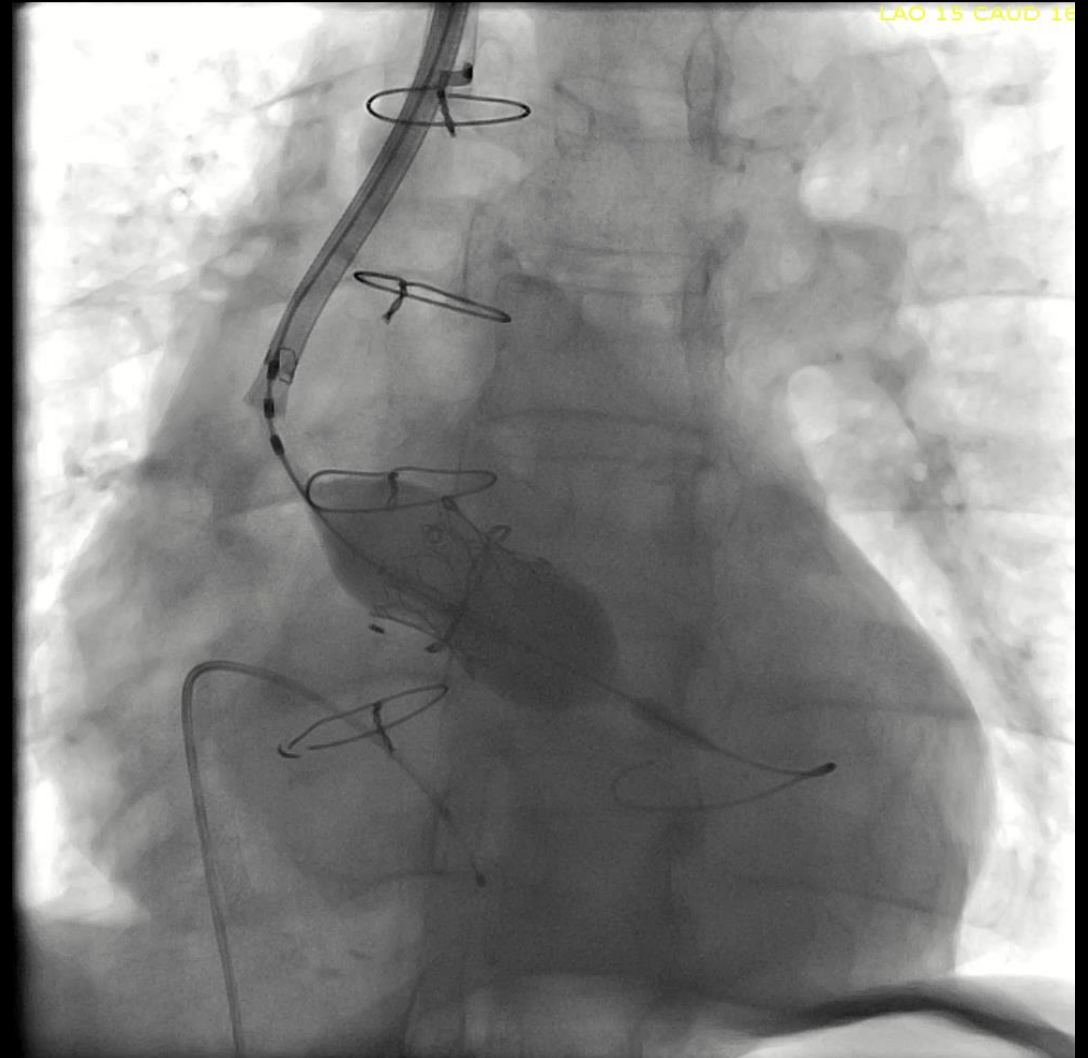
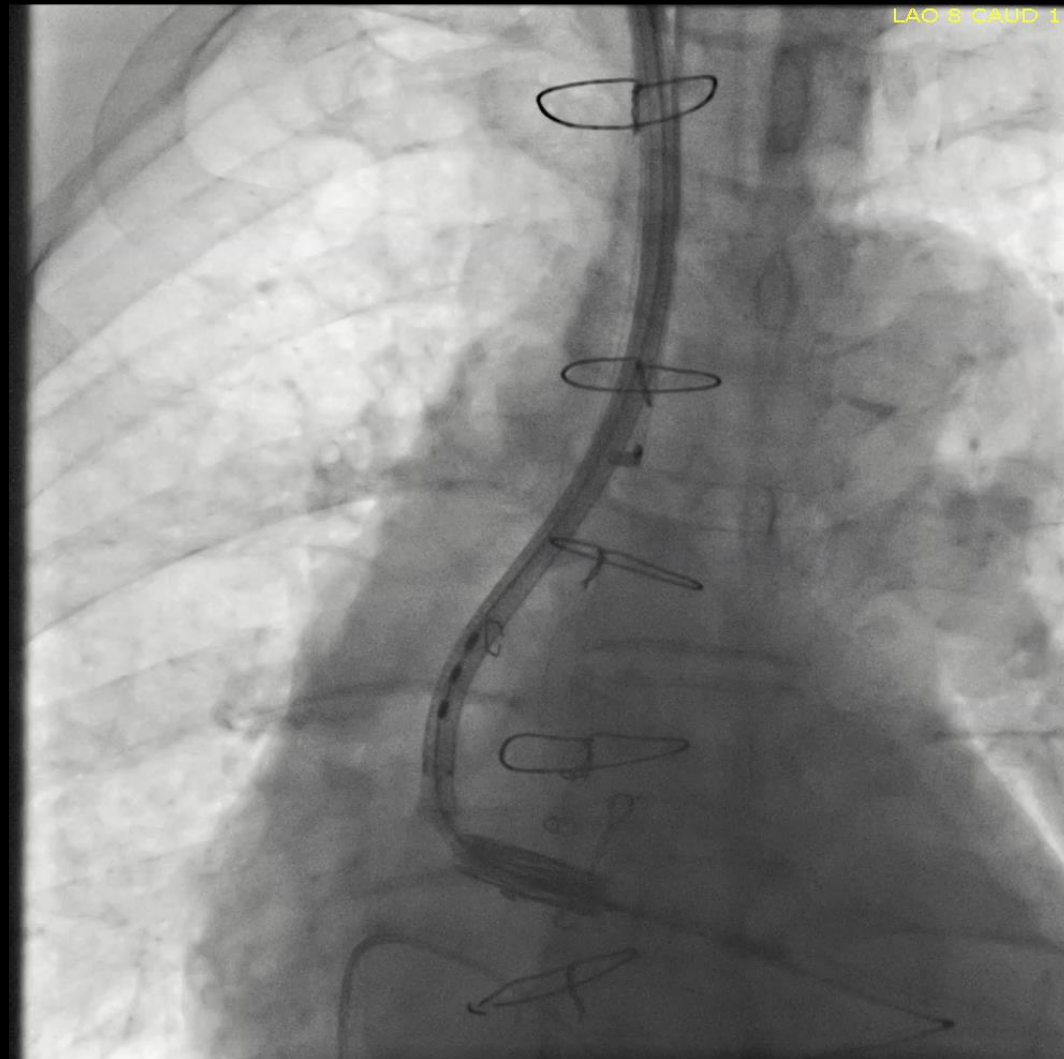


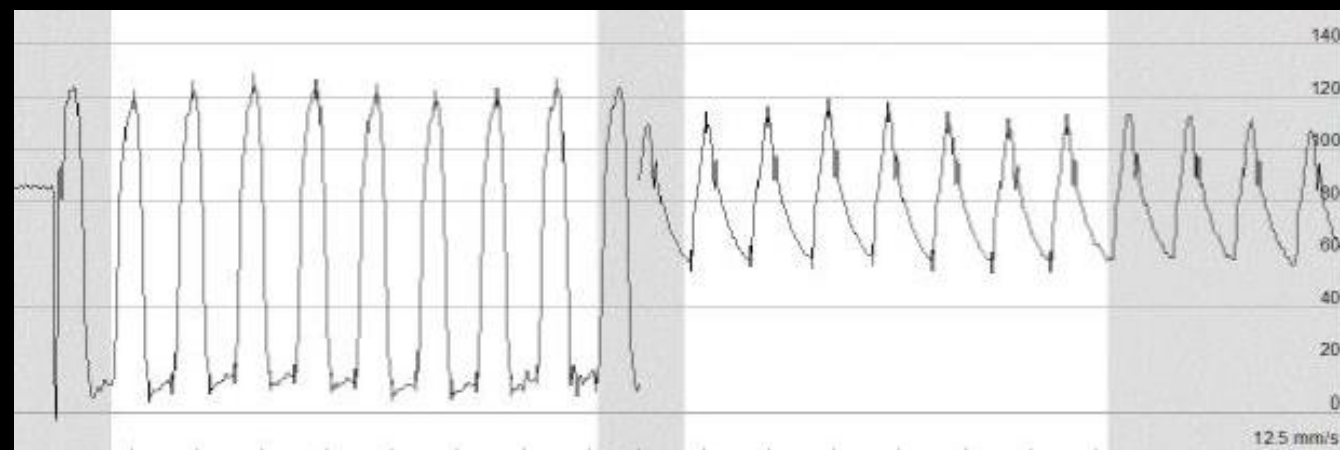
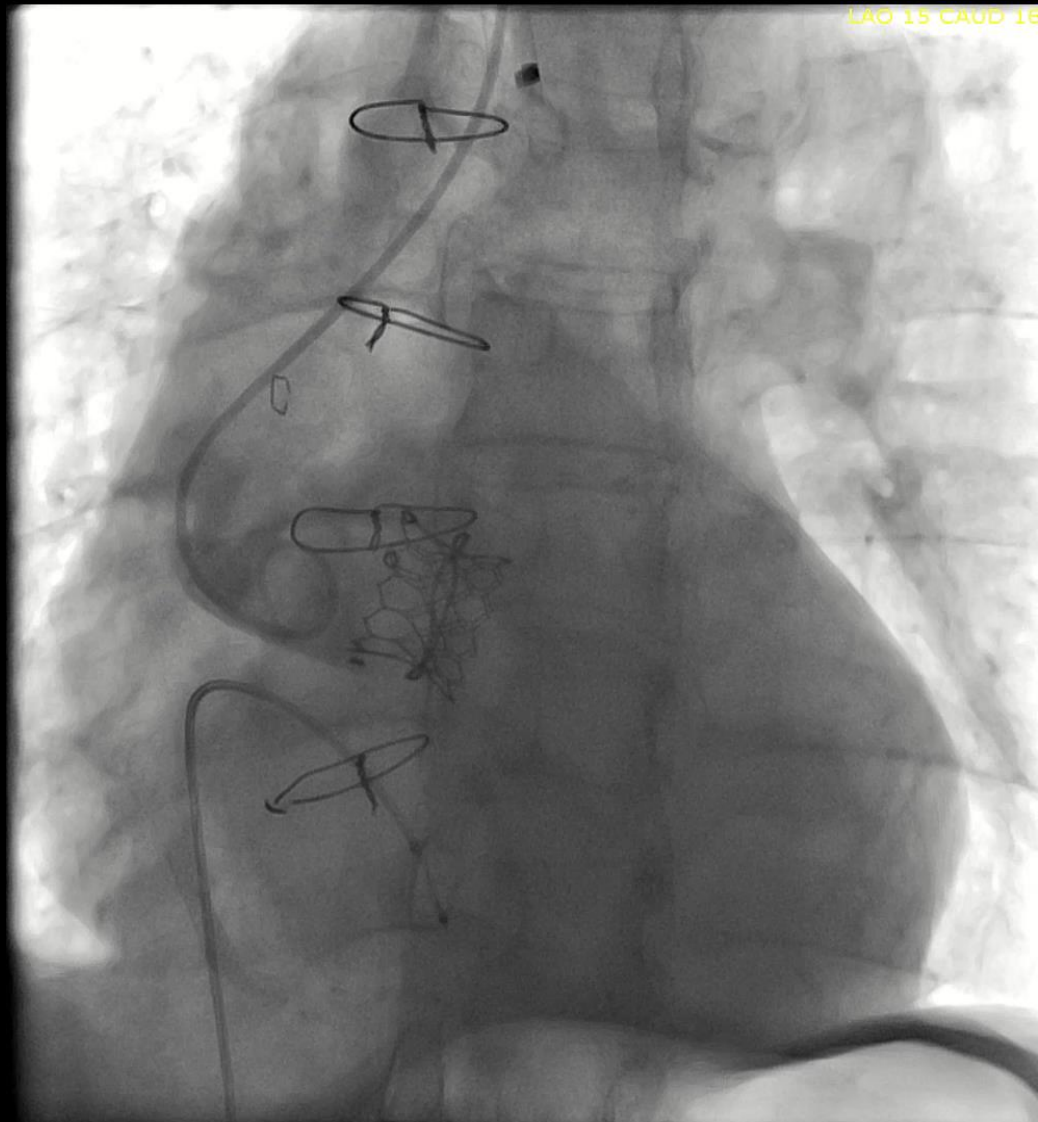
LAO S CAUD 11



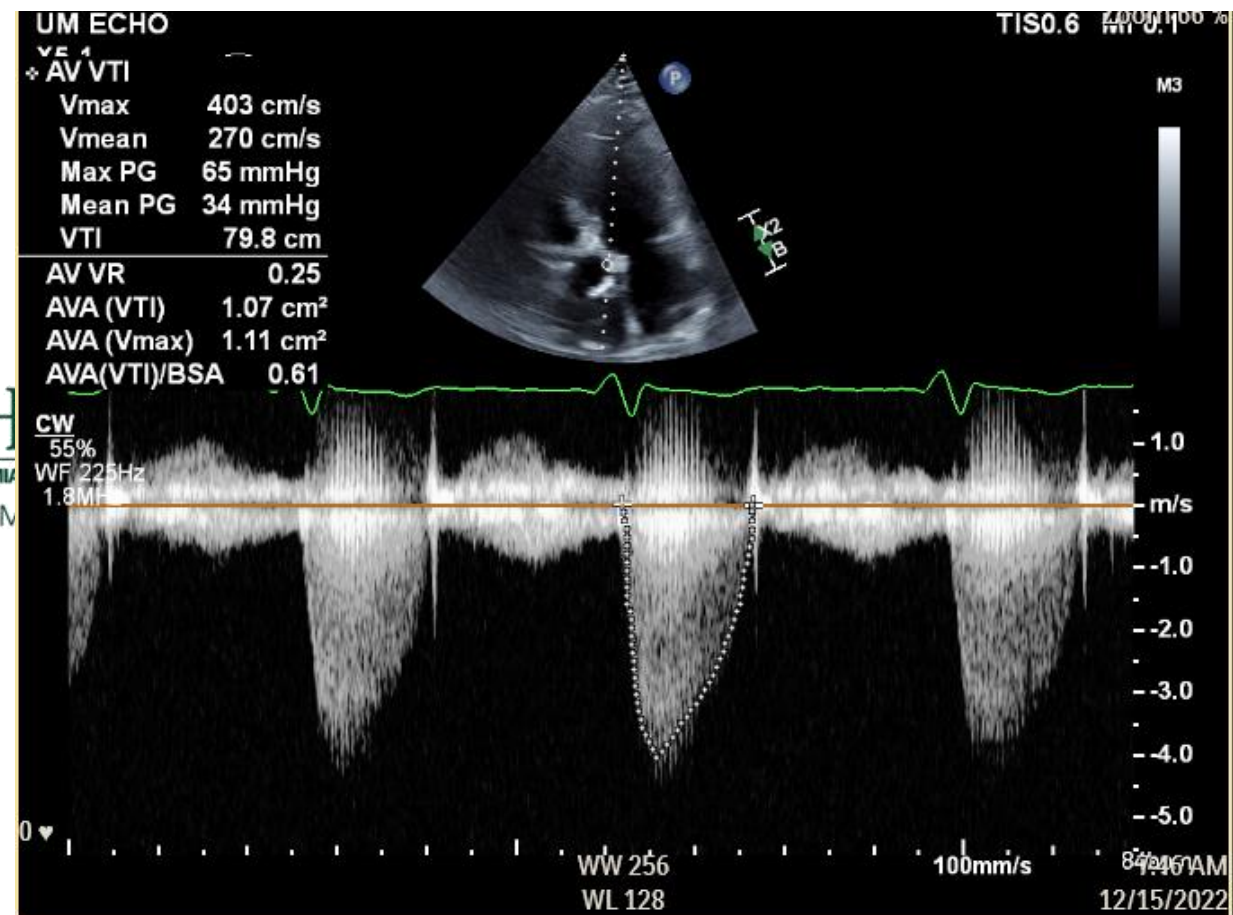
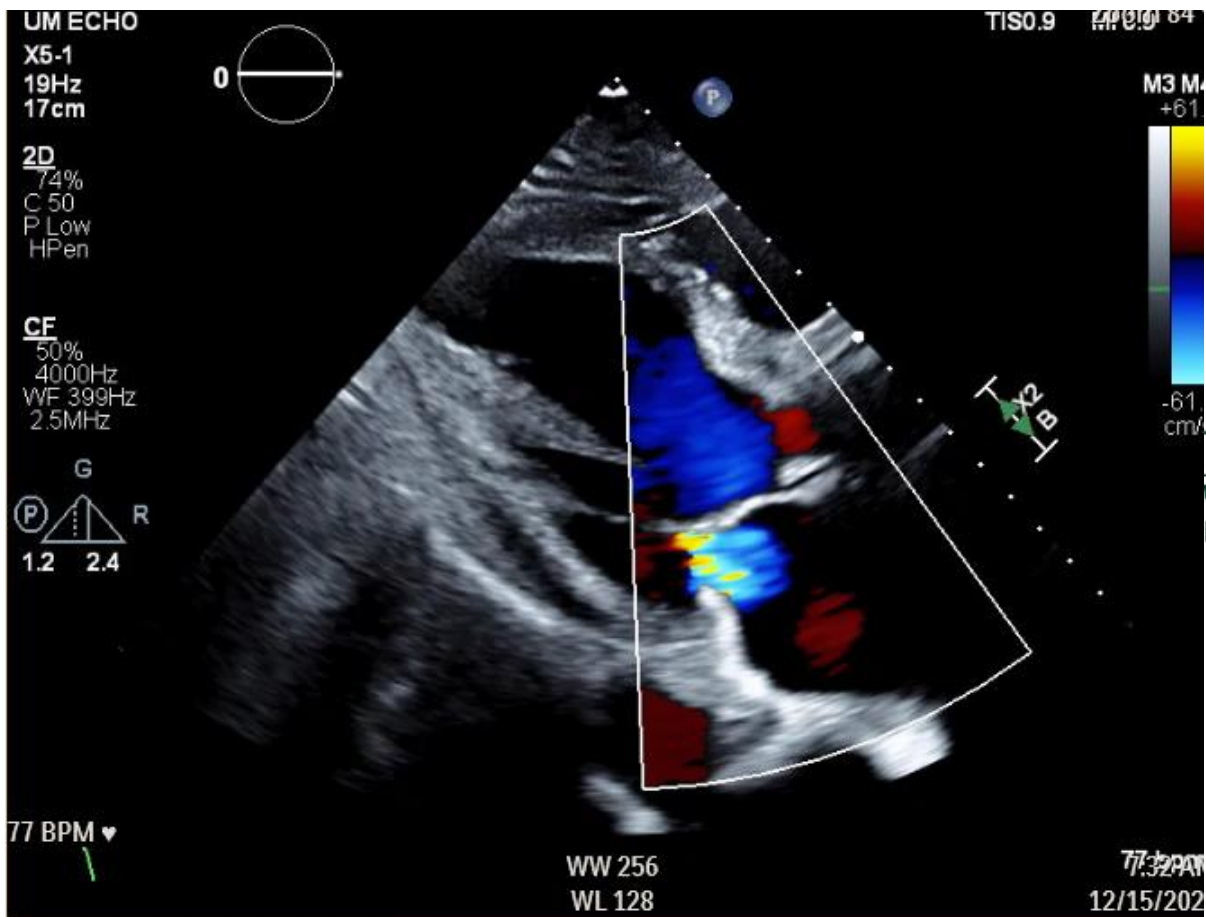
LAO S CAUD 11



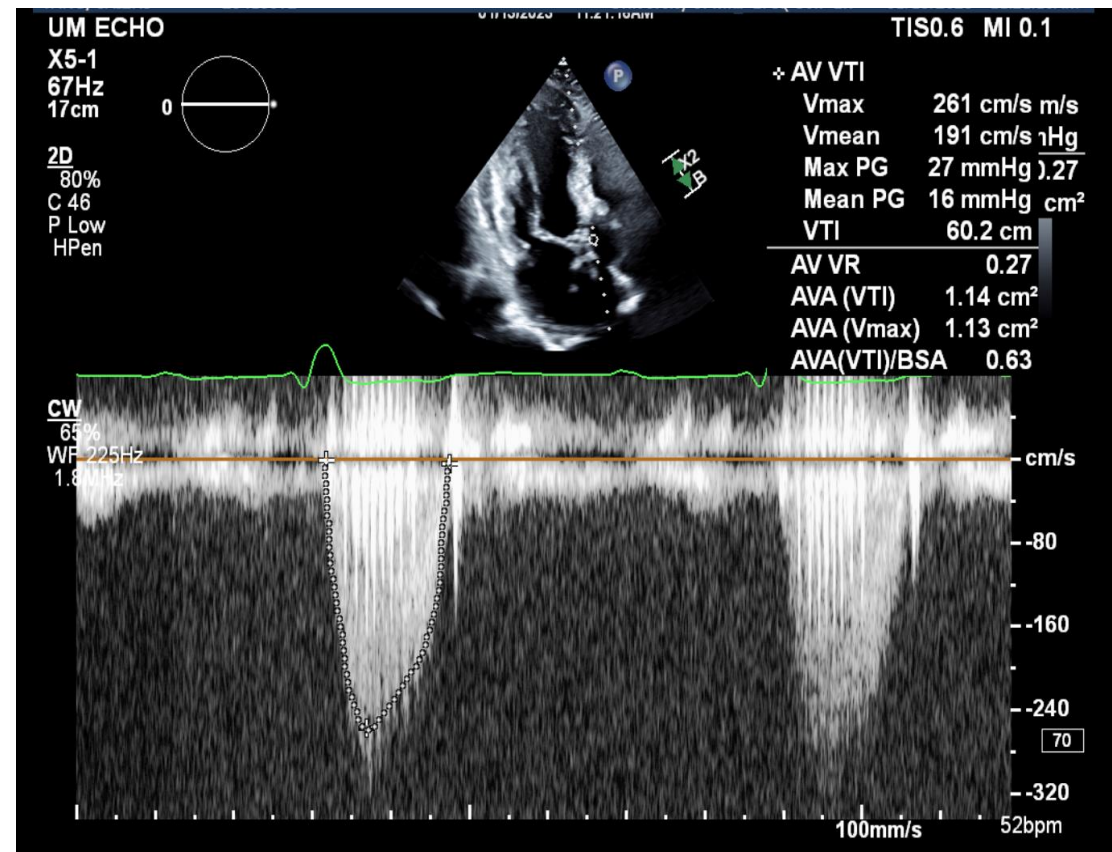
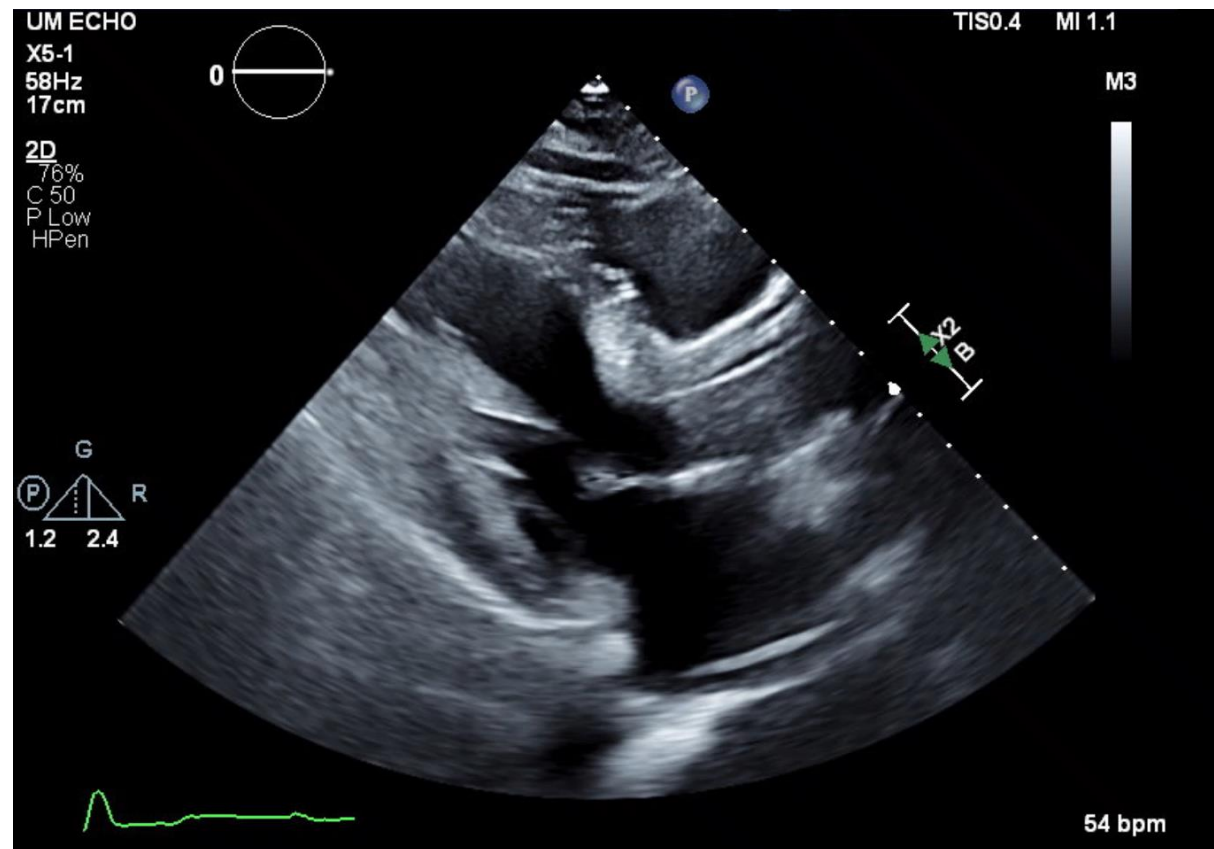




Invasive transaortic gradient of 11 mmHg.



Follow up echo in 2 weeks



EF = 55-60%