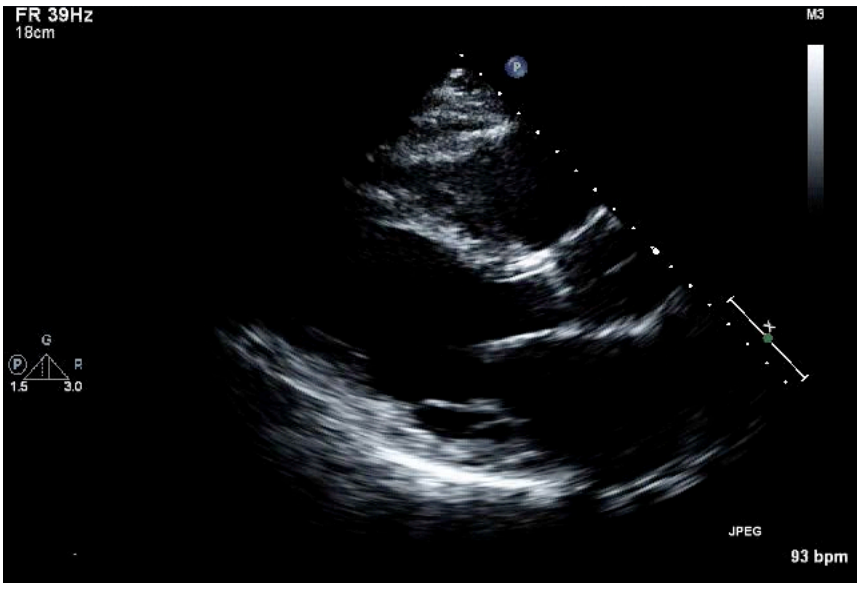
58 year old male transferred for 5 days after a large myocardial infarction. He was treated with thrombolysis and developed heart failure.

Coronary angiography reveals a total occlusion of the mid LAD in a markedly right dominant circulation

An echo is ordered to evaluate LV function

1



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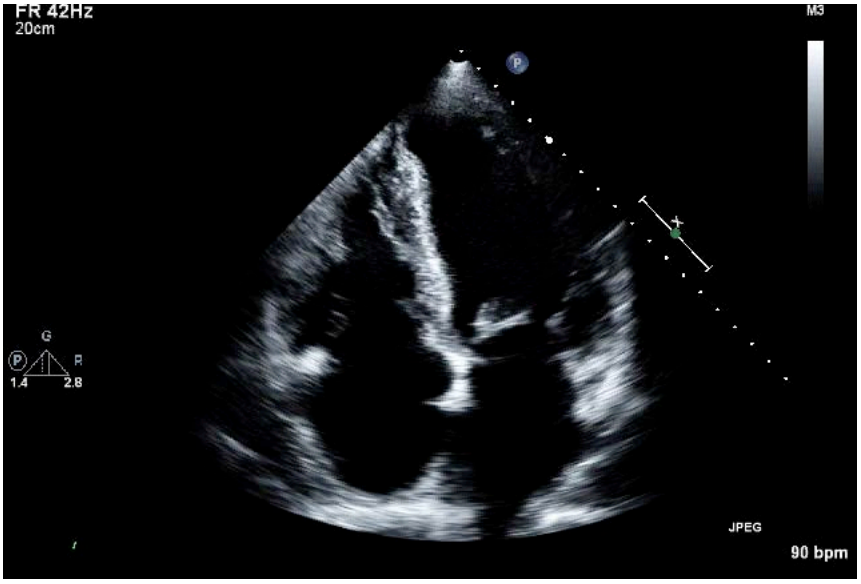
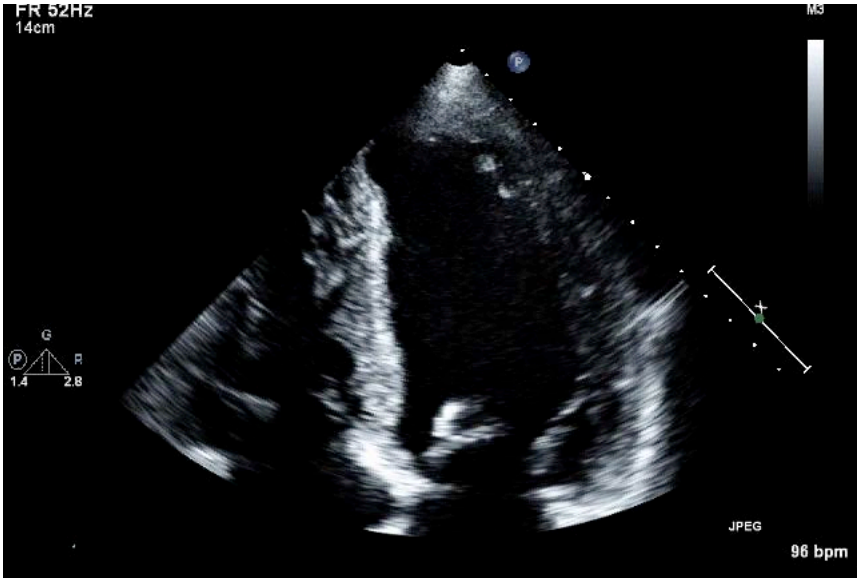

FR 42Hz
20cm
M3
G
P
R
1.4
2.8
JPEG
90 bpm

3

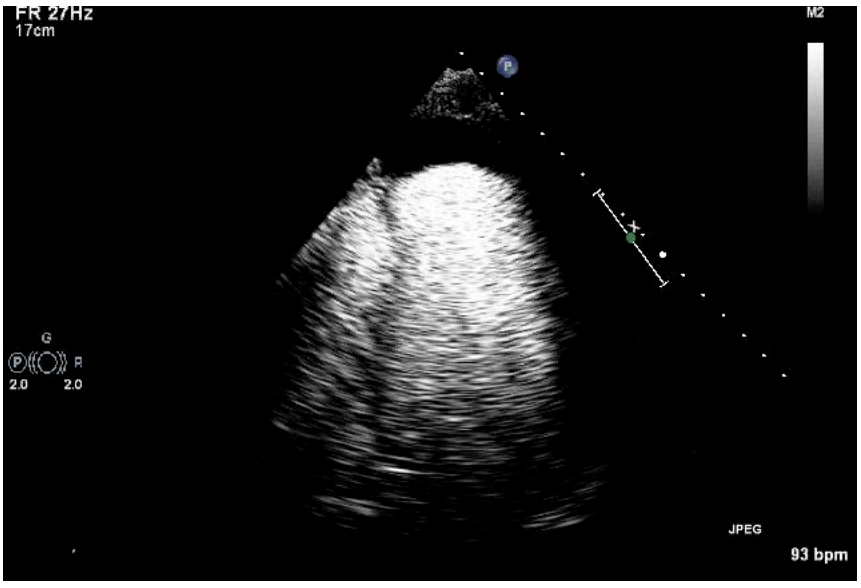

FR 52Hz
14cm
M3
G
P
R
1.4
2.8
JPEG
96 bpm

4

Further management includes:

- Only conventional antiplatelet therapy is indicated
- Haparin should be given and transition to warfarin begun
- Heparin is contraindicated due to the risk of myocardial rupture
- Contrast echo should be routine in such cases
- A serum rhubarb and biliary zinc clearance should be obtained

5



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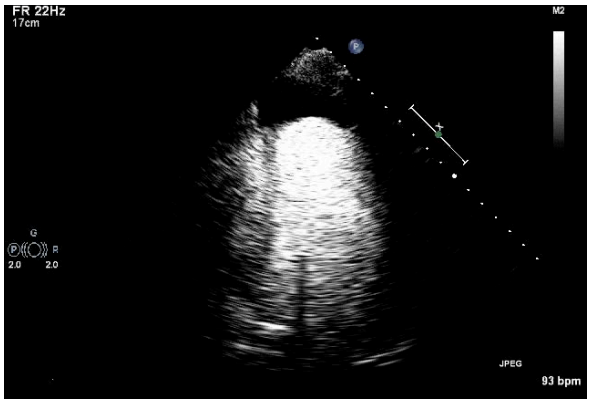
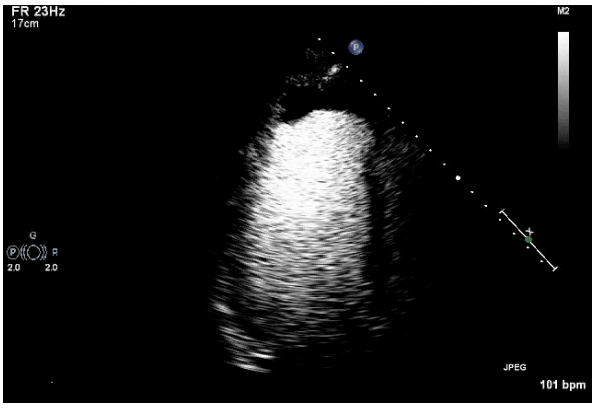




7

TAK and Follow

Anthony DeMaria

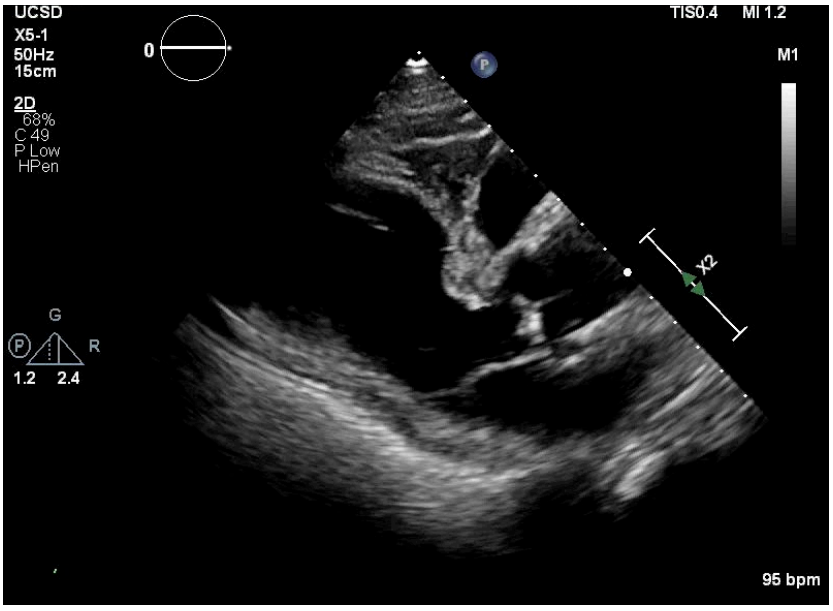
13

64 year old female who sustained trauma is admitted to neurosurgery for a subdural hematoma. The patient has no prior cardiac history and hypertension is the only risk factor.

Physical examination reveals normal vital signs and no cardiopulmonary findings.

Due to the trauma, an abnormal ECG, and elevated troponin an echocardiogram is ordered.

14



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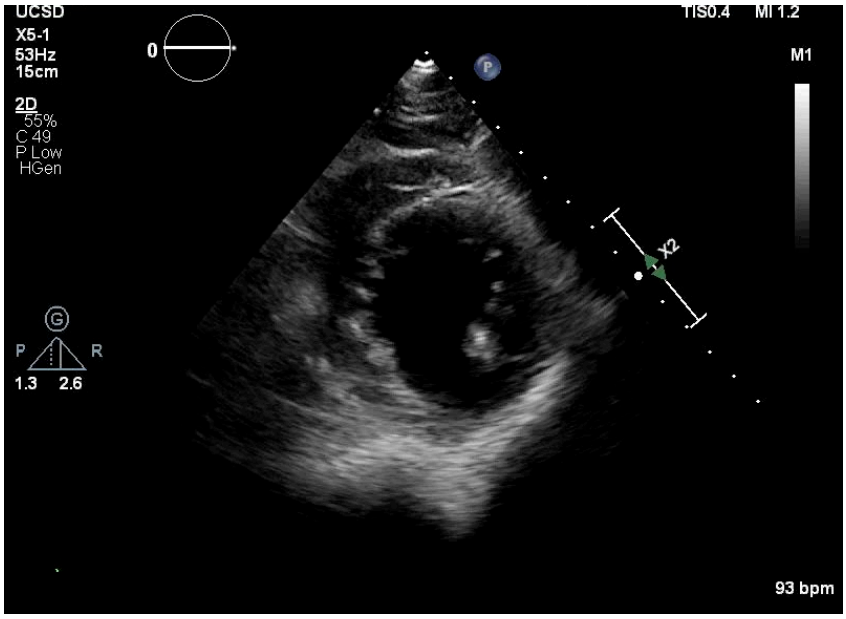
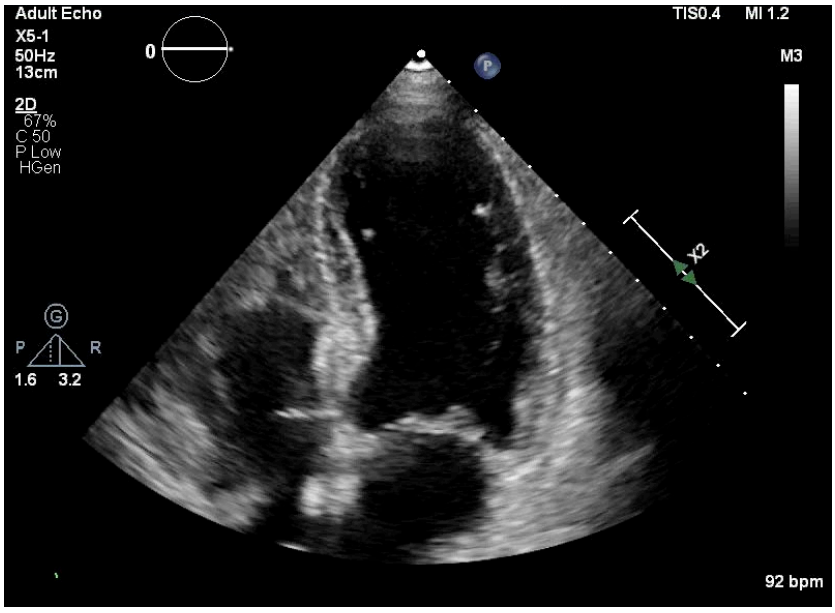
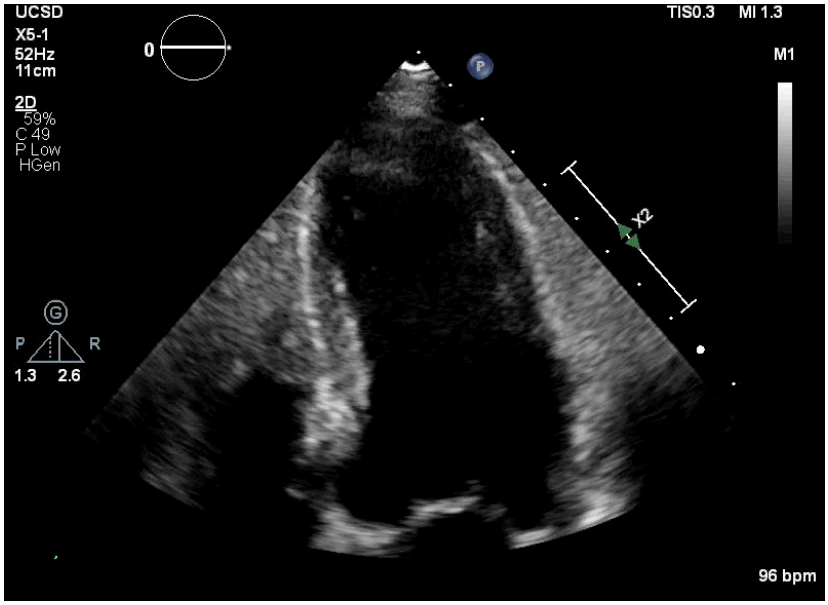

UCSD
X5-1
53Hz
15cm
2D
55%
C 49
P Low
HGen
0
TIS0.4 MI 1.2
M1
X2
P
R
1.3 2.6
93 bpm

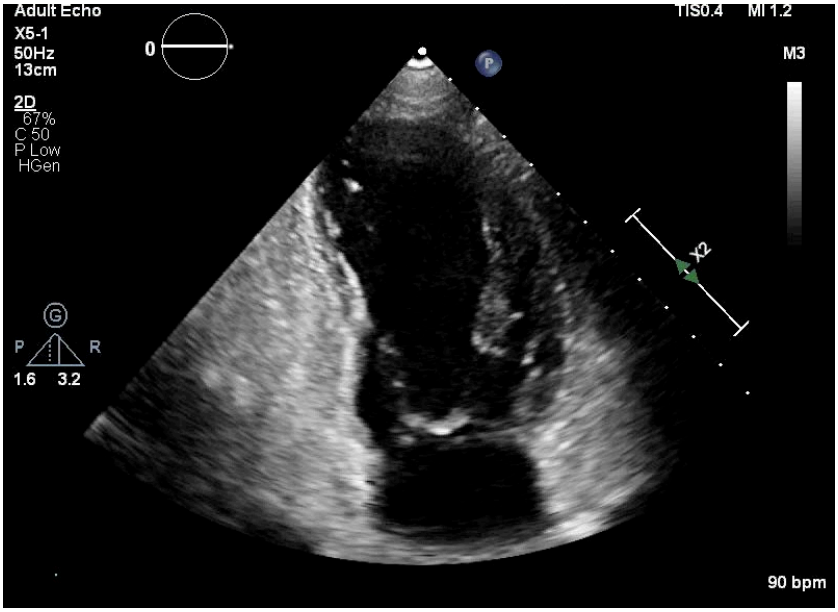
16


Adult Echo
X5-1
50Hz
13cm
2D
67%
C 50
P Low
HGen
0
TIS0.4 MI 1.2
M3
X2
P
R
1.6 3.2
92 bpm

17


UCSD
X5-1
52Hz
11cm
2D
59%
C 49
P Low
HGen
TIS0.3 MI 1.3
M1
X2
P R
1.3 2.6
96 bpm

18


Adult Echo
X5-1
50Hz
13cm
2D
67%
C 50
P Low
HGen
TIS0.4 MI 1.2
M3
X2
P R
1.6 3.2
90 bpm

19

The diagnosis is:

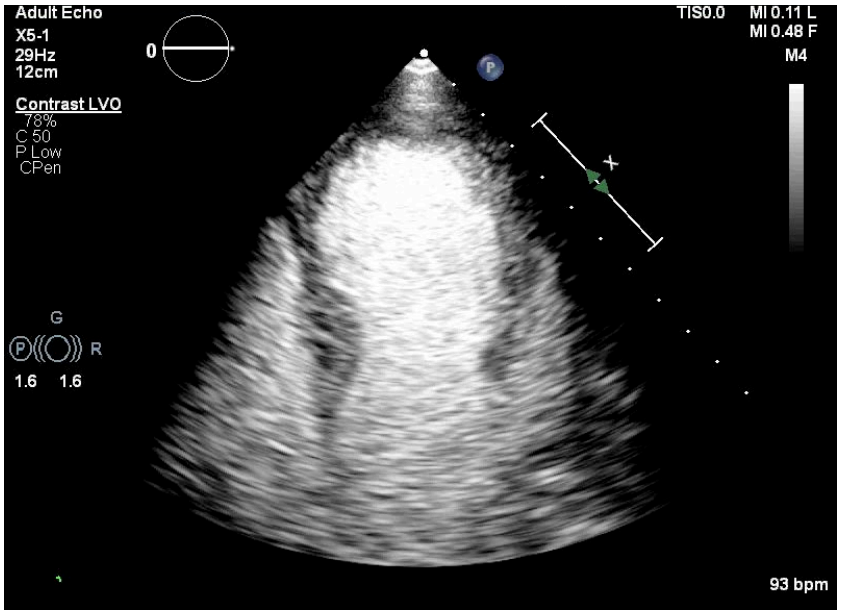
- Left main coronary occlusion.
- Proximal occlusion of an LAD with a prominent wrap around recurrent apical branch.
- Simultaneous LAD and LCF occlusions
- Severe myocardial contusion
- Stress (Tako tsubo) cardiomyopathy

20

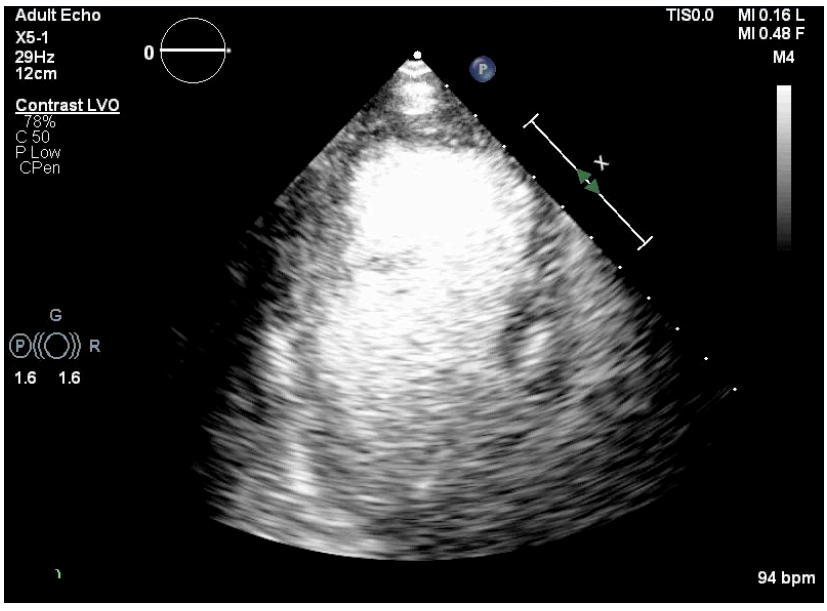
Contrast injection reveals:

- Normal wall thickness compatible with contusion
- Increased wall thickness evidence of myocardial edema
- Left ventricular thrombus
- Evidence of risk for apical thrombus
- Lindner's Syndrome

21


Adult Echo
X5-1
29Hz
12cm
Contrast LVO
78%
C 50
P Low
CPen
TIS0.0
MI 0.11 L
MI 0.48 F
M4
G
R
1.6 1.6
93 bpm

22

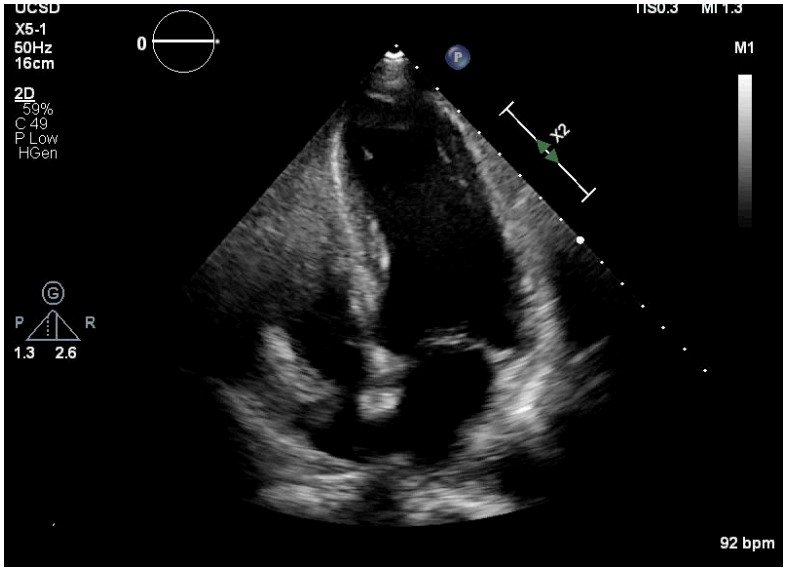

Adult Echo
X5-1
29Hz
12cm
Contrast LVO
78%
C 50
P Low
CPen
TIS0.0
MI 0.16 L
MI 0.48 F
M4
G
R
1.6 1.6
94 bpm

23

A tentative diagnosis of stress cardiomyopathy is made and neurosurgery is advised that contractile abnormalities are expected to resolve.

The day after admission and the first echo, a second echo is requested

24



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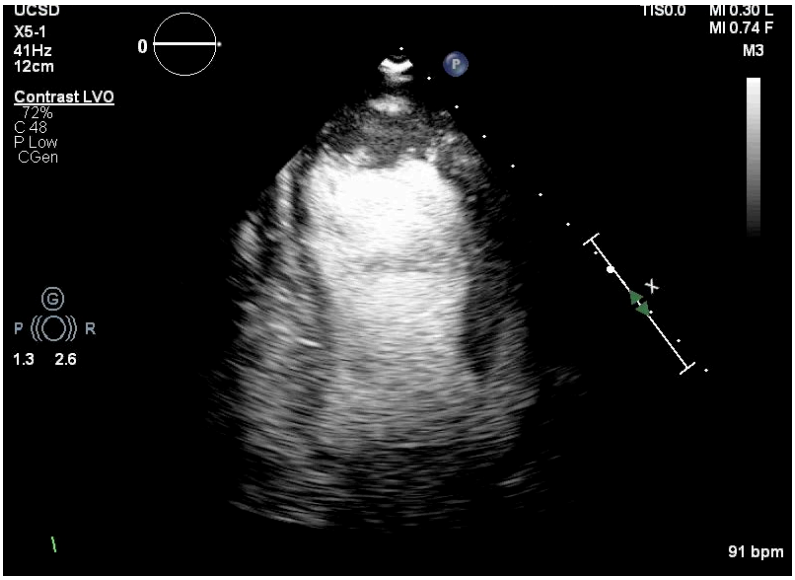
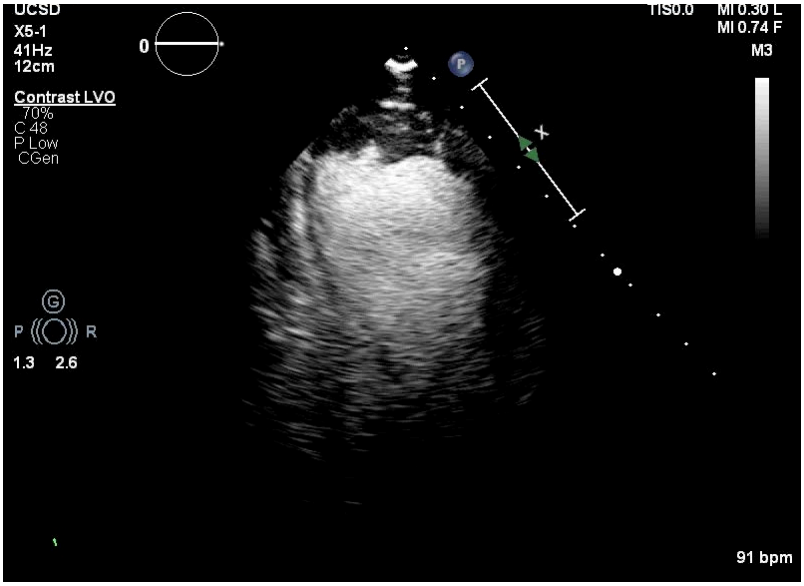

UCSD
X5-1
41Hz
12cm
Contrast LVO
72%
C 48
P Low
CGen
TIS0.0
MI 0.30 L
MI 0.74 F
M3
1.3 2.6
91 bpm

26


UCSD
X5-1
41Hz
12cm
Contrast LVO
70%
C 48
P Low
CGen
TIS0.0
MI 0.30 L
MI 0.74 F
M3
1.3 2.6
91 bpm

27

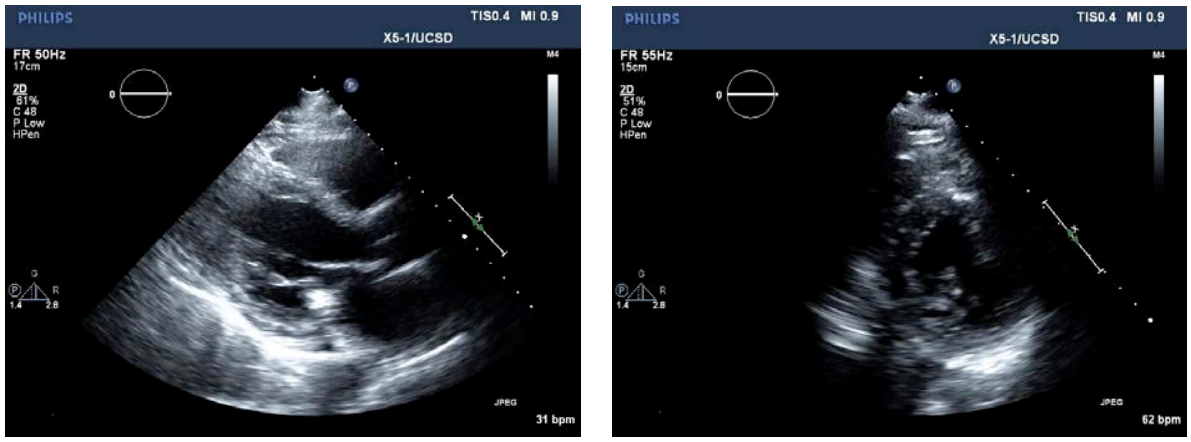
Therapy after the second echo should be:

- Watchful waiting since emboli are uncommon in Tako tsubo
- Therapy only with aspirin
- Anticoagulation with careful monitoring of the subdural
- Drain the subdural and anticoagulate
- Drain the subdural and give thrombolytics

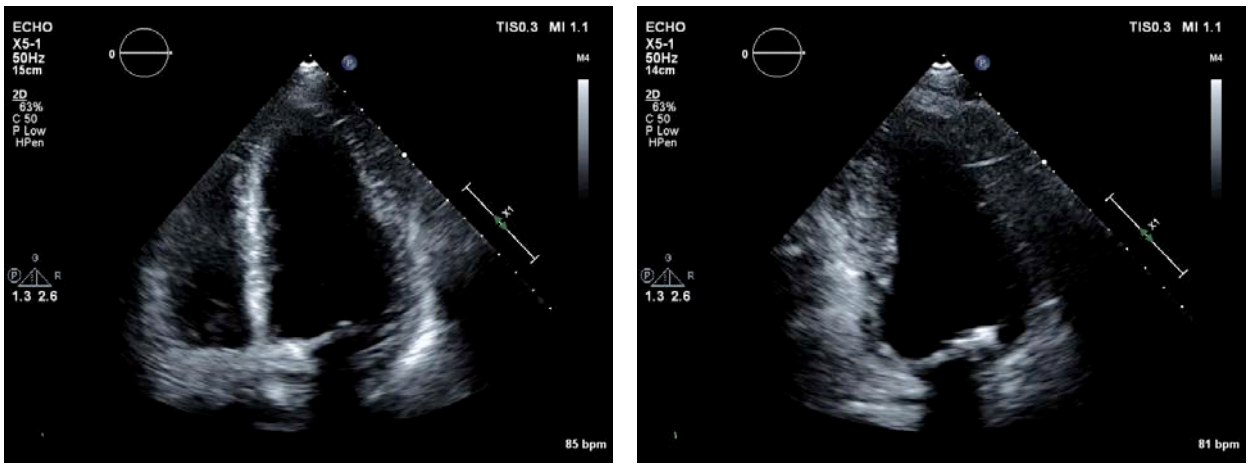
28

A 50 year old man presents to the emergency room with intermittent chest pain that has become more intense and sustained on the day of admission. An ECG shows marked ST-T abnormalities. Physical exam in unremarkable. Coronary angiography is performed. Following angiography an echo is requested to evaluate LV function.

29


PHILIPS
TIS0.4 MI 0.9
X5-1/UCSD
FR 50Hz
17cm
2D
61%
C 48
P Low
HPen
M4
1.4 2.8
JPEG
31 bpm
PHILIPS
TIS0.4 MI 0.9
X5-1/UCSD
FR 55Hz
15cm
2D
51%
C 48
P Low
HPen
M4
1.4 2.8
JPEG
62 bpm

30

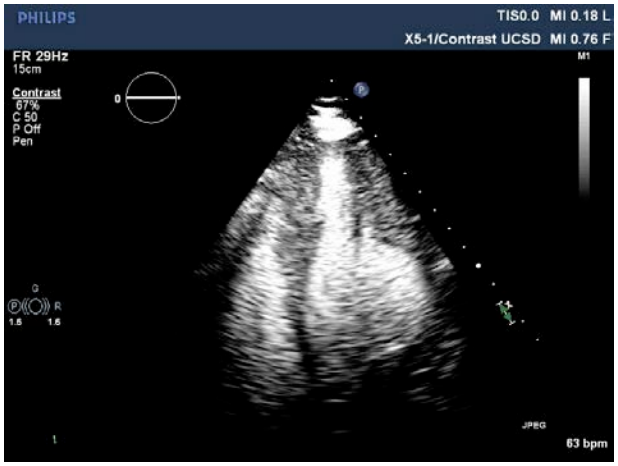

ECHO
X5-1
50Hz
15cm
TIS0.3 MI 1.1
2D
63%
C 50
P Low
HPen
M4
1.3 2.6
85 bpm
ECHO
X5-1
50Hz
14cm
TIS0.3 MI 1.1
2D
63%
C 50
P Low
HPen
M4
1.3 2.6
81 bpm

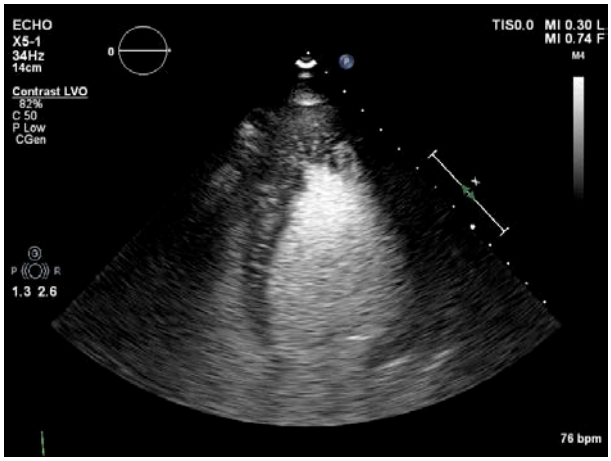
33

Coronary Angiography revealed:

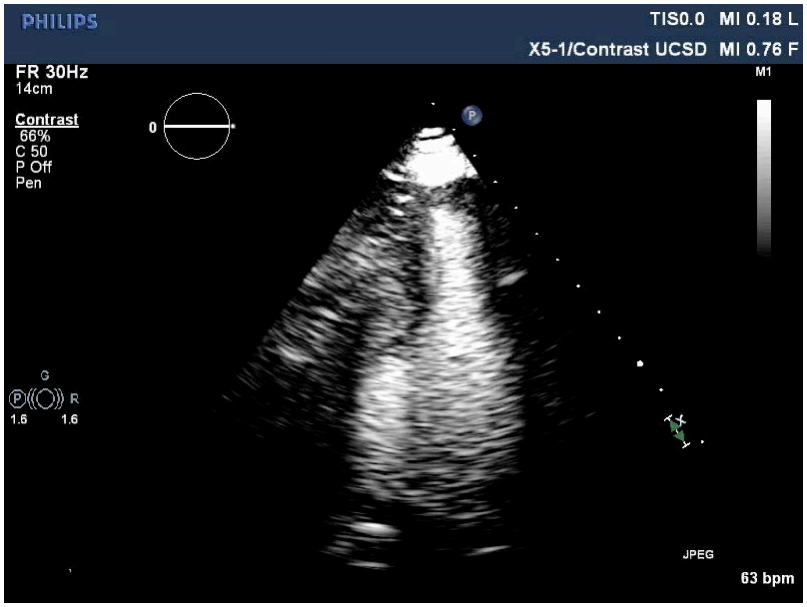
- Total occlusion of the LAD
- Subtotal occlusion of the LAD with total occlusion of the RCA
- 95% lesions in both the LAD and LCX
- 95% stenosis of the Left Main
- Normal coronary arteries

34





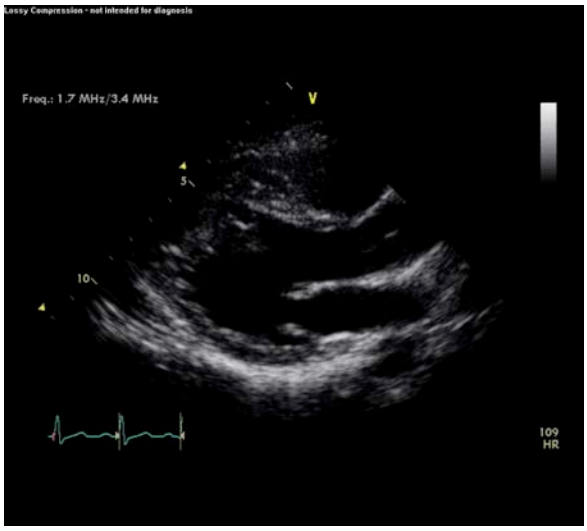
35

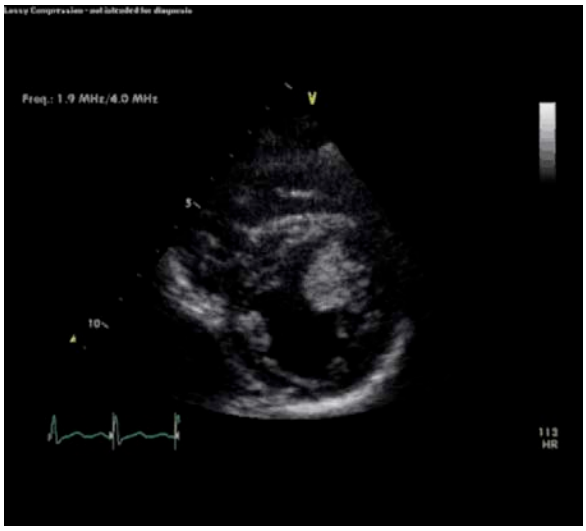


36

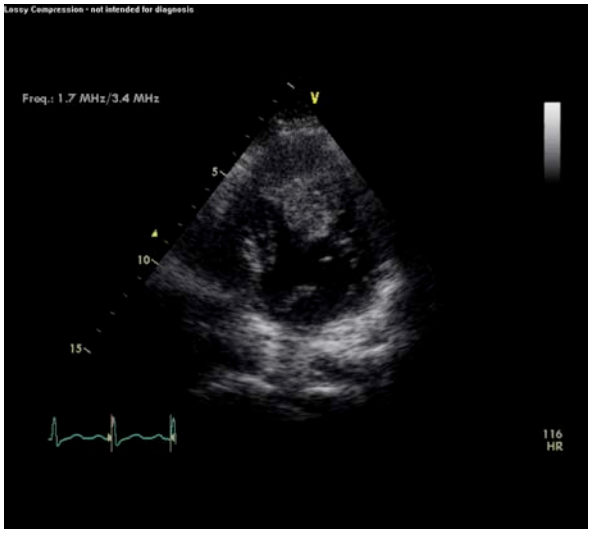
A 22 year old female is admitted for malaise, myalgias, and questionable seizures

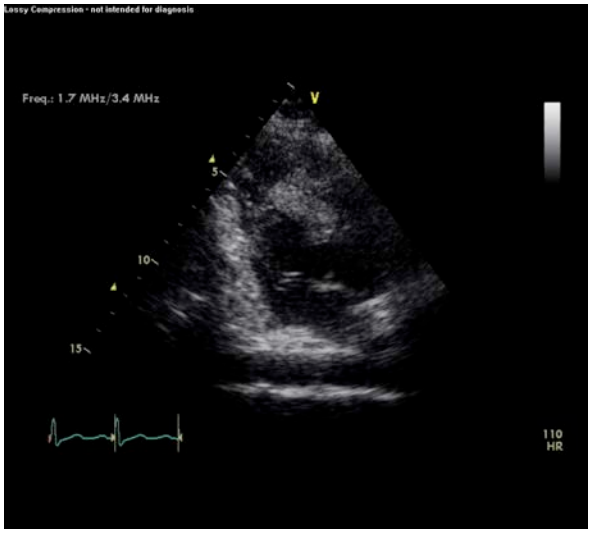
37


Freq.: 1.7 MHz/3.4 MHz
109
HR

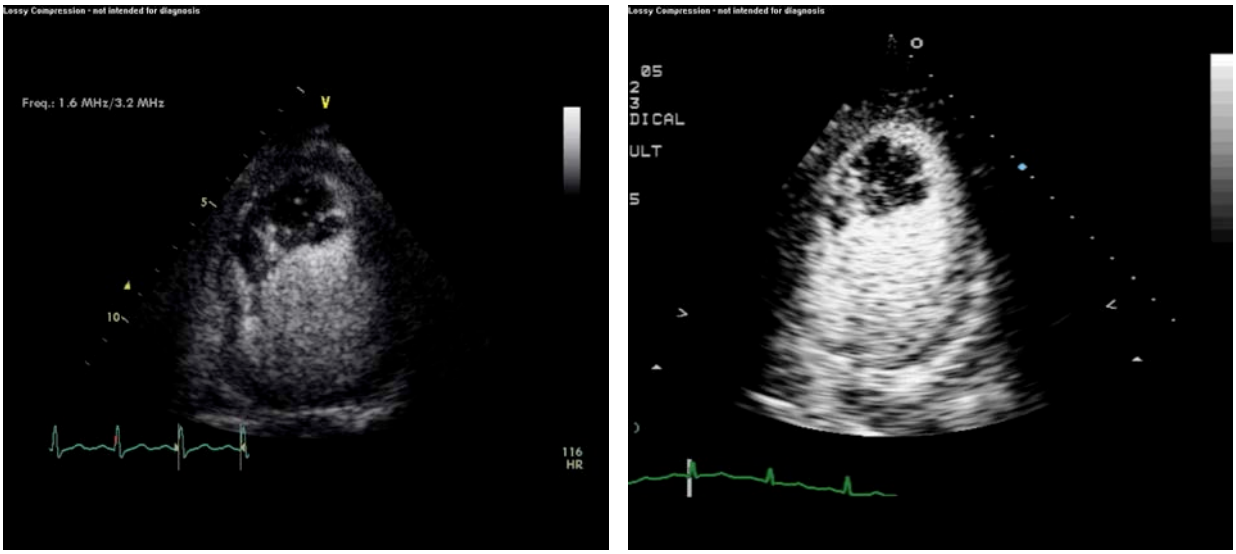

Freq.: 1.9 MHz/4.0 MHz
112
HR

38


Lossy Compression - not intended for diagnosis
Freq.: 1.7 MHz/3.4 MHz
116
HR


Lossy Compression - not intended for diagnosis
Freq.: 1.7 MHz/3.4 MHz
110
HR

39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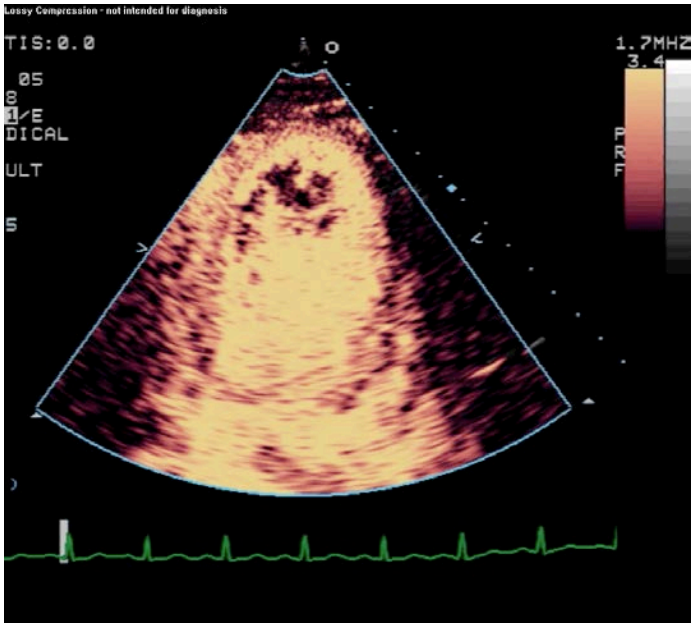
116
HR
Lossy Compression - not intended for diagnosis
DICAL
ULT

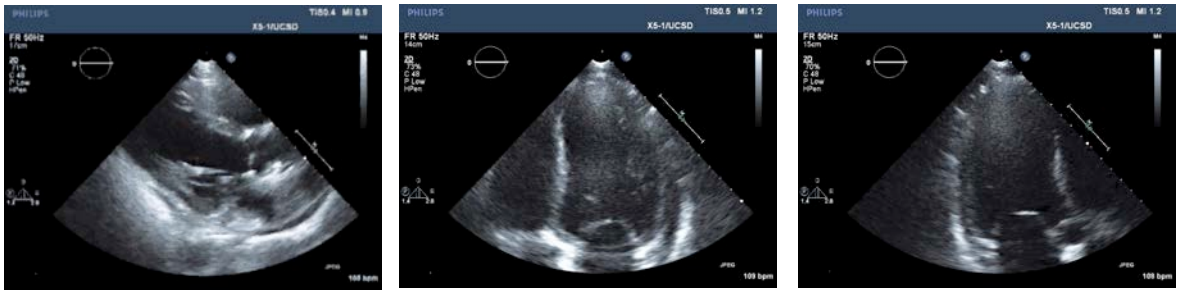
40


Lossy Compression - not intended for diagnosis
TIS:0.0
1.7MHZ
DICAL
ULT

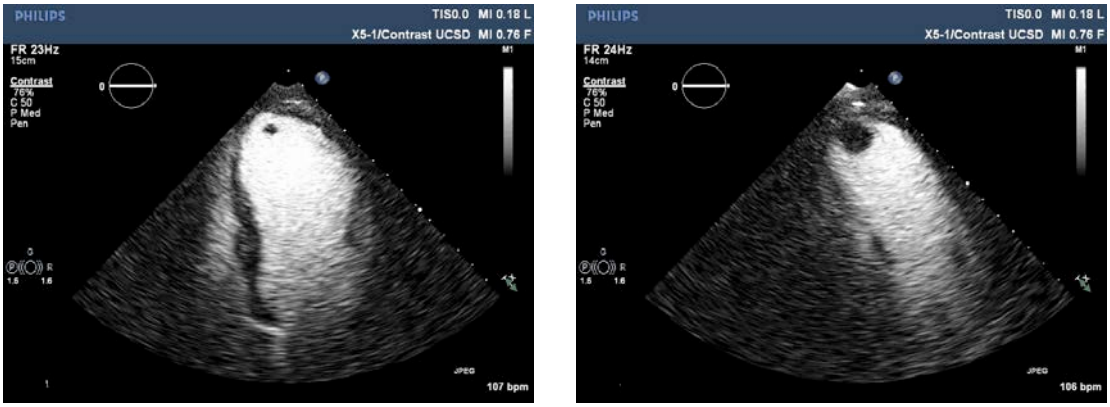
41

70 yo male with anterior STEMI

42

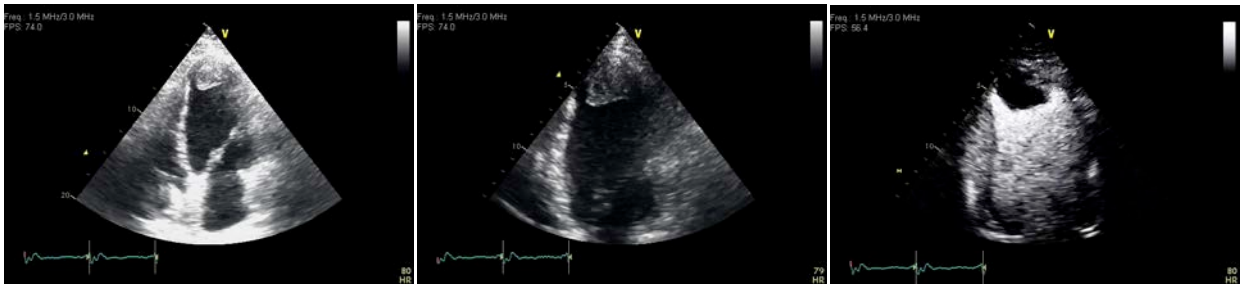


43



44

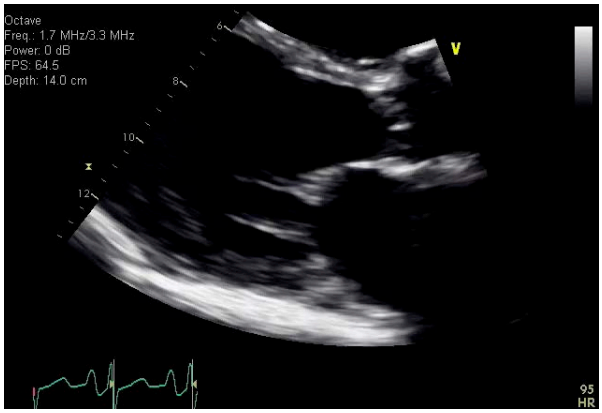
Absence of Contrast in Thrombus

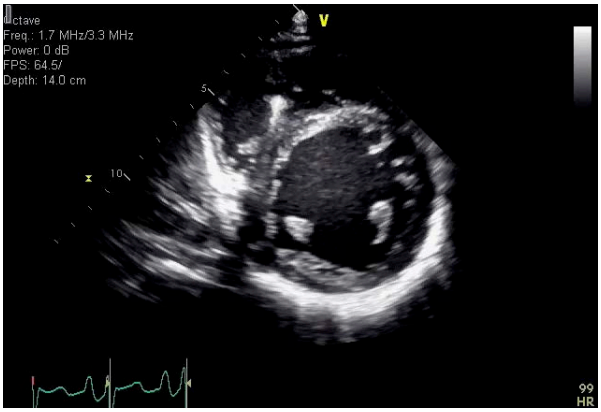


45

Hypertrabeculation

46





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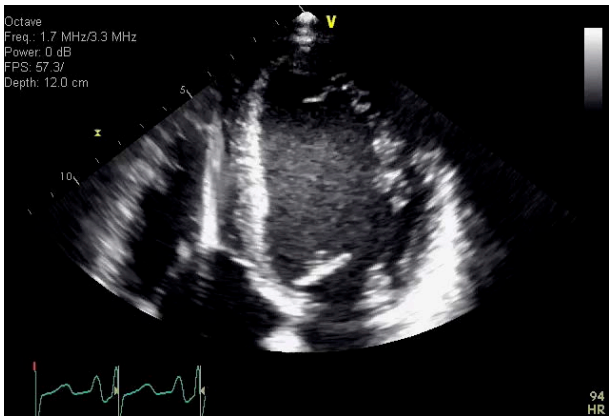
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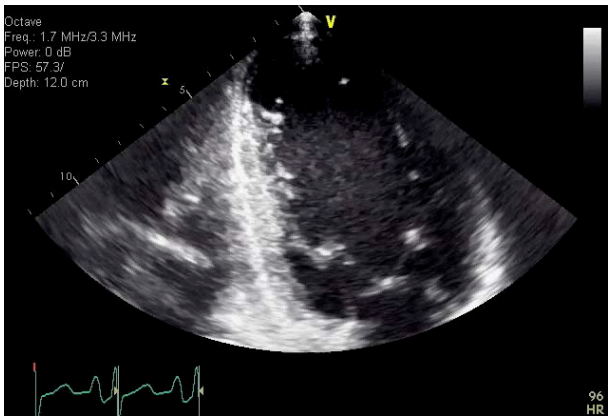
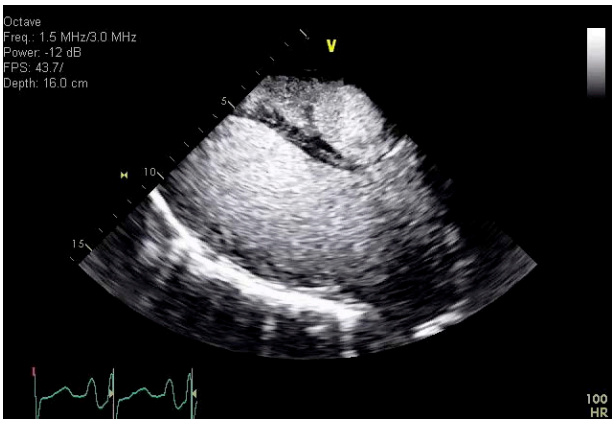
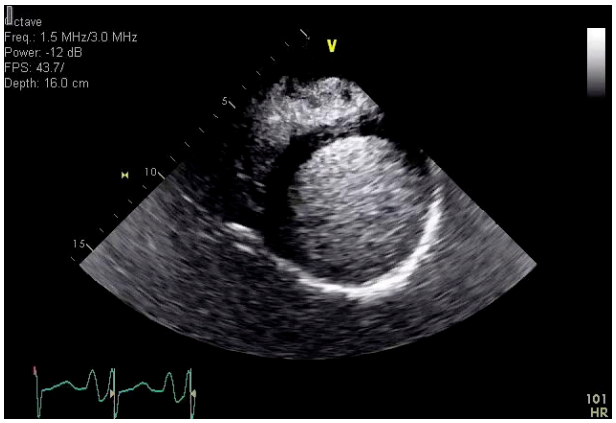
Freq.: 1.7 MHz/3.3 MHz
Power: 0 dB
FPS: 57.3/
Depth: 12.0 cm
94
HR

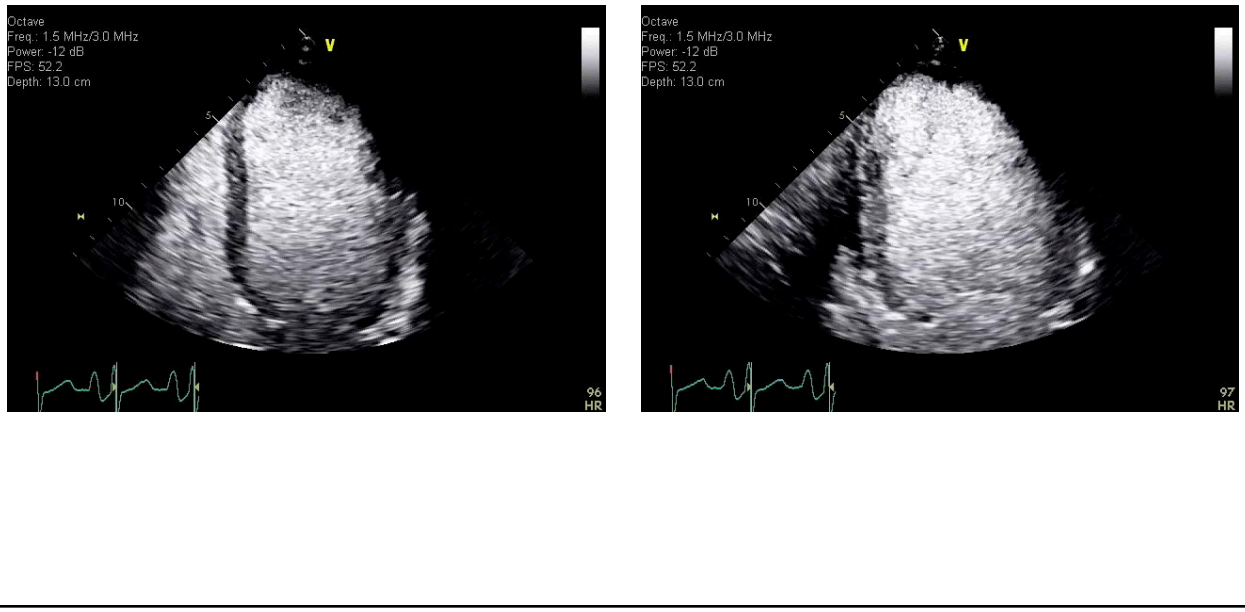

Octave
Freq.: 1.7 MHz/3.3 MHz
Power: 0 dB
FPS: 57.3/
Depth: 12.0 cm
96
HR

48

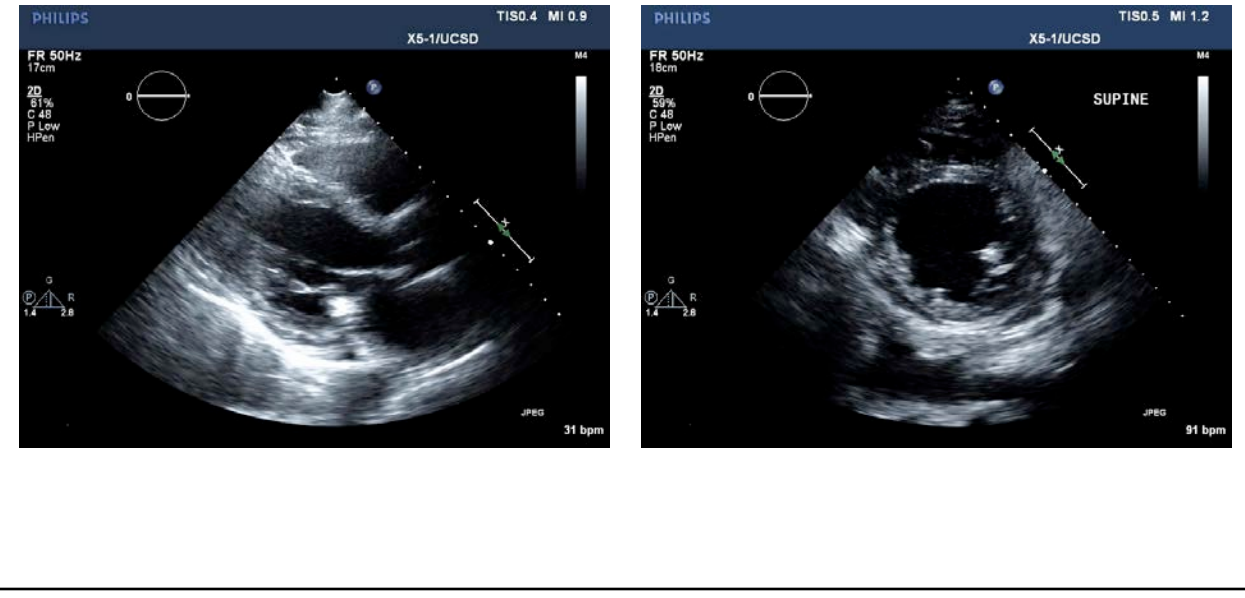

Octave
Freq.: 1.5 MHz/3.0 MHz
Power: -12 dB
FPS: 43.7/
Depth: 16.0 cm
100
HR


Octave
Freq.: 1.5 MHz/3.0 MHz
Power: -12 dB
FPS: 43.7/
Depth: 16.0 cm
101
HR

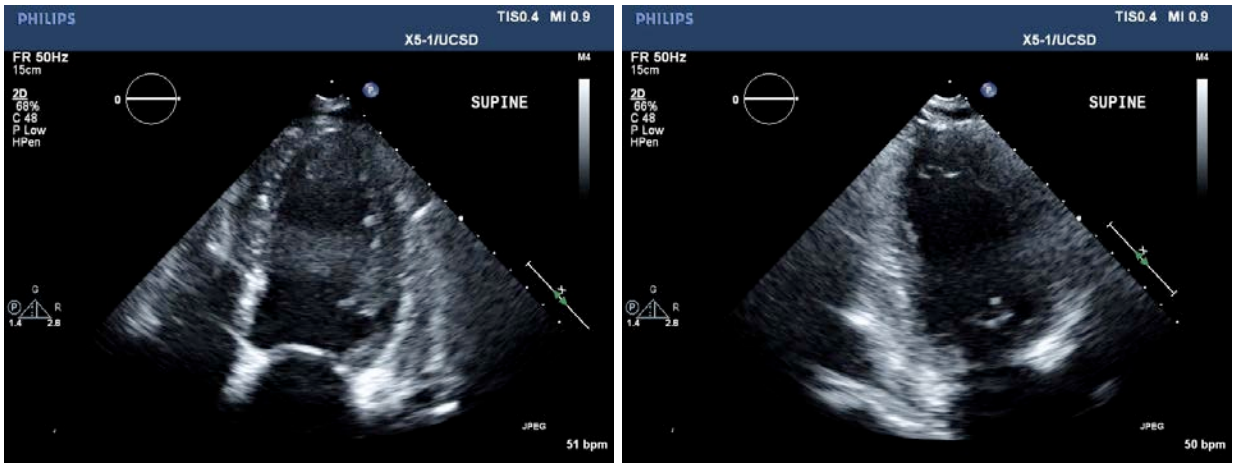
49


Octave
Freq.: 1.5 MHz/3.0 MHz
Power: -12 dB
FPS: 52.2
Depth: 13.0 cm
96
HR
Octave
Freq.: 1.5 MHz/3.0 MHz
Power: -12 dB
FPS: 52.2
Depth: 13.0 cm
97
HR

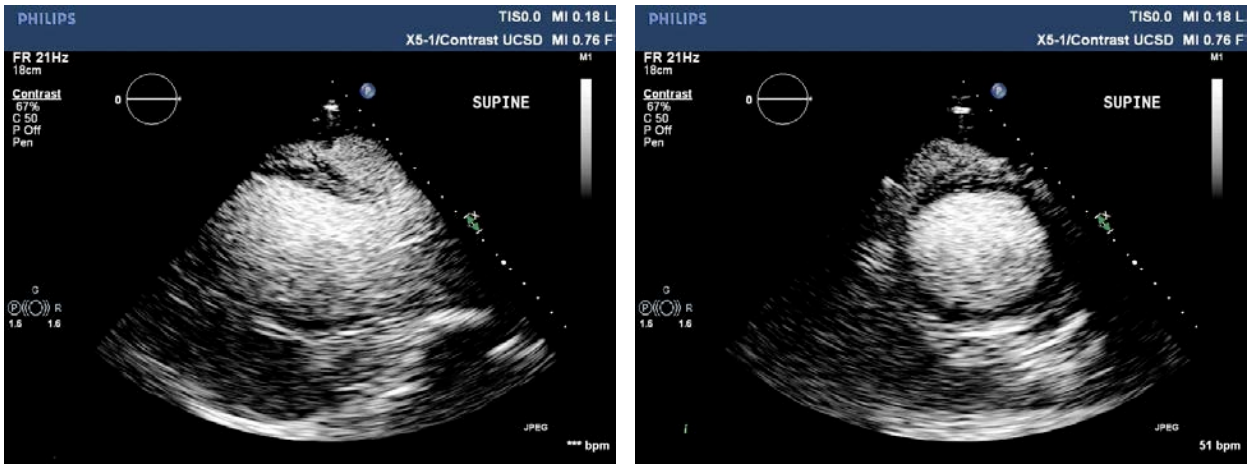
50


PHILIPS
TIS0.4 MI 0.9
X5-1/UCSD
FR 50Hz
17cm
2D
51%
C 48
P Low
HPen
JPEG
31 bpm
PHILIPS
TIS0.5 MI 1.2
X5-1/UCSD
FR 50Hz
18cm
2D
59%
C 48
P Low
HPen
SUPINE
JPEG
91 bpm

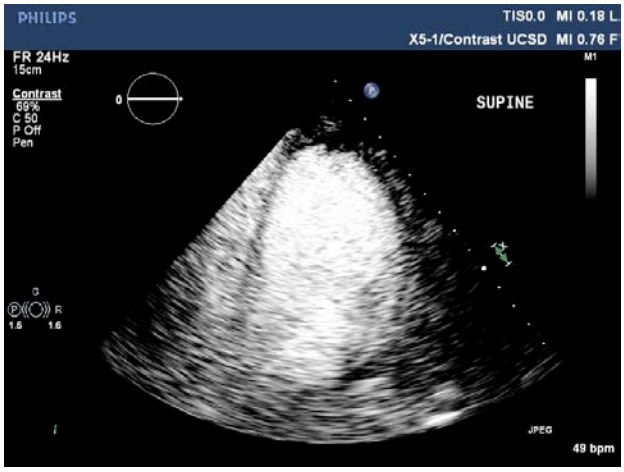
51

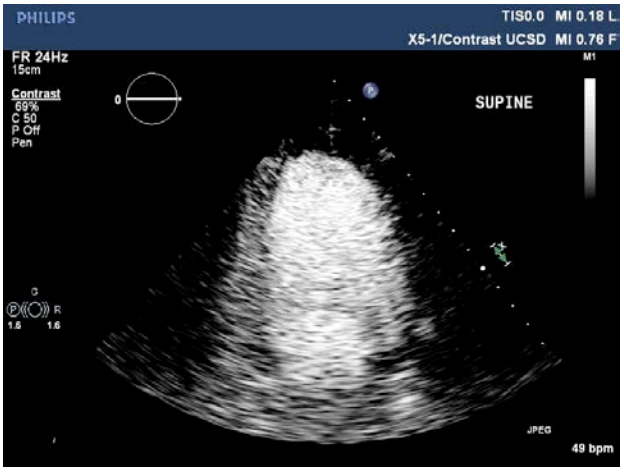

PHILIPS
TIS0.4 MI 0.9
X5-1/UCSD
FR 50Hz
15cm
2D
66%
C 48
P Low
HPen
SUPINE
M4
JPEG
51 bpm
PHILIPS
TIS0.4 MI 0.9
X5-1/UCSD
FR 50Hz
15cm
2D
66%
C 48
P Low
HPen
SUPINE
M4
JPEG
50 bpm

52


PHILIPS
TIS0.0 MI 0.18 L
X5-1/Contrast UCSD MI 0.76 F
FR 21Hz
18cm
Contrast
67%
C 50
P Off
Pen
SUPINE
M1
JPEG
*** bpm
PHILIPS
TIS0.0 MI 0.18 L
X5-1/Contrast UCSD MI 0.76 F
FR 21Hz
18cm
Contrast
67%
C 50
P Off
Pen
SUPINE
M1
JPEG
51 bpm

53


PHILIPS
TIS0.0 MI 0.18 L
X5-1/Contrast UCSD MI 0.76 F
FR 24Hz
15cm
Contrast
69%
C 50
P Off
Pen
SUPINE
M1
JPEG
49 bpm


PHILIPS
TIS0.0 MI 0.18 L
X5-1/Contrast UCSD MI 0.76 F
FR 24Hz
15cm
Contrast
69%
C 50
P Off
Pen
SUPINE
M1
JPEG
49 bpm

54