



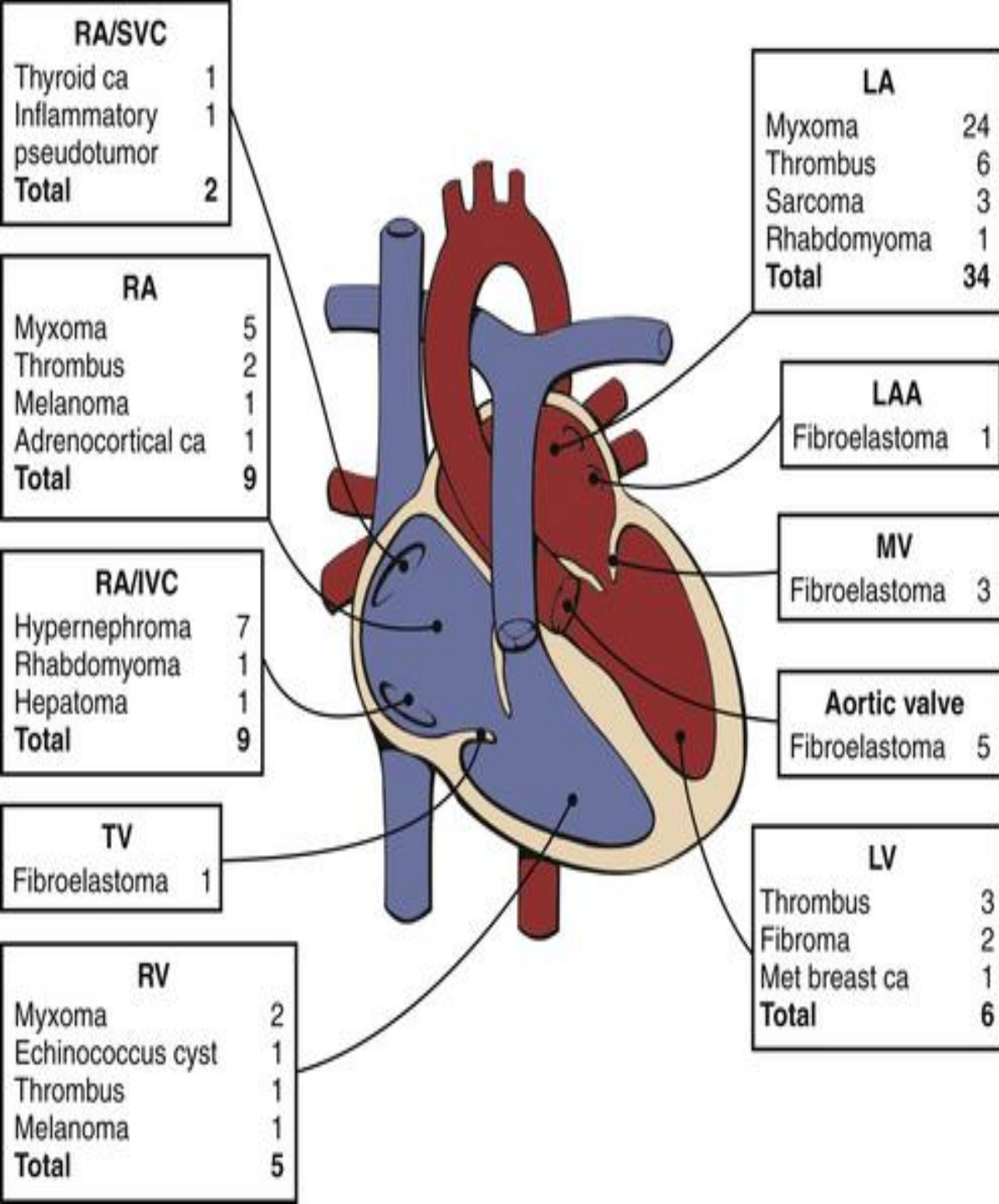
Cardiac Masses Real vs. Ghost Benign vs. Malignant Case-Based



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Professor of Cardiology, Echo-Cardiologist, Cardio-Oncologist

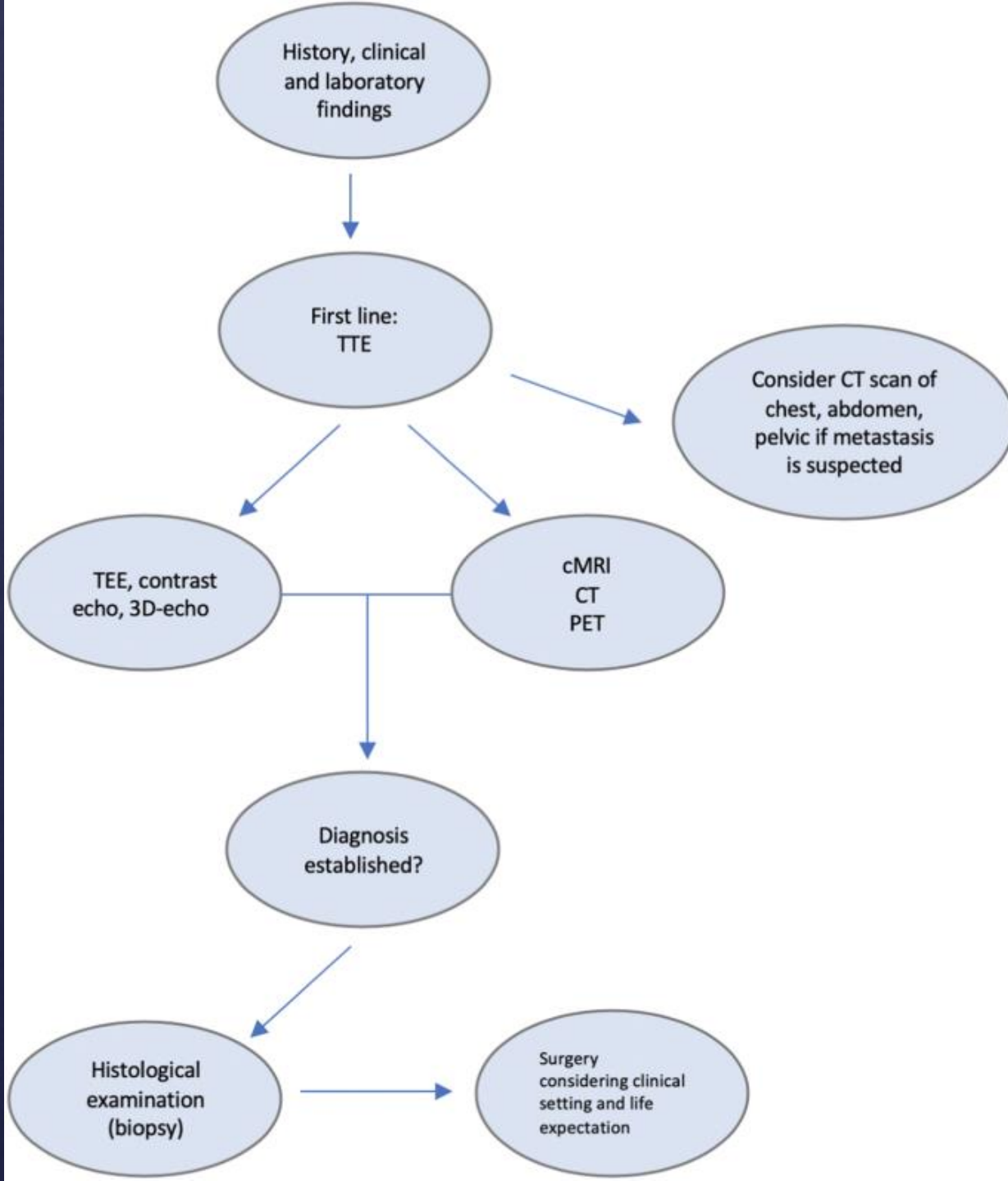
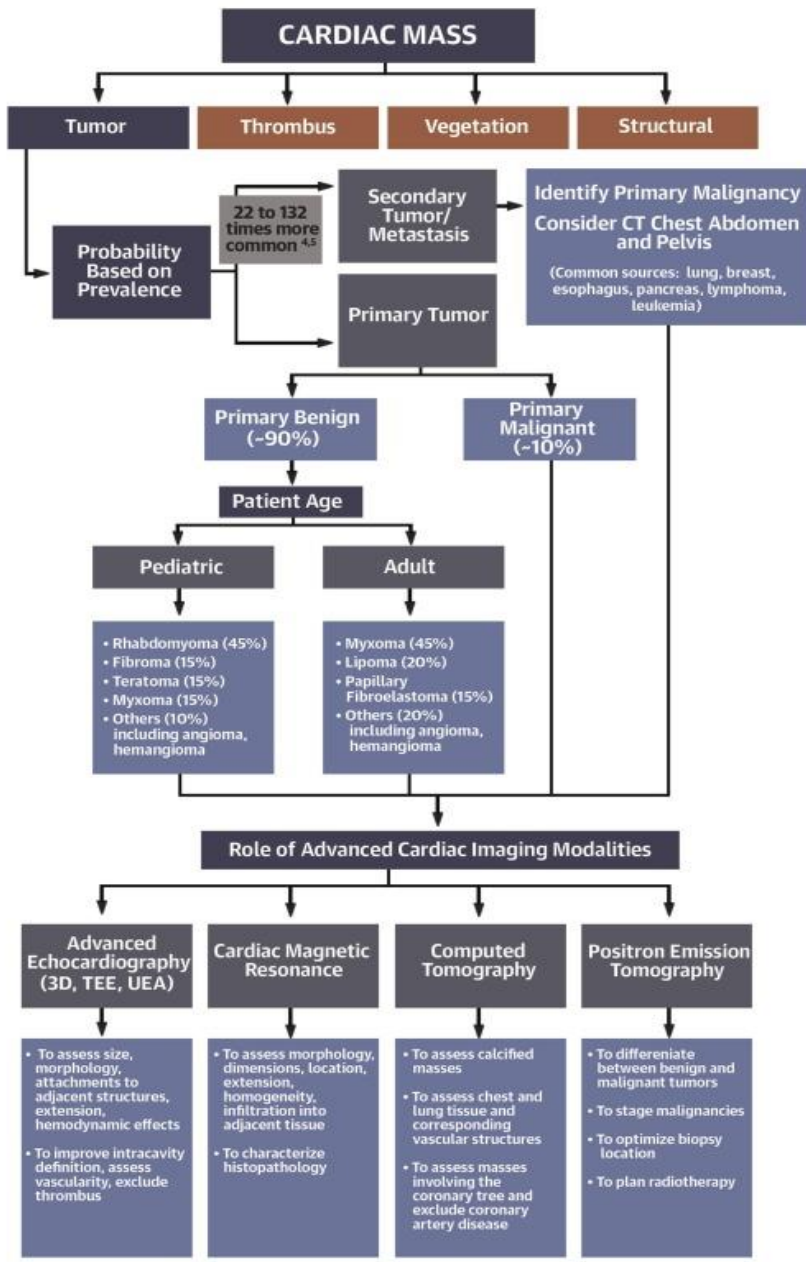
Rajaie Heart Center



Differential Diagnosis of a Malignant Cardiac Mass

Primary Cardiac Tumors	Metastatic Tumors
Sarcoma	Lung cancer
Angiosarcoma	Breast cancer
Rhabdomyosarcoma	Esophageal cancer
Leiomyosarcoma	Sarcoma
Synovial sarcoma	Lymphoma
Osteosarcoma	Leukemia
Fibrosarcoma	Renal cell carcinoma
Myxoid sarcoma	Melanoma
Liposarcoma	Other less common metastases
Mesenchymal sarcoma	
Neurofibrosarcoma	
Malignant fibrous histiocytoma	
Primary cardiac lymphoma	
Primary mesothelioma	

CENTRAL ILLUSTRATION: Schema of Prevalence and Diagnostic Approach of Cardiac Tumors With Multimodality Imaging





This mass is breaching anatomical boundaries which makes malignancy as our first differential diagnosis, also there is other "**red flags**" of **malignancy**, just like the >5 cm diameter, the right heart localization, Pericardial effusion and involving the right AV groove.

Final diagnosis: "***Primary Cardiac AngioSarcoma***".

❖ Cardiac Mass \neq Surgery

❖ Cardiac Mass needs more and more evaluation.

❖ New interventional approaches should be considered too.



JACC: Case Reports

Current Issue

Just Accepted

JACC Journals › JACC: Case Reports › Archives › Vol. 3 No. 18

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An Unusual Case of Obstructive Shock

Clinical Case

Simon Parlow, Matthew Cheung, Louis Verreault-Julien, Kai Yi Wu, Philip Berardi, Vidhya Nair, Pietro Di Santo, Richard G. Jung, Rebecca Mathew, and Benjamin Hibbert

J Am Coll Cardiol Case Rep. 2021 Dec, 3 (18) 1913–1917



Multimedia



References



Related

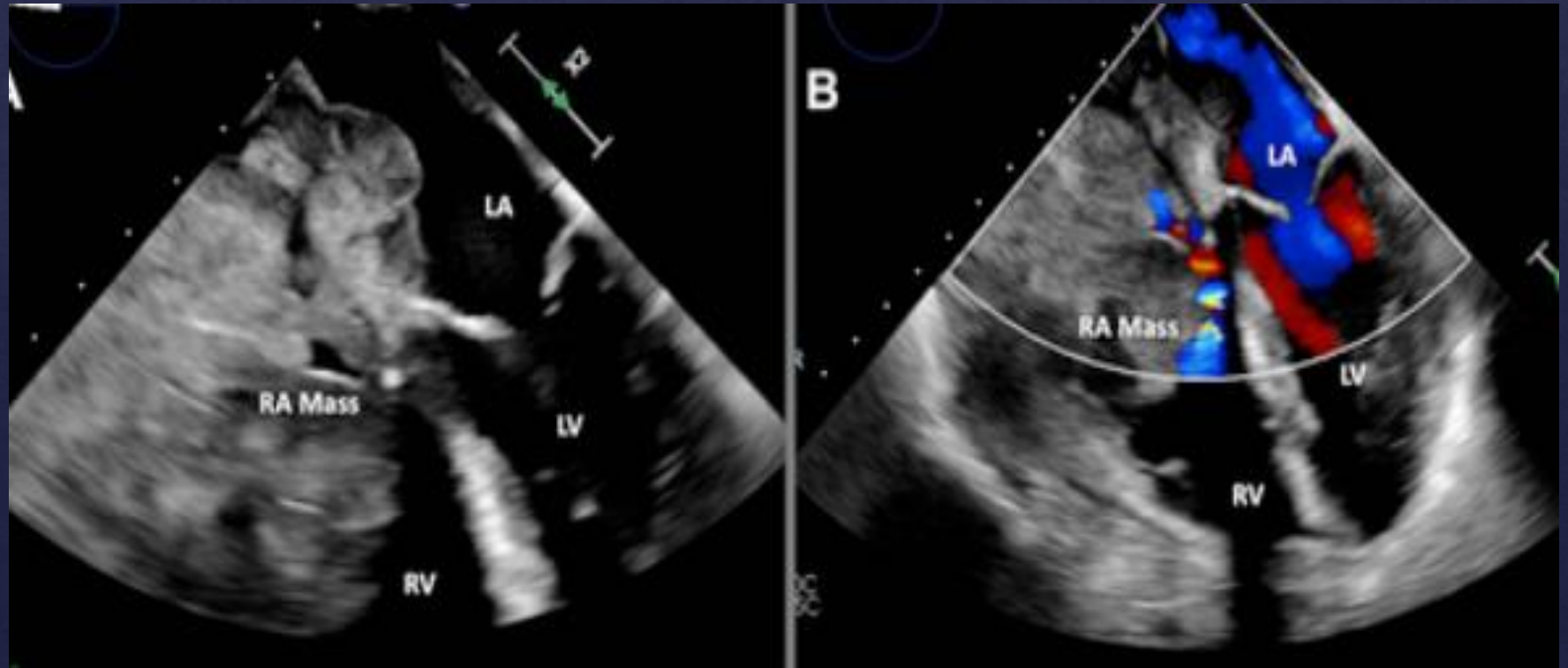
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INTRODUCING

JACC  

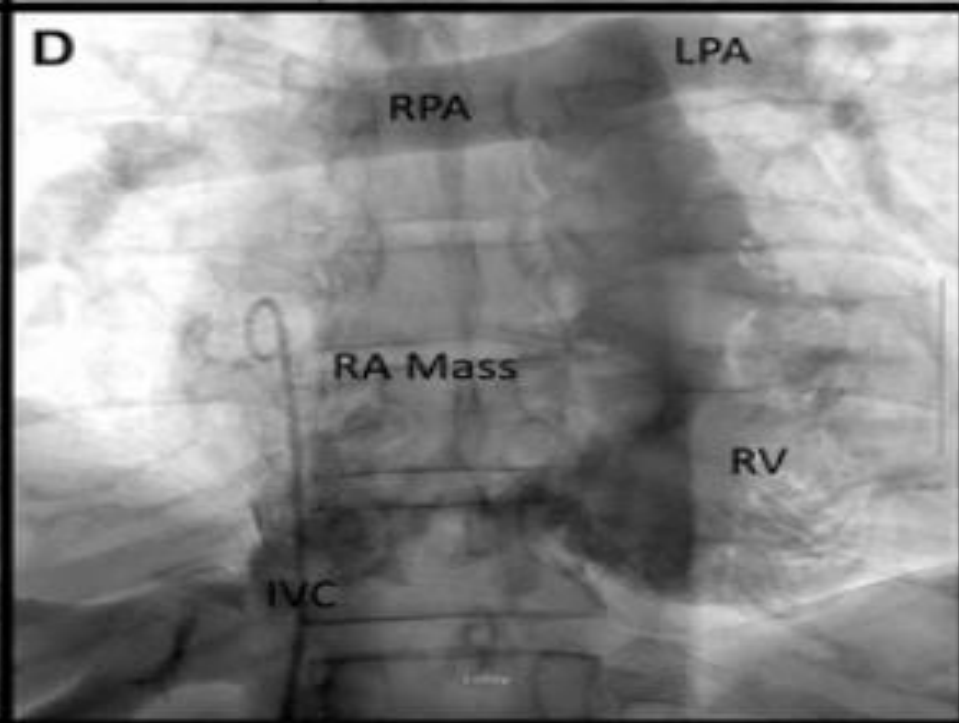
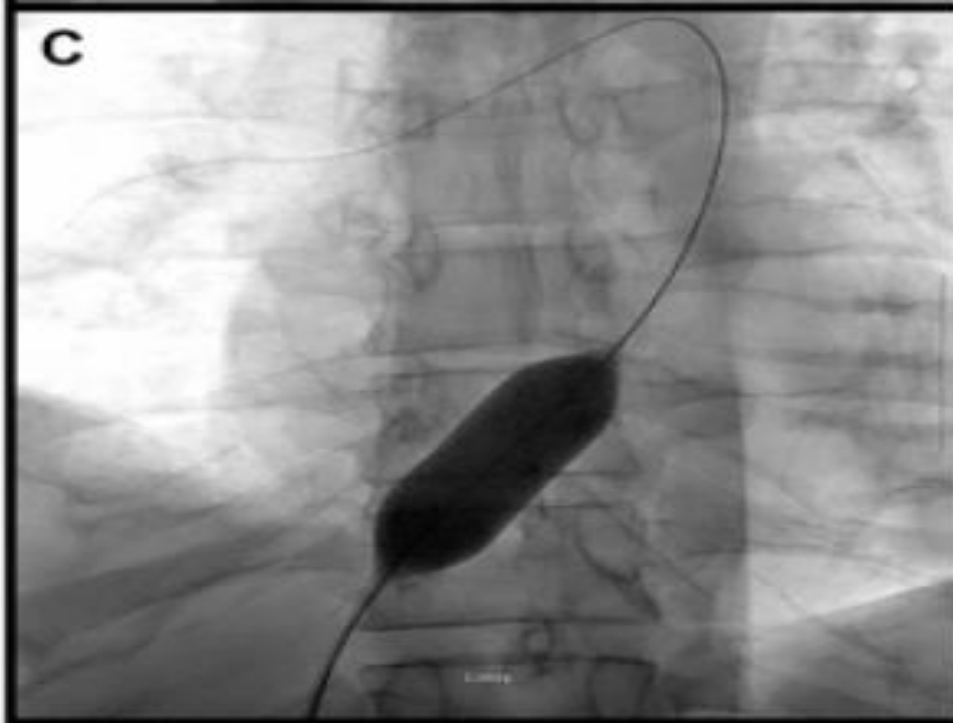
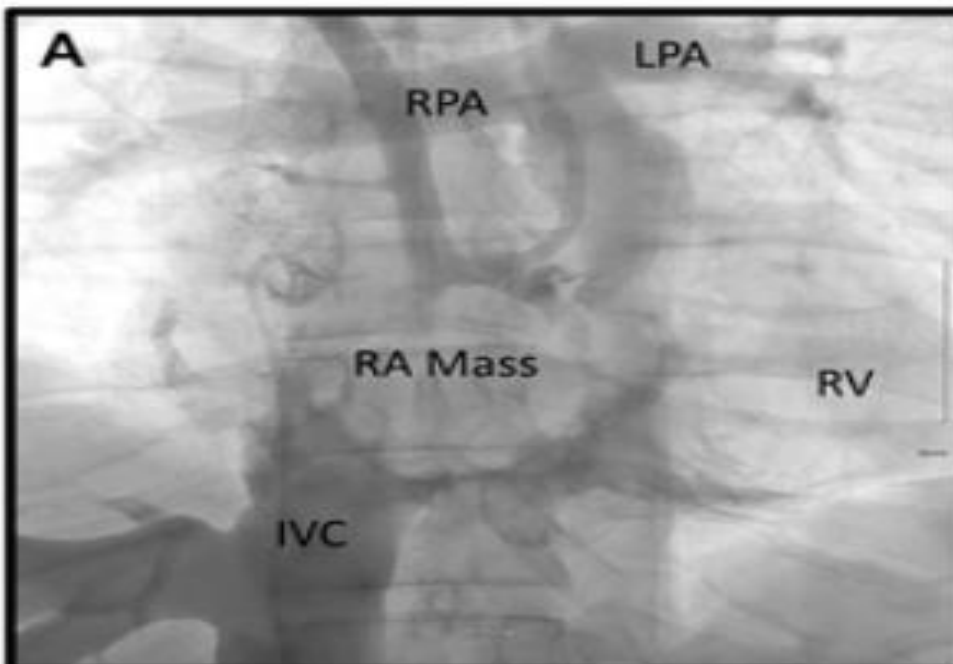
PATIENT PATHWAYS

- ◆ A 54-year-old man presented with a **2-week history of dyspnea, leg swelling, abdominal bloating, and fatigue.**
- ◆ **Over the next 1 to 2 hours, the patient had progressive hypotension and drowsiness requiring intubation and initiation of vasopressor support.**

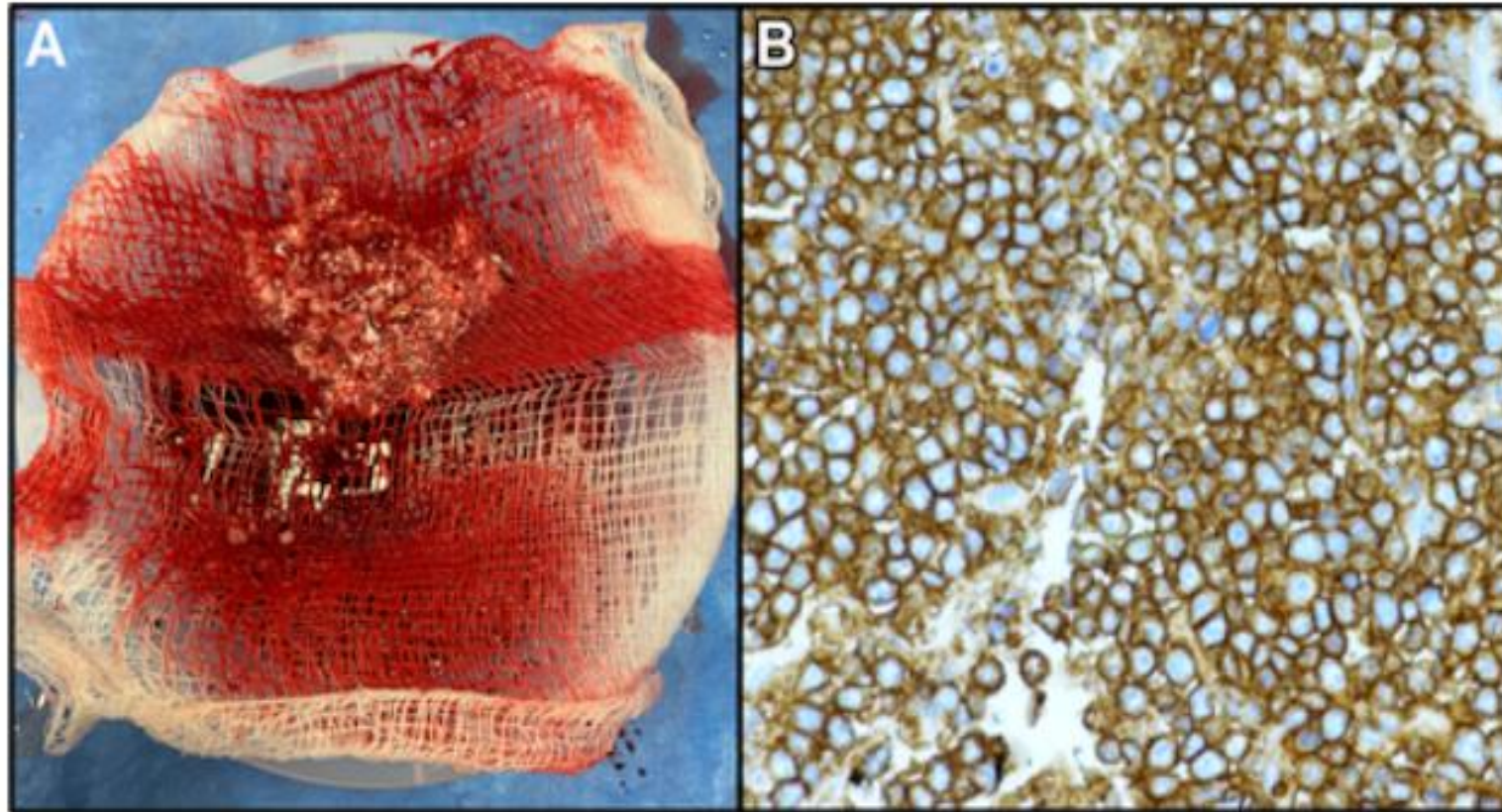


◆ Investigations revealed a RA mass causing severe SVC to RA and RV inflow (TRICUSPID VALVE) obstruction and compromised cardiac output. The patient was treated with *emergency balloon catheter intervention* to relieve the obstruction, with resulting hemodynamic stability.

◆ The pathology report later returned a positive result for high-grade diffuse large B-cell lymphoma.



Cyclophosphamide, Dexamethasone & Rituximab



Mediastinal germ cell tumor



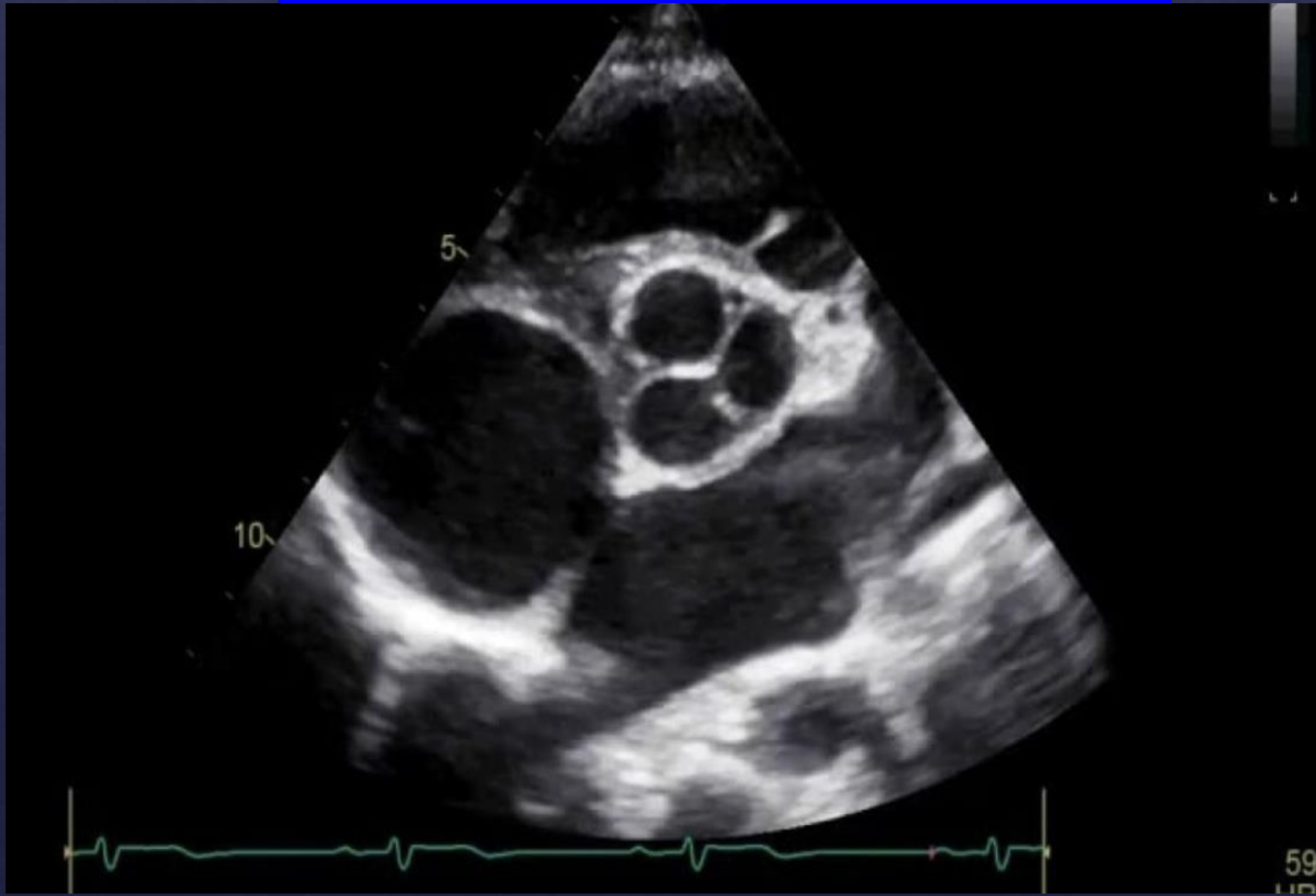
RA filled with large Mass.

PA infiltrated and compressed .

Also has RVH, RV dilatation and RV dysfunction.

RVSP about 45 mmHg.

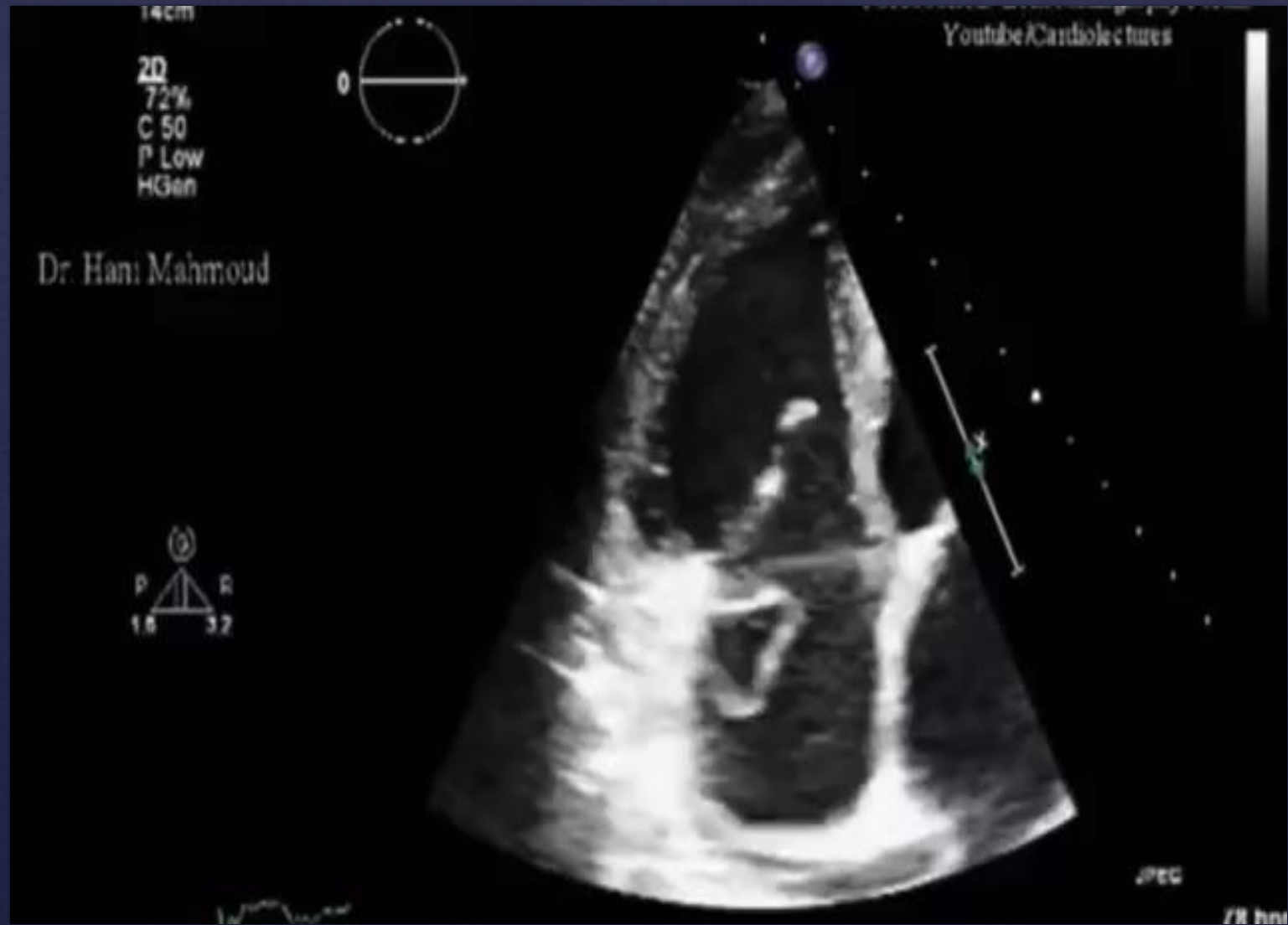
After 6 moths



Management DILEMMA !



???



???



???



???

◆ Atypical Cystic Right Atrial Thrombosis



Mitral Valve Blood Cyst

Conservative
Approach



Cardiac and Liver Hydatid Cyst

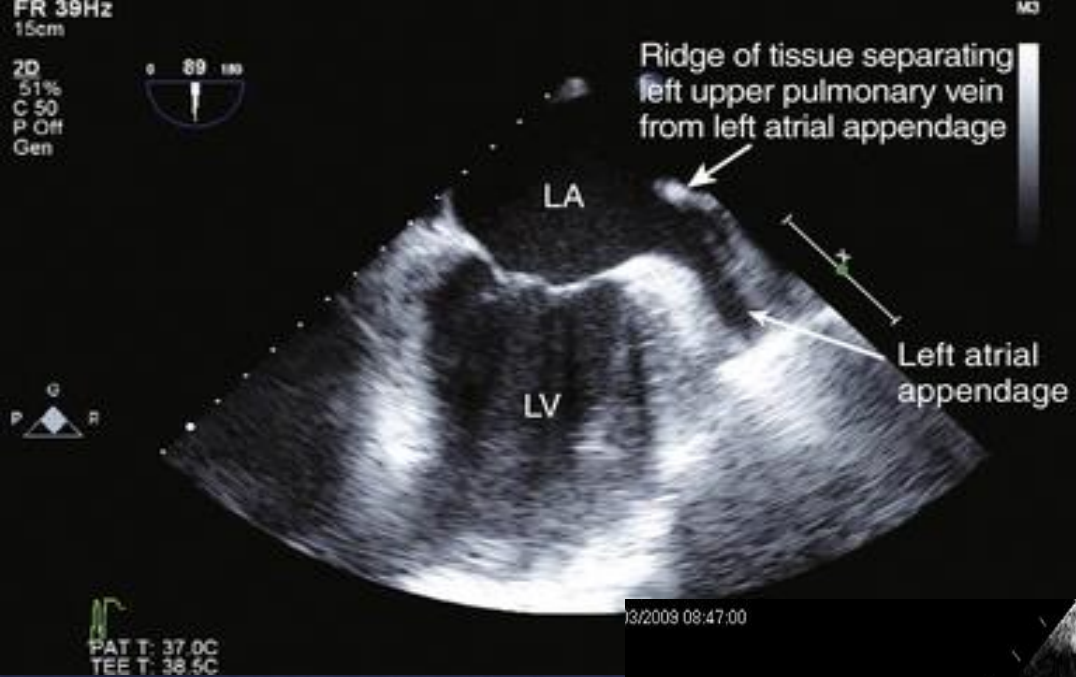


Postprandial Syncope !



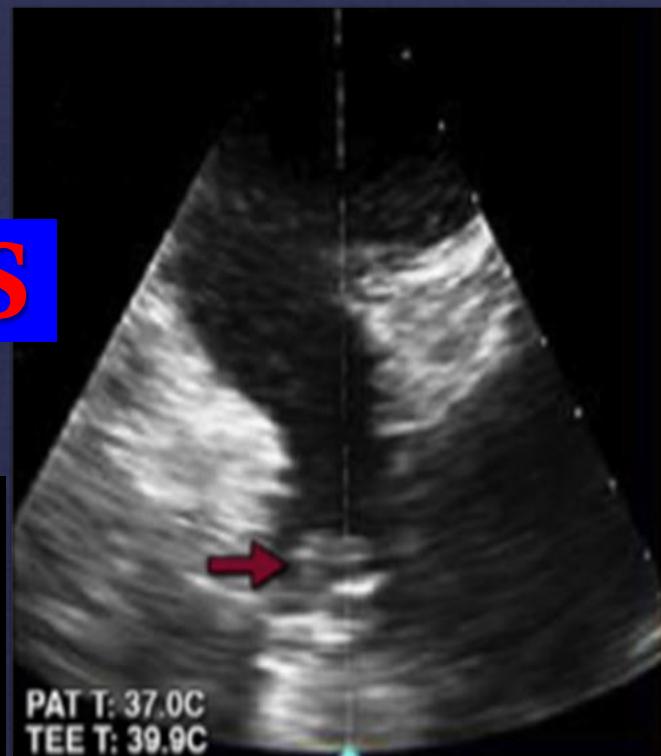
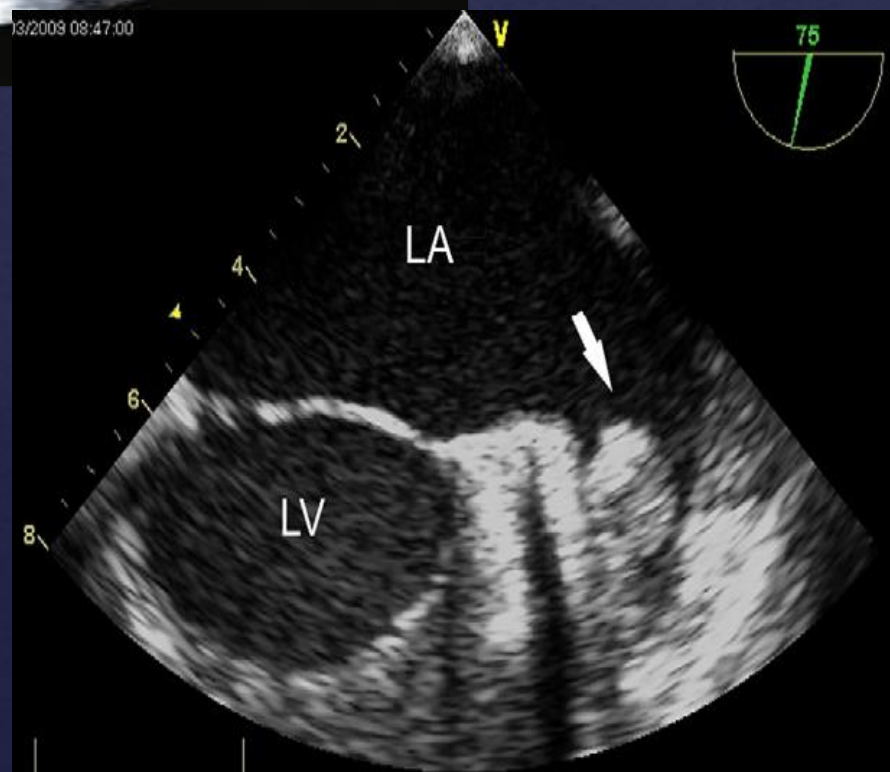
Important case this patient had complained of syncopal episodes recently. Patient came in for a routine echo just after having a large breakfast.

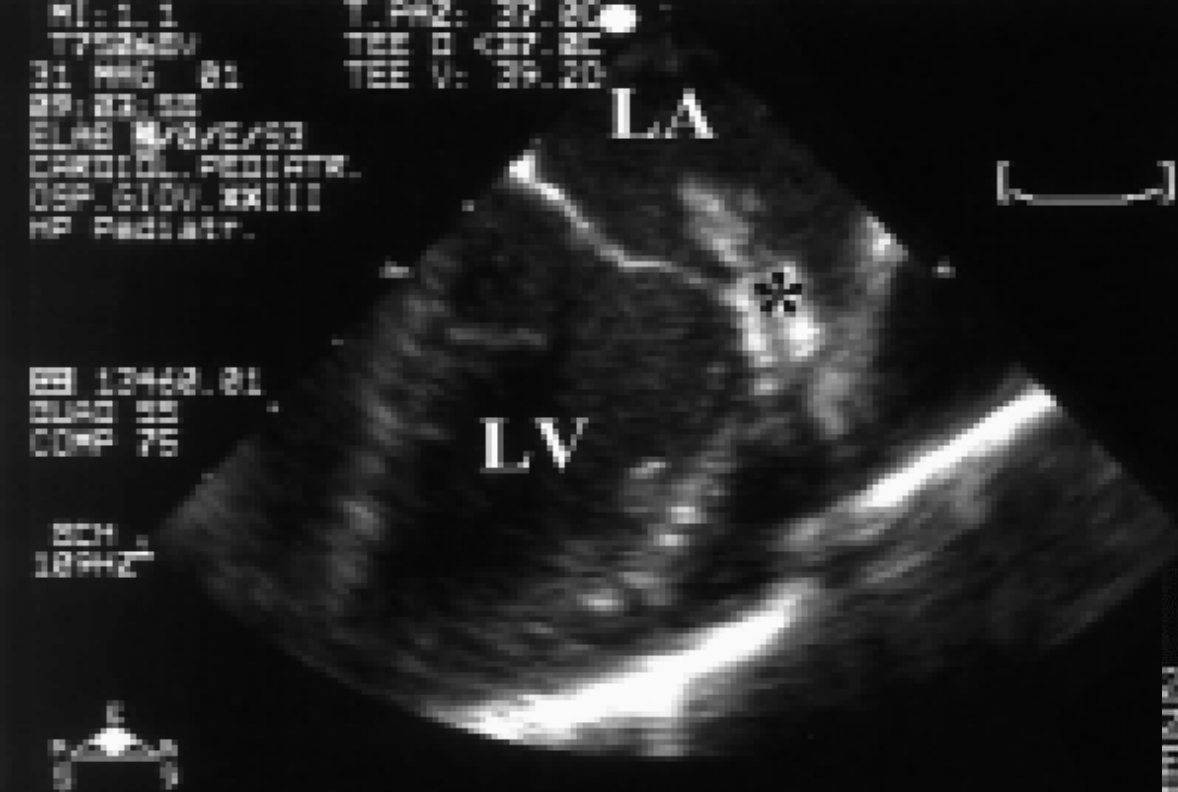
What we see here is extrinsic compression of the left atrium by way of hiatal hernia. This could be the answer to his syncopal episodes as he may not be able to produce stroke volume due to inability to fill the left ventricle because of the compression of the left atrium.



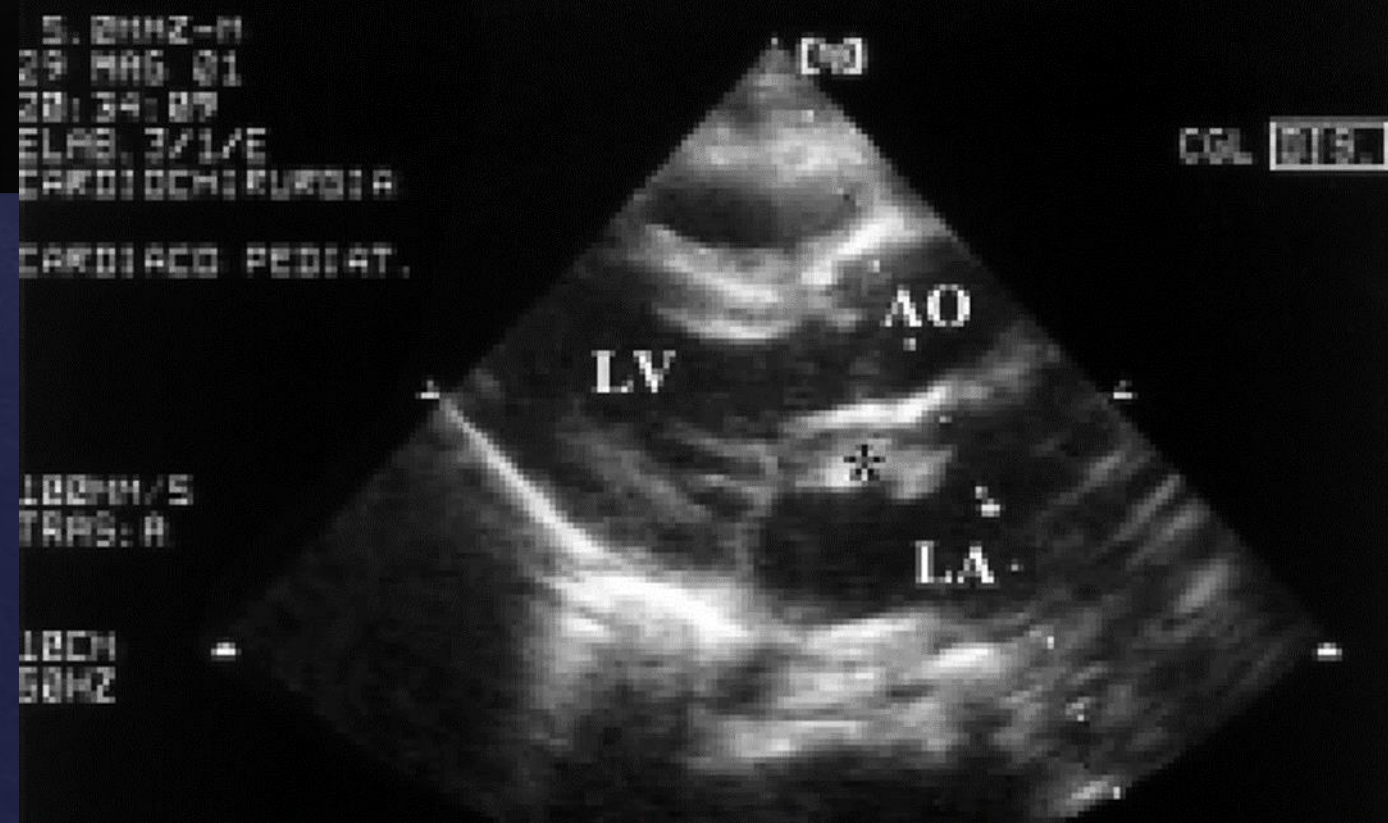
LAA

MASSSES





LAA INVERSION



Mixofibrosarcoma!



“Villous form Left Atrial Myxoma”

High potential for systemic embolism;

55 year old female who presented with dyspnea for two months duration was evaluated in our department.

“Villous appearance “LA myxoma traversing the mitral valve orifice causing mitral valve stenosis.

The final diagnosis after surgery and pathological exam was Myxoma too.



LA MASS





A case with HCC(Hepato-cellular carcinoma)

◆LA (Left atrial) mass attached to lateral wall next to pulmonary veins, in this patient with lung metastatic lesion from HCC (Hepato - Cellular Carcinoma) that infiltrated the LA through the pulmonary vein.



◆ Extraneous Compression of LA.

◆ CA of Esophagus.

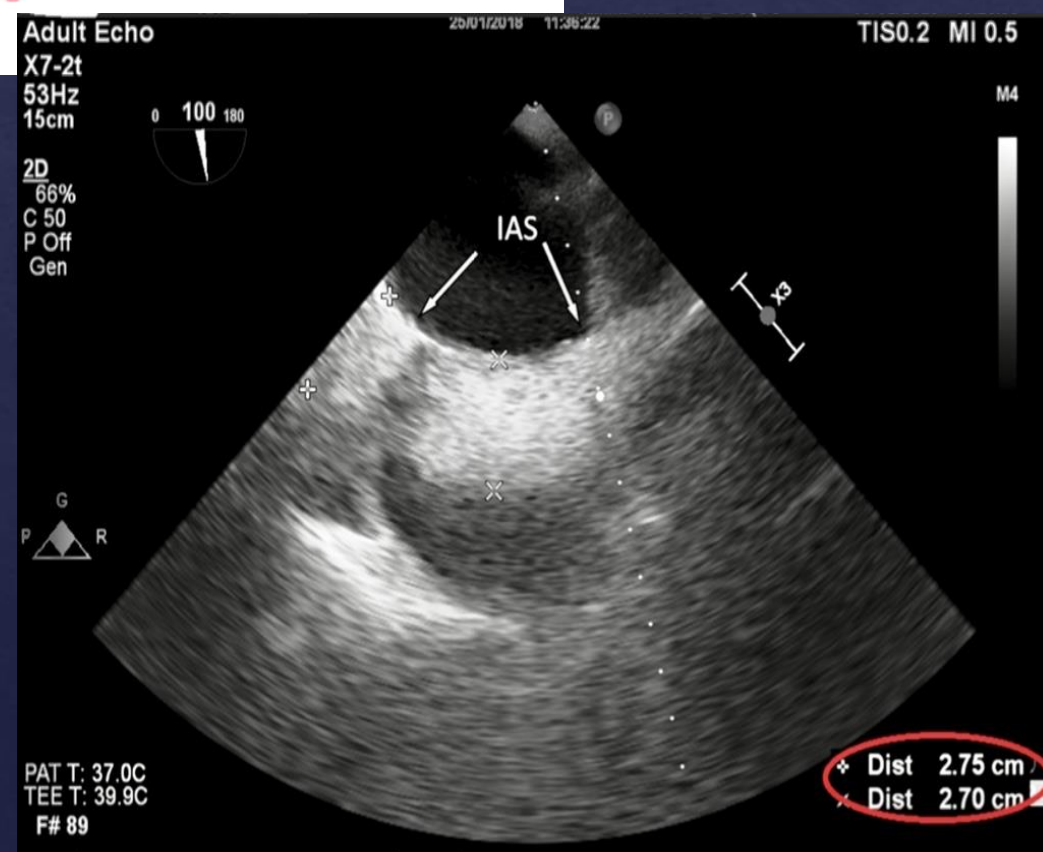
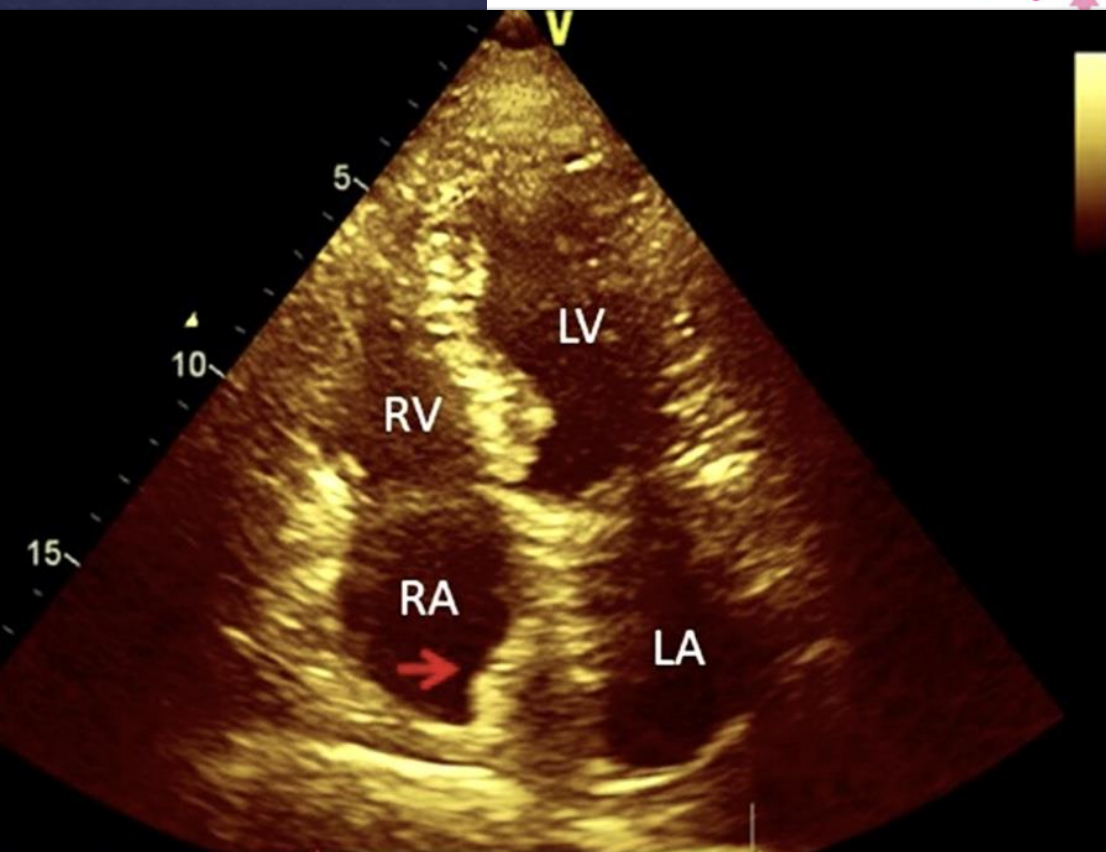
◆ The most important issue about this patient, is that TEE could be very dangerous, because of the possibility of severe Uncontrollable bleeding!

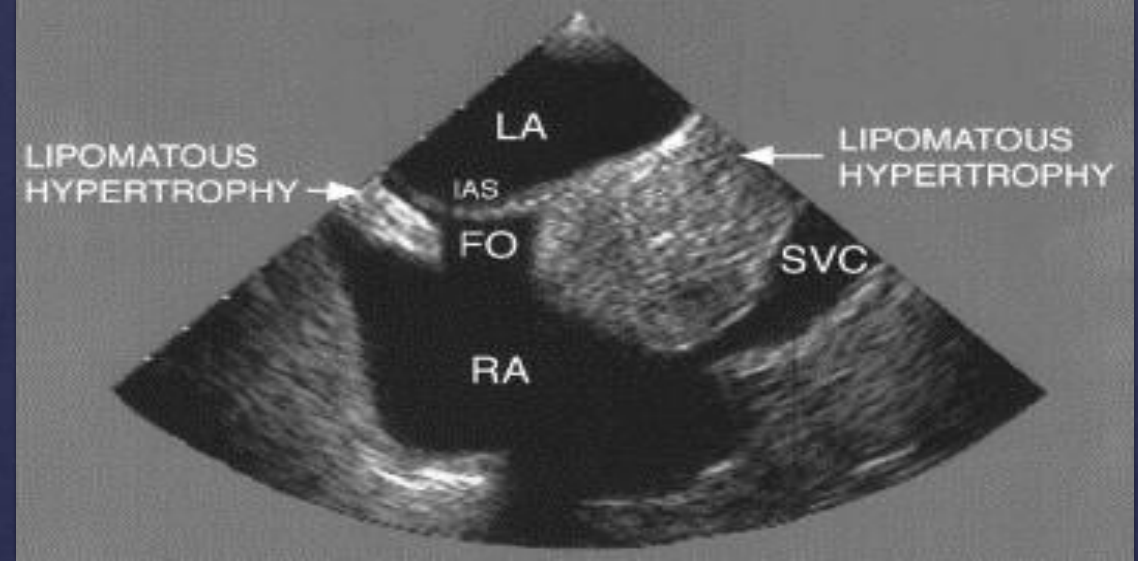
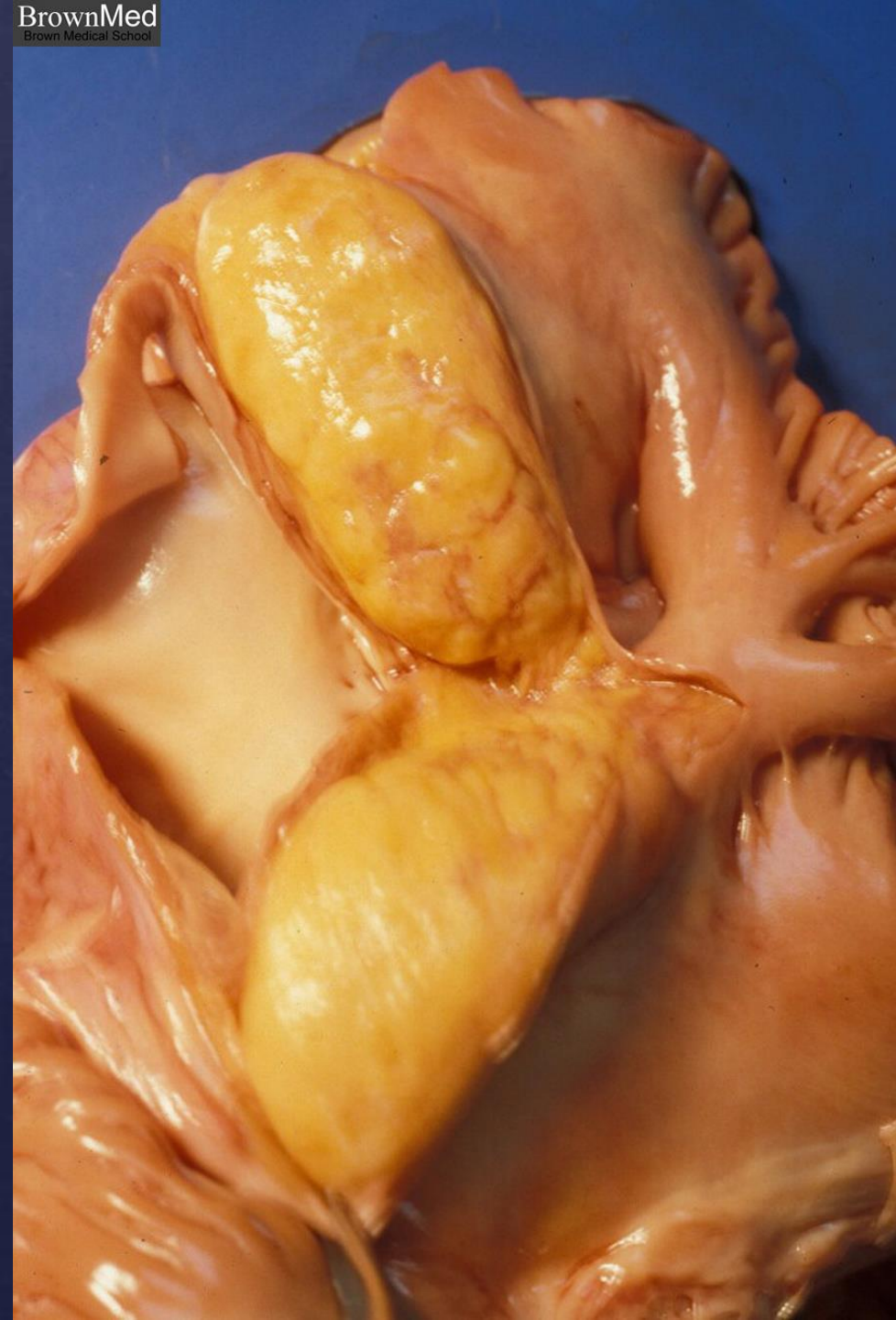
◆ So, all the Masses around the Left Atrium should be assessed precisely before the decision making for doing TEE.



◆ A 65 years old female post left mastectomy for invasive ductal carcinoma, scheduled for adjuvant chemotherapy. She denies any cardiovascular related symptoms. Her PMH was significant for HTN.

As part of a routine pre-chemotherapy screen, underwent an echocardiogram which revealed 2 large masses in her RA. The lesion measures about 2.7×2.75 cm. First it considered to be a metastatic breast cancer lesion and the plan was follow up by echocardiogram, while chemotherapy progresses to see if there has been any change in size of masse with chemotherapy.





◆ Another Case:

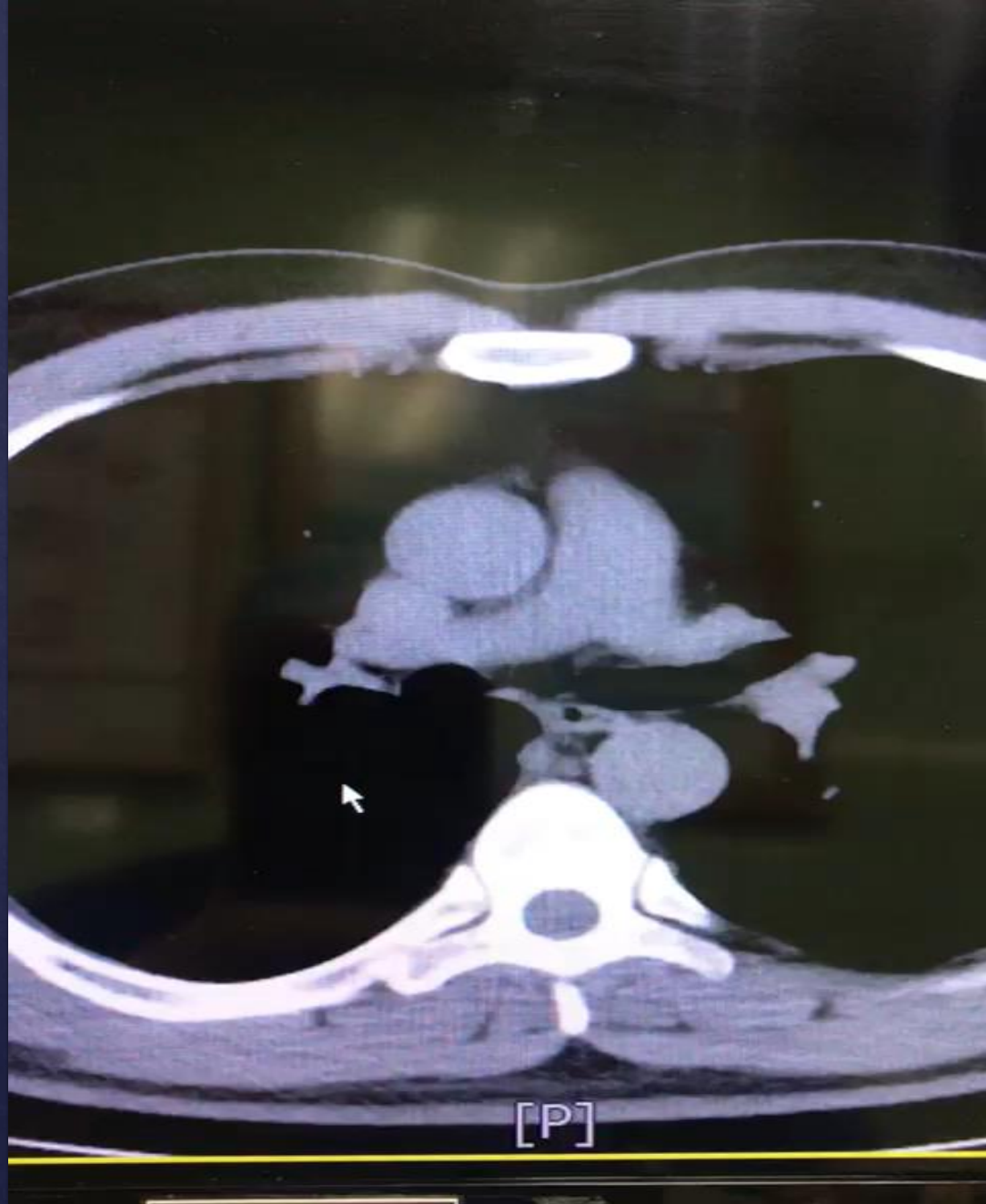
- ◆ Lipomatous hypertrophy of septum is seen more frequently in obese elderly female patients.
- ◆ •PET and CMR confirmed this diagnosis
- ◆ • No SVC and IVC obstruction.
- ◆ Breast cancer; was in remission; on antihormone therapy now.

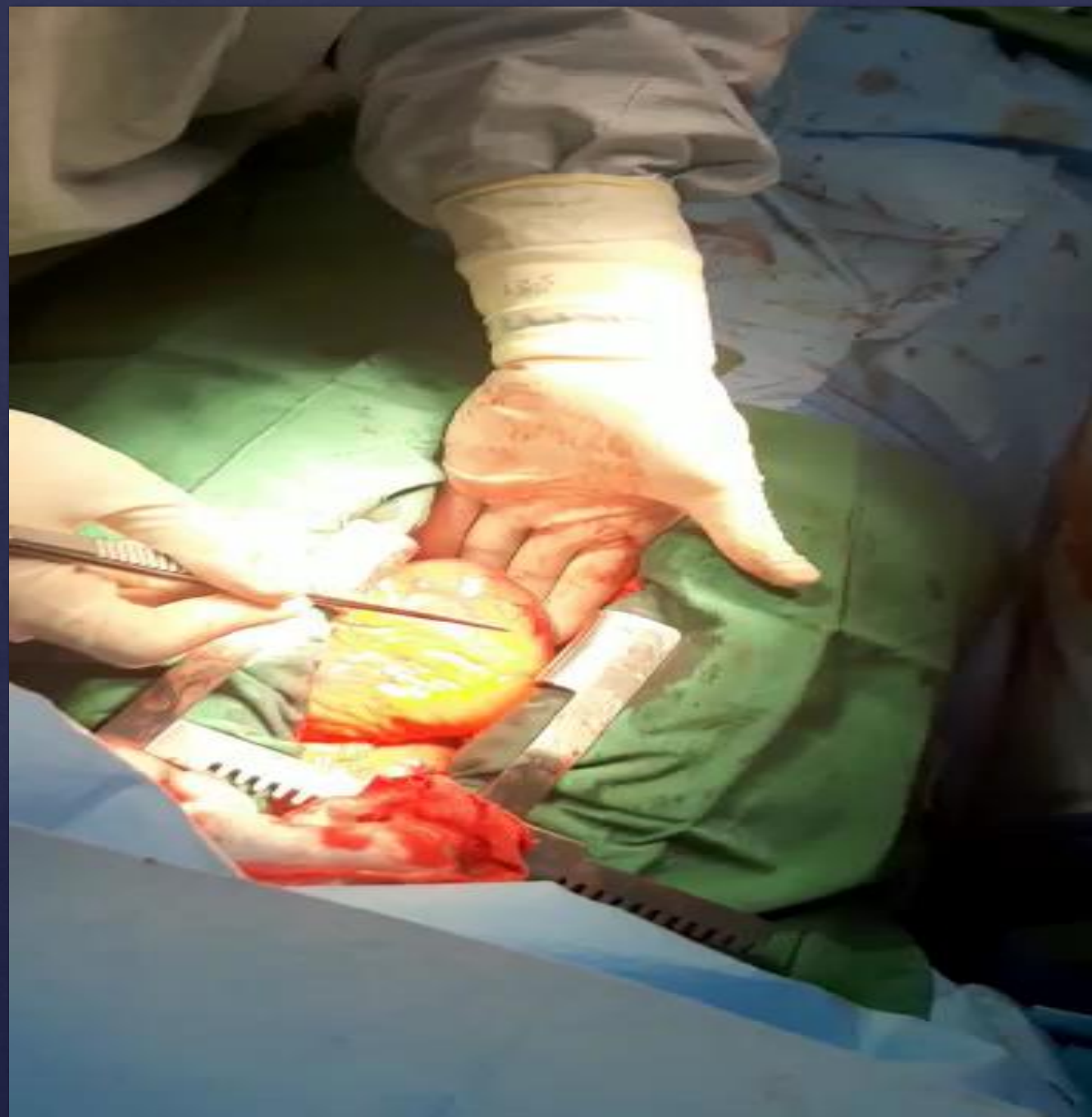
**65 years old woman with LV metastatic mass and
breast cancer**



**45 years old
woman
non-specific
symptoms**







Metastatic Melanoma



54 years old man with dyspnea and progressive edema



- ◈ Pericardial and pleural effusion without tamponade
- ◈ Pericardial thickness and “constriction” signs.
- ◈ Large non-homogeneous mass surrounding the heart and big vessels with filling pericardial space and also the mediastinum !

The final diagnosis was:

T-cell lymphoblastic lymphoma !

After 1 year



S5-1

Cardiac myxoma of mitral valve:

13cm

2

This case had tumor involvement of

both the mitral leaflets

and sub-valvular apparatus

C 50

P Low

HGen

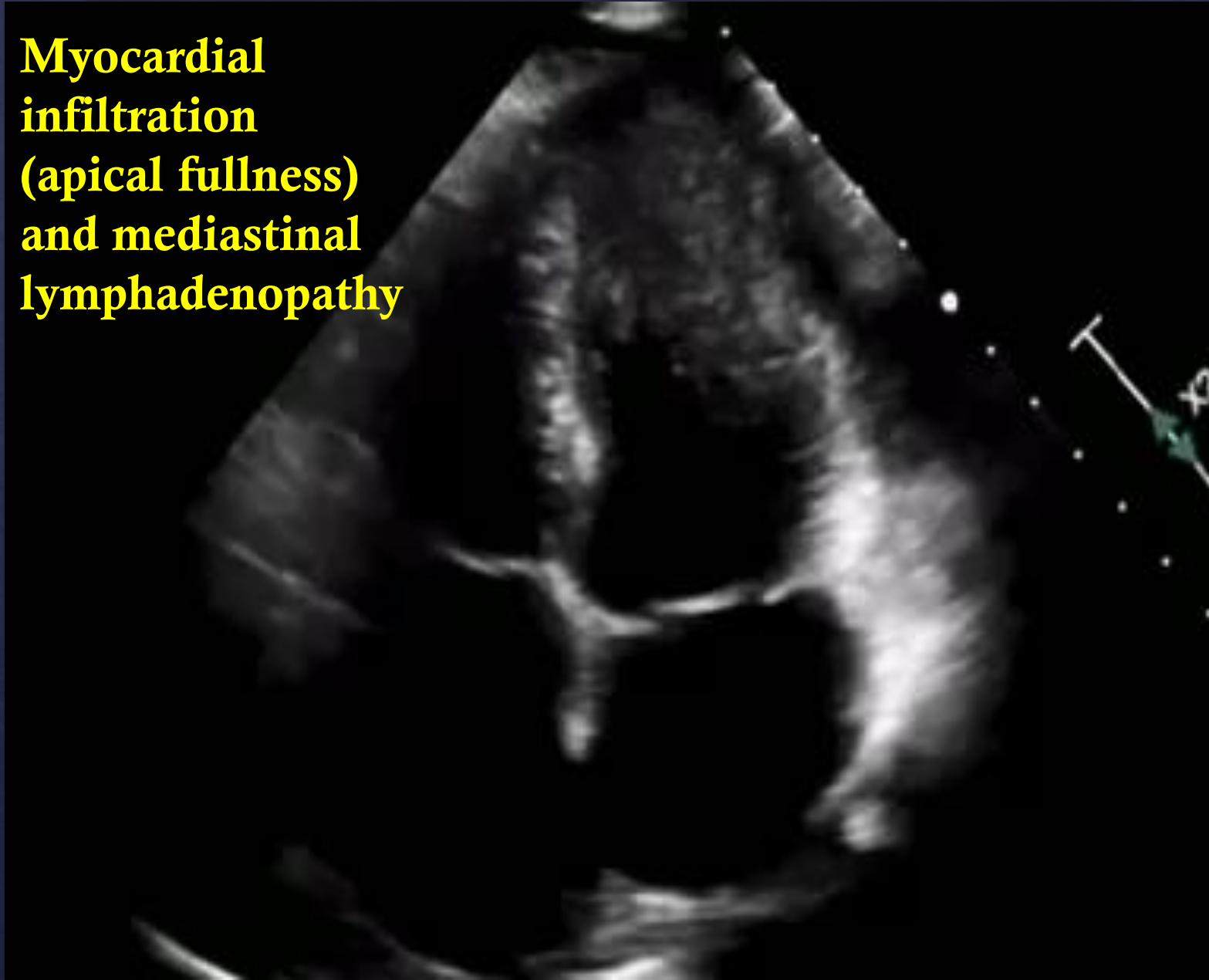
M3

①
P R
1.6 3.2



Lung AdenoCarcinoma

Myocardial
infiltration
(apical fullness)
and mediastinal
lymphadenopathy

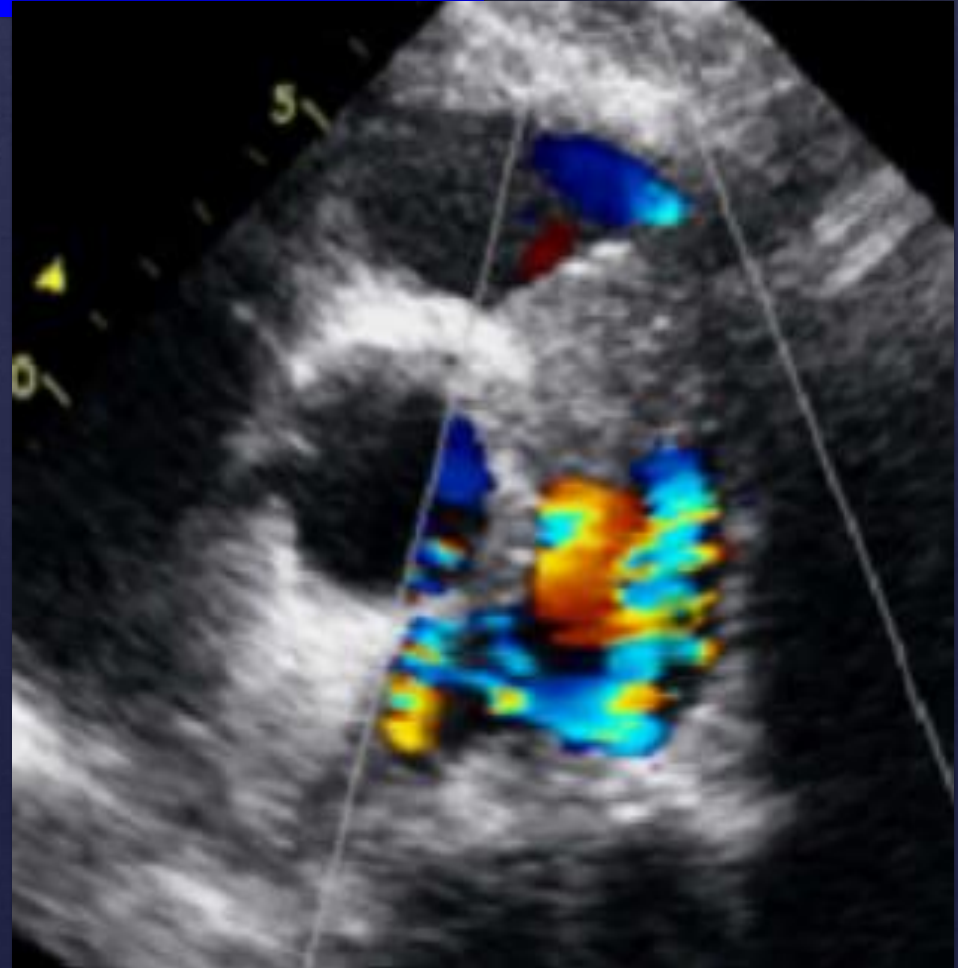
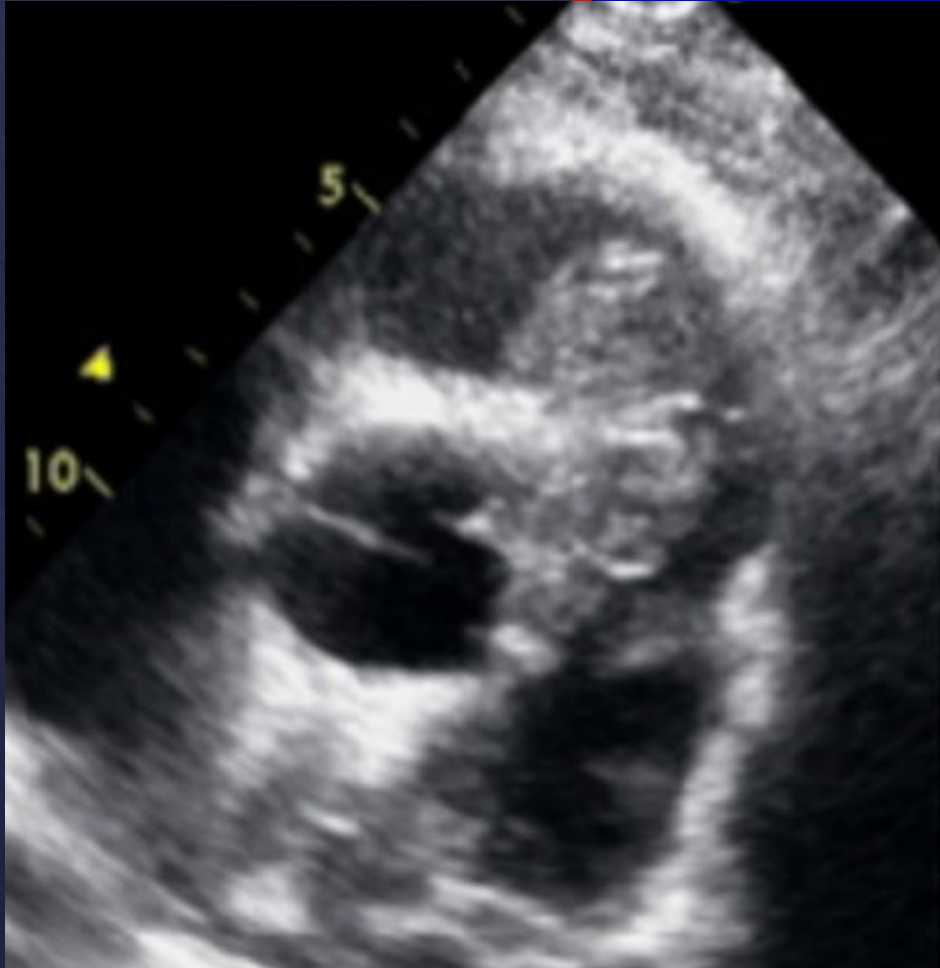


*62 years
man with
pancreatic
cancer*

*50 mg
Alteplase*

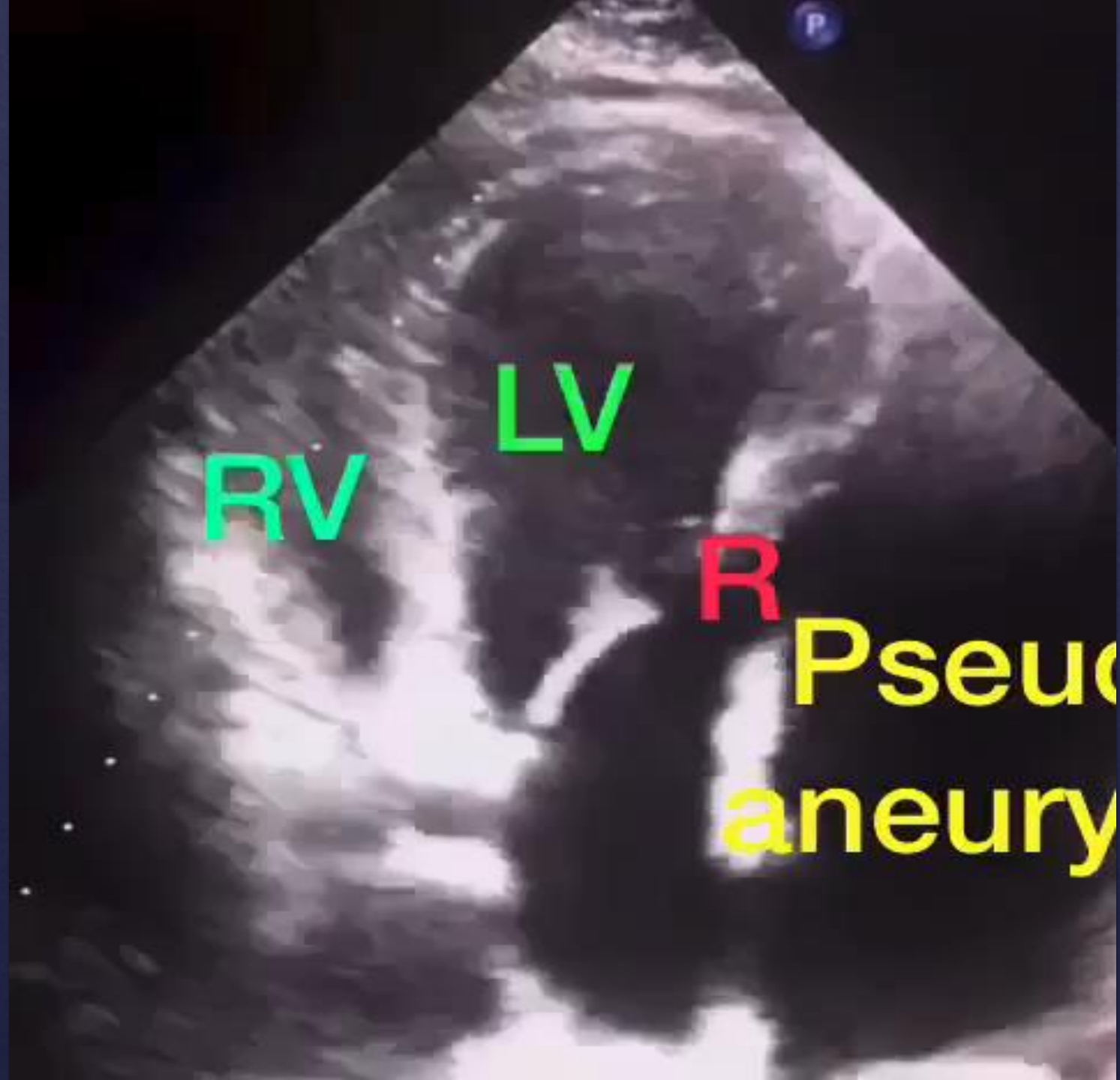


IgG4-related inflammatory pseudotumor



**What is the cystic mass
on LV lateral wall
? ? ?**

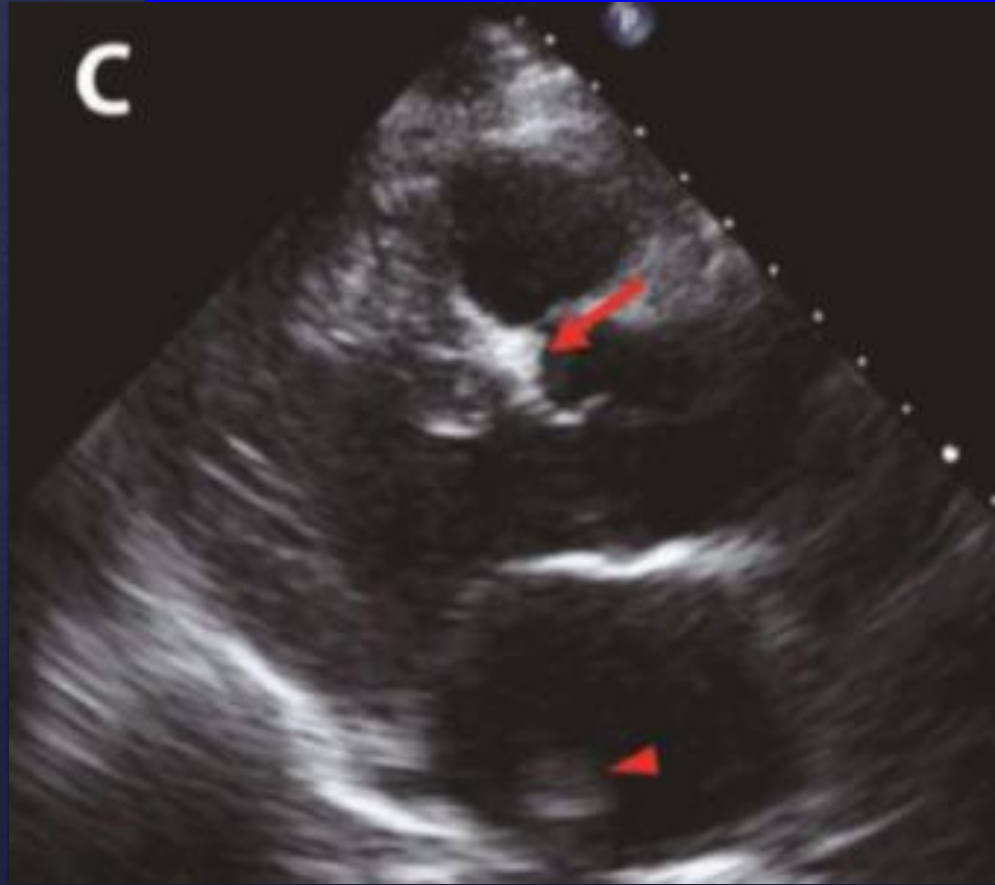


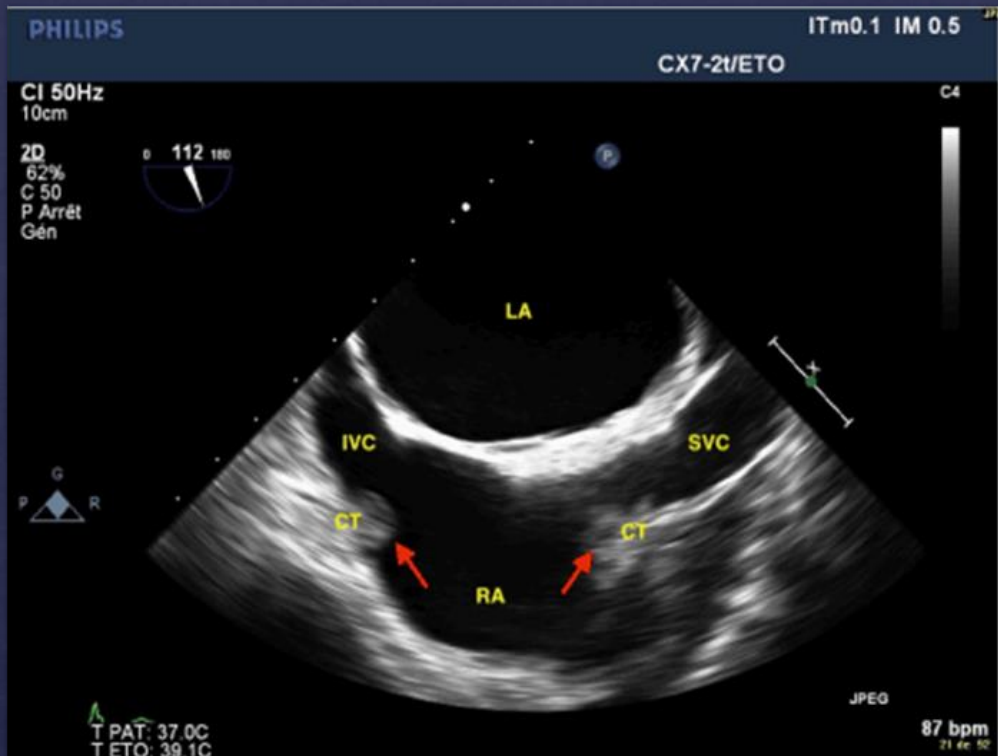


Intra-Myocardial Dissecting Hematoma



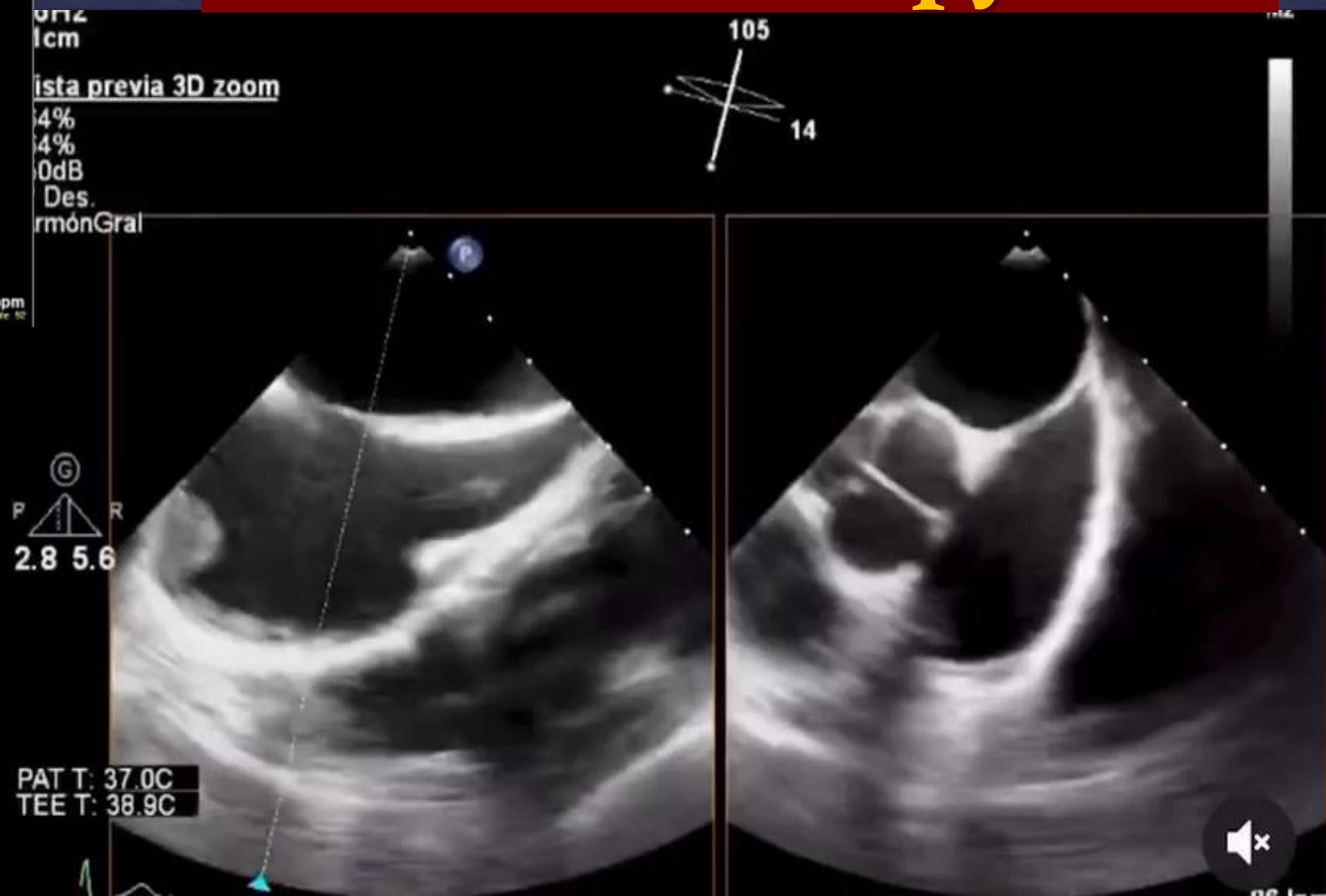
Reverberation Artifact

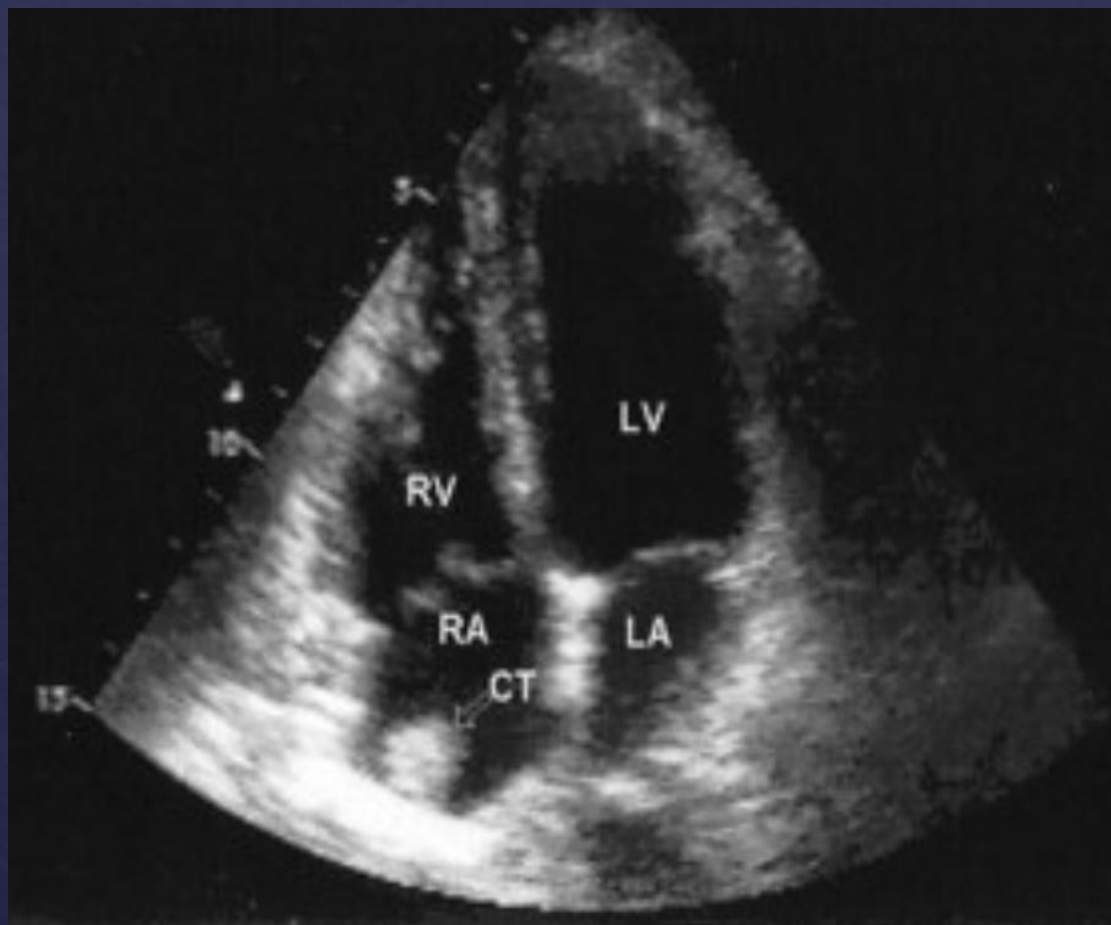




Injury and infected clot on opposite site of Chemotherapy Port

Crista-terminalis

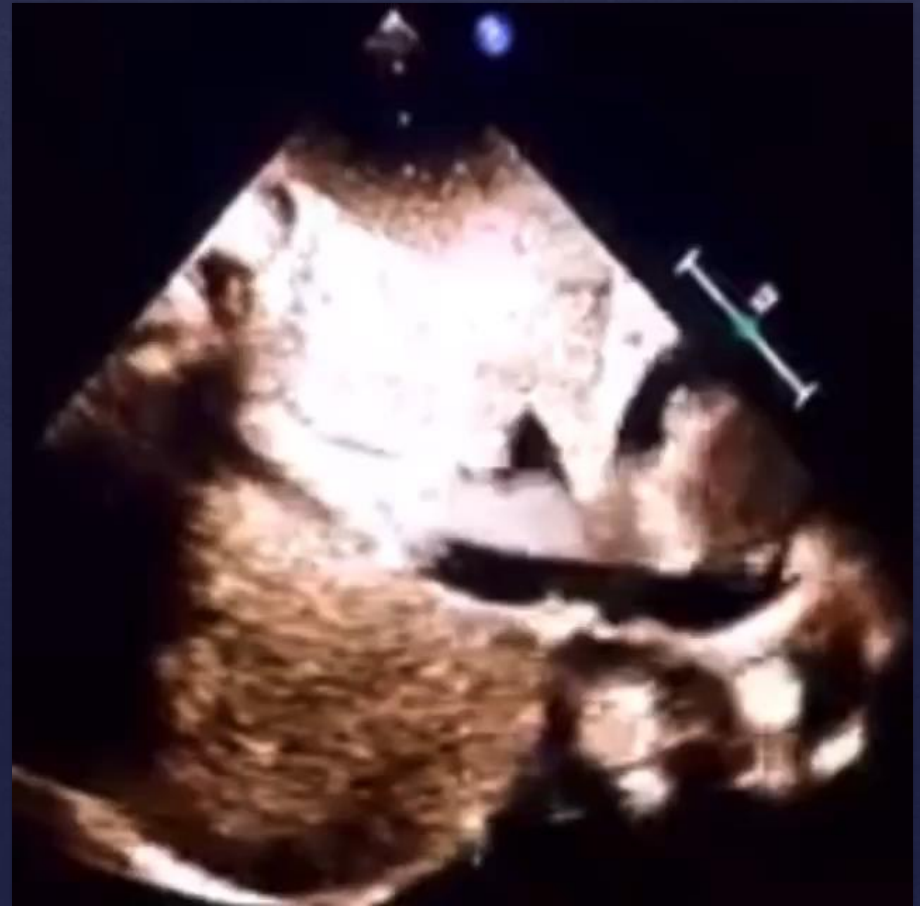




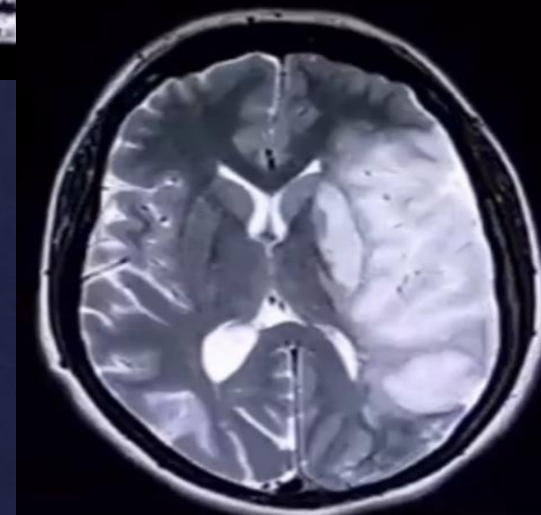
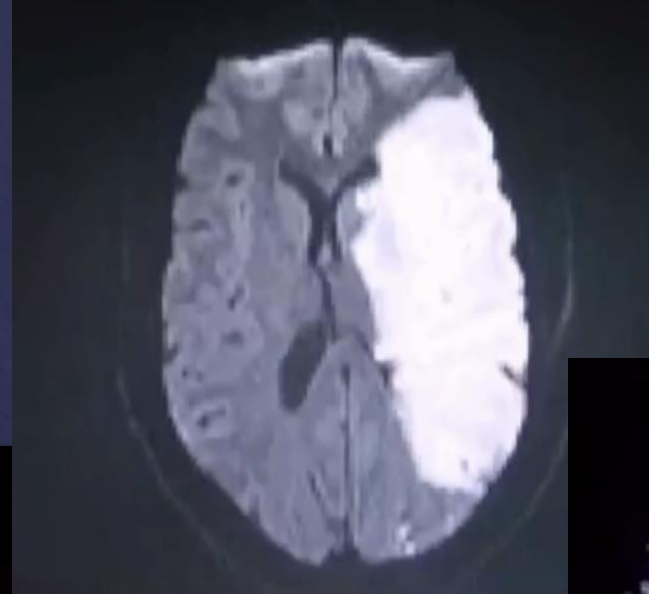
Crista-terminalis



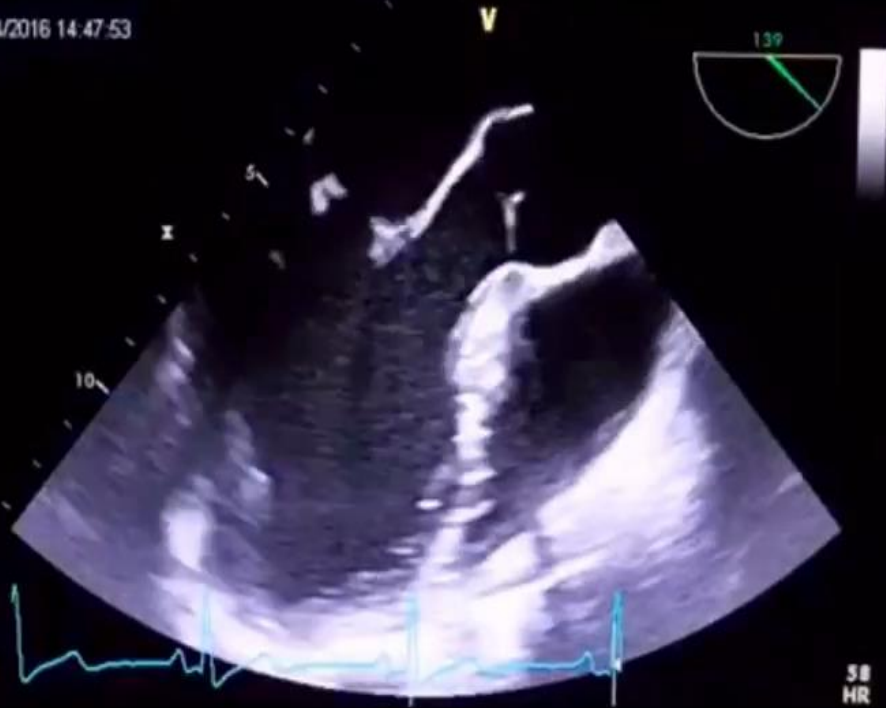
Prostate Cancer, Cardiac Metastasis



4. Pancreatic cancer, cerebrovascular involvement ! What about the heart?



26/04/2016 14:47:53



❖ Cardiac Mass \neq Surgery

- ❖ Cardiac Mass needs more and more evaluation.
- ❖ New approaches should be considered too.

Thank
you



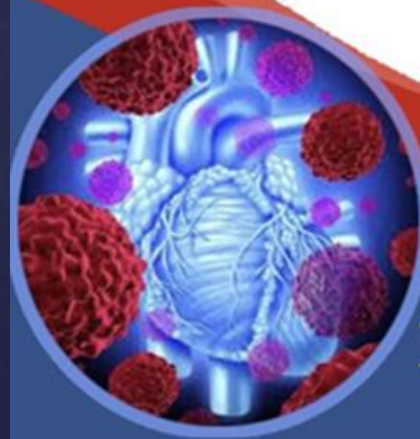
Cardio-Oncology Department and Research Center
Rajaie Cardiovascular Medical & Research Center
Tehran, Iran

Daily Practice in Cardio-Oncology (Case Based)

Alternate-Monday

Cardio-Oncology Sessions

Time: 7:30-8:30 AM



Date 18th: 2021, Nov, 8
1400, 8, 17

Rajaie Cardiovascular Medical & Research Center

Join Us: <https://www.skyroom.online/ch/rhc/cardio-oncology>