

A CASE OF CARDIAC EMERGENCY (RSOV)

VI MU

CHIEF - Dr C .DHARMARAJ

ASST - DR.A.TAMILVANAN

Dr.A.PRABHU

PRESENTER -Dr.S.KADHIRVEL

- **22Y /F presented with**
- c/o breathlessness for 2 days aggravated by minimal exertion (NYHA gr- III)
- h/o palpitation for 2 days
- h/o giddiness with loss of consciousness –on and off (regaining consciousness within 5-10mins)
- h/o headache on/off
- H/o mild upper abdominal pain with decreased appetite – 3 days

- No h/o orthopnoea
- No h/o fever
- No h/o chest pain
- No h/o seizures
- No h/o blurring of vision
- No h/o recent trauma

Past history:

- Not a k/c/o DM/SHT/PTB/CAD/CHD/thyroid disorder

Personal history:

- Takes mixed diet
- Married – 2 children
- LCB: 1.5yrs back (uneventful-both LSCS,PS done)
- Regular 3/28 cycles.
- LMP:1 day back, normal flow.

General examination

O/E

Pt conscious

Oriented

Afebrile

Pallor(+)

No cyanosis/clubbing

No pedal edema

No generalised lymphadenopathy

Hydration-fair

Head nodding with each heart beat+

Vitals

BP:100/60mm Hg in
both UL
110/70mm Hg in the LL

Pulse:112/min
Regular
Small volume
Felt in all periph. vessels

RR:21/min

SPO2:97% with room air

TEMP: 98.6f
Afebrile

Systemic examination

CVS: JVP- elevated 3cms above the clavicle

- Apical Impulse : Left 5th ics in midclavicular line, hyperdynamic
- No dilated veins over the chest wall.
- Continuous thrill along the left sternal border
- Mitral area: s1s2 heard (muffled)
- Continuous murmur (grade V) heard along the left upper sternal border radiating all over the precordium.
- Aortic area : same murmur radiated
- Pulmonary area: loud P2 with ejection systolic murmur.

RS: Dyspnoeic , tachypnoeic

BAE(+), NVBS+

basal crepts(+)

P/A : soft ,BS(+)

Minimal epigastric ,right hypochondrial
tenderness(+)

No free fluid ,no organomegaly

CNS: NFND

ACUTE LV FAILURE/PULMONARY EDEMA/ANAEMIA

Investigations

CBC

HB:8.8

TC:9700

ESR:4mm/hr

PCV:31.2%

PLAT:1.38LACS/CU.MM

RBS:126

RFT:

UREA-77

CREATININE-1.2

Na+ 135

K+ 3.2

Cl- 101

URINE

ALBUMIN:Nil

SUGAR:Nil

DEPOSITS:0-2Pus
cells

BT :2MINS 15SECS

CT:5MINS 30 SECS

BLOOD GP:A +VE

HIV screening:NR

CK-MB-89.5U/L

LFT

S.BILIRUBIN:0.9

SGOT:32

SGPT:36

ALP:76

S.PROTEINS:5.9

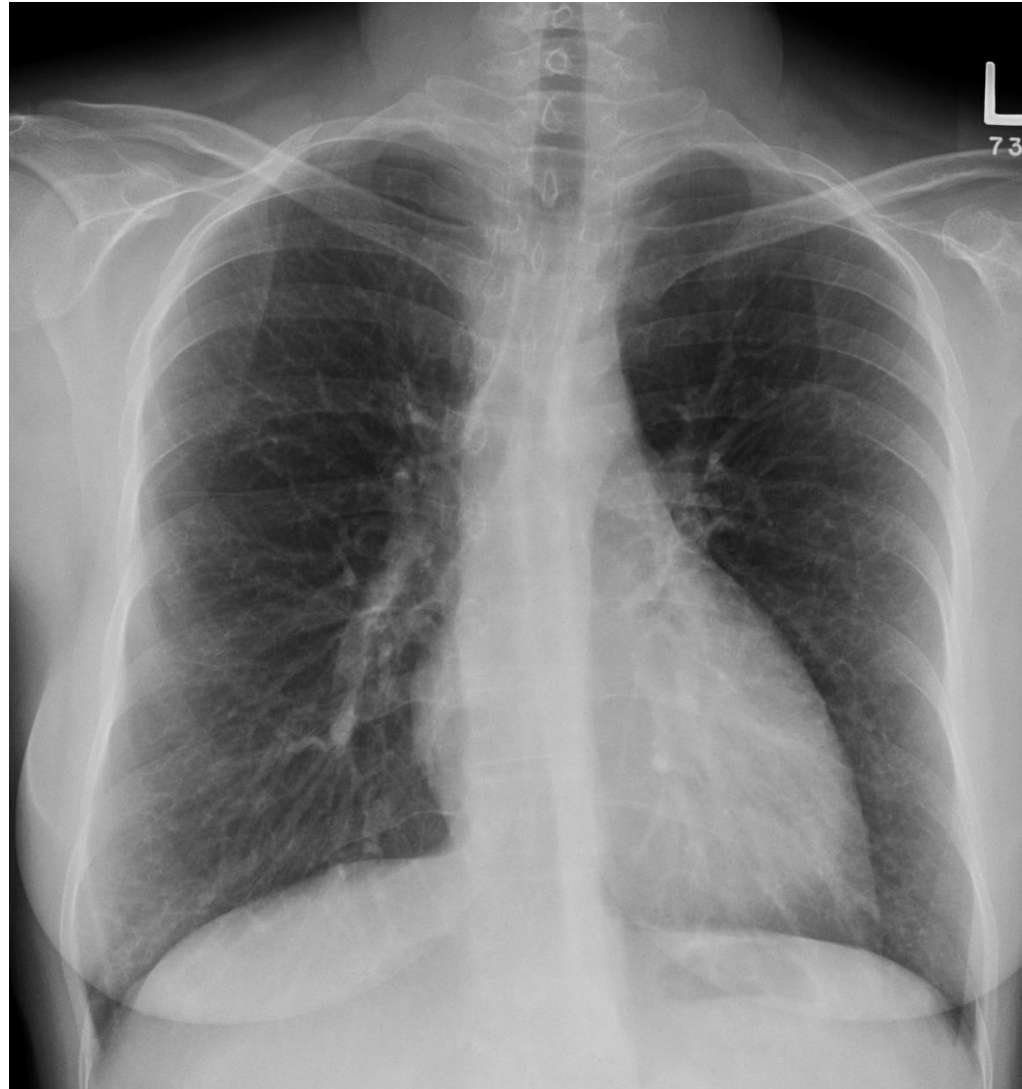
ALBUMIN:3.5

GLOBULIN:2.4

ECG

- Normal sinus rhythm
- Rate 125/min
- Sinus tachycardia
- No ST/T wave changes

CHEST X RAY



Cardiology opinion: screening echo done

- Revealed RSOV into right atrium
- Advised to add T.ivabradine 5mg 1-0-1.
- Pt shifted to iccu

CTS OPINION:

- Plan :surgical repair of rsov
- Control of heart failure and conservative measures until surgery.

ECHOCARDIOGRAM

- SITUS SOLITUS
- LEVOCARDIA
- NORMALLY RELATED GREAT VESSELS
- RUPTURE SINUS OF VALSALVA INTO RT ATRIUM WITH NORMAL LV FUNCTION
- MODERATE PULMONARY HYPERTENSION
- LVID(d)-4.8
- LVID(s)-2.7
- LVEF-74%

PHILIPS

KALEASWARI 22/F

10:55:27PM

TIS0.8

MI 1.4

32542220170226

Dept. of Cardiology, GRH - S5-1/Adult

FR 69Hz
15cm

M3

2D
66%
C 50
P Low
HGen



***bpm

PHILIPS

KALEASWARI 22/F

10:55:49PM

TIS2.3

MI 1.2

32542220170226

Dept. of Cardiology, GRH - S5-1/Adult

FR 23Hz
15cm

2D

64%
C 50
P Low
HGen

CF

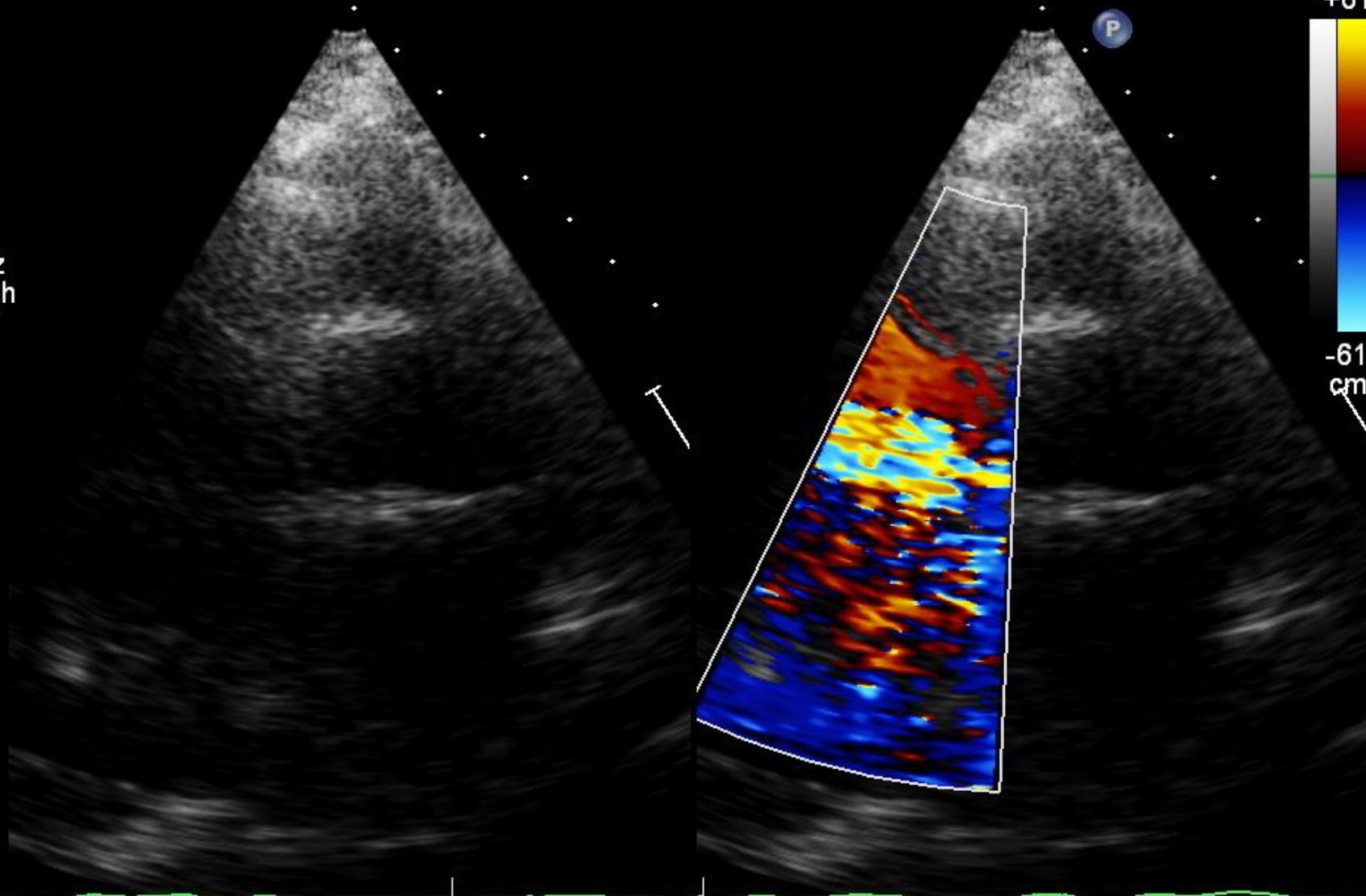
66%
2.5MHz
WF High
Med

M3 M4

+61.6



-61.6
cm/s



***bpm

PHILIPS

KALEASWARI 22/F

10:56:25PM

TIS0.8 MI 1.4

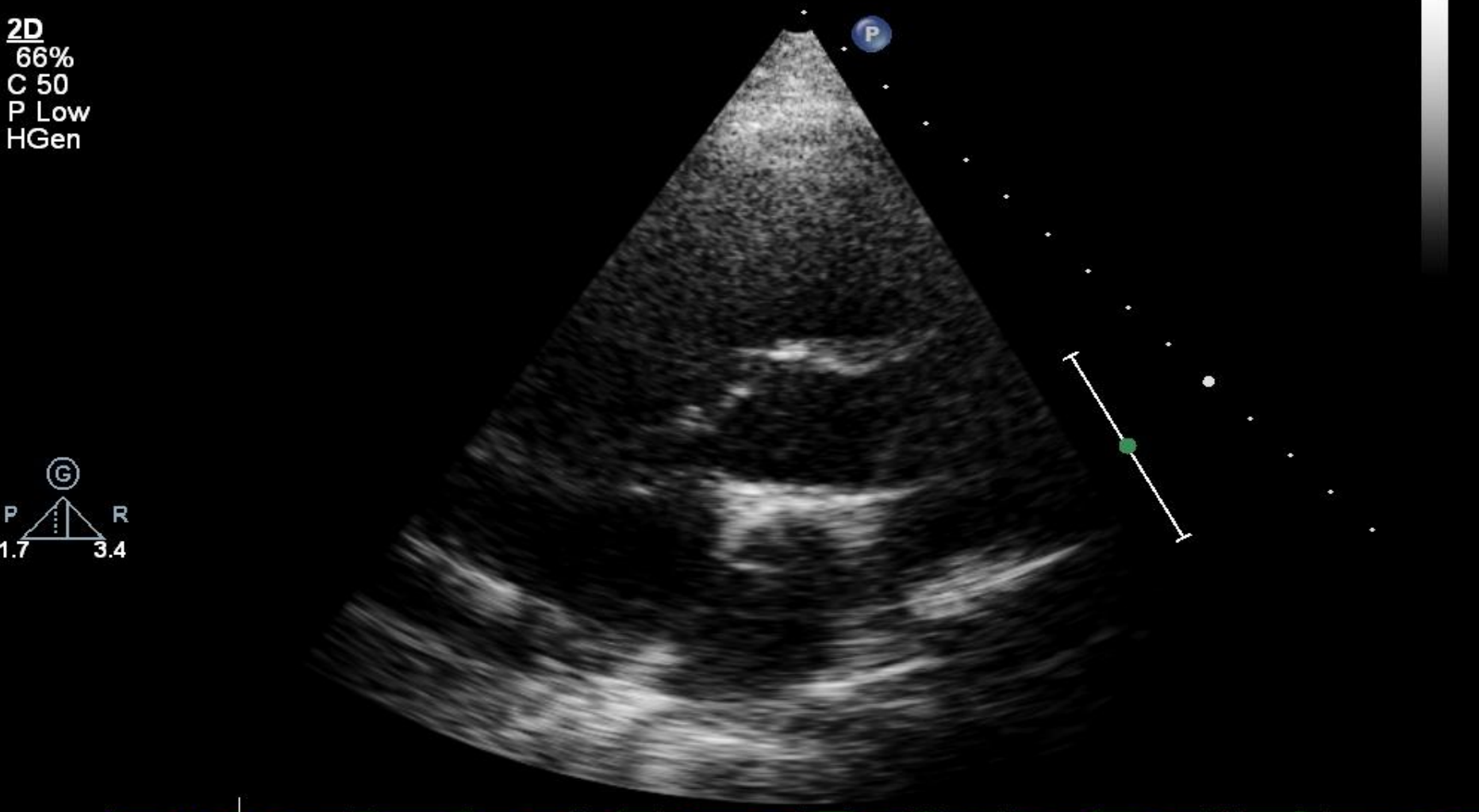
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Dept. of Cardiology, GRH - S5-1/Adult

FR 69Hz
15cm

M3

2D
66%
C 50
P Low
HGen



***bpm

PHILIPS

KALEASWARI 22/F

10:57:14PM TIS0.6 MI 1.4

32542220170226

Dept. of Cardiology, GRH - S5-1/Adult

FR 34Hz
15cm

M3

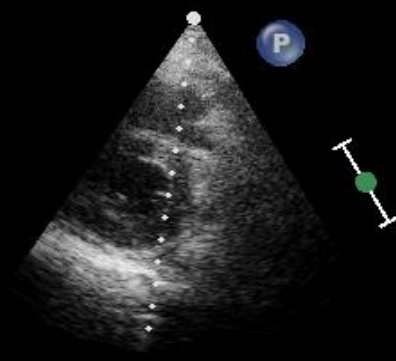
2D / MM

66% 62%

C 50

P Low

HGen



- LVIDs	2.72 cm
- LVIDd	4.80 cm
EDV (MM-Teich)	108 ml
ESV (MM-Teich)	27.5 ml
FS (MM-Teich)	43.3 %
EF (MM-Teich)	74.5 %

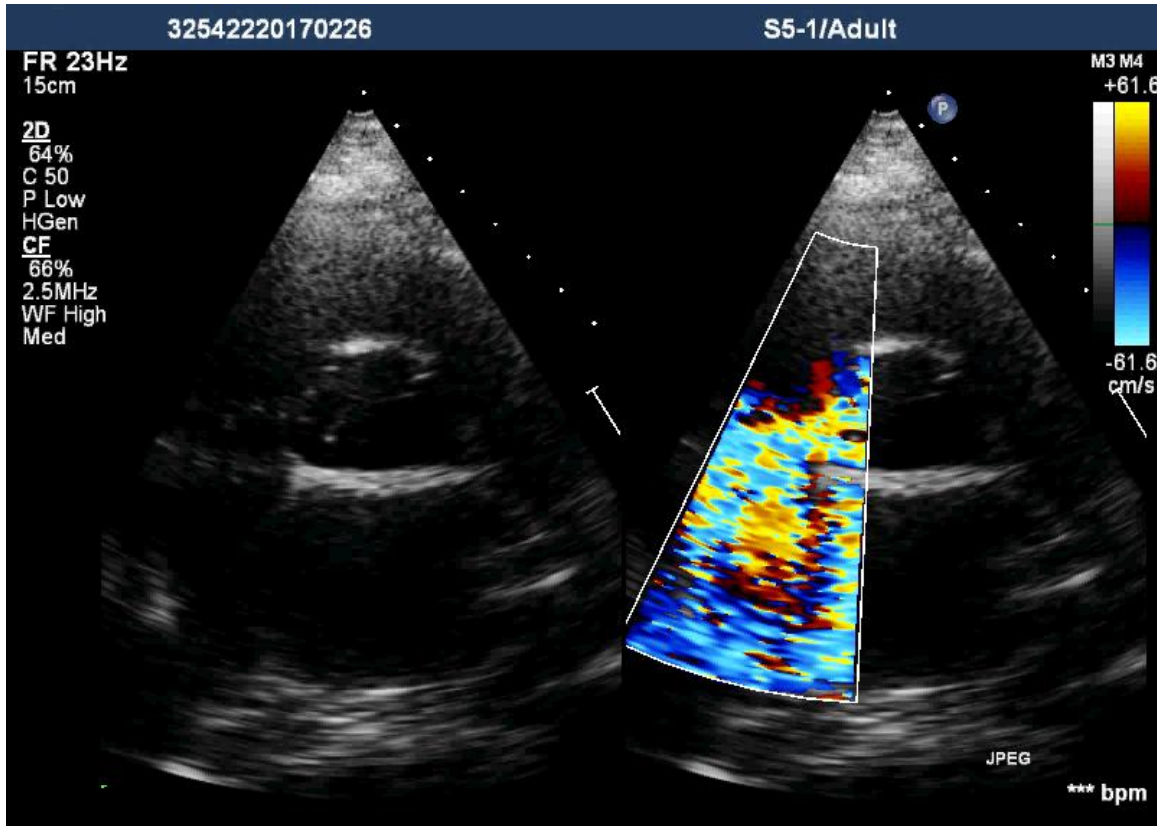
-0

-5

-10

75mm/s

***bpm



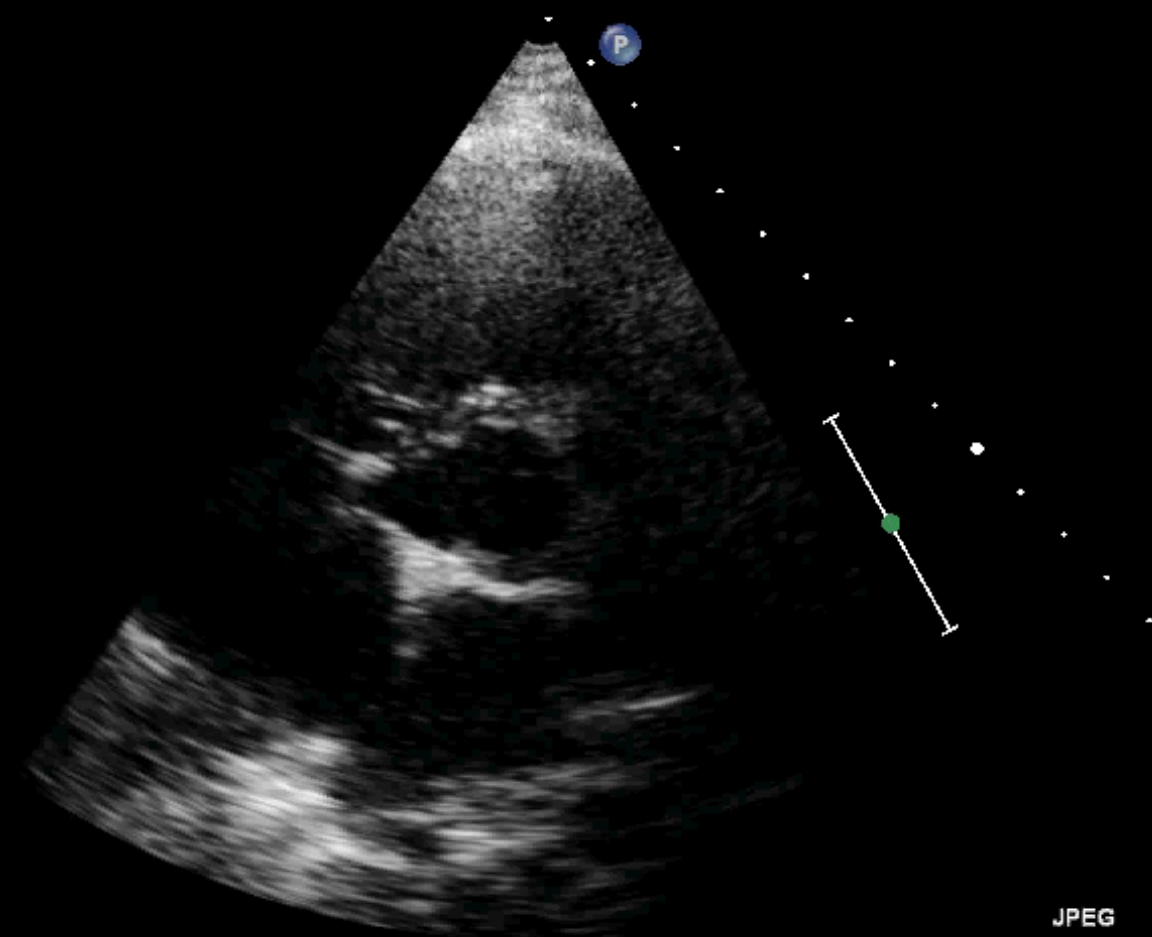
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S5-1/Adult

M3

FR 69Hz
15cm

2D
66%
C 50
P Low
HGen



JPEG

94 bpm

- Pt became breathless ,drowsy with haemodynamic instability
- Was intubated and connected to ventilator in SIMV mode

- **ANAESTHETIC ASSESSMENT:** patient had severe respiratory distress and was connected to mechanical ventilator
- Patient was assessed under ASA IV E for surgery
- Advised 2 units of packed cells and reserve adequate blood for surgery
- Was transfused with 2 units of A+ve packed cells and taken up for surgery

Operative findings

- **Diagnosis:** rupture of sinus of valsalva in to right atrium
- **Procedure:** REPAIR OF RSOV WITH DUAL PERICARDIAL PATCH
- **Intra op findings:** Midline sternotomy approach. Pt operated with CPB.
The defect closed on both sides with a pericardial patch

AIM OF PRESENTATION

- Rarity
- To stress the need for prompt early intervention

DD –Continuous murmurs

- Patent Ductus Arteriosus
- Rupture of Sinus Of Valsalva
- Aorto Pulmonary Window
- ALCAPPA
- Intercostal AV FISTULA
- Collaterals in Coarctation Of Aorta
- Peripheral Pulmonary Artery Stenosis
- Pulmonary And Coronary AV FISTULA
- PROXIMAL Pulmonary Artery Stenosis
- Venous hum
- Mammary souffle

