A RARE CARDIAC “TUMOR” PRESENTING AS PULMONARY EMBOLISM

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PATHOLOGY JR3

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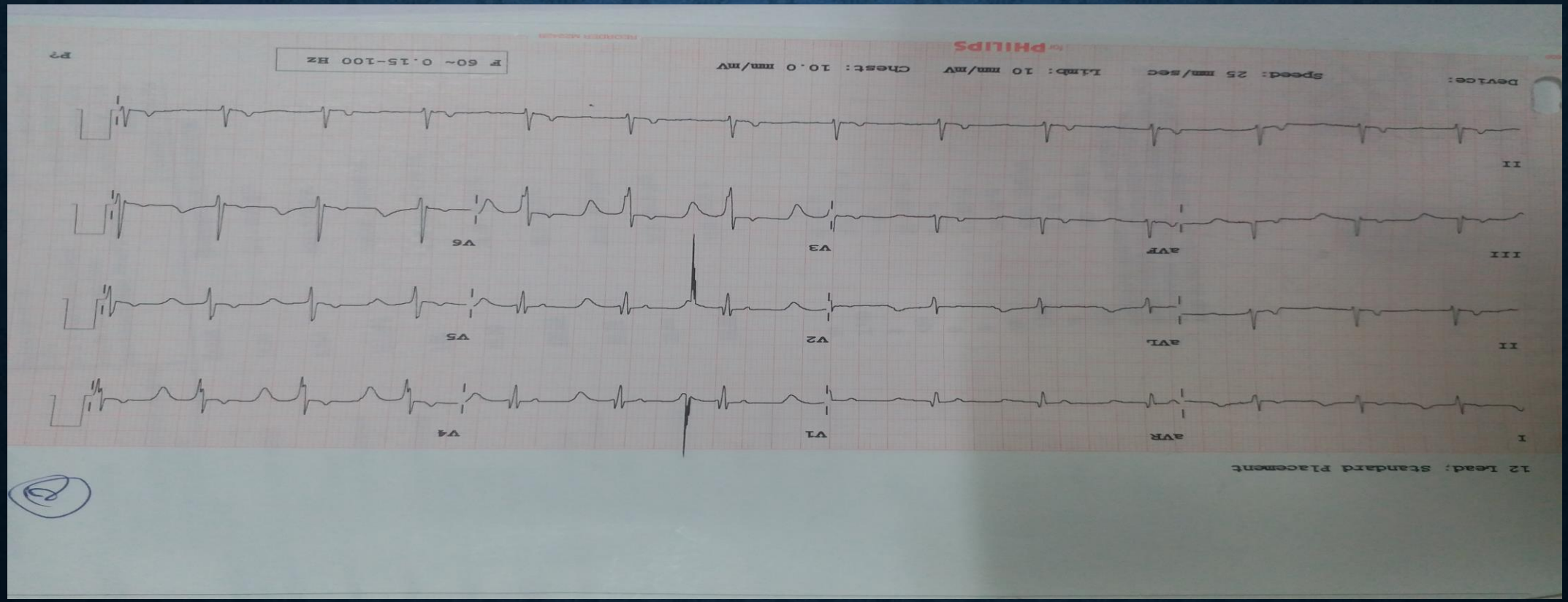
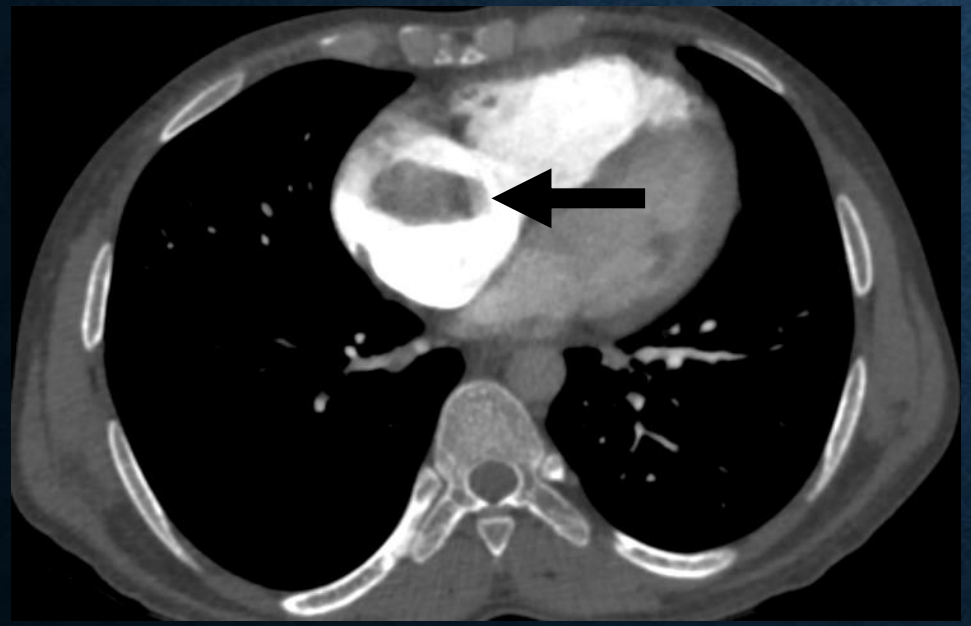
- A 32 years old male presented with exertional dyspnoea since past 20 days.
- On ECG: Heart rate: 110/min, sinus tachycardia, ST depression in inferior leads.



2D ECHO with colour doppler : Normal valvular function, LVEF- 60%, No regional wall motion abnormality (RWMA) ,mild pericardial effusion

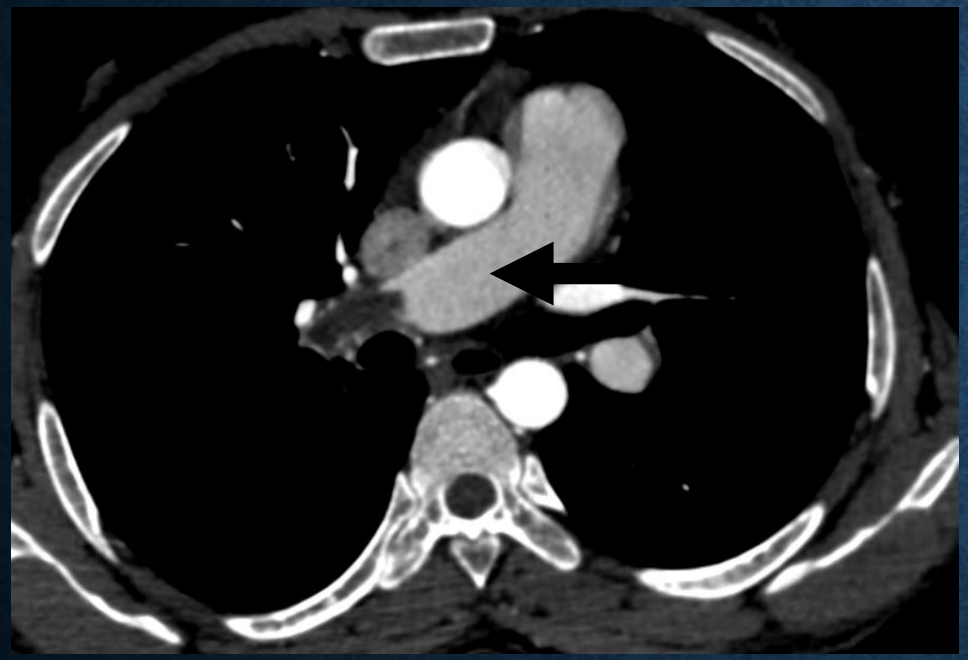
Echocardiogram shows dilated right atrium and right ventricle with single 3.5x3x2 cm echogenic mass attached to free wall of right atrium near anterior tricuspid leaflet.

CT Thorax: coronal



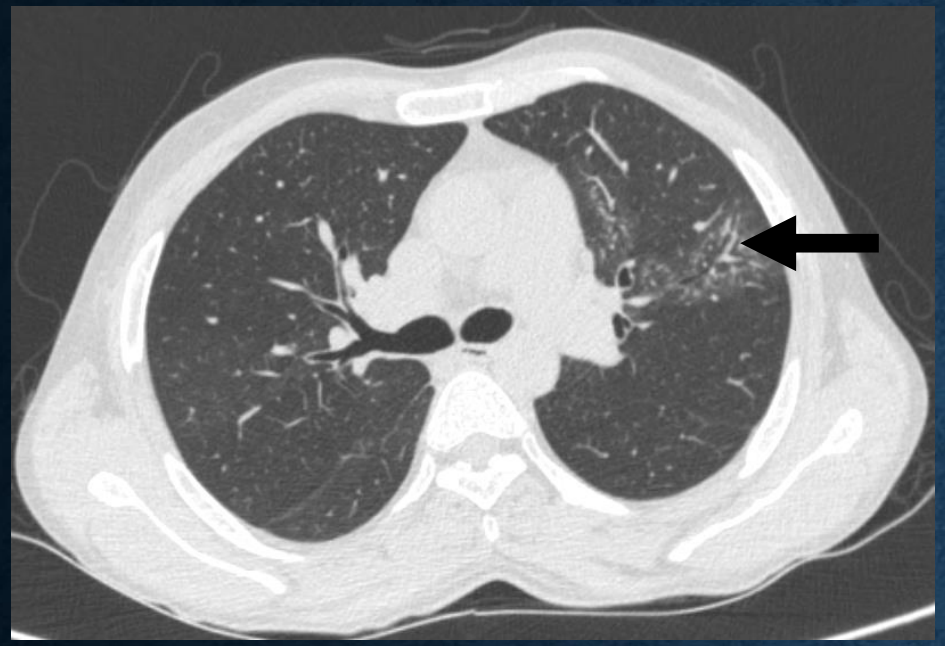
CT Thorax: axial

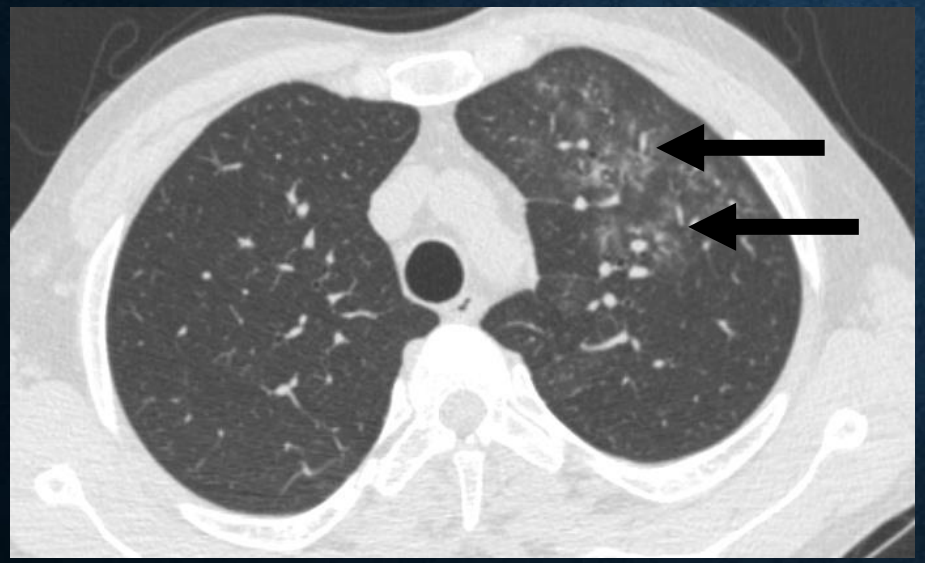
The coronal and axial sections showing a filling defect of size 3.4 x 1.6 x 2.8 cm seen in the right atrium just inferior to opening of SVC mostly thrombus with coarse calcifications.



CT Thorax: axial

Large hypodense filling defect is seen in the right distal main pulmonary artery and its branches.





HRCT Thorax:

Here are the axial section of HRCT chest showing ill-defined patchy ground glass densities are seen in left upper lobe and lingular lobe representing extensive pulmonary embolism

Other investigations:

CBC: HB: 10.5g/dl, Mild leucocytosis (TLC: 12500/cmm)

Serum Bilirubin: 1.3 mg/dl

LFT: WNL

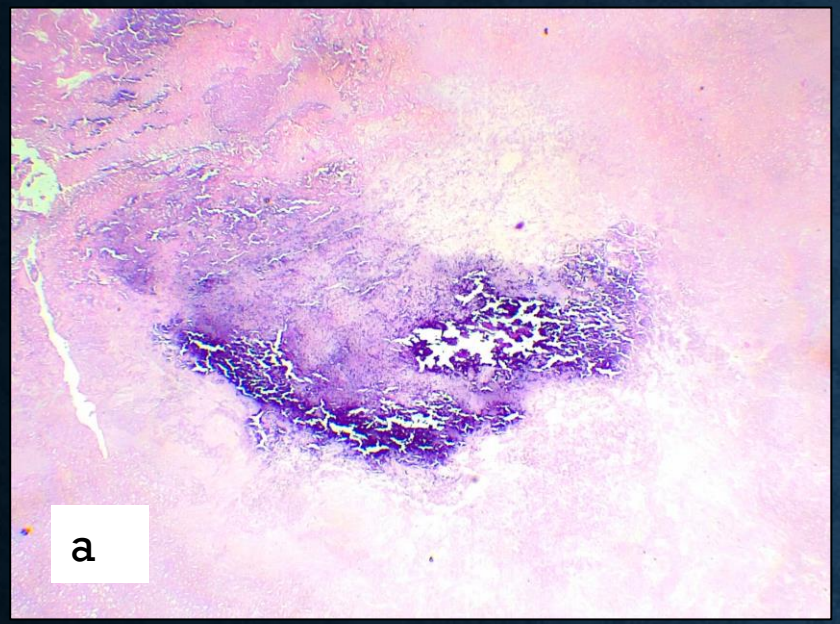
Serum Creatinine: 1.1 mg/dl

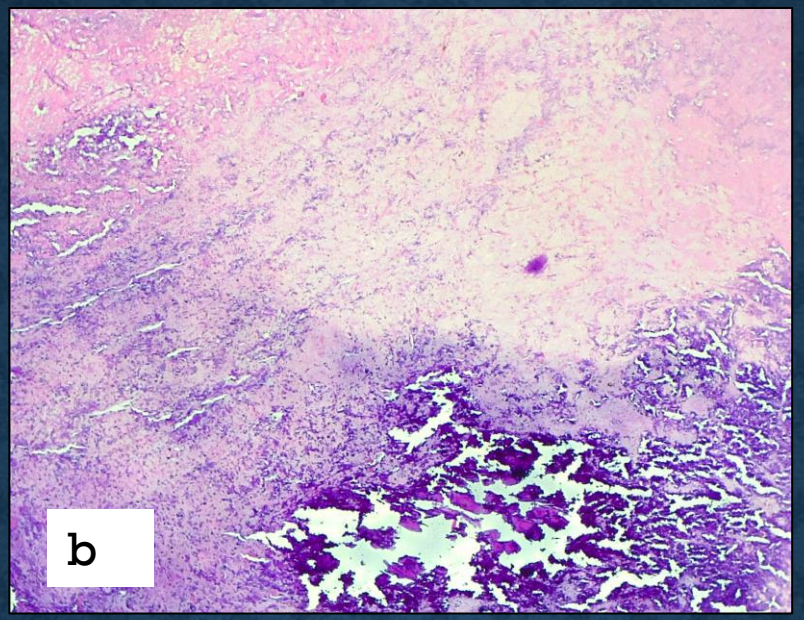
HIV/HBsAg: Non-reactive

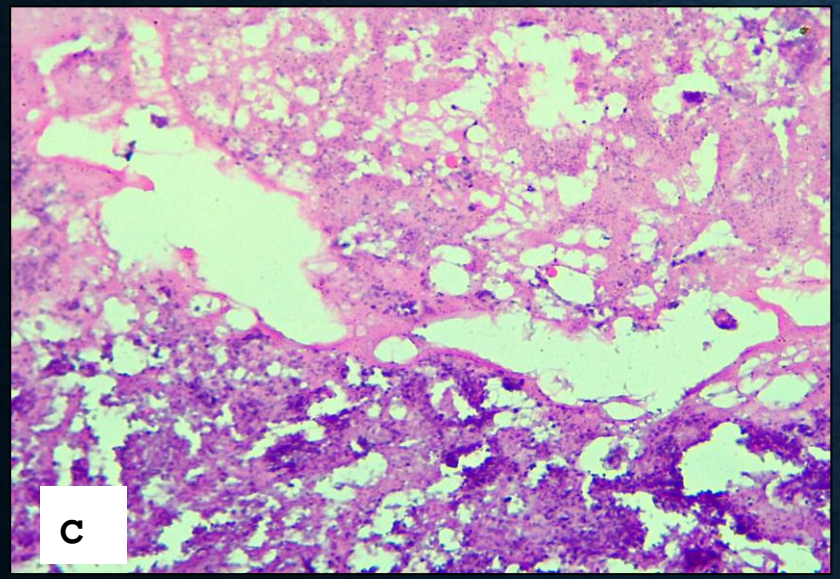
Based on these investigations, a pre-operative clinical diagnosis of right atrial myxoma with pulmonary embolism was made and pulmonary thrombo-embolectomy with resection of right atrial mass was done.

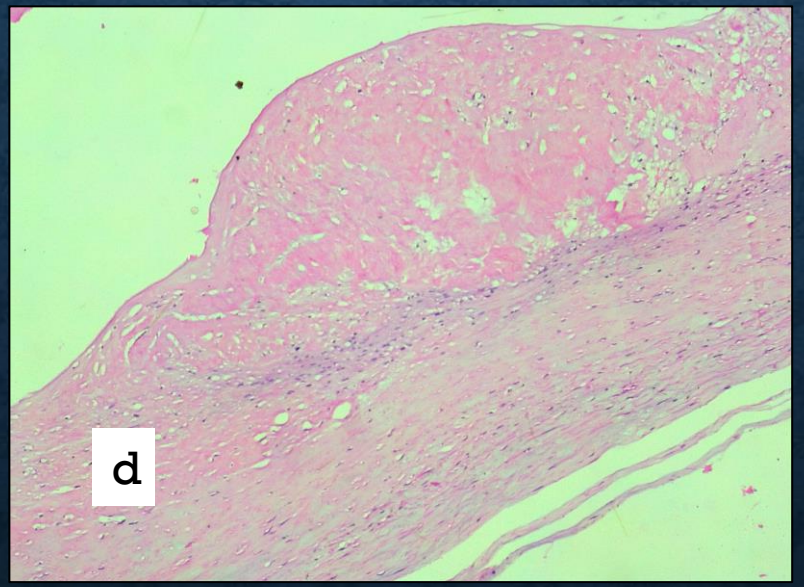
Gross appearance shows a greyish, firm mass measuring 3.5x3x2 cm.

Cut surface is greyish-white with adjacent yellowish myxoid like areas.









a. Photomicrograph shows central nodular calcification surrounded by degenerated fibrin giving amorphous eosinophilic appearance with lack of neo-vascularity.

b. c. Higher magnification of same findings

d. Photomicrograph showing scattered fibroblasts with loose collagen and surface showing fresh fibrin deposits.

Histopathological examination offered diagnosis of

CARDIAC CALCIFIED AMORPHOUS TUMOR (CAT).

DISCUSSION

Cardiac calcified amorphous tumour (CAT) is exceedingly rare entity found in wide range of age from 18 to 78 years with female predominance. It is commonly found in the left ventricle (35%) and mitral valve (21%), right atrium (12%).

- It is rare, non-neoplastic lesion with obscure pathogenesis. Origin from mural thrombi has been suggested as well as altered calcium-phosphorous metabolism or end-stage renal failure is also put forward.
- This mass forming lesion is liable for misdiagnosis with other cardiac tumours and relied for surgical excision and histopathological examination for accurate diagnosis.
- Pulmonary artery branches were affected by tumour embolization and bilateral lung field infarct found.

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- 4.Hussain N, Rahman N, Rehman A. Calcified amorphous tumour of the heart. Cardiovascular pathology. 2014;23(6): 369-371

CARDIAC LIPOMA-A RARE CASE

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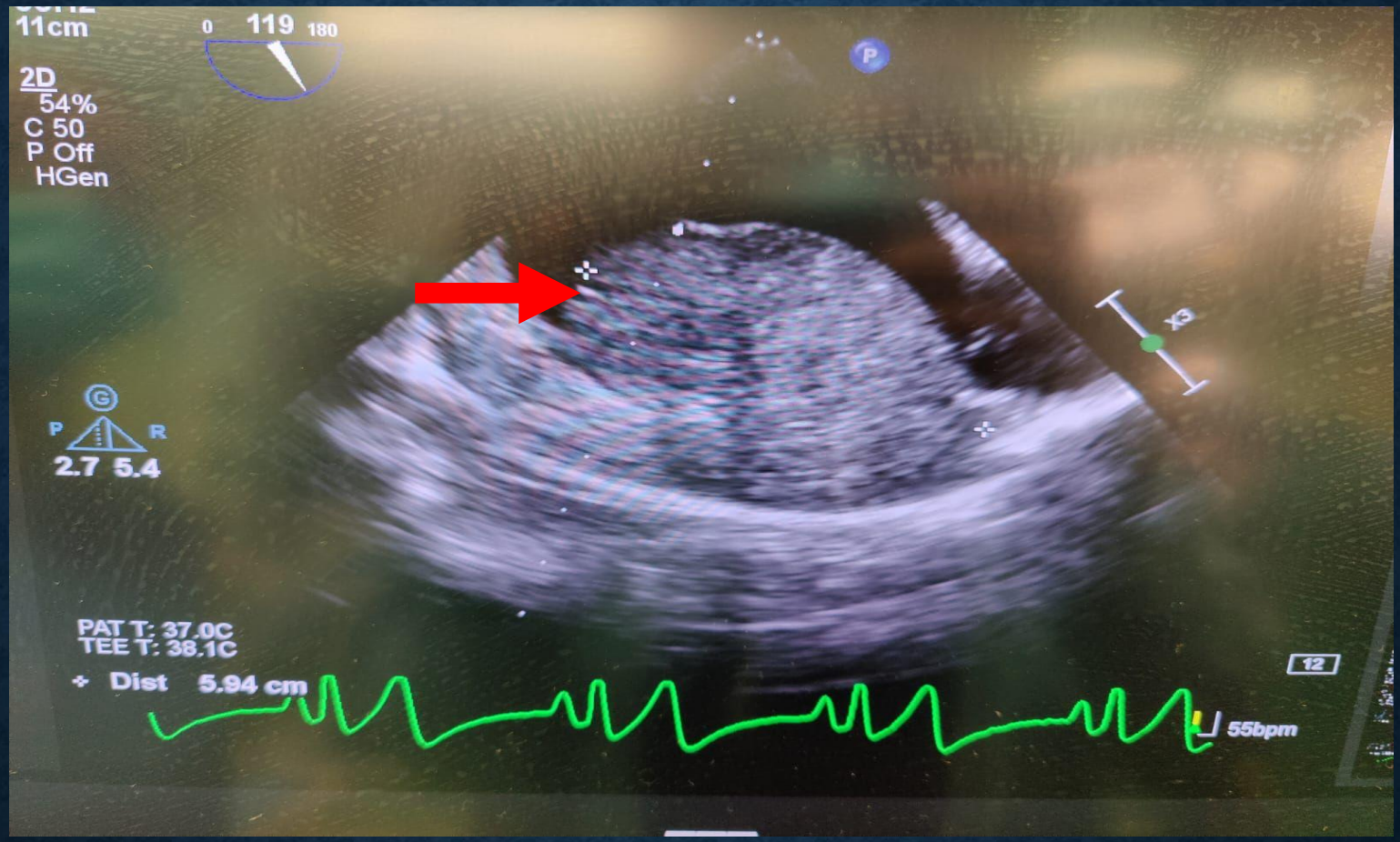
- Presenter: Dr. Vijay V Ghule

CASE DETAILS:

- A 60 years old male presented with chest pain and dizziness since last 15 days.
- On echocardiography, single 5.5x4.5 x2 cm mobile mass attached to lateral border of right atrium noted.



Echocardiogram showing 5.5x4.5 mass arising from lateral side of right atrium

Investigations:

CBC: Hb- 10 g/dl, Mild leucocytosis (TLC: 13000/cmm),

Platelet:120000/cmm

BP: 120/70 mm of Hg, Heart rate: 86/min, sinus tachycardia

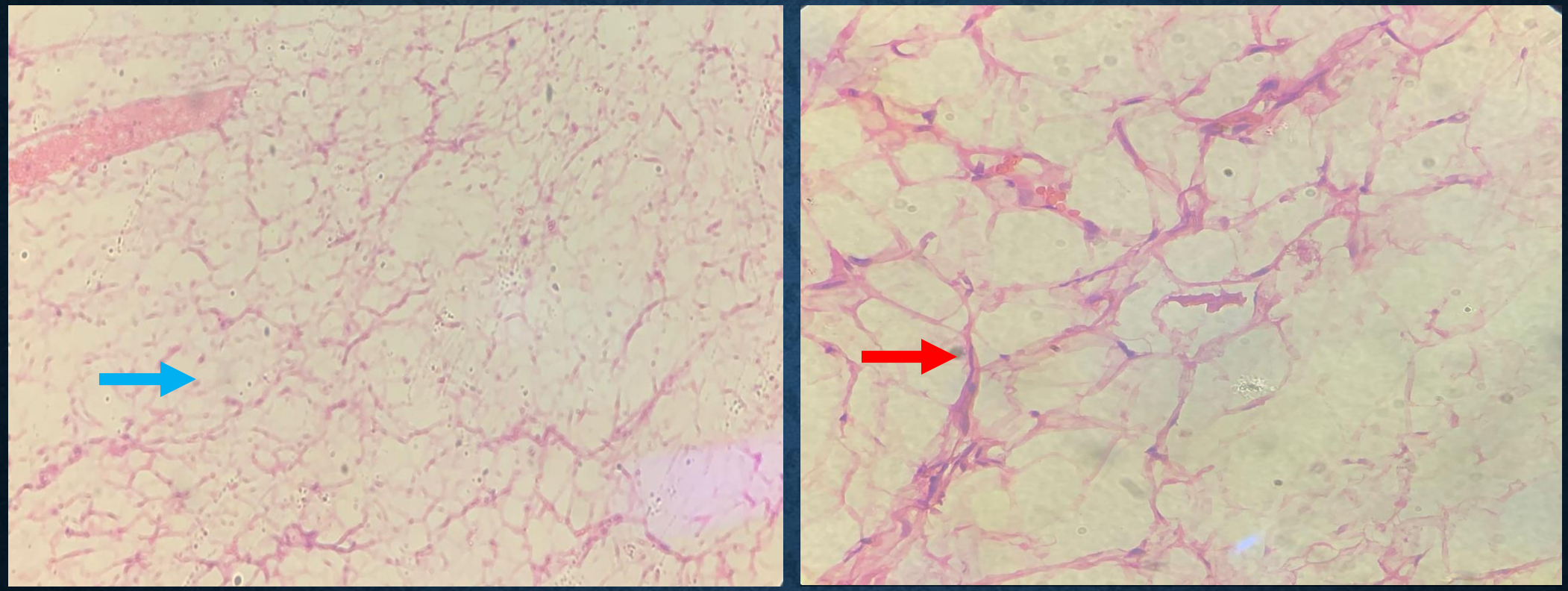
RFT/LFT: WNL

HIV/HBsAg: Non-Reactive

Based on these investigations, a preoperative clinical diagnosis of right atrial myxoma/ lipoma / rhabdomyoma was made.

Mass was completely resected and sent for histopathological examination.

Gross examination shows single encapsulated, yellowish, soft to firm, lobulated mass measuring 5.5x4.5 x2 cm



Sheets and clusters of mature adipocytes (fat cells) separated by fibrous septa

Histopathological examination offered diagnosis of

CARDIAC LIPOMA.

DISCUSSION:

- More than two third of primary tumours of the heart are benign.
- Lipoma is an encapsulated adipose tissue tumour constituting 8.4% of total benign tumours of the heart.
- It occurs at any age but most commonly in age group of 40 to 60 years.
- Depending upon this, it may cause obstructive or compressive effects although cardiac lipoma is largely asymptomatic and incidental one. It may extend to adjacent interatrial septum or invade coronary sinus.
- Lipomatous hypertrophy of heart, another fat containing lesion, is close differential but it is un-encapsulated and spares fossa ovalis.
- After confirmation of nature and localisation, the mass forming lesion is completely resected to prevent recurrence, embolization or further progression.

- REFERENCES:

- 1 Li D, Wang W, Zhu Z, Wang Y, Xu R, Liu K. Cardiac lipoma in the interventricular septum: a case report. J Cardiothoracic Surg. 2015; 10:69.
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THANK YOU