



Allegheny Health Network

**Bring Your Own Shock Case
10/29/22**

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Case

- 55 year old male with past medical history
 - Tobacco abuse (1PPMx 30 years)
 - Recently quit
- Over the past few months, patient has had dyspnea on exertion, initially starting with strenuous activity, and now with walking up stairs.
- Works as a mechanic, and was initially able to complete his 12 hour shifts
 - Now very fatigued at the end of each day

Case

- Seen at urgent care – found to have “bilateral pneumonia”
 - PO antibiotics provided no relief
- Finally, presented to an outside institution with dyspnea and lower extremity edema

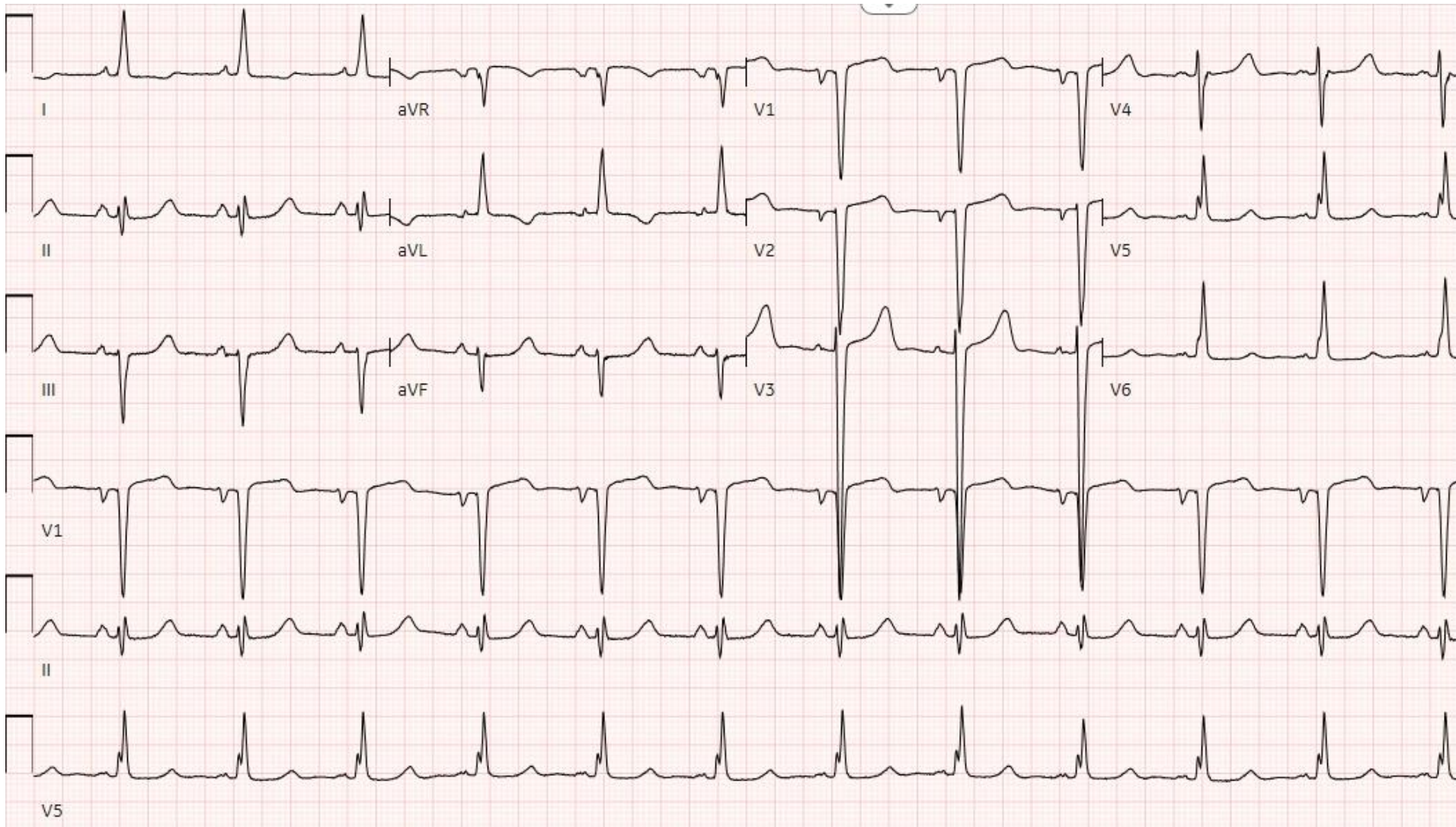
Case

- Medical therapies:
 - None
- Surgical History
 - None
- Social History:
 - Recently quit smoking (1 month)
 - 30 pack year history
 - Lives with his wife, works as a mechanic

Case

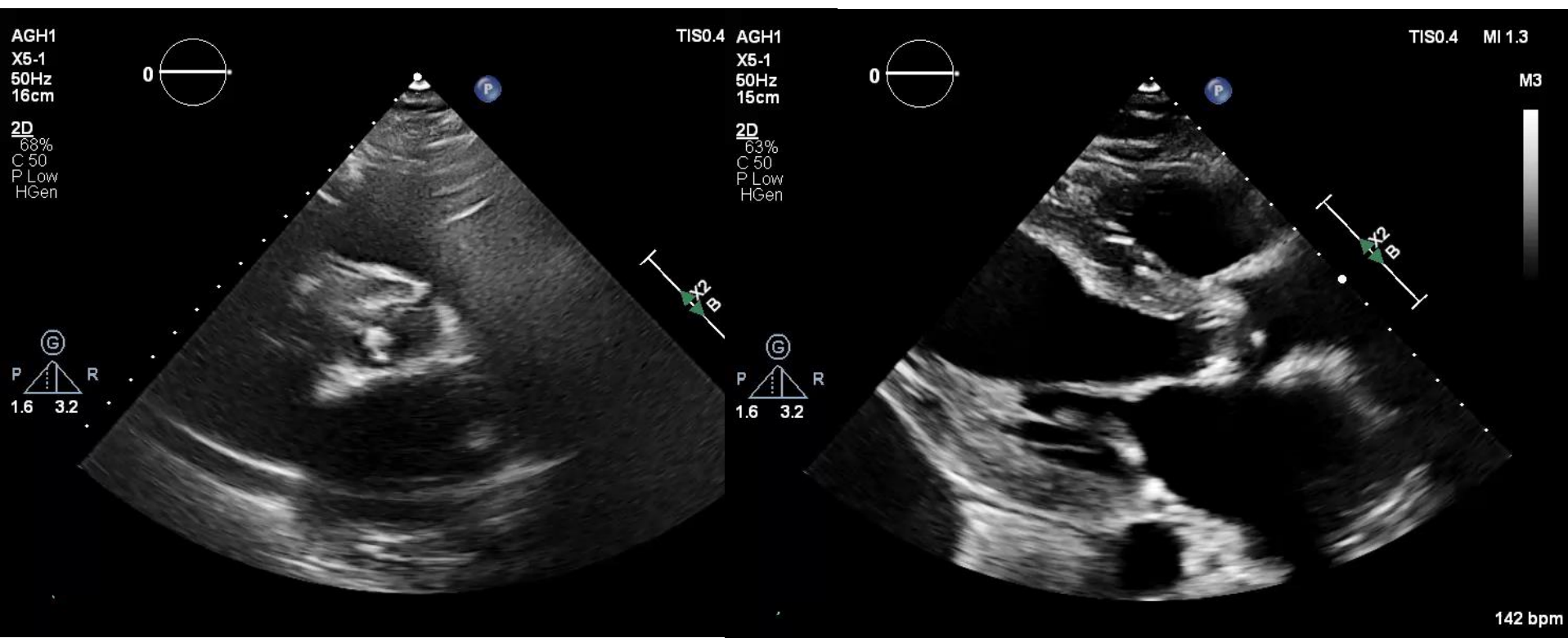
- On arrival to the hospital
 - HR 117
 - Required 2L NC to maintain saturation > 95%
 - Blood pressures range – 88-103/65-70
- Pertinent Labs
 - HS-Trop T 179
 - Lactic acid 4.8

EKG



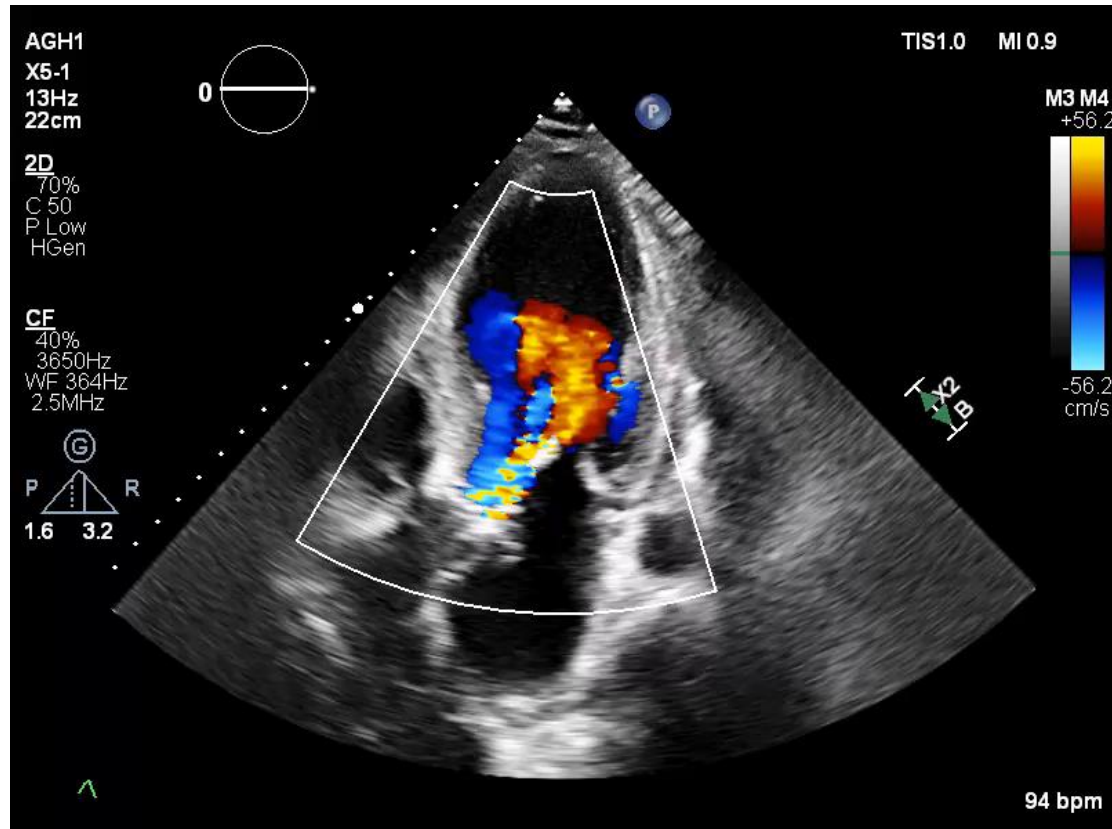
Case

- Echocardiogram



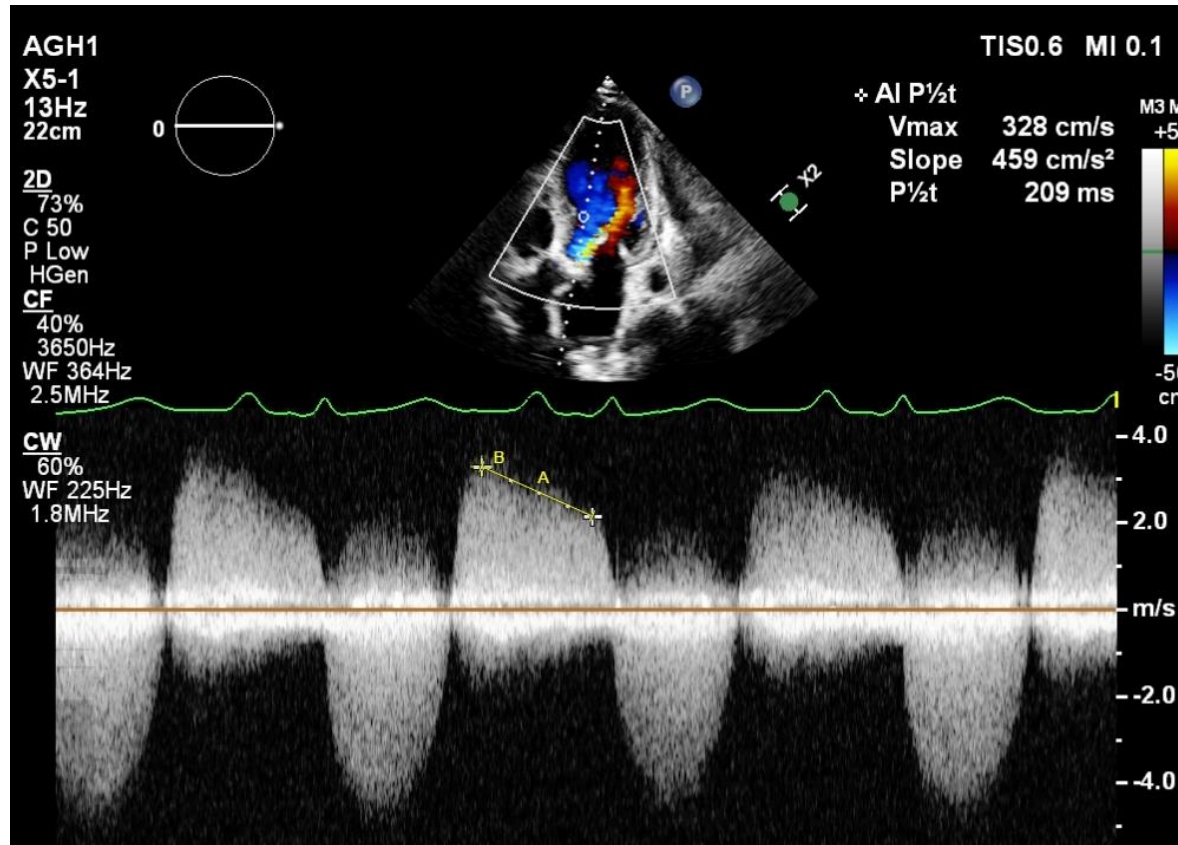
Case

- Echocardiogram



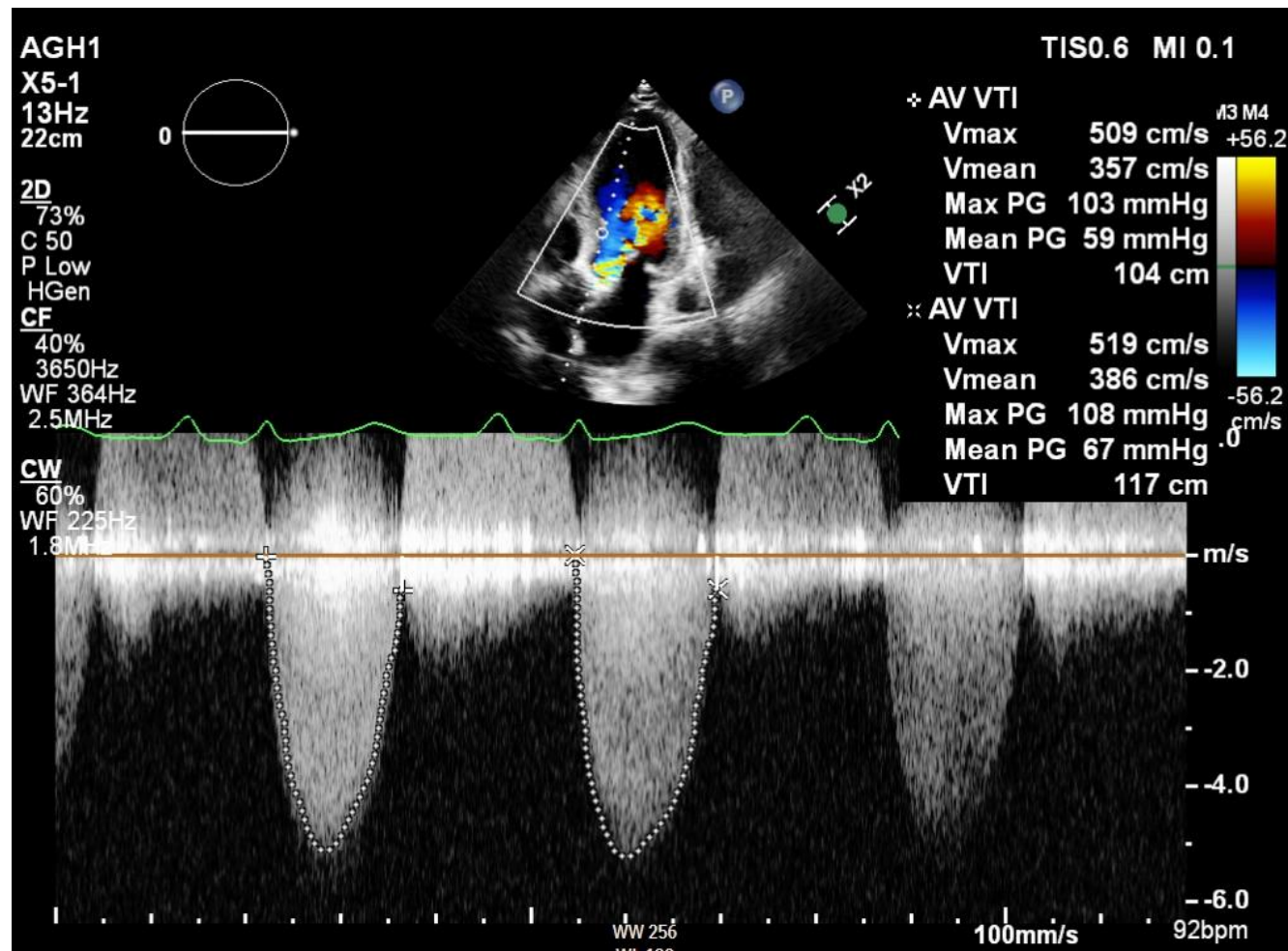
Case

- Echocardiogram



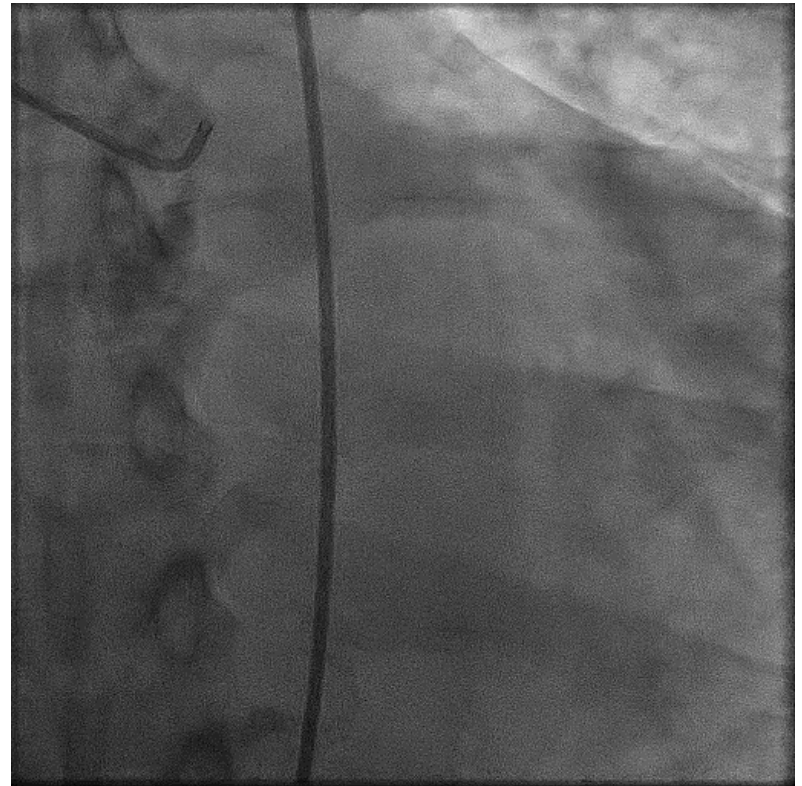
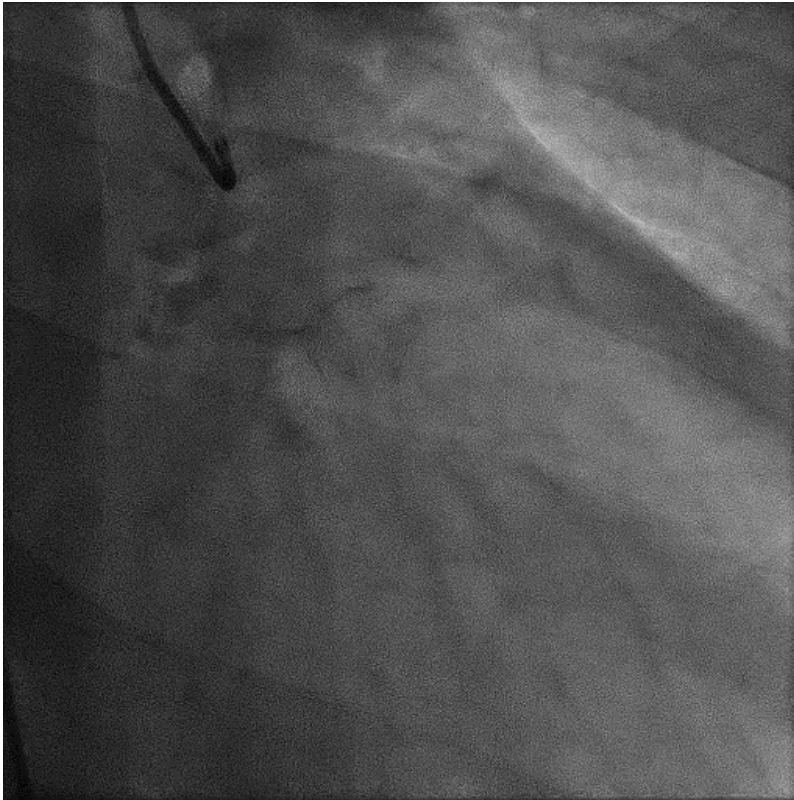
Case

- Echocardiogram



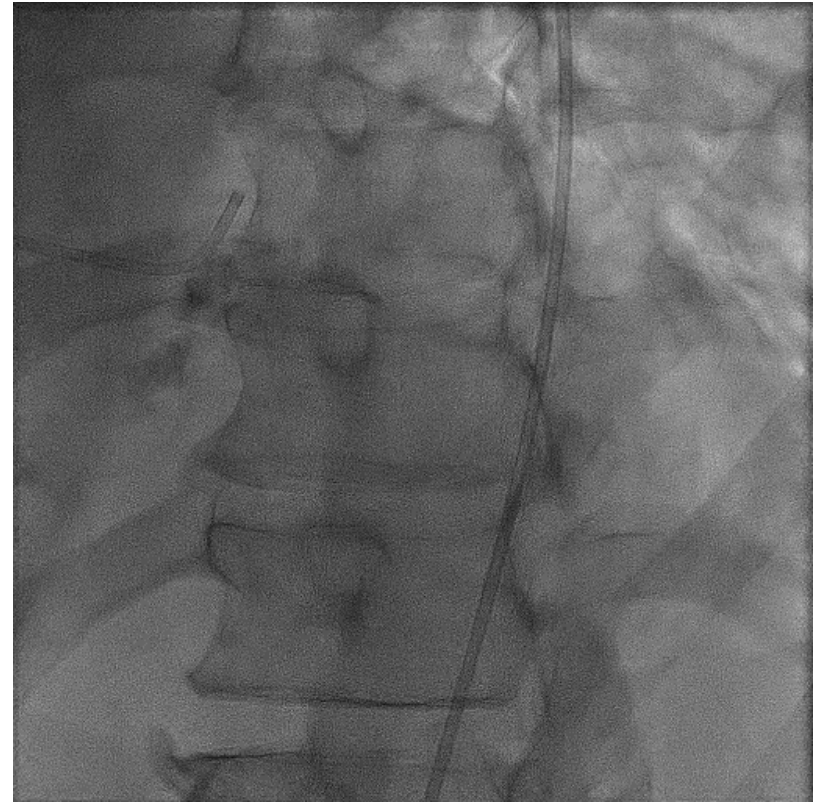
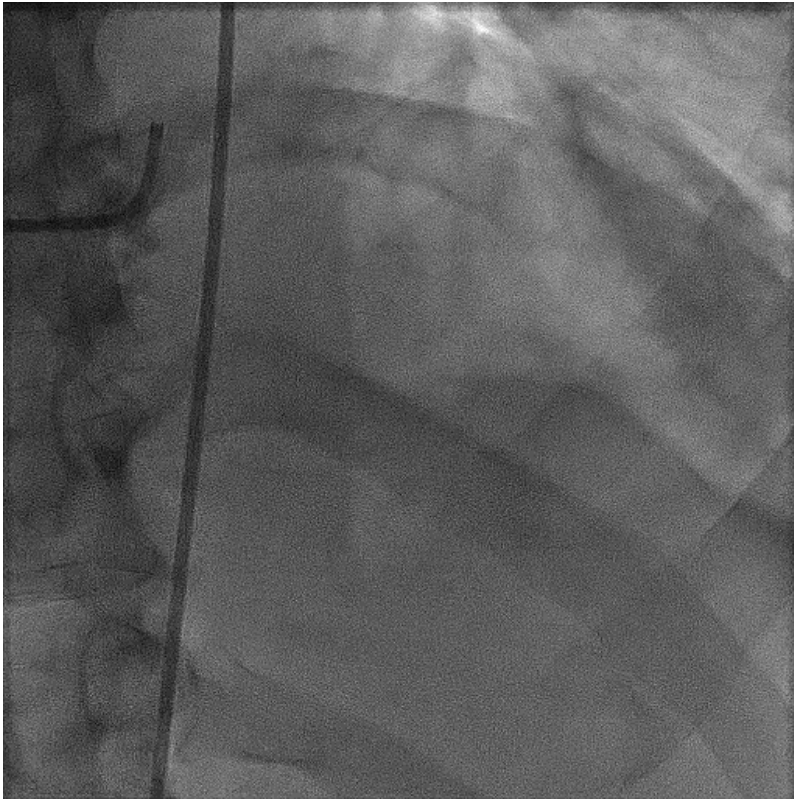
Case

- LHC Films – RAO and AP Caudal



Case

- LHC Films – AP and LAO Cranial



Case

- LHC Films - RCA



Case

- Right Heart Cath
- RA 19
- RV 71/9
- PA 75/39
- PCW 40
- Svo2 49.9%
- CO 3.19/CI 1.64
- SVR 1329
- AO pressure 85/60 mmHg
- LV pressure 190/19 (EDP 41)

Case

- Transferred emergently to AGH
- Requires low-dose norepinephrine in transfer to maintain SBP > 90 mmHg

Temp: [97.8 °F (36.6 °C)] 97.8 °F (36.6 °C)

Heart Rate: [92] 92

Resp: [34] 34

BP: (113)/(64) 113/64

Physical Exam

Constitutional: Critically ill. Appears alert, appears stated age and cooperative.

Mildly overweight.

Neck: Supple, symmetric, trachea midline, no masses. The thyroid appears normal, no thyromegaly. There is jugular venous distention. JVP is elevated to the mandible

Respiratory: Conversational dyspnea; crackles in the bilateral lower lung fields

Cardiovascular: Laterally displaced and diffuse PMI. Regular rhythm, Normal rate.

S1, S2 are normal. III/VI systolic murmur at left upper sternal border

Lower Extremities: 2+ dorsalis pedis pulses bilaterally. Cold, +2 bilateral lower extremity edema to the knees

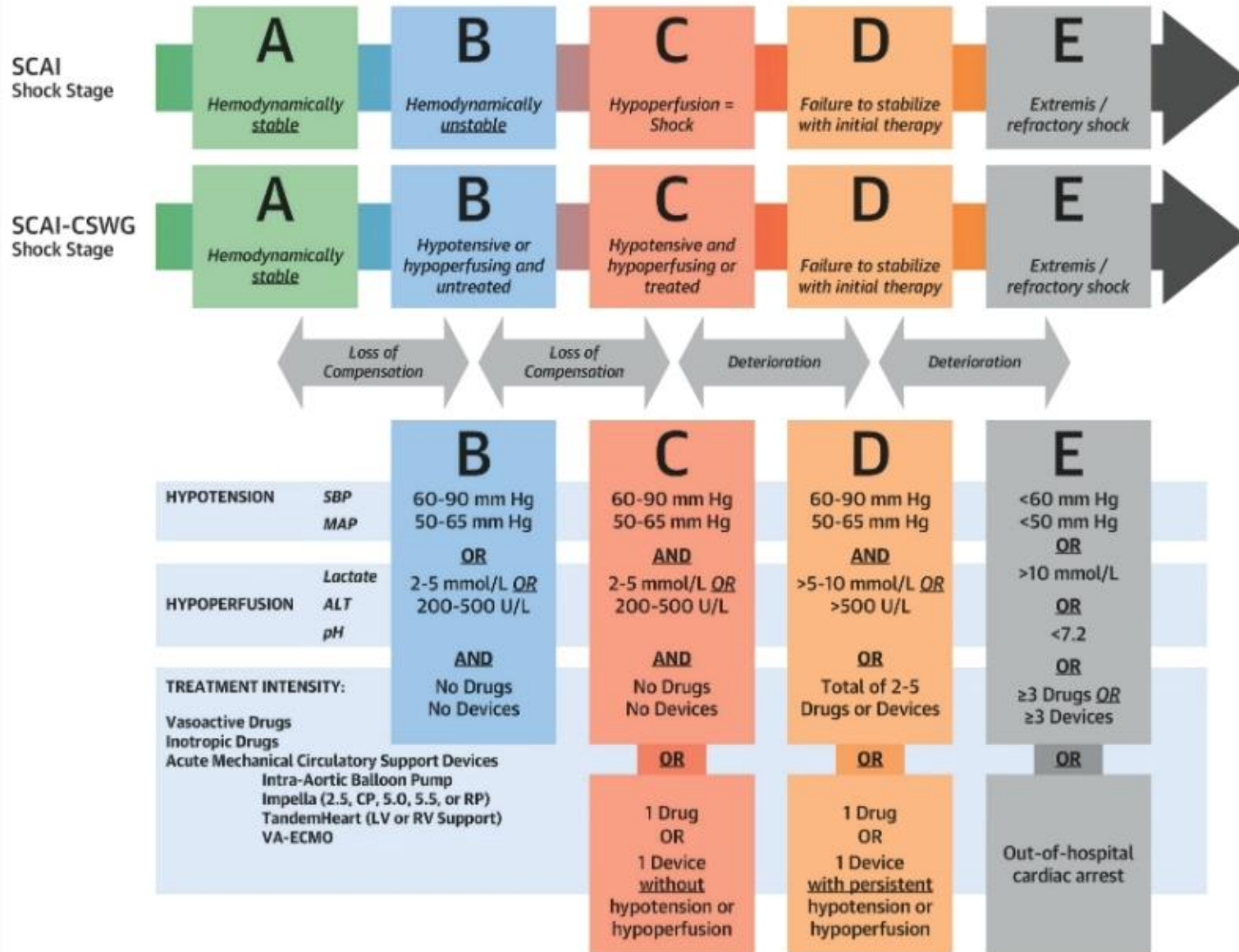
Skin: normal coloration and turgor, no rashes, no suspicious skin lesions noted.

Neurologic: No focal deficits, alert and oriented X 3, Normal coordination and gait.

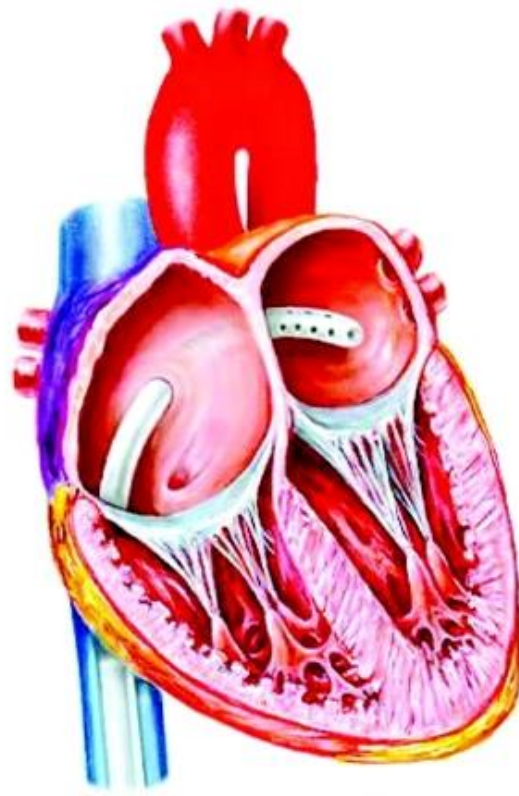
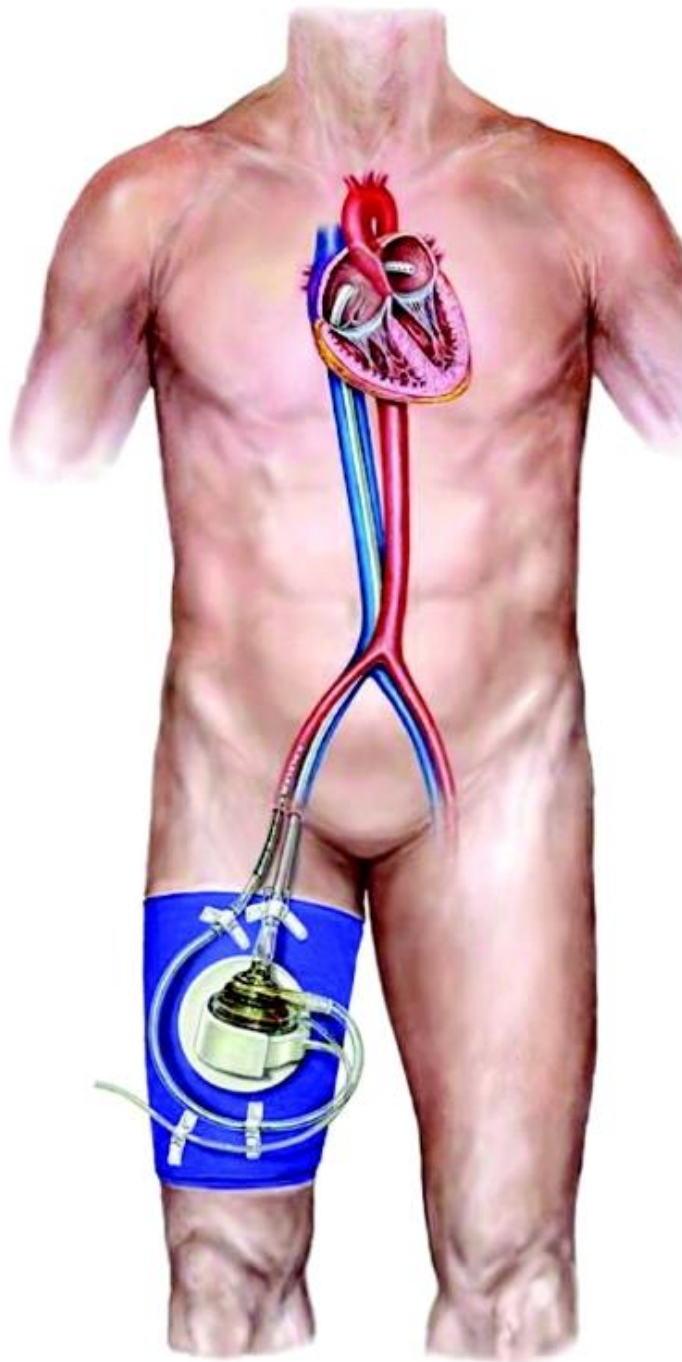
Case

- Pertinent Labs
 - Sodium 131
 - HCO₃⁻ 20
 - Cr. 1.73
 - ALP 144
 - AST/ALT 2974/2470
 - Lactic acid 3.7
 - WBC 14.6
 - Hb 12.5
 - Plt 158

CENTRAL ILLUSTRATION: Clinical Variables and Parameters to Define Society for Cardiovascular Angiography and Interventions Stages



Discussion



- Hypoxic on 6L
- Intubated to facilitate TEE

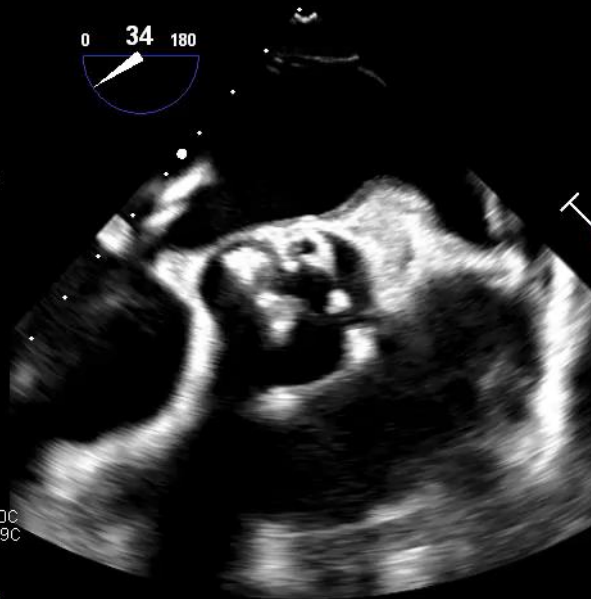
AGH TEE

X8-2t
15Hz
11cm

2D
54%
C 50
P Off
Gen

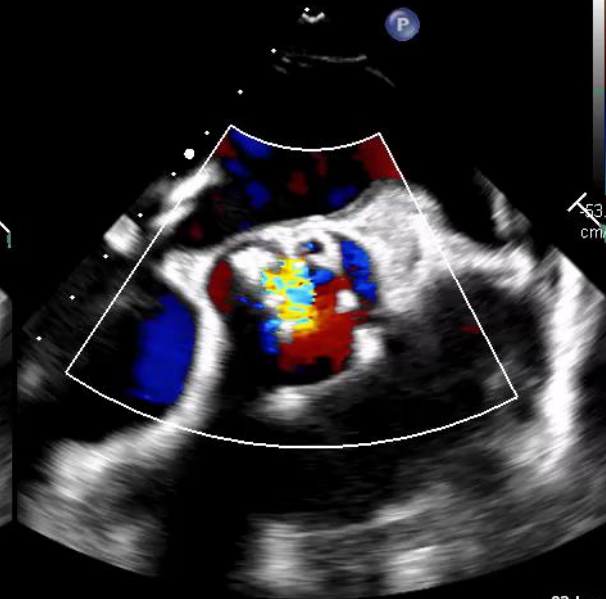
CF
48%
6216Hz
WF 559Hz
4.4MHz

PAT T: 37.0C
TEE T: 39.9C



TIS0.7 MI 0.3

M4
+53.9
-53.9
cm/s



92 bpm

AGH TEE

X8-2t
12Hz
15cm

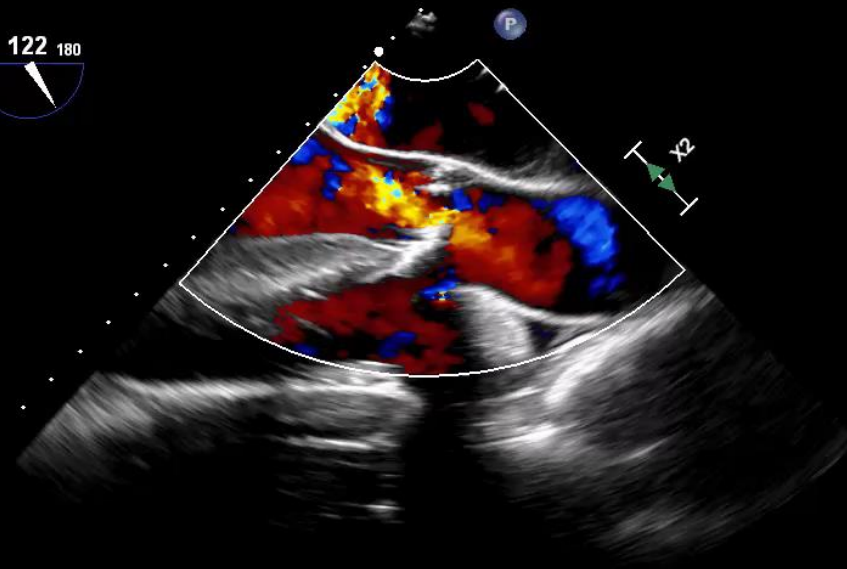
2D
57%
C 50
P Off
Gen

CF
48%
6216Hz
WF 559Hz
4.4MHz

G
P R

PAT T: 37.0C
TEE T: 40.0C

0 122 180

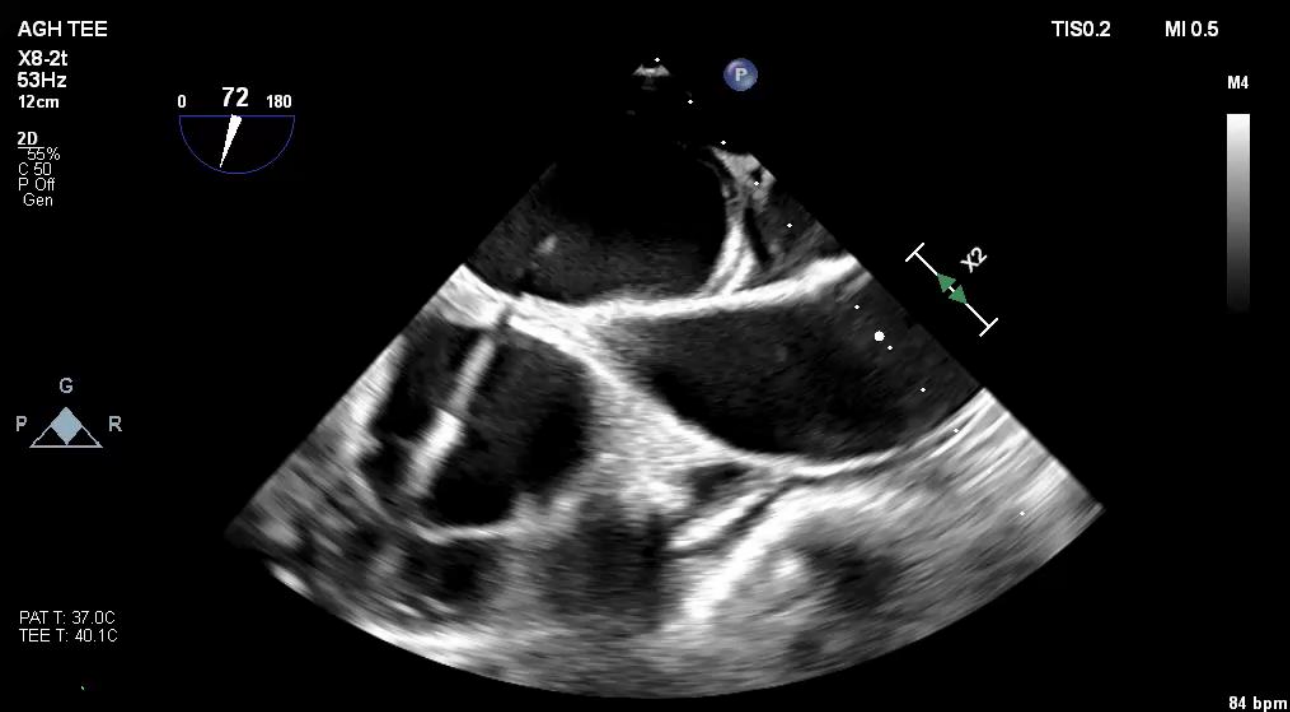


TIS0.7

MI 0.3

M4 M4
+53.9
-53.9
cm/s

94 bpm



AGH TEE

X8-2t
53Hz
12cm

2D
53%
C 50
P Off
Gen



TIS0.2

MI 0.5

M4




G
P R TANDEM 3.5L

PAT T: 37.0C
TEE T: 39.5C

80 bpm

Case

Cr.	AST	ALT	Lactic Acid
1.23 ▲ See Comment 	477 ▲	896 ▲	1.1
1.15 See Comment 	619 ▲	1,094 ▲	
1.11 See Comment 	663 ▲	1,078 ▲ 	
1.15 See Comment 	813 ▲	1,238 ▲	1.3
1.28 ▲	1,040 ▲	1,345 ▲	1.2
			1.2
See Comment  1.37 ▲	1,268 ▲	1,535 ▲	
See Comment  1.34 ▲	1,366 ▲	1,547 ▲	1.1
1.53 ▲	1,805 ▲	1,715 ▲	1.3
See Comment  1.62 ▲	2,278 ▲	2,105 ▲	2.0
See Comment  1.73 ▲	2,974 ▲	2,470 ▲	3.7 ▲

Case

- Hospital Day 5
 - Extubated to nasal cannula
 - Able to participate in own decision making for surgical AVR
- Hospital Day 6
 - Undergoes aortic valve replacement 23 mm On-X mechanical AV
 - Repair of atrial septal defect
 - Wean and removal of Tandem Heart
- Hospital Day 11
 - Transferred to floor
- Hospital Day 15
 - LVEF 40-44%, normal functioning mechanical AVR
 - Discharged home

Thank you!