



# Interesting echocardiography Interhospital

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Fellowship in cardiology, Siriraj hospital

# Female 54 Y

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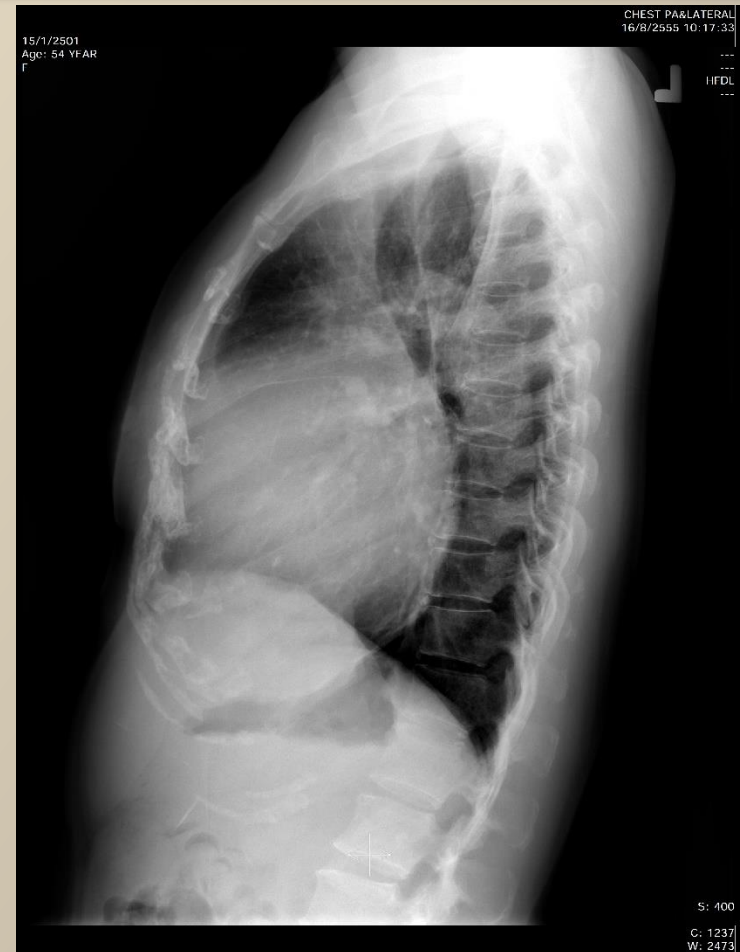
Progressive dyspnea and pitting edema for 3 years.

Frequent syncope 2-3 time in past 2 years

No known underlying disease

No Family history of sudden cardiac death

# Chest x-ray



FR 21Hz  
24cm

M3

3D Zoom

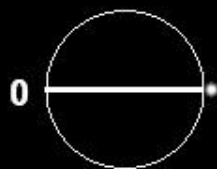
64%  
64%  
50dB  
P Off  
HGen



74 bpm

FR 50Hz  
15cm

2D  
55%  
C 50  
P Off  
HGen



M3

0

5

10



JPEG

15

51 bpm

BP115 / 55mmHg



FR 46Hz

22cm

2D

64%

C 50

P Off

HGen



P

M3

0

5

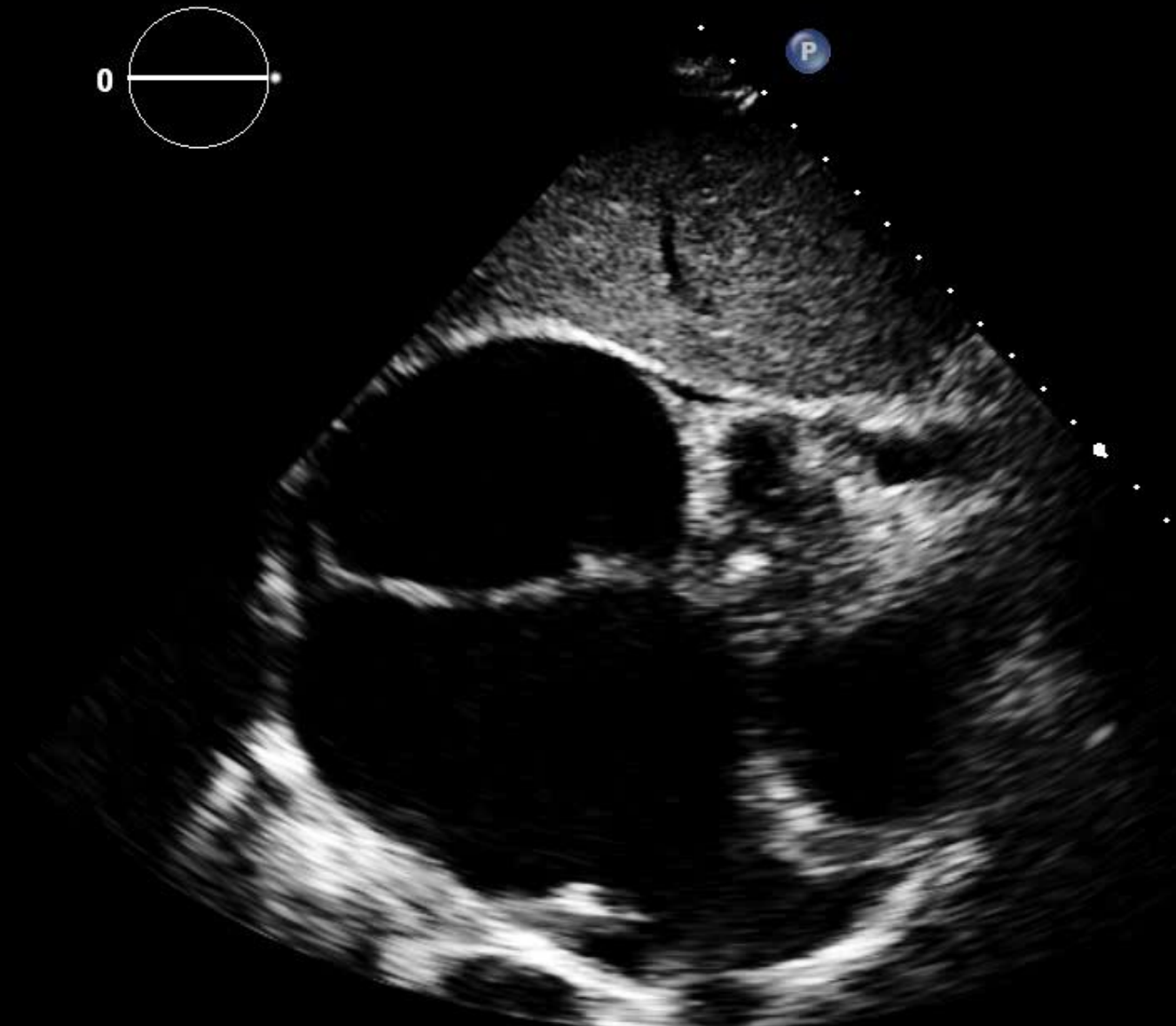
10

15

20

JPEG

41 bpm



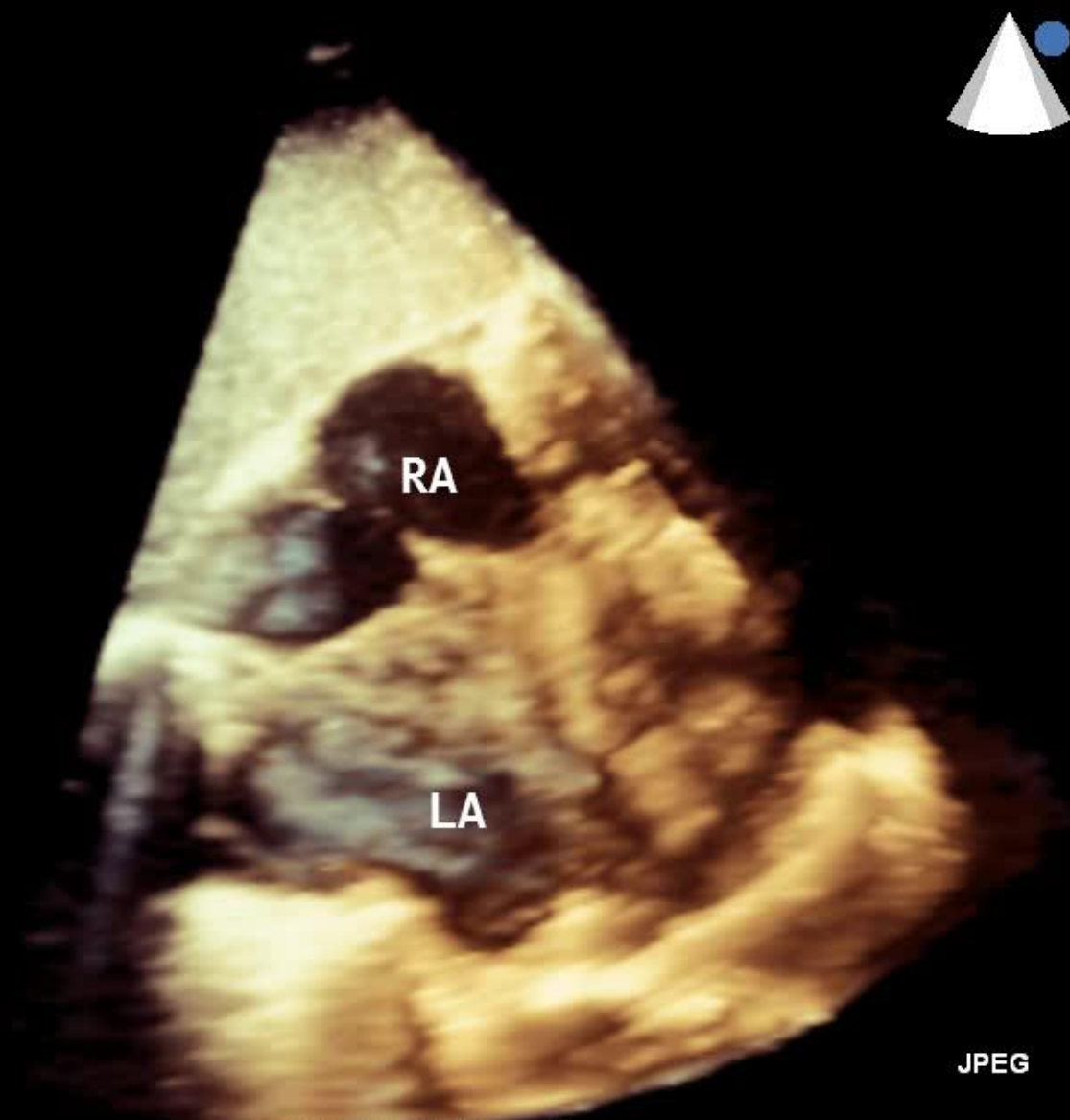
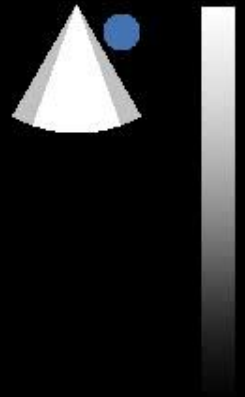
BP115 / 55mmHg

FR 12Hz  
22cm

3D Beats 1

M3

3D  
3D 50%  
3D 60dB



RA

LA

JPEG

57 bpm

BP115 / 55mmHg

FR 9Hz  
22cm

2D

65%

C 50

P Off

HGen

CF

63%

2.5MHz

WF High

Med

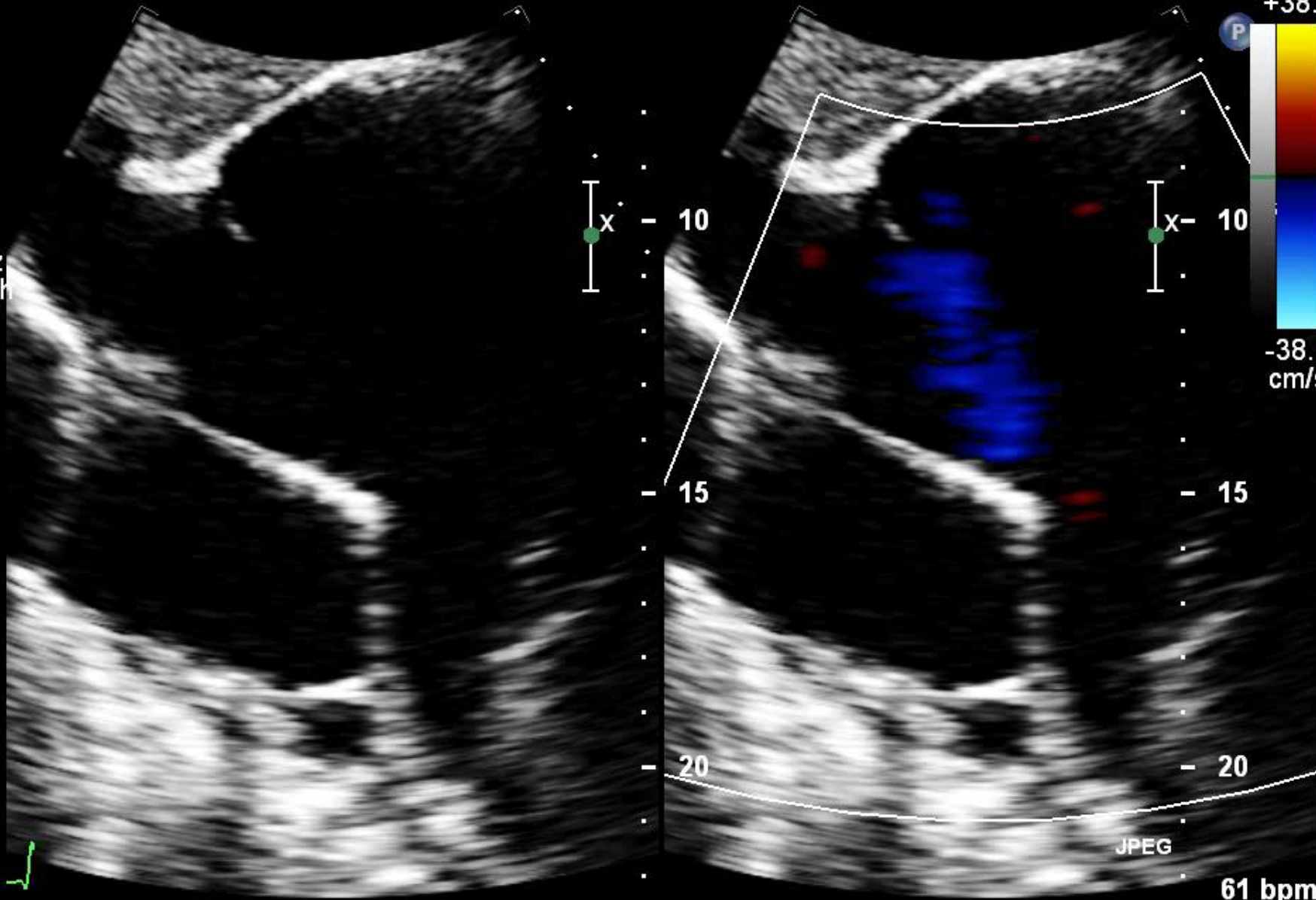
M3 M4

+38.5

P

-38.5

cm/s



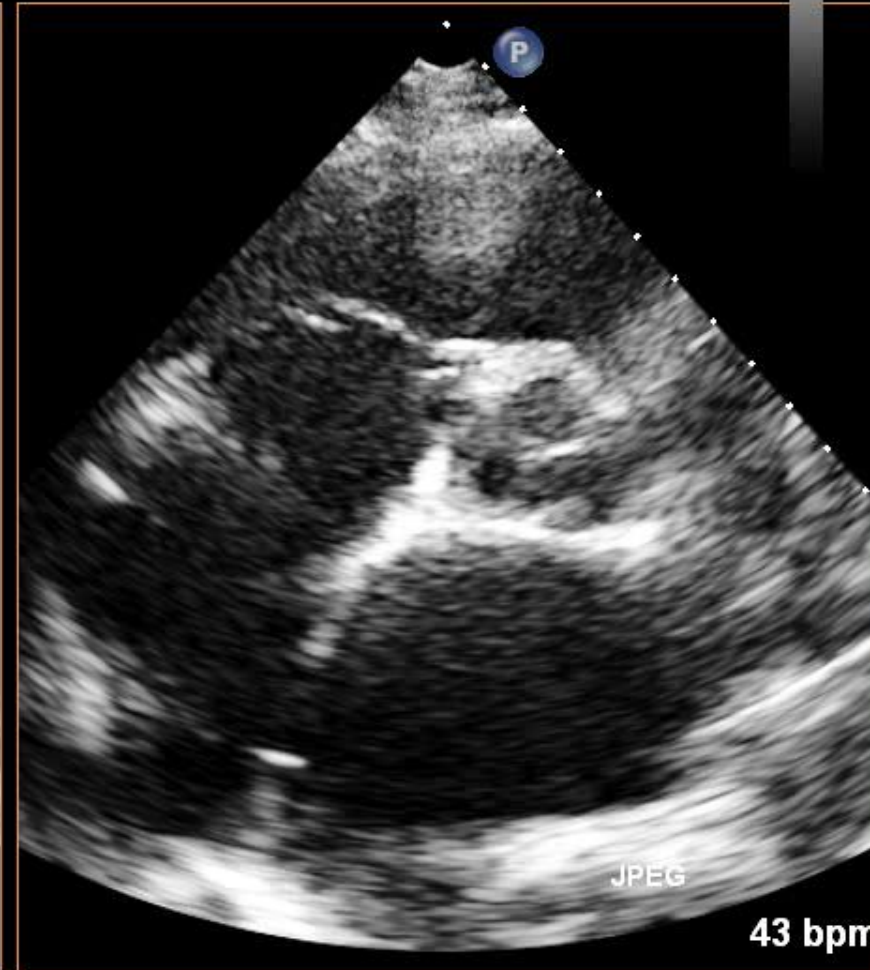
61 bpm

FR 25Hz  
16cm

M3

3D Zoom  
67%  
71%  
51dB  
P Off  
HGen

Ⓒ  
P R  
1.6 3.2



FR 10Hz

19cm

2D

61%

C 50

P Off

HGen

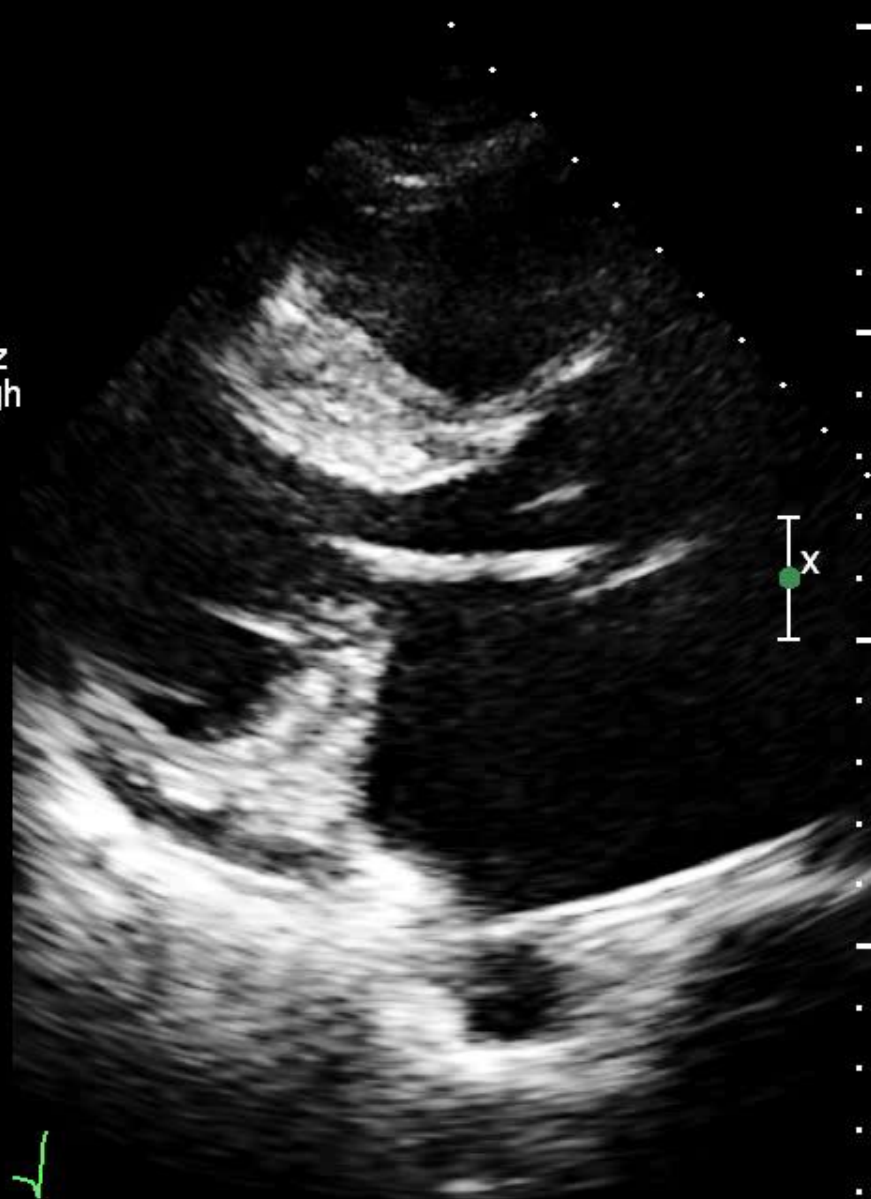
CF

63%

2.5MHz

WF High

Med

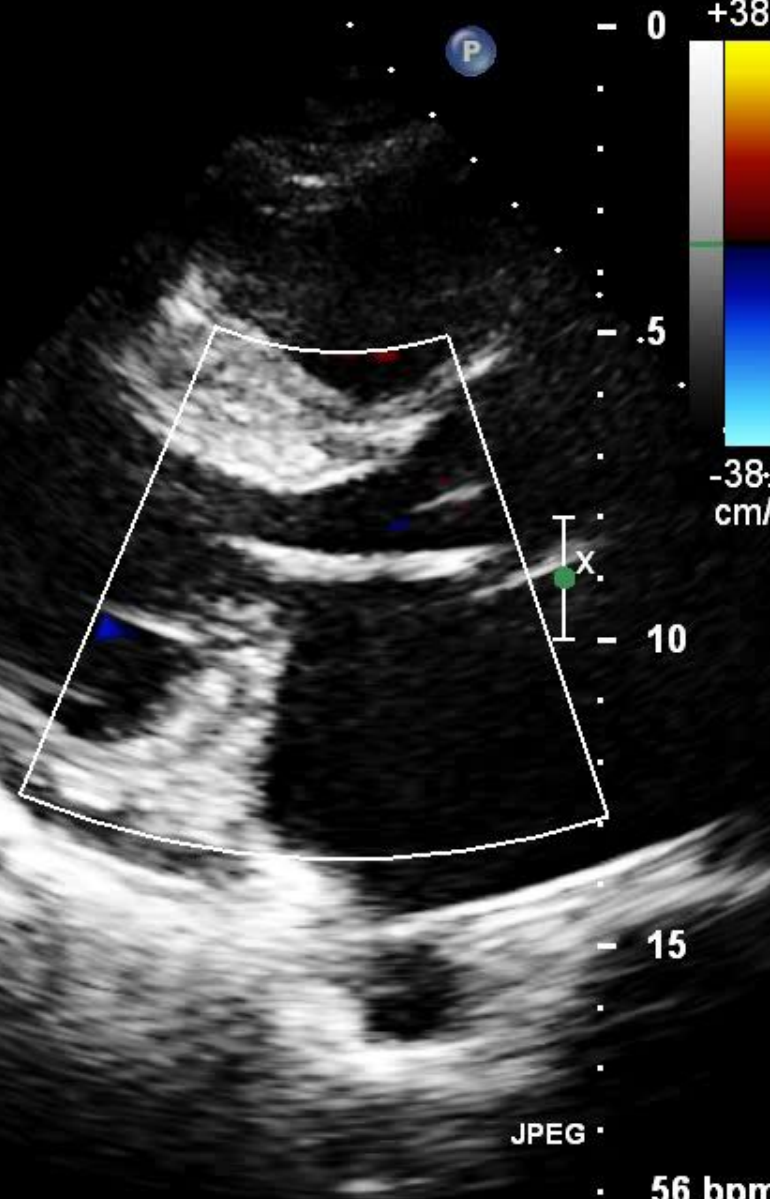


0

5

10

15



M3 M4

+38.5

-38.5

cm/s

JPEG

56 bpm

FR 50Hz  
19cm

2D  
67%  
C 43  
P Off  
HGen



M3

0

5

10

15

JPEG

57 bpm



FR 11Hz

19cm

2D

77%

C 43

P Off

HGen

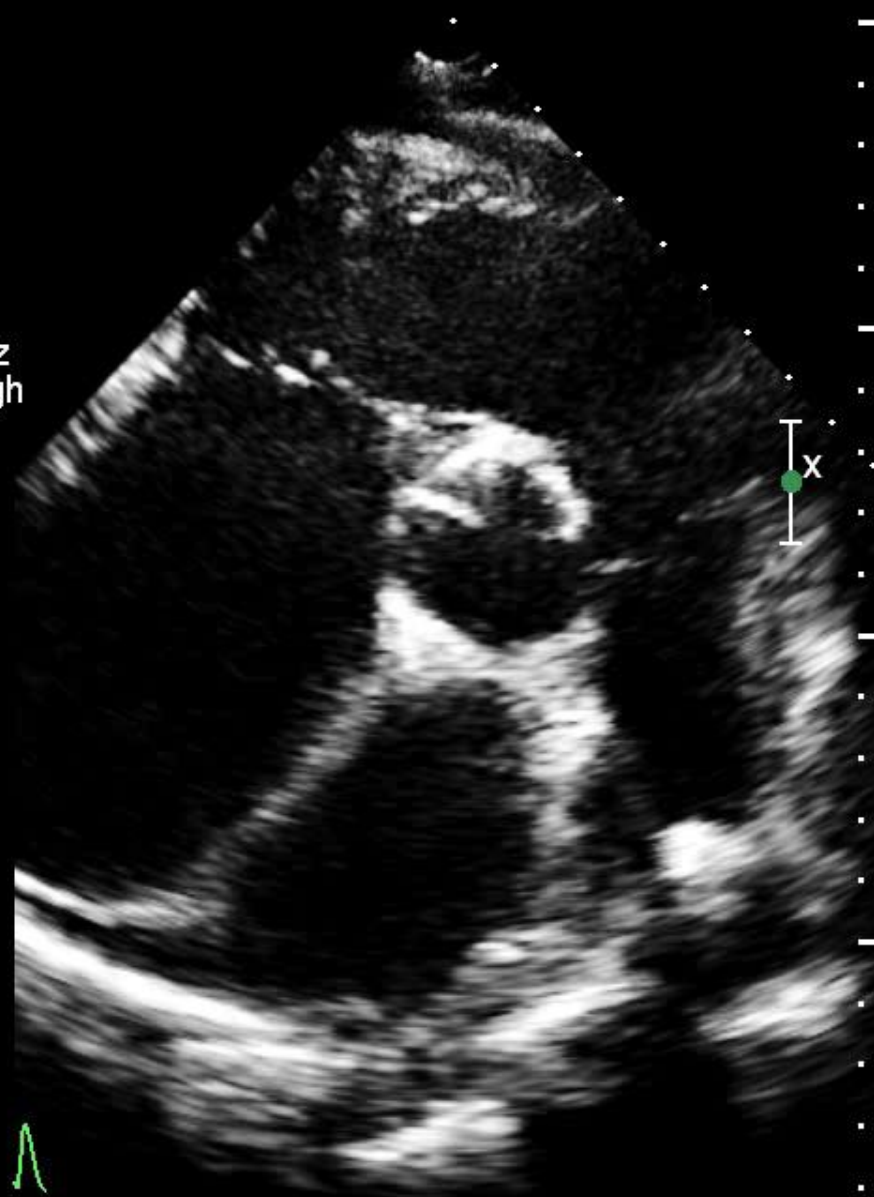
CF

63%

2.5MHz

WF High

Med

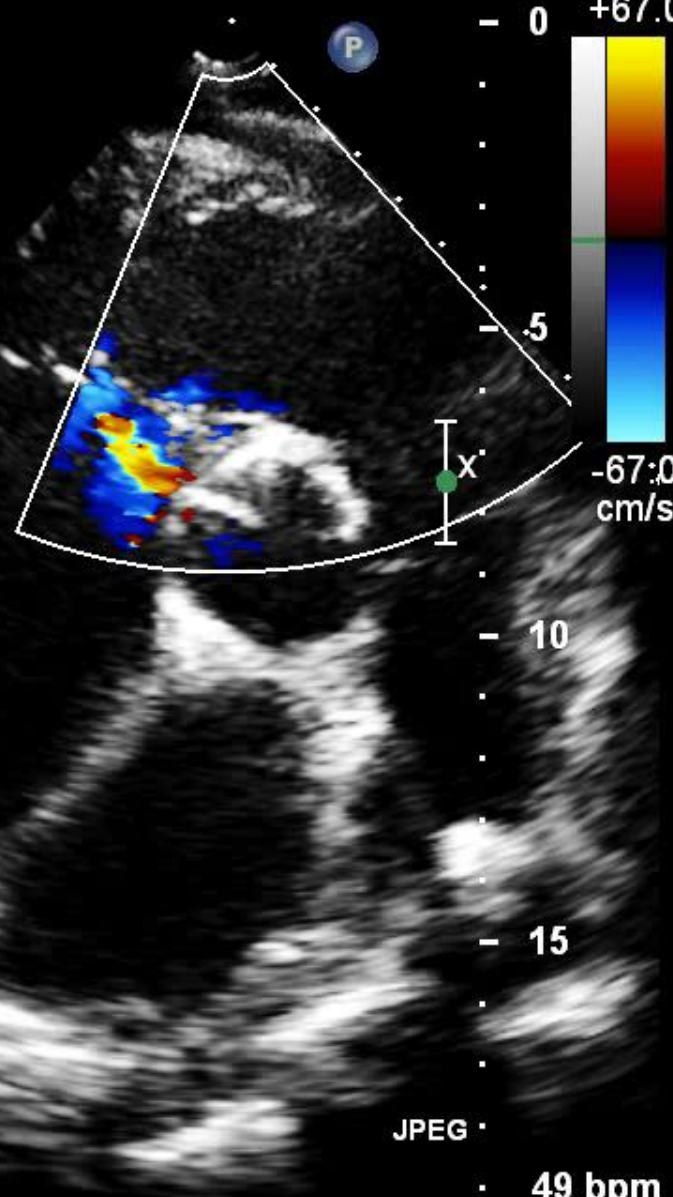


- 0

- 5

- 10

- 15



M3 M4

+67.0

-67.0

cm/s

JPEG

49 bpm

FR 13Hz

19cm

2D

77%

C 43

P Off

HGen

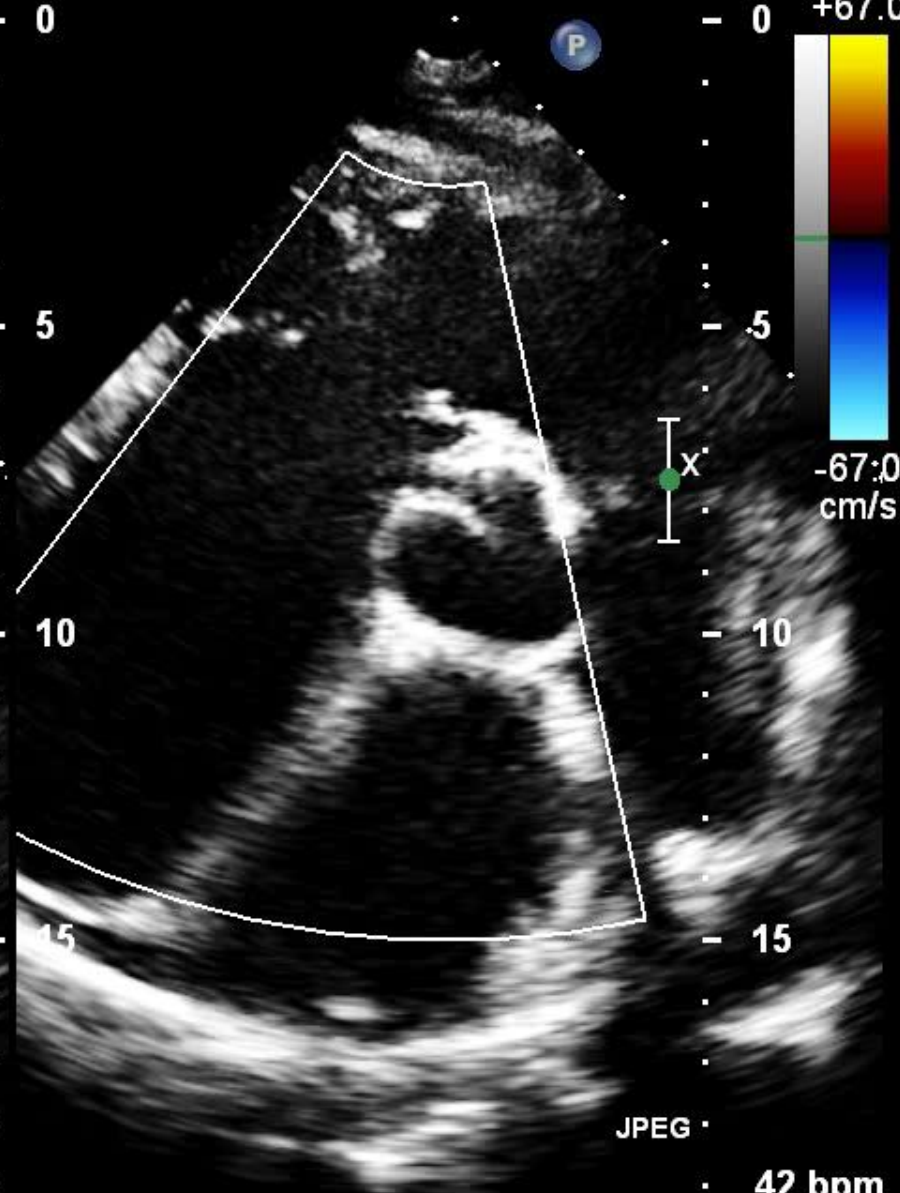
CF

63%

2.5MHz

WF High

Med



42 bpm

FR 86Hz  
11cm

2D  
61%  
C 42  
P Off  
HPen



M3

- 5

- 10

JPEG

67 bpm



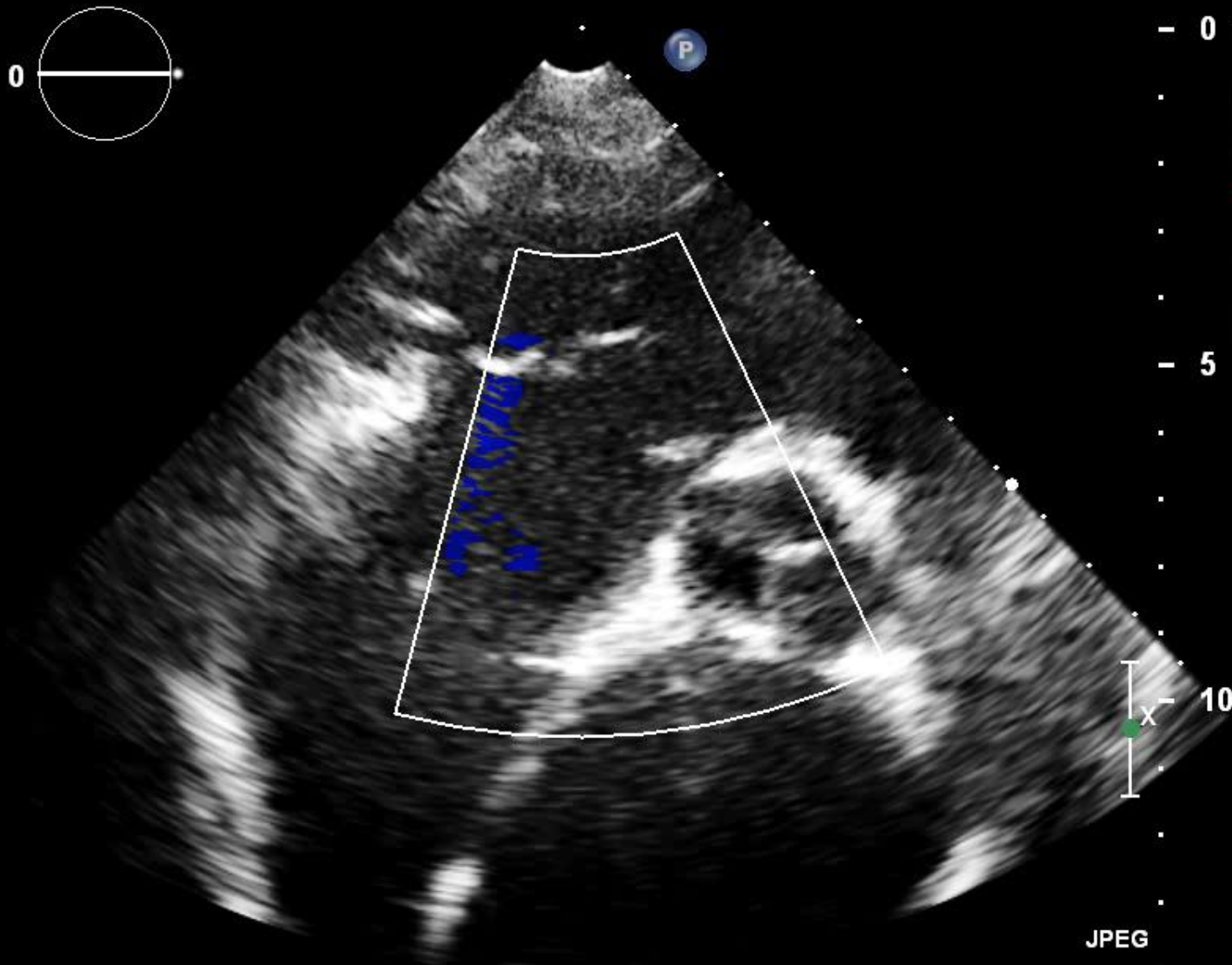
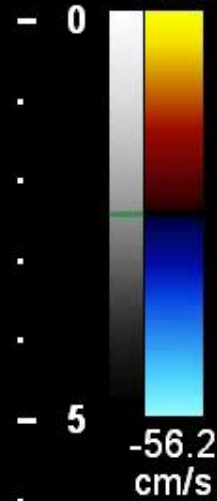
FR 13Hz  
14cm

2D  
58%  
C 54  
P Off  
HPen

CF  
63%  
2.5MHz  
WF High  
Med



M3 M4  
+56.2



JPEG

55 bpm



FR 16Hz

11cm

2D

63%

C 44

P Off

Hpen

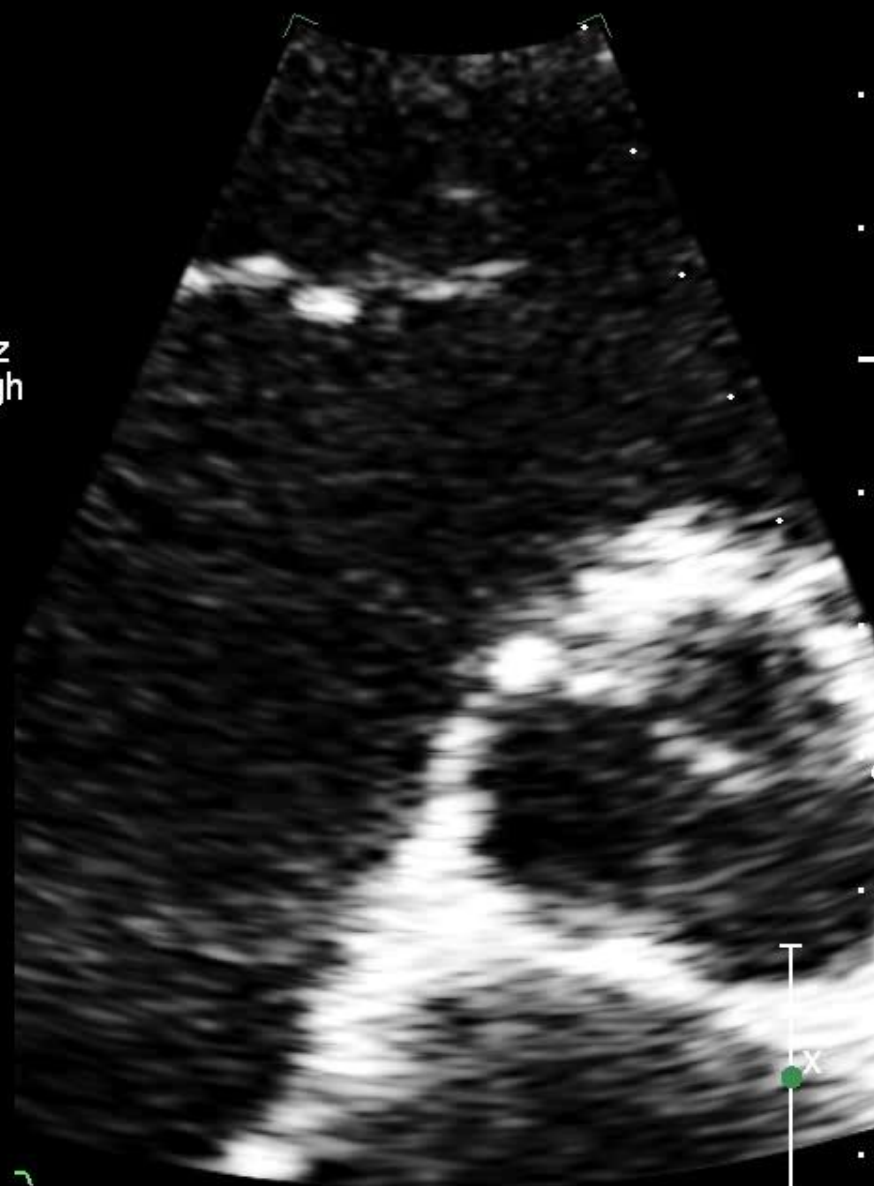
CF

63%

2.5MHz

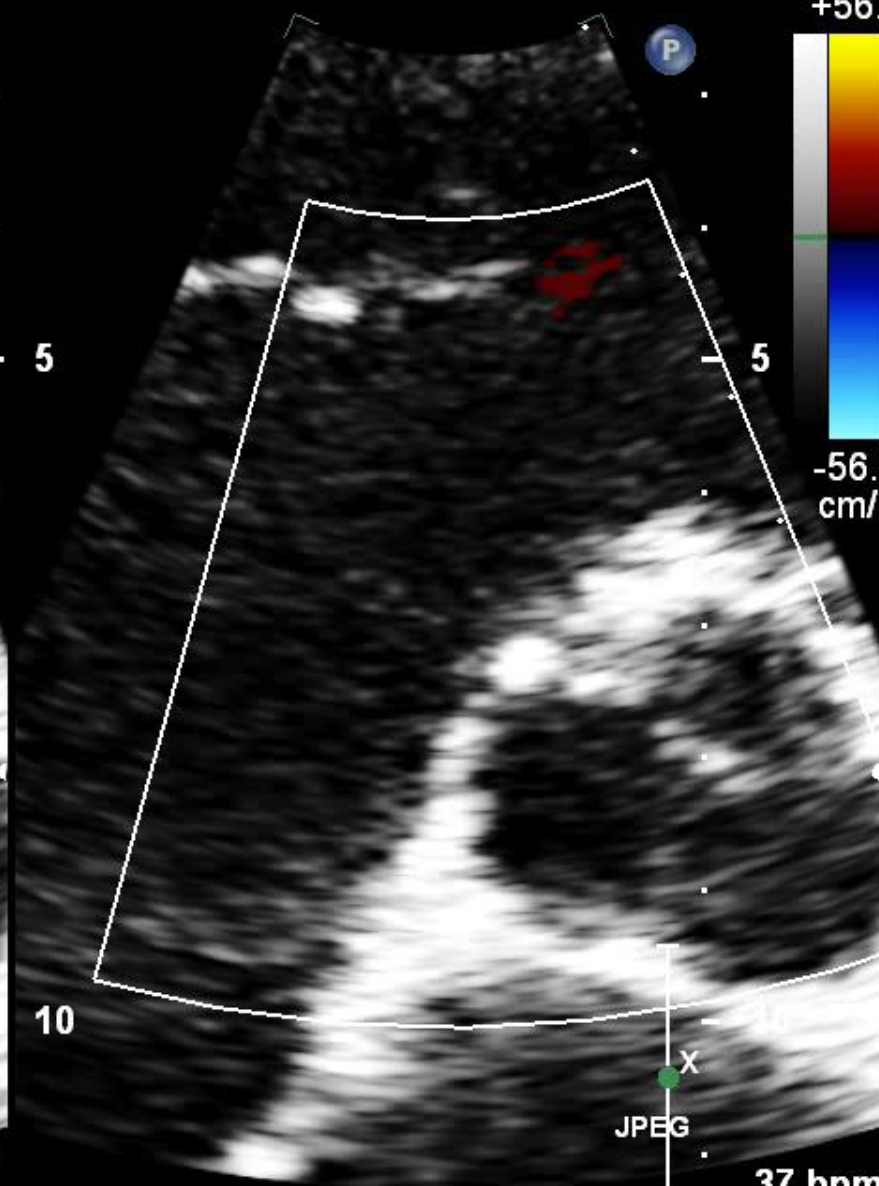
WF High

Med



- 5

10



M3 M4

+56.2



-56.2  
cm/s

JPEG

37 bpm

FR 21Hz  
10.0cm

2D

71%

C 42

P Off

HGen

CF

63%

2.5MHz

WF High

Med

M3 M4

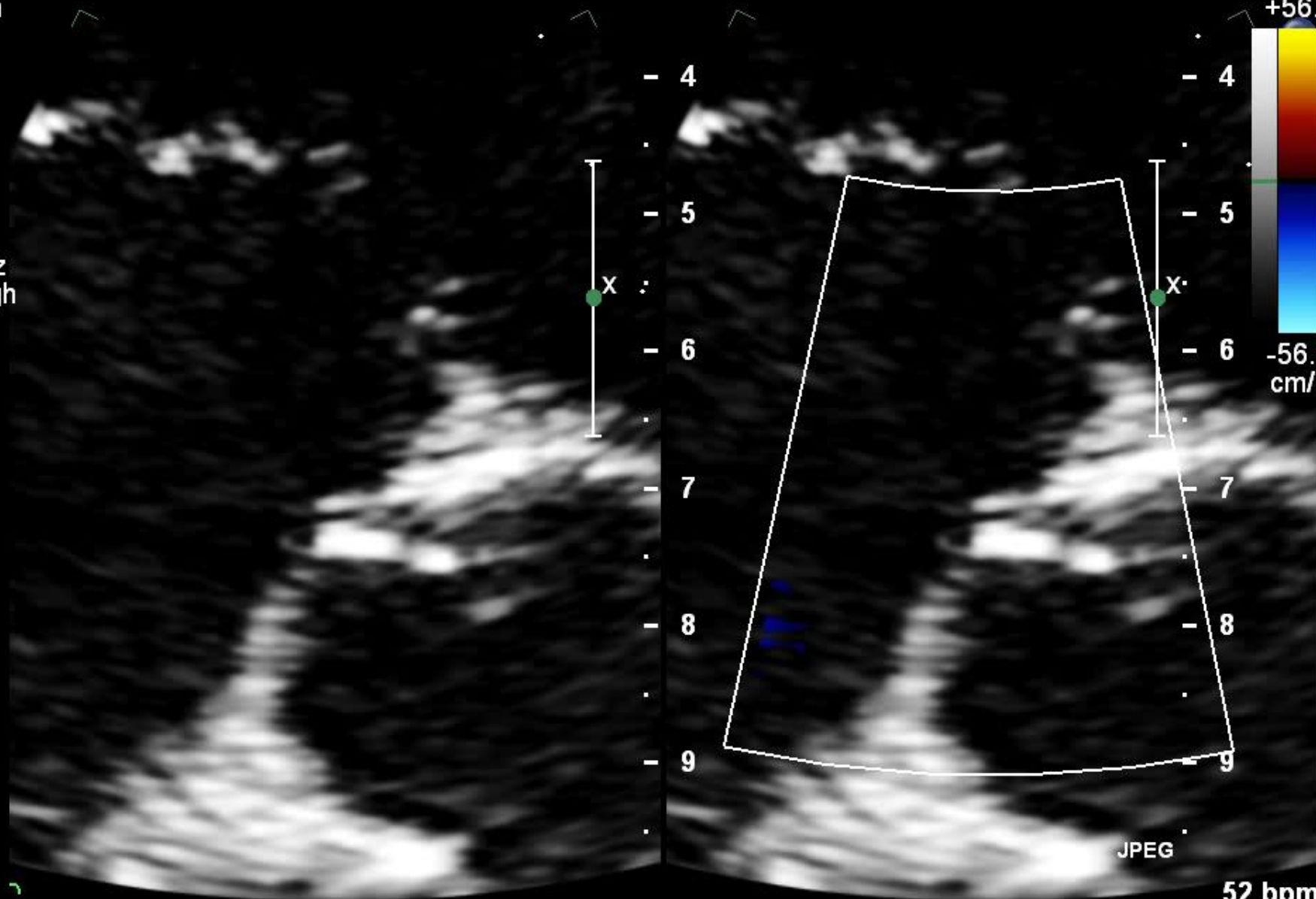
+56.2

-56.2

cm/s

JPEG

52 bpm



FR 16Hz

11cm

2D

58%

C 50

P Off

HPen

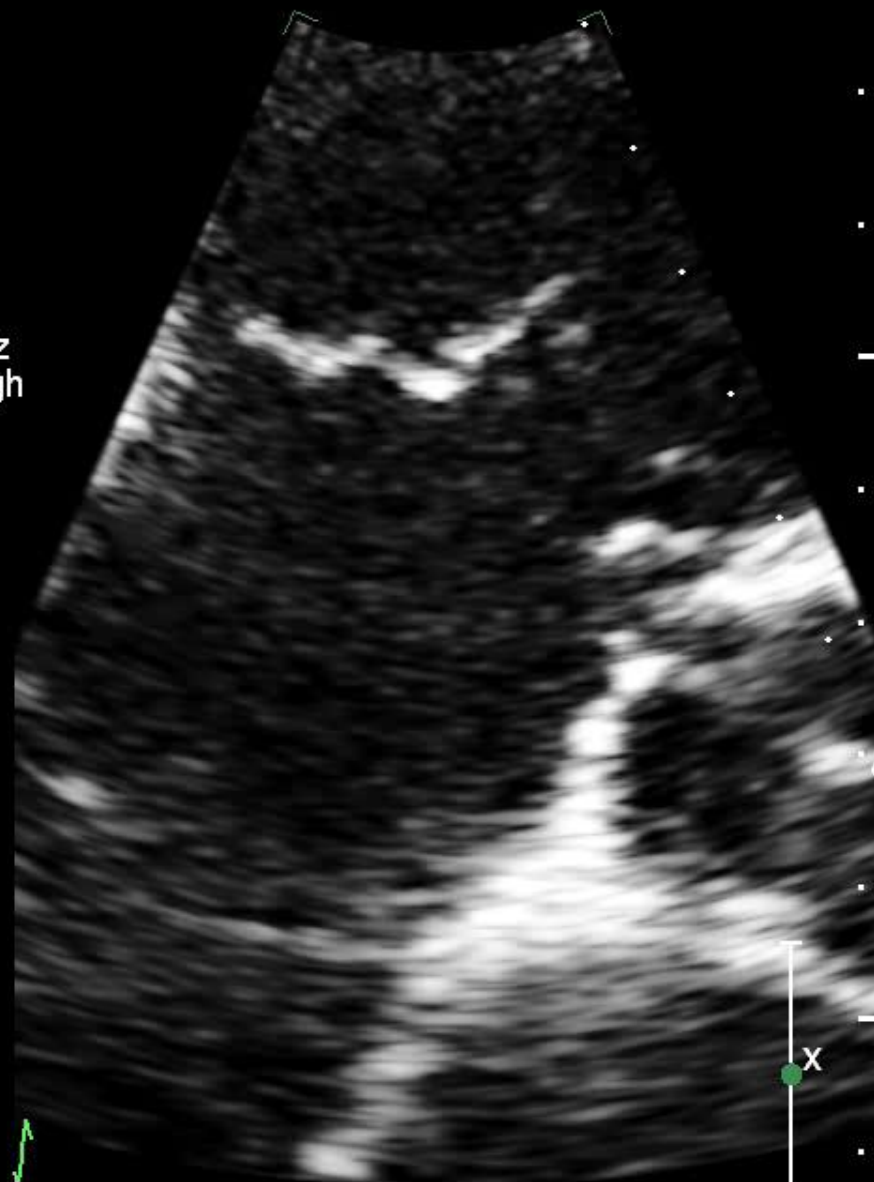
CF

63%

2.5MHz

WF High

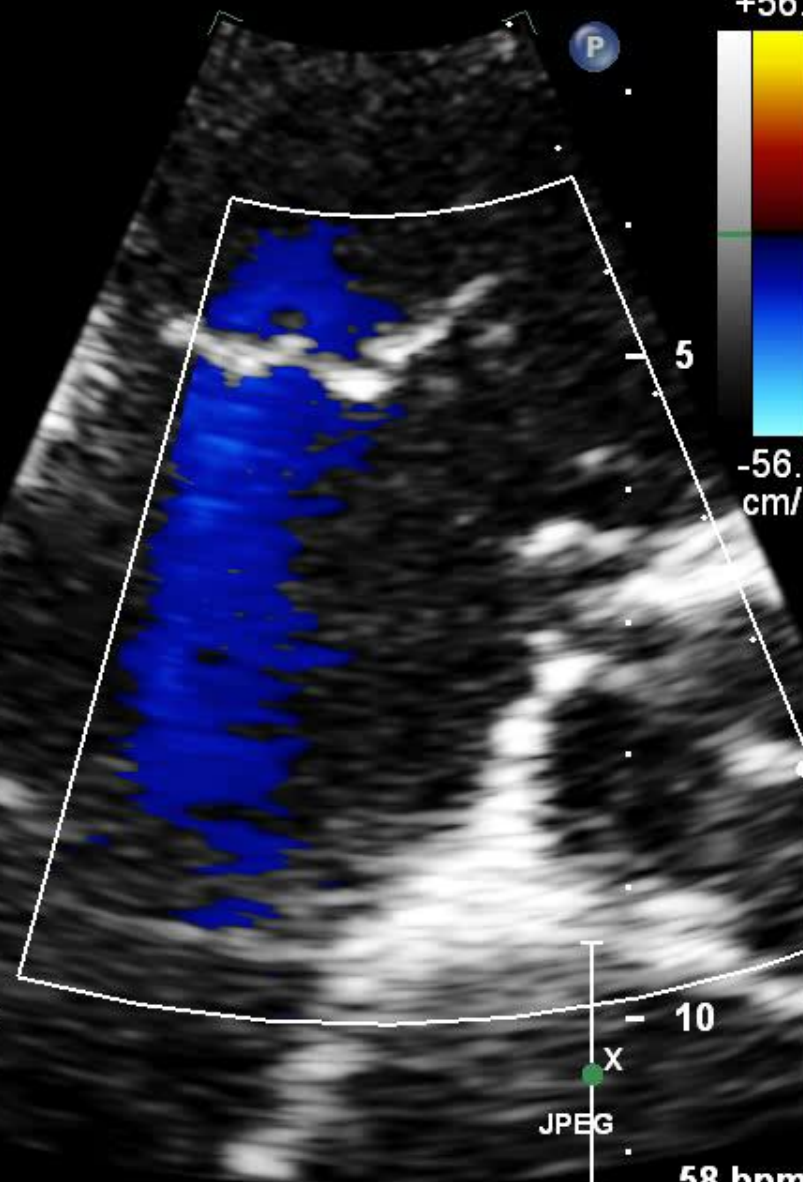
Med



- 5

10

X



M3 M4

+56.2



-56.2

cm/s

10

JPEG

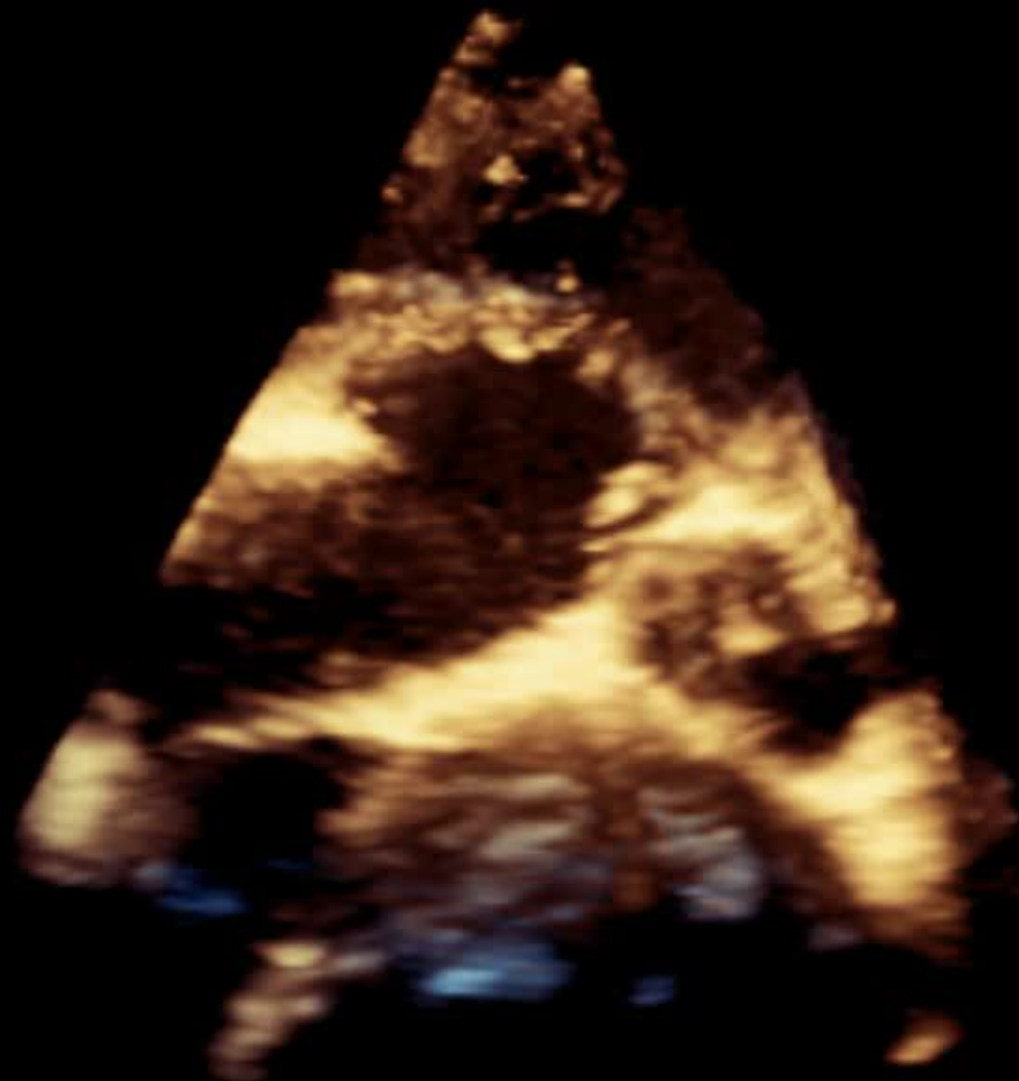
58 bpm

FR 18Hz  
14cm

3D Beats 1

M3

3D  
3D 50%  
3D 60dB



JPEG

62 bpm

FR 22Hz

12cm

2D

67%

C 49

P Off

HGen

CF

63%

2.5MHz

WF High

Med

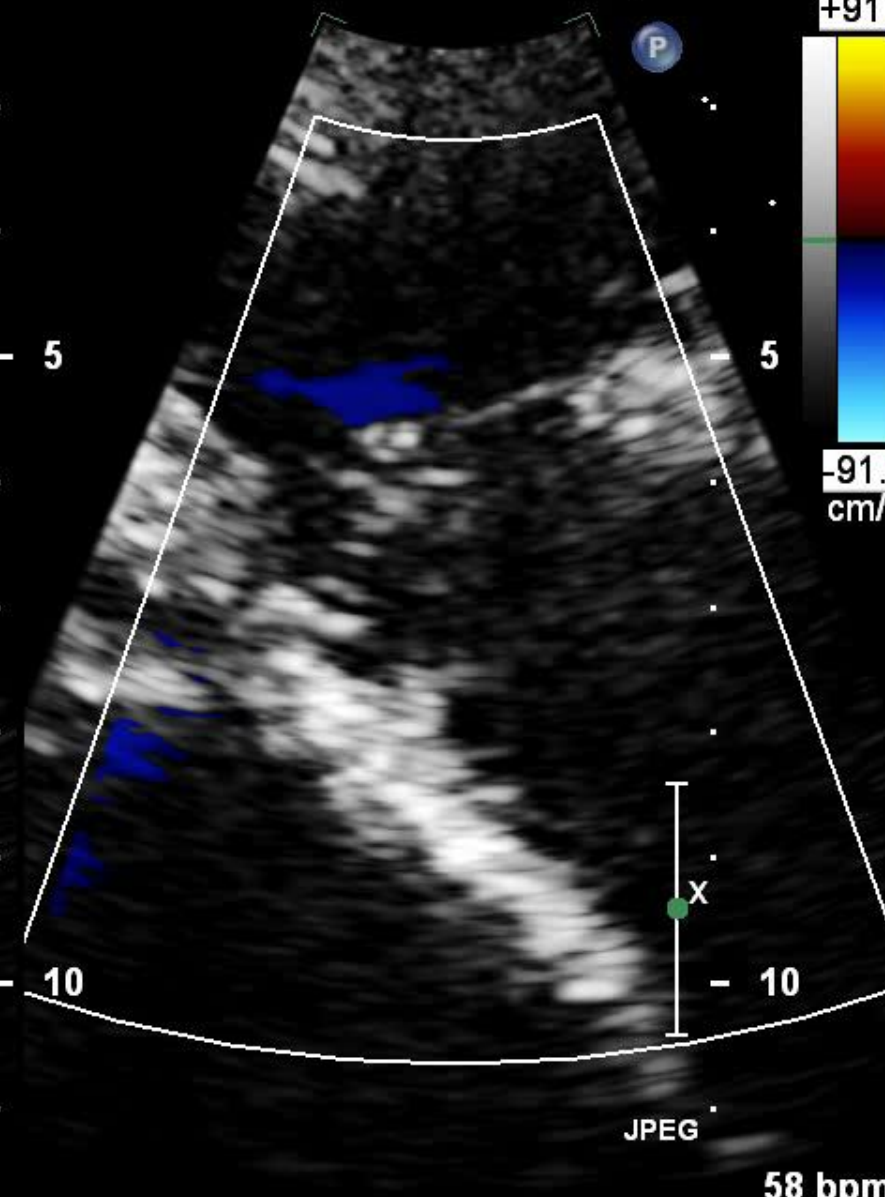
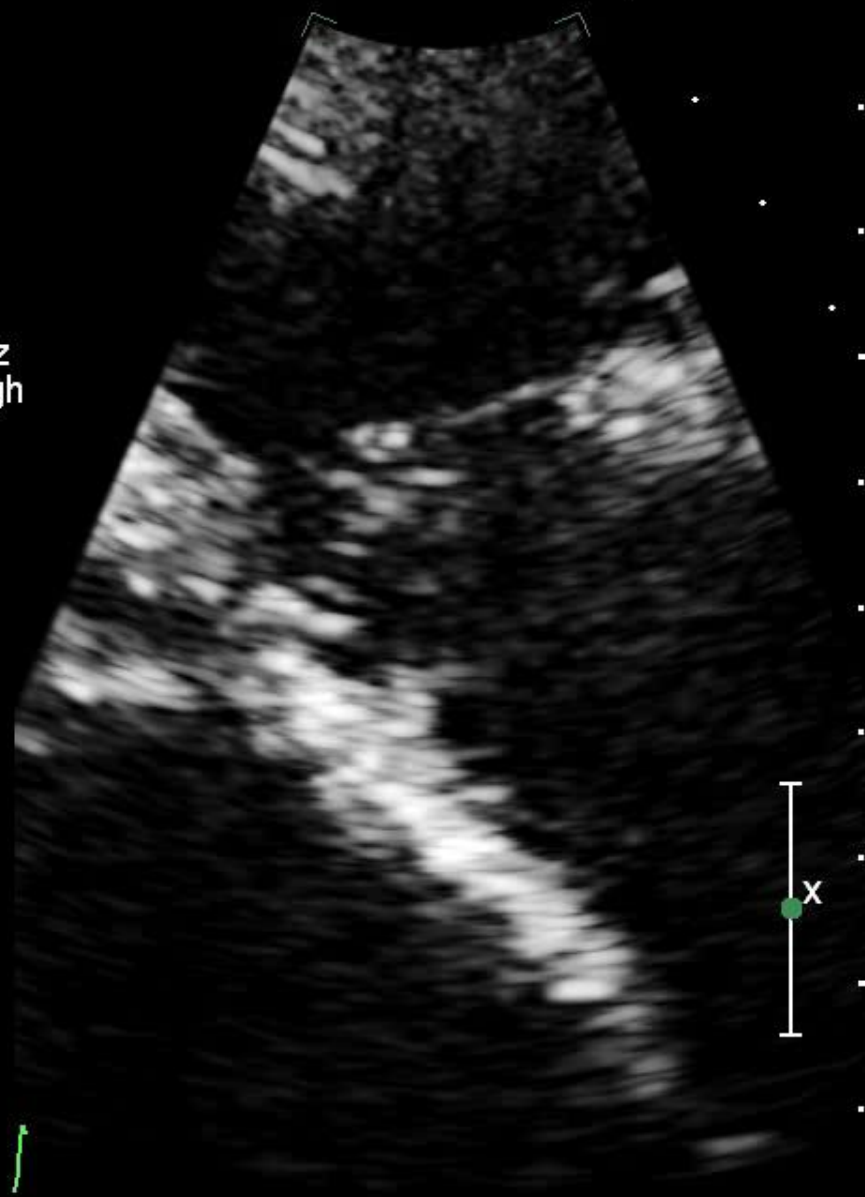
M3 M4

+91.7



-91.7

cm/s



JPEG

58 bpm

FR 50Hz  
16cm

2D  
67%  
C 51  
P Off  
HGen



M3

0

5

10

15

JPEG

48 bpm



FR 14Hz

11cm

2D

75%

C 51

P Off

HGen

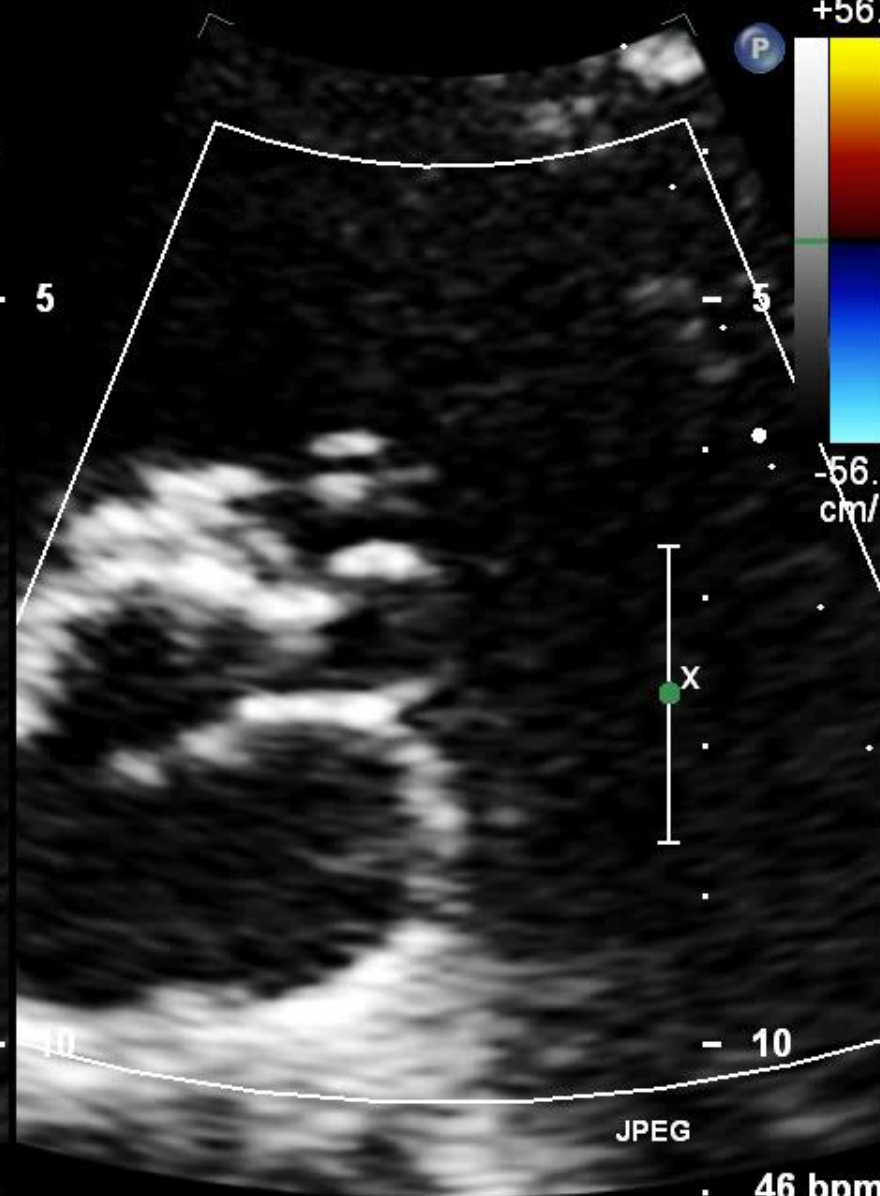
CF

63%

2.5MHz

WF High

Med



M3 M4  
+56.2

P

-56.2  
cm/s

JPEG

46 bpm

FR 14Hz

11cm

2D

75%

C 51

P Off

HGen

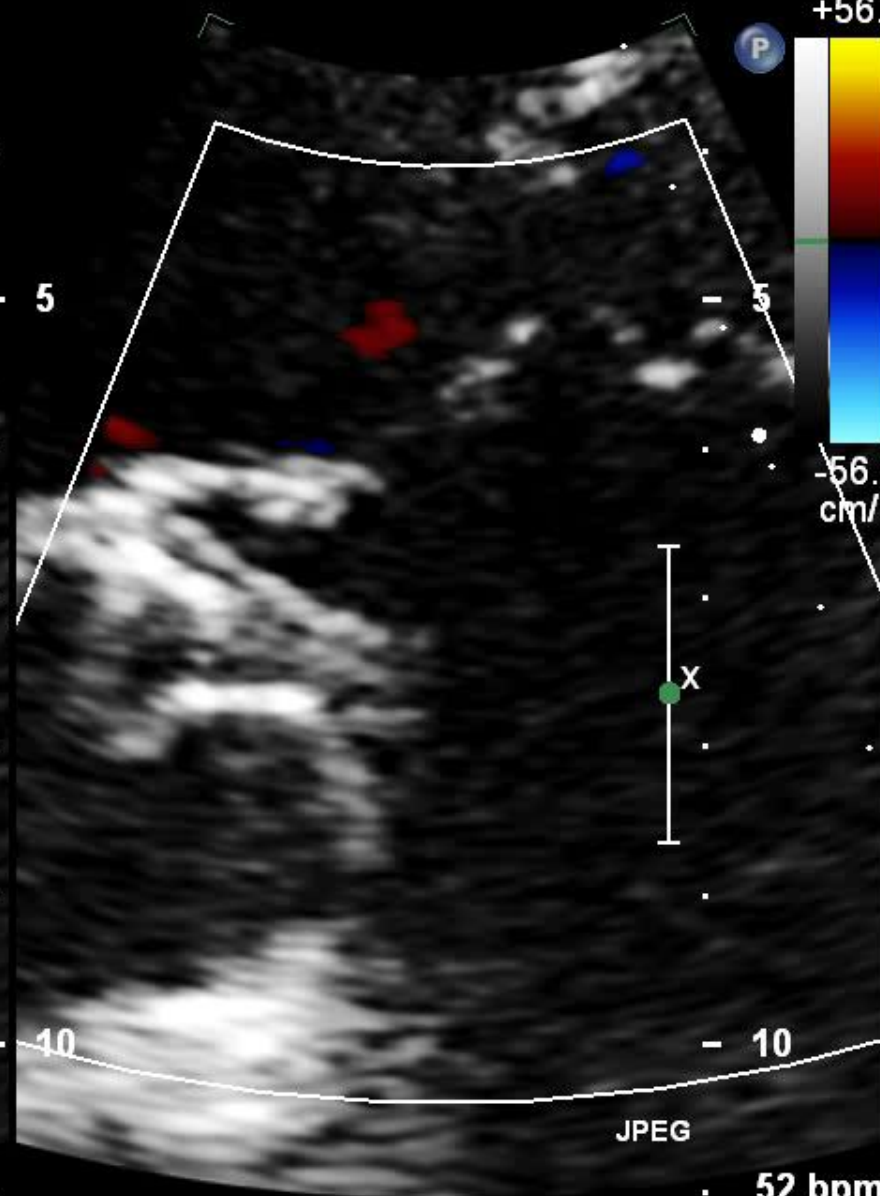
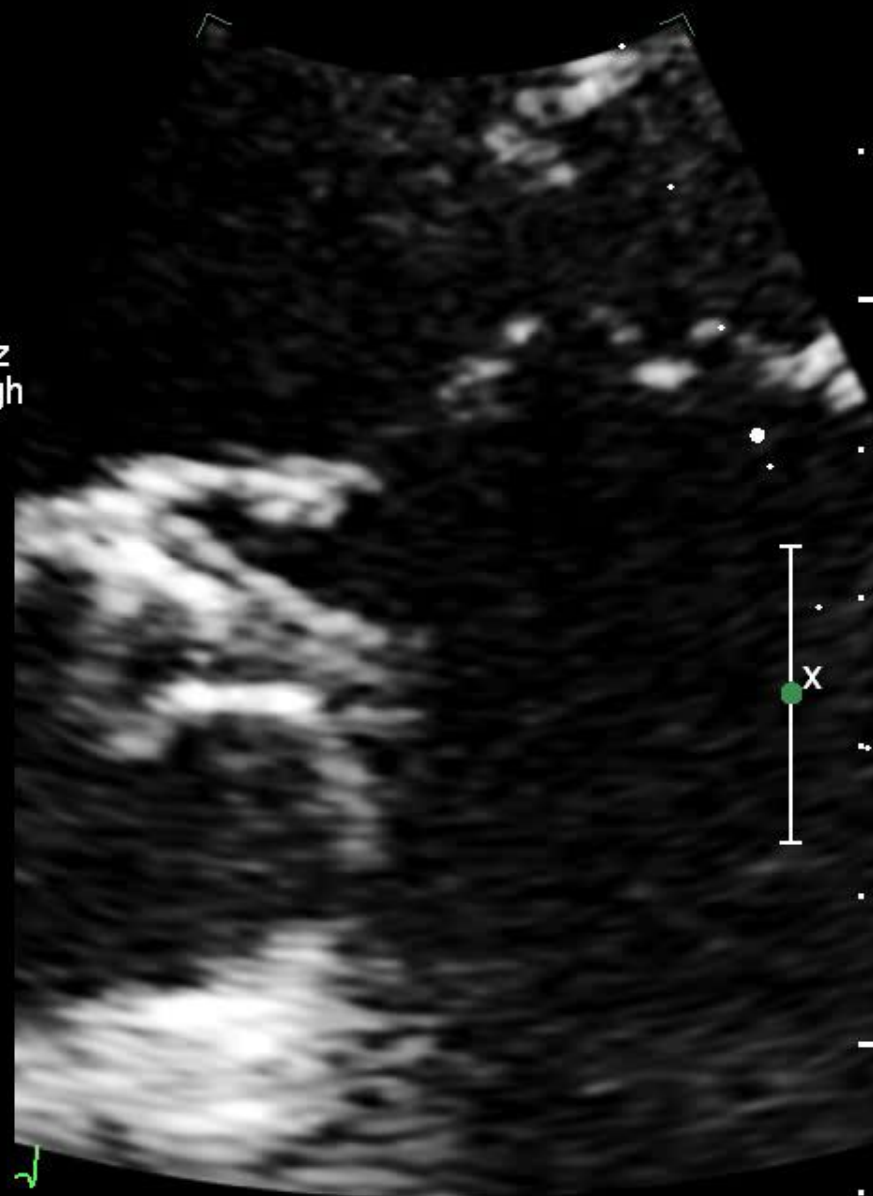
CF

63%

2.5MHz

WF High

Med



M3 M4

+56.2

P

-56.2

cm/s

JPEG

52 bpm

FR 11Hz

12cm

2D

72%

C 44

P Off

HGen

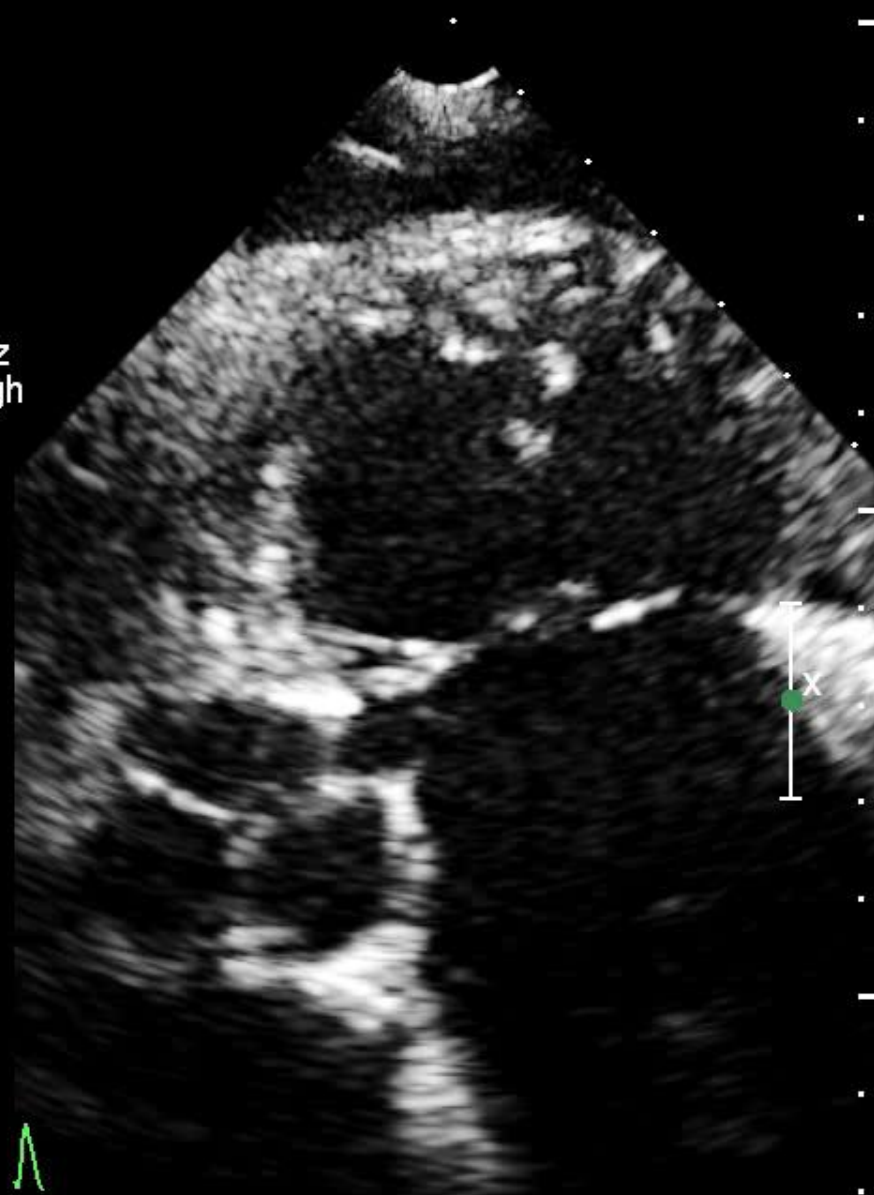
CF

63%

2.5MHz

WF High

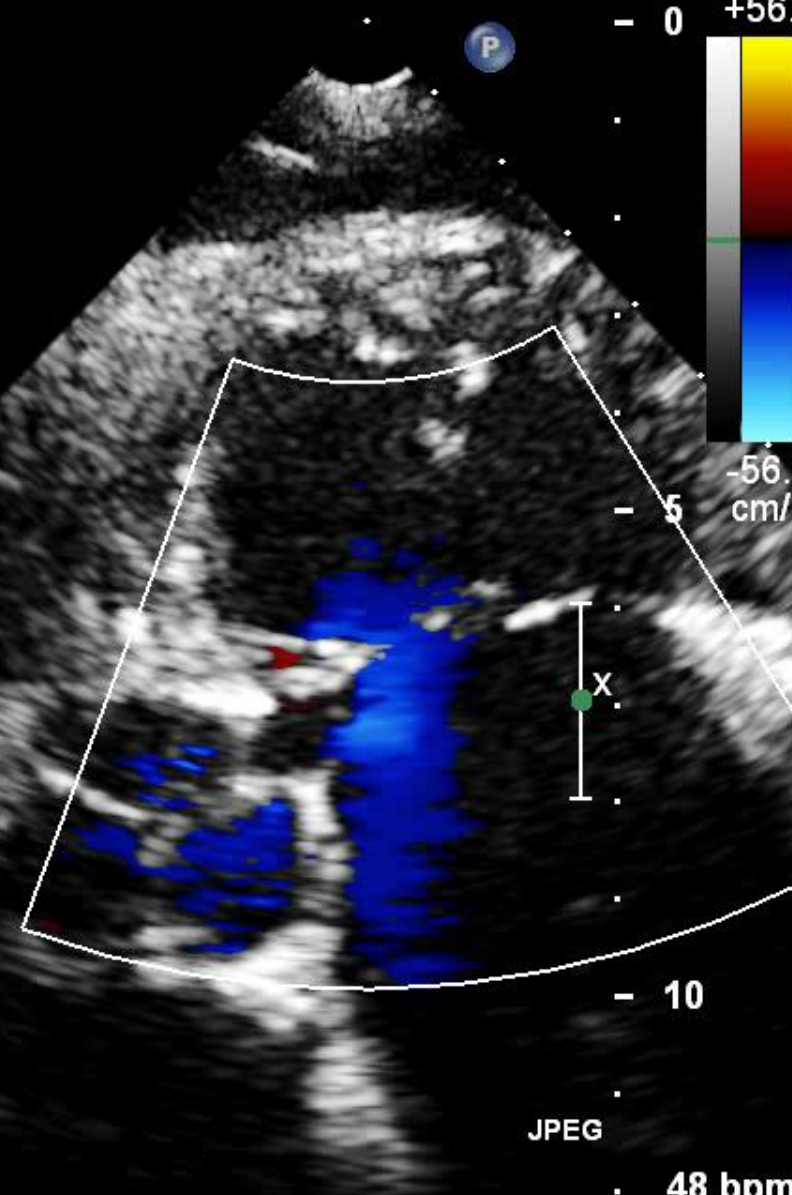
Med



- 0

- 5

- 10



M3 M4

+56.2

-56.2

cm/s

JPEG

48 bpm

FR 12Hz

13cm

2D

75%

C 51

P Off

HGen

CF

63%

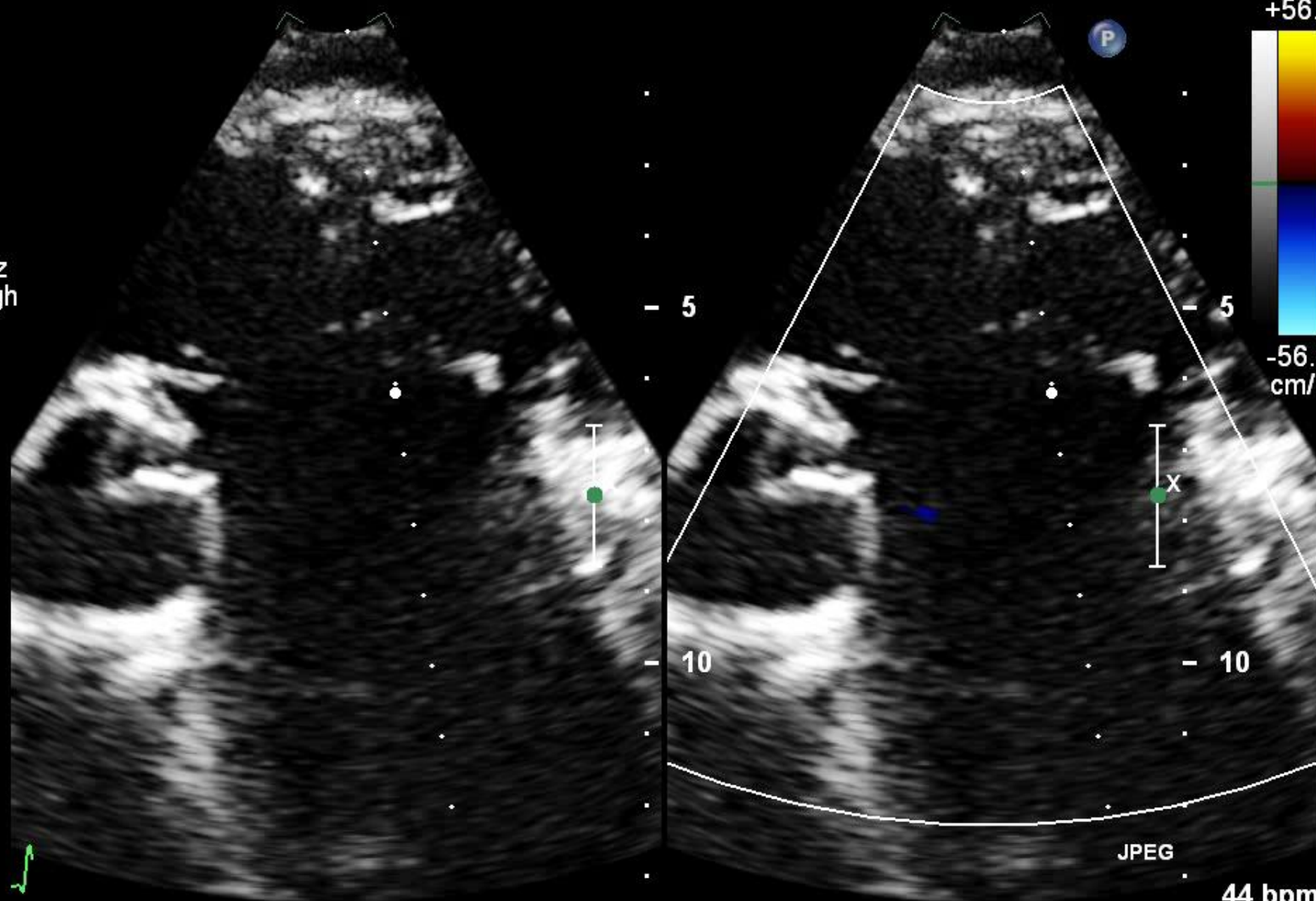
2.5MHz

WF High

Med

M3 M4

+56.2



44 bpm

FR 12Hz

11cm

2D

72%

C 44

P Off

HGen

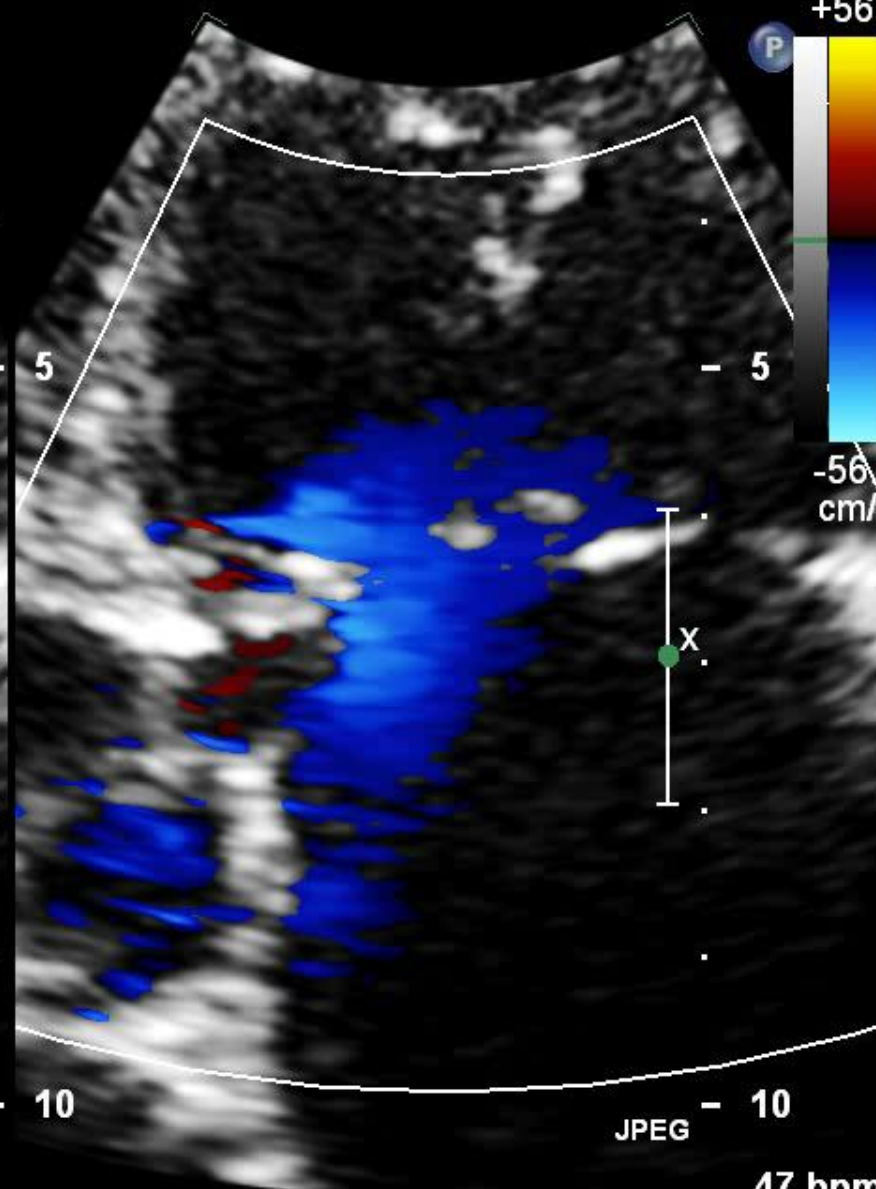
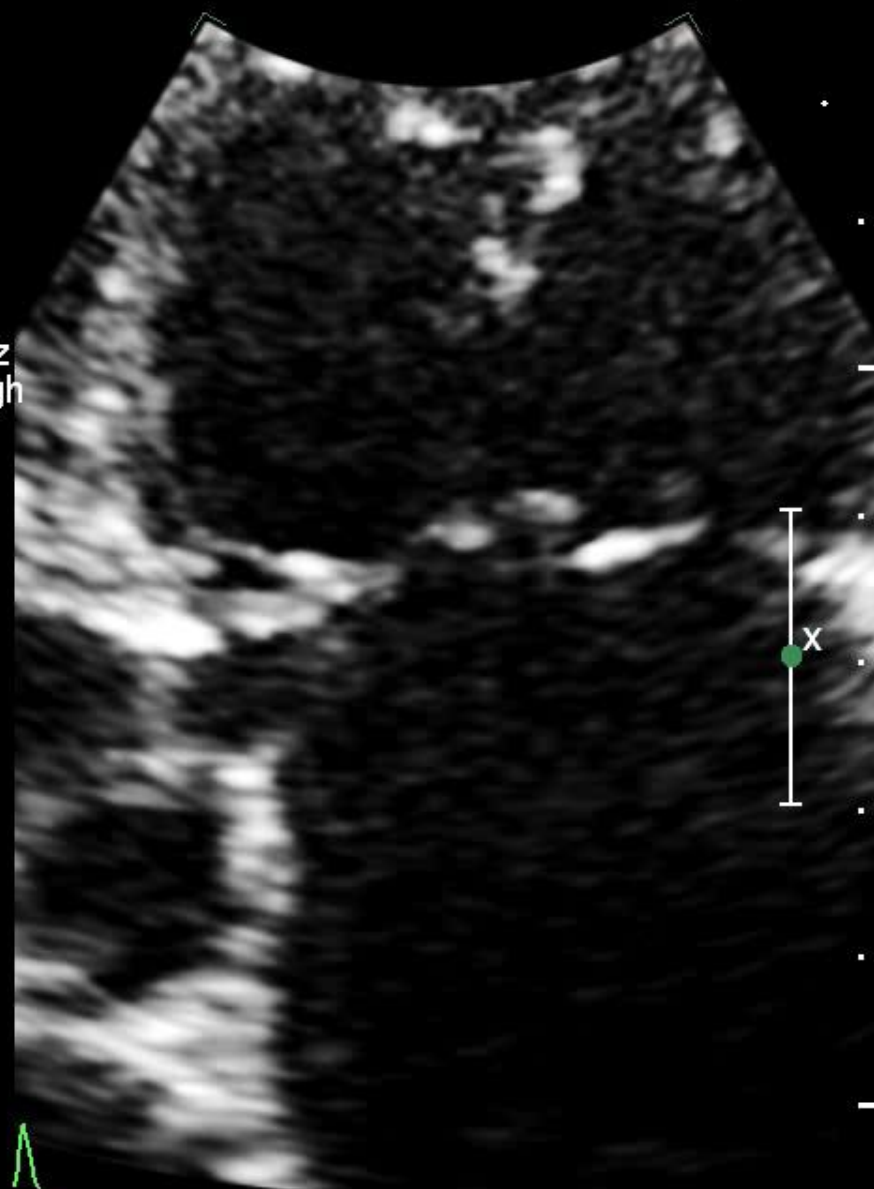
CF

63%

2.5MHz

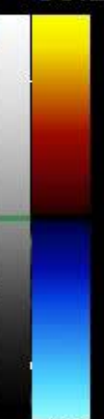
WF High

Med



M3 M4  
+56.2

P



-56.2  
cm/s

JPEG

47 bpm

FR 12Hz

13cm

2D

75%

C 51

P Off

HGen

CF

63%

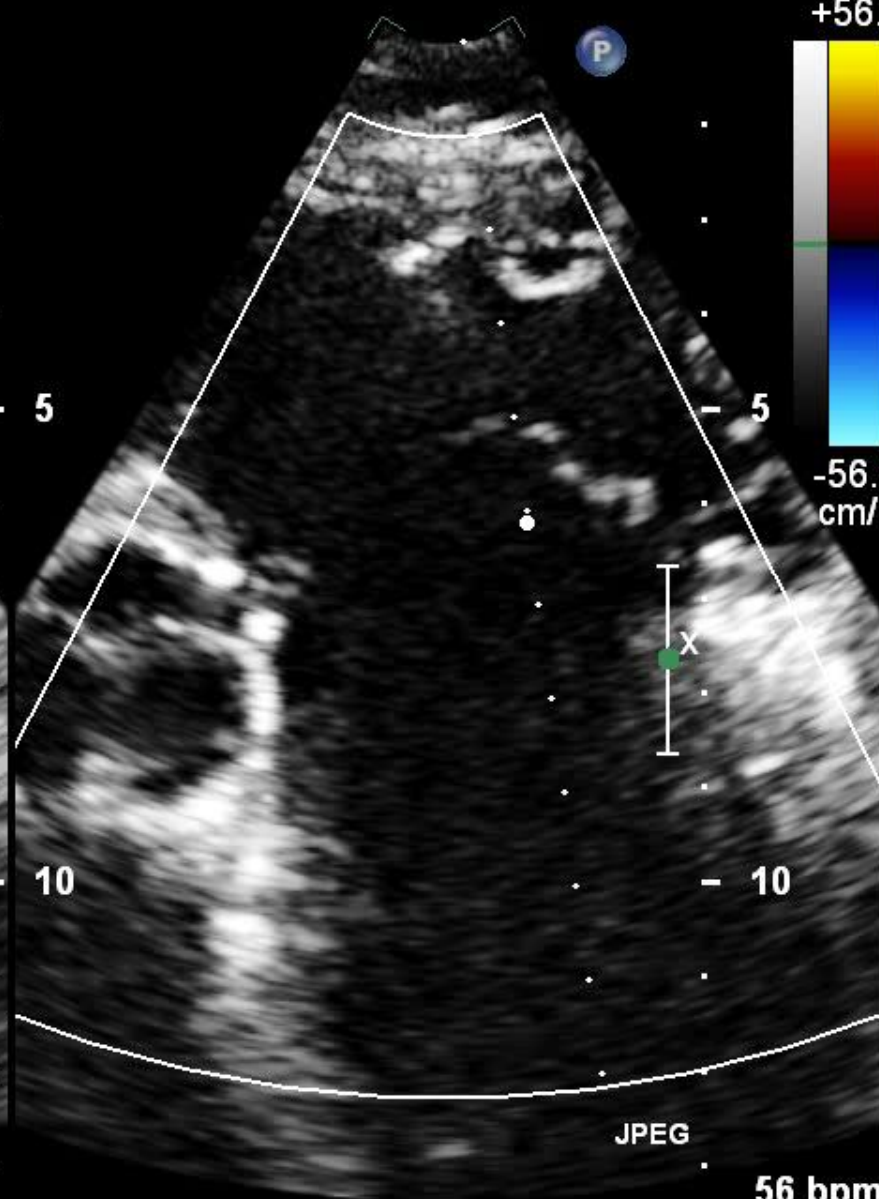
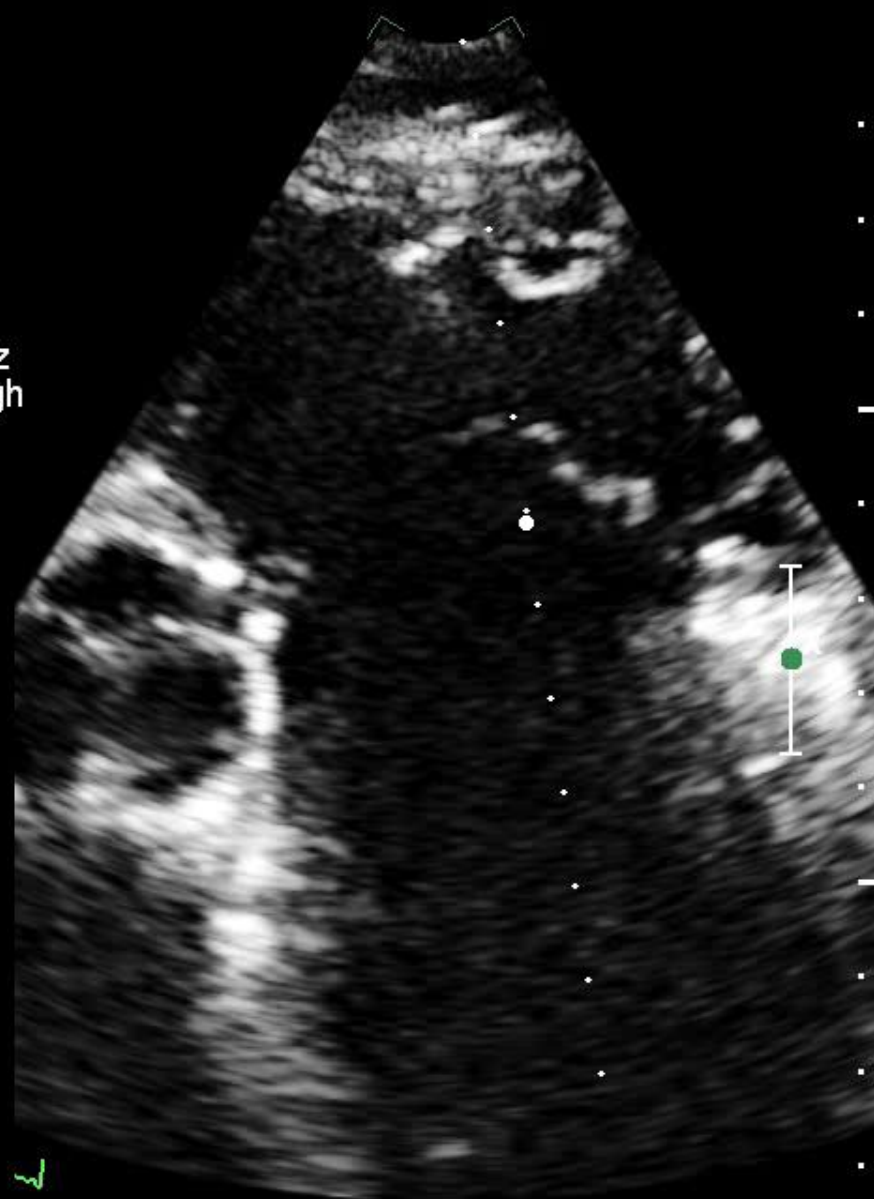
2.5MHz

WF High

Med

M3 M4

+56.2



56 bpm

FR 50Hz  
18cm

2D  
81%  
C 44  
P Off  
HGen



M3

0



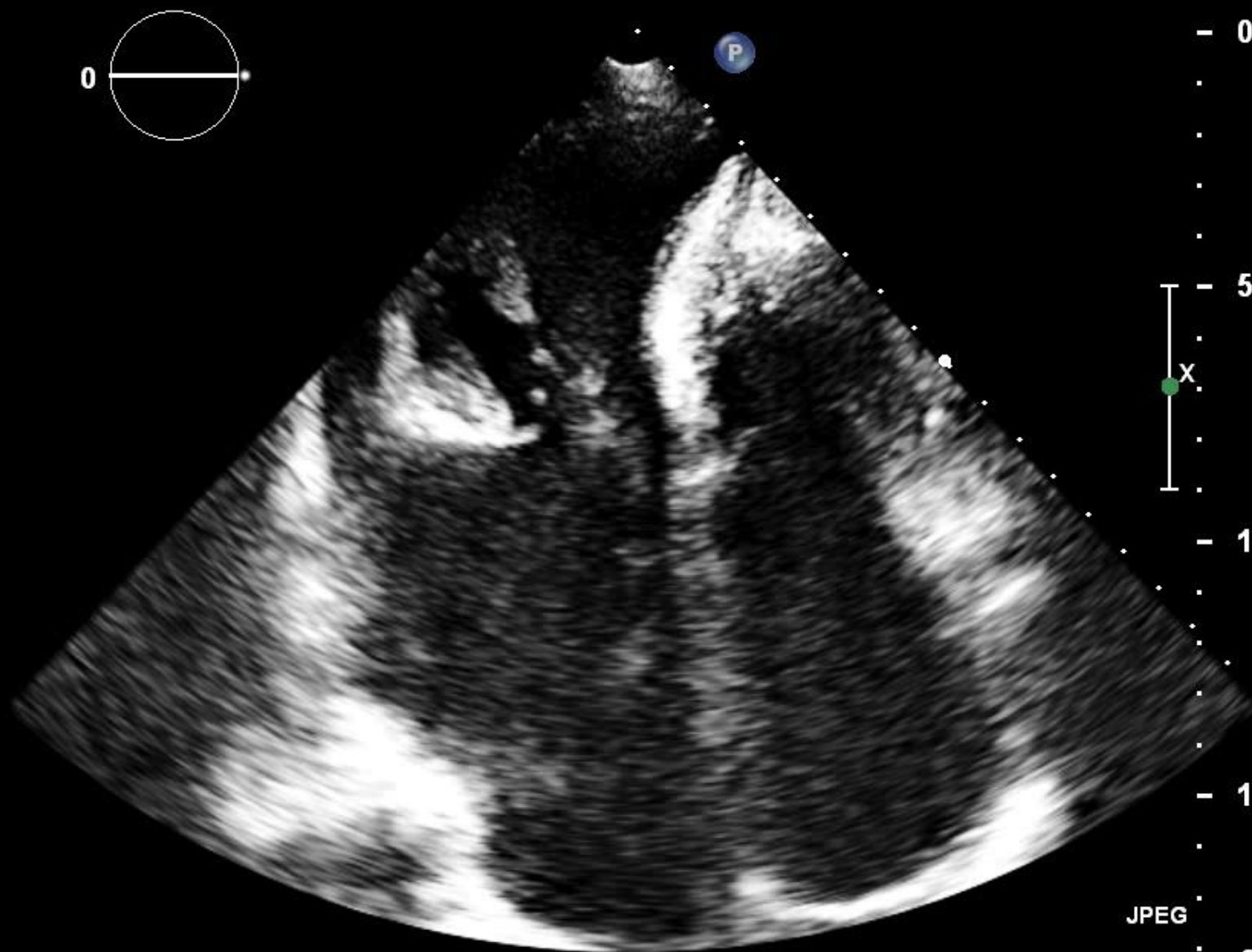
5

10

15

JPEG

62 bpm



X

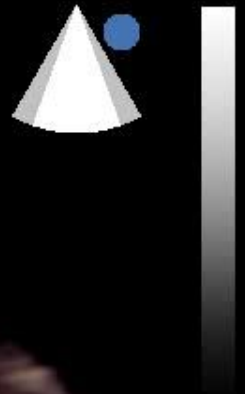


FR 10Hz  
10cm

3D Beats 1

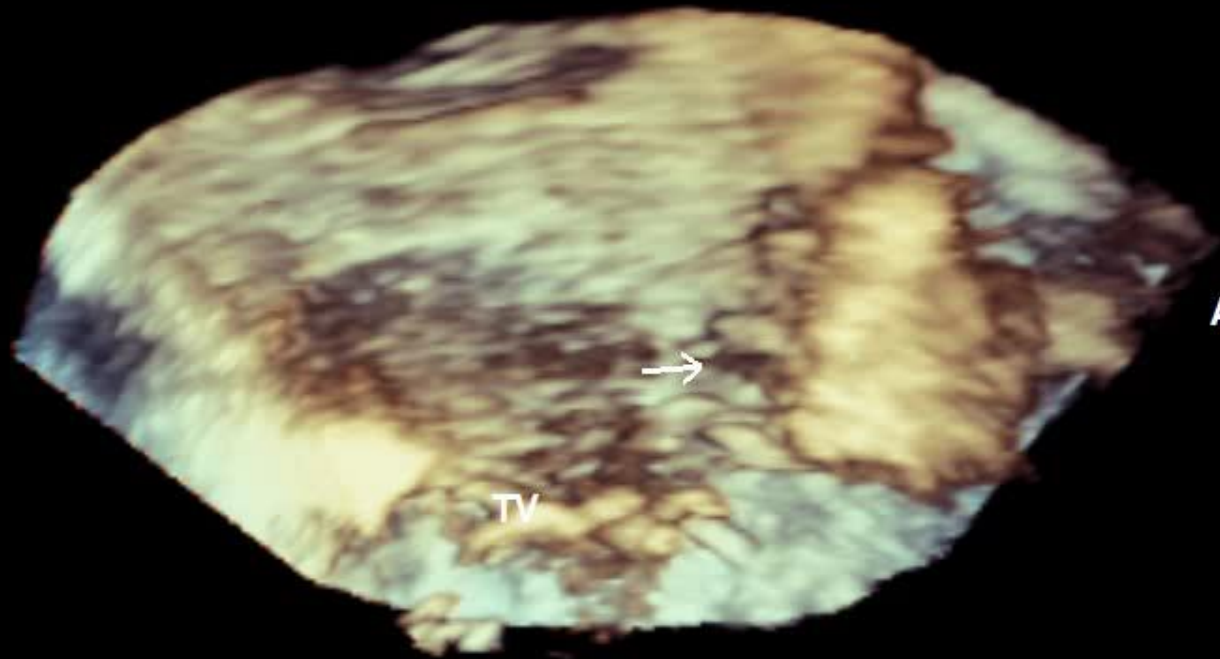
M3

3D  
3D 20%  
3D 60dB



Posterior

Anterior



TV

JPEG

55 bpm

L

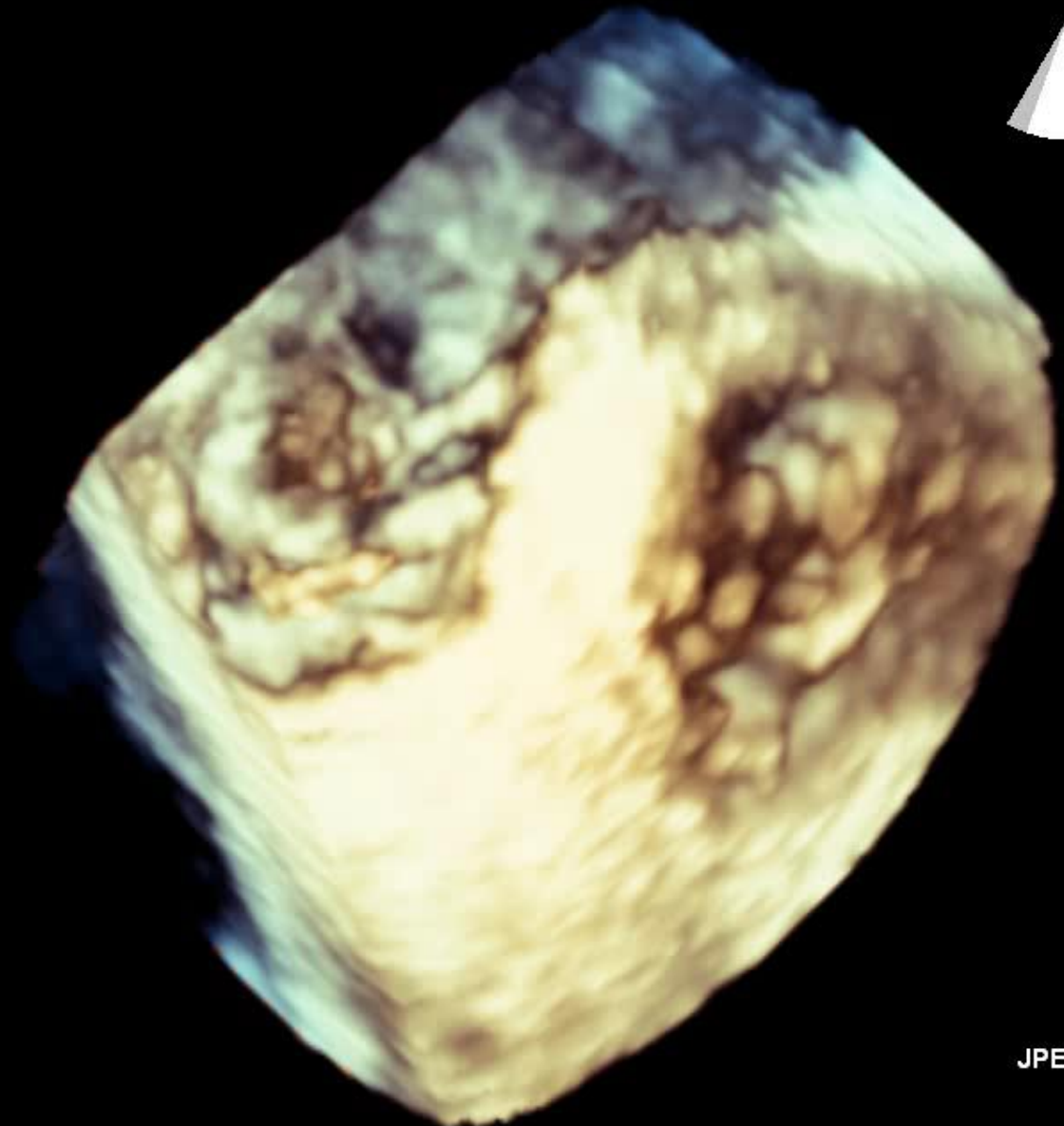
FR 10Hz  
10cm

3D Beats 1

M3

3D  
3D 48%  
3D 60dB

RV view



JPEG

55 bpm

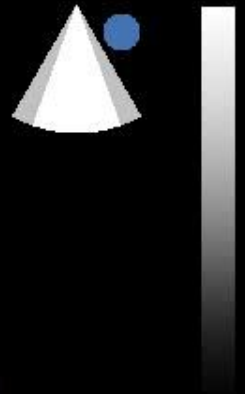
L

FR 6Hz  
14cm

3D Beats 1

M3

3D  
3D 50%  
3D 60dB



RA view



↑ A  
S P

JPEG

43 bpm

L

FR 10Hz  
10cm

3D Beats 1

M3

3D  
3D 19%  
3D 56dB



Posterior

Anterior

RA

TV

RV

JPEG

55 bpm



# Transesophageal Echocardiogram

FR 21Hz  
14cm

M4

3D Zoom



91%  
91%  
34dB  
P Off  
HGen



JPEG

PAT T: 37.0C  
TEE T: 39.5C

BP118 / 60mmHg

66 bpm

FR 20Hz

13cm

2D

78%

C 46

P Off

HGen

CF

67%

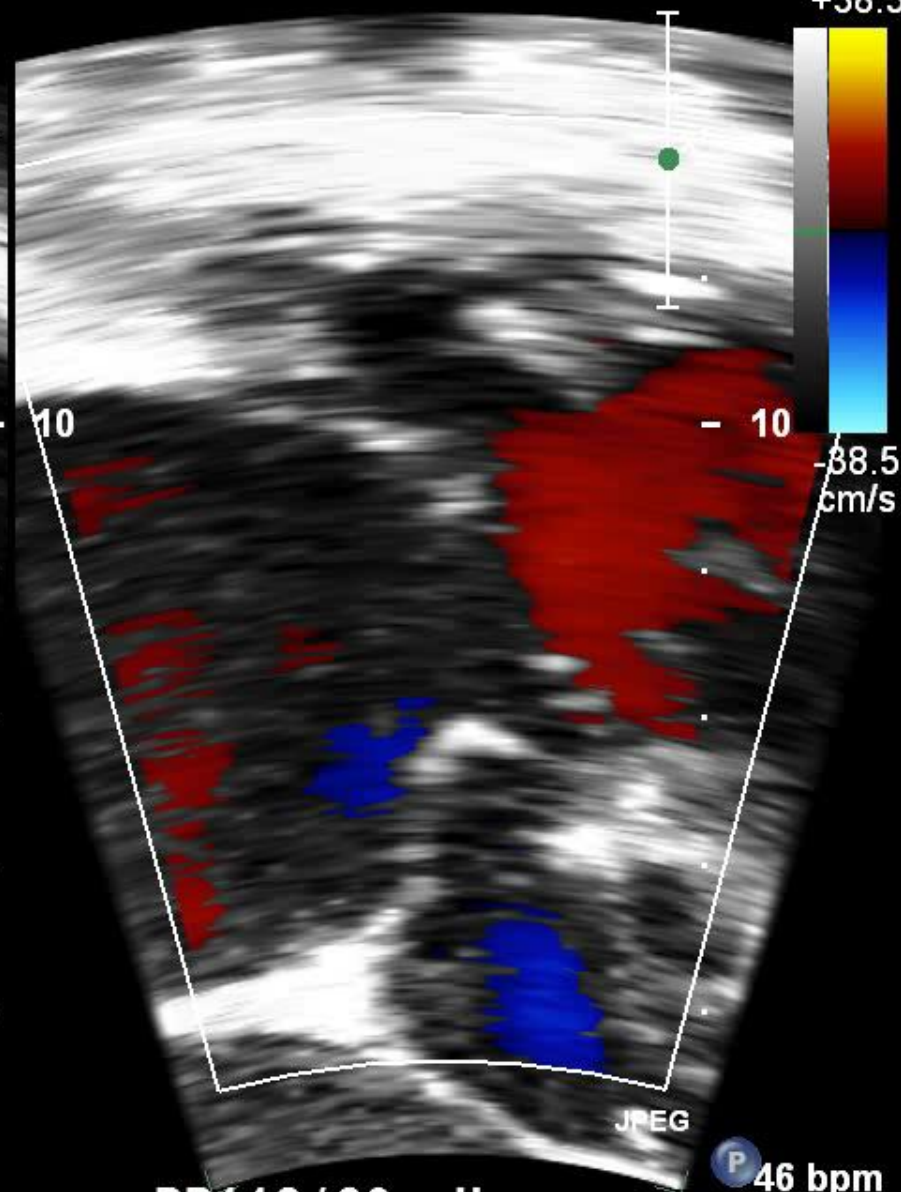
4.4MHz

WF High

Med



PAT T: 37.0C  
TEE T: 39.7C



M4 M4  
+38.5

-38.5  
cm/s

JPEG

P 46 bpm

BP118 / 60mmHg

FR 26Hz  
13cm

xPlane  
79%  
79%  
40dB  
P Off  
HGen

80

1

M4



JPEG

56 bpm

BP118 / 60mmHg

PAT T: 37.0C  
TEE T: 39.6C

P

P



FR 14Hz  
17cm

2D

80%

C 43

P Off

HGen

CF

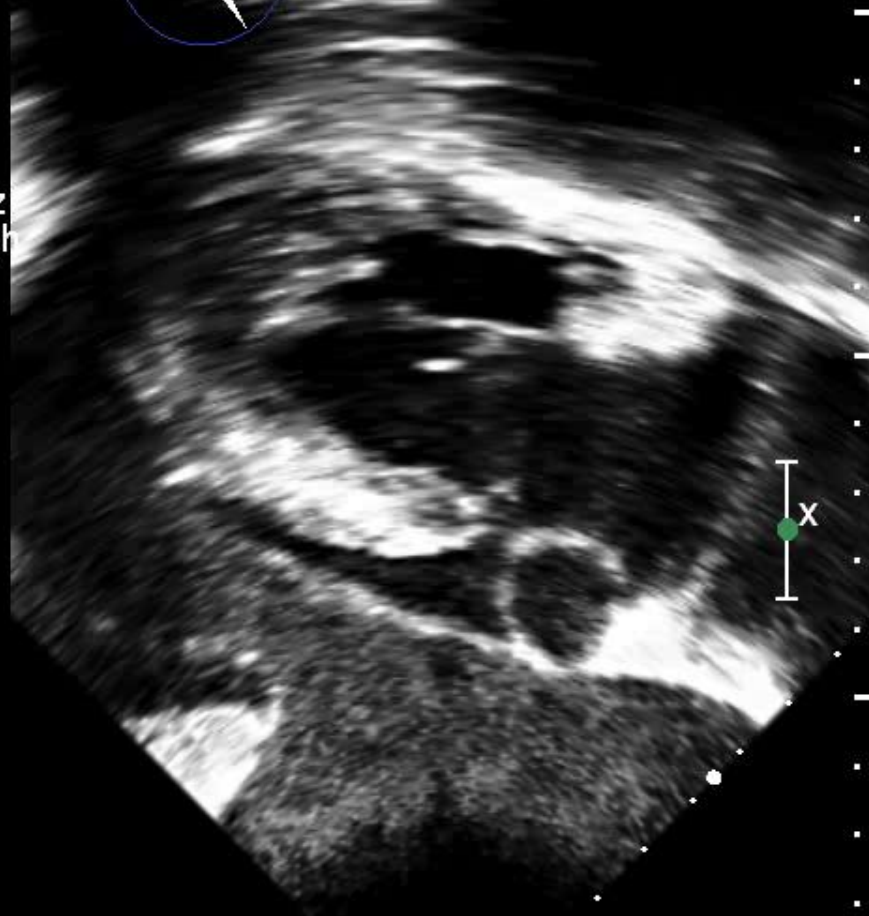
67%

4.4MHz

WF High

Med

0 123 180



15

10

5

0

M4 M4

+38.5



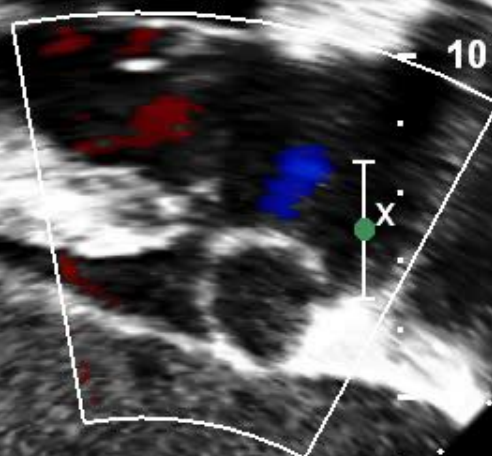
-38.5

cm/s

10

5

0



JPEG

P

62 bpm

PAT T: 37.0C

TEE T: 39.9C

BP118 / 60mmHg

FR 16Hz

12cm

2D

80%

C 43

P Off

HGen

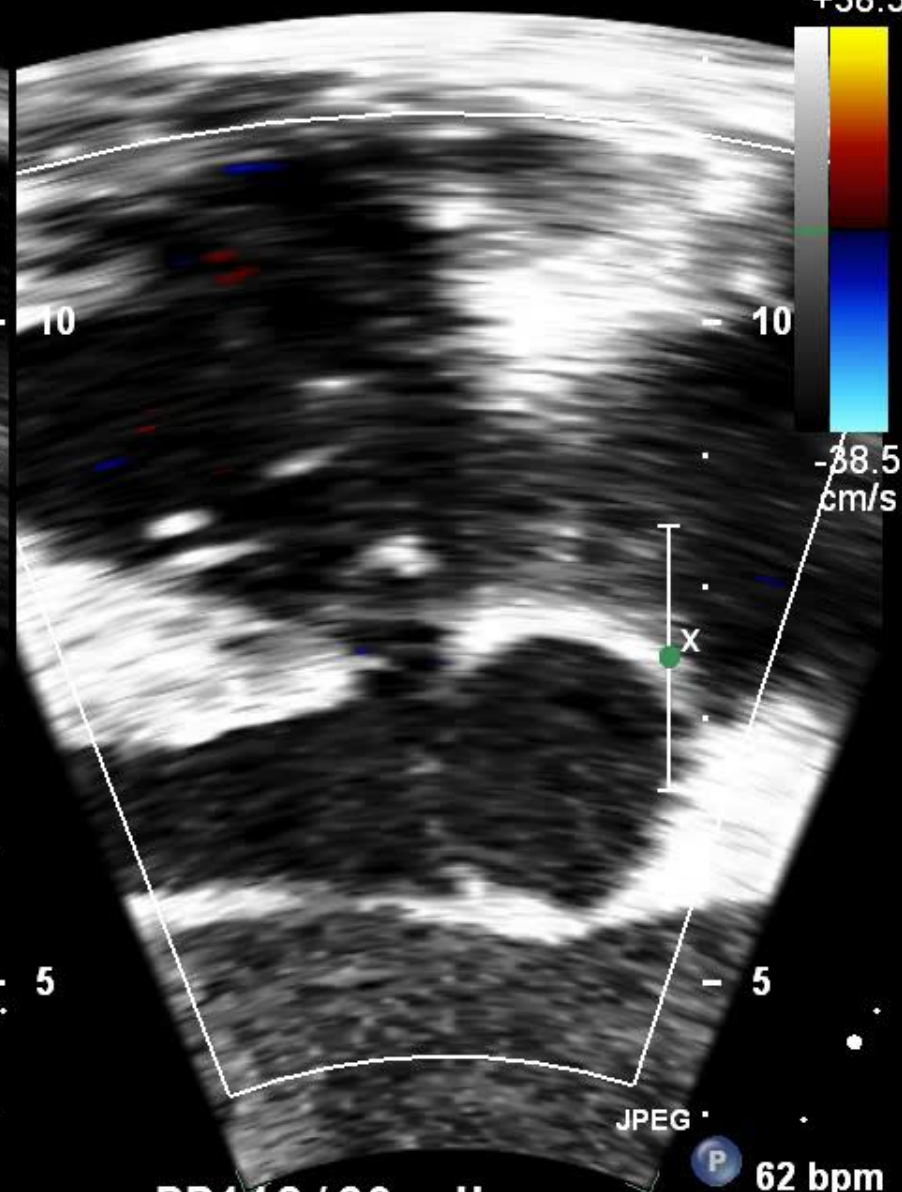
CF

67%

4.4MHz

WF High

Med

PAT T: 37.0C  
TEE T: 40.0CM4 M4  
+38.5-38.5  
cm/s

JPEG

P

62 bpm

BP118 / 60mmHg

FR 14Hz  
17cm

2D

78%

C 46

P Off

HGen

CF

67%

4.4MHz

WF High

Med

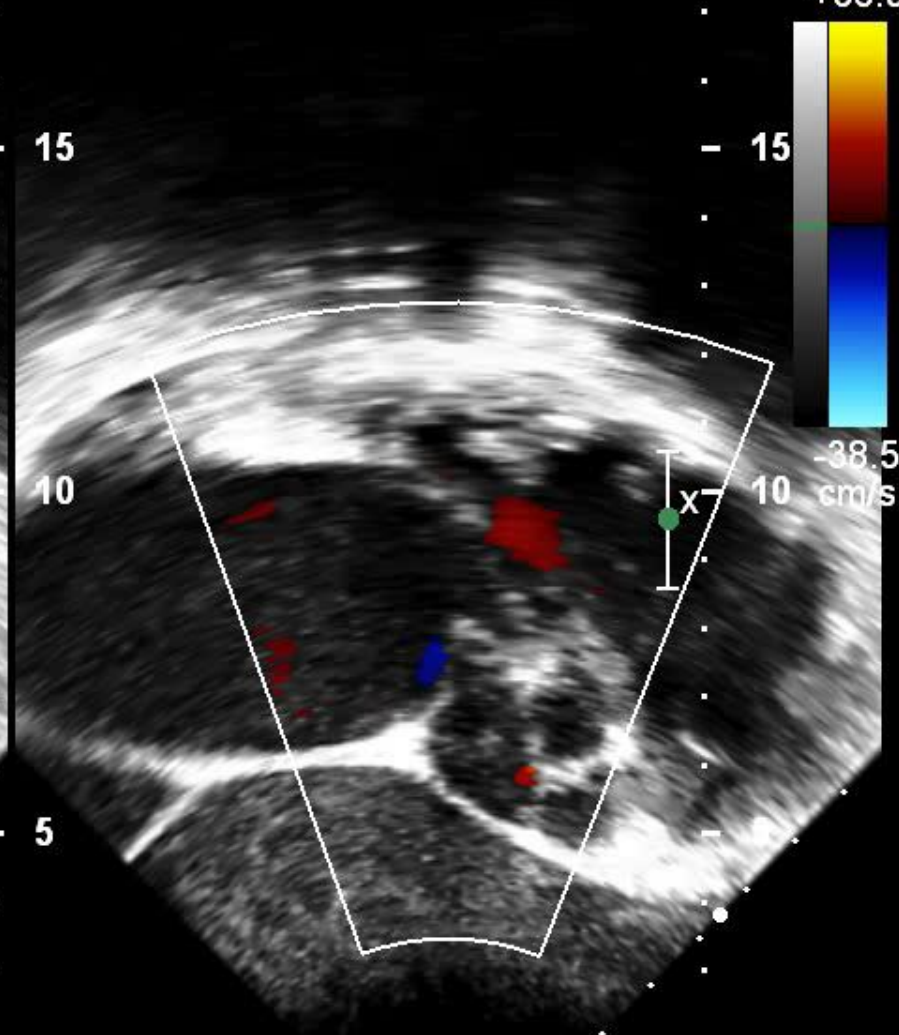


15

10

5

0



M4 M4

+38.5

-38.5

cm/s

JPEG

P

65 bpm

PAT T: 37.0C

TEE T: 39.8C

BP118 / 60mmHg

FR 16Hz

14cm

2D

78%

C 37

P Off

HGen

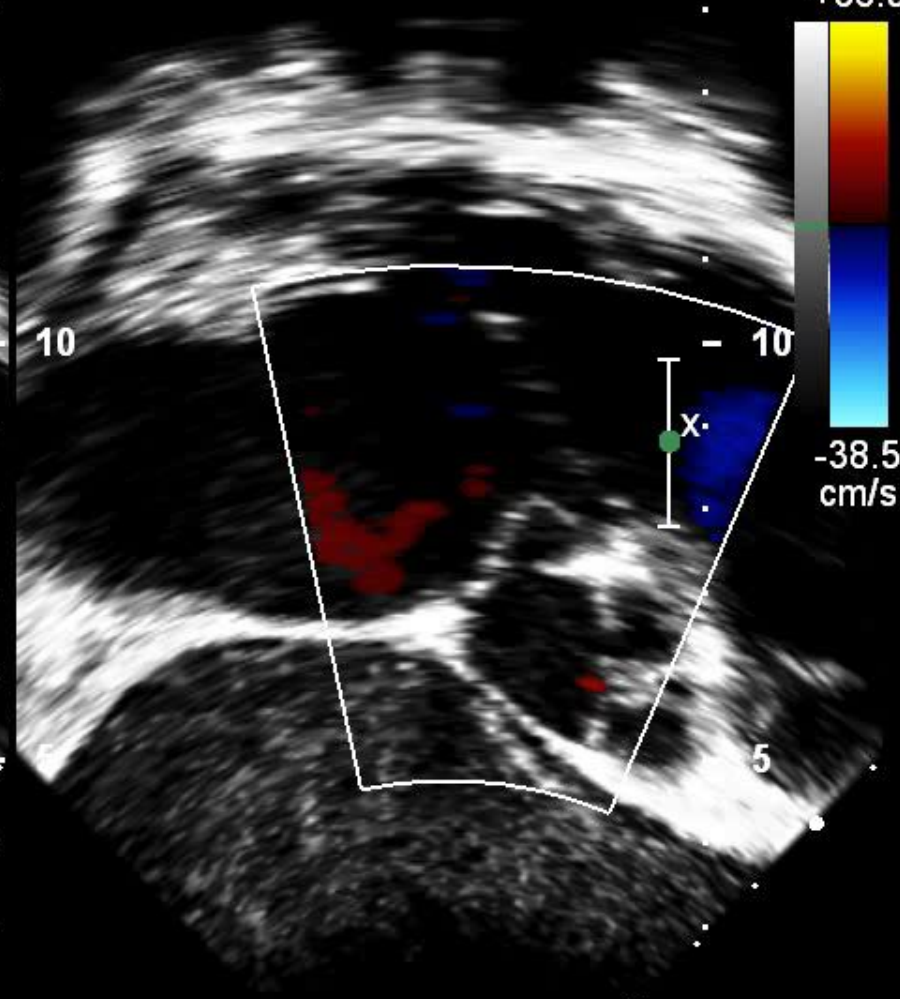
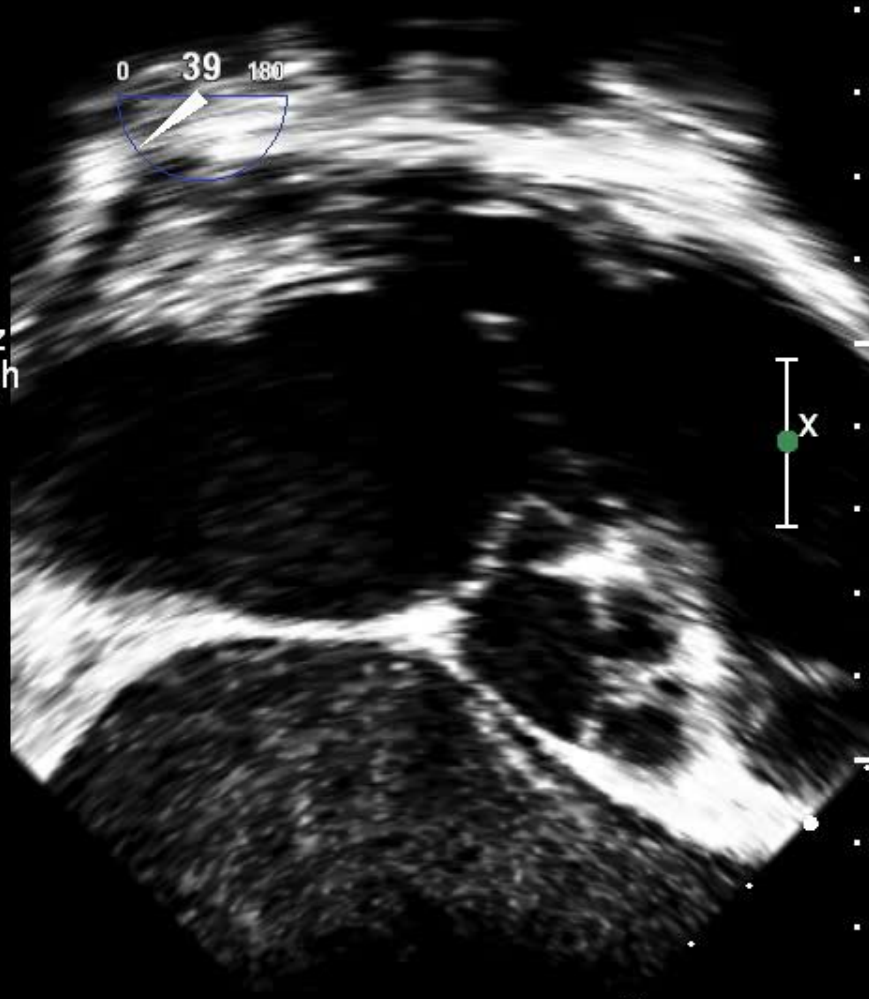
CF

67%

4.4MHz

WF High

Med

M4 M4  
+38.5-38.5  
cm/sPAT T: 37.0C  
TEE T: 39.6C

- 0

BP118 / 60mmHg

JPEG



- 63 bpm

FR 11Hz

11cm

xPlane

78%

78%

49dB

P Off

HGen

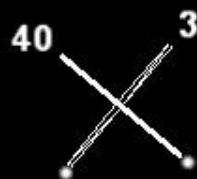
CF

67%

4.4MHz

WF High

Med



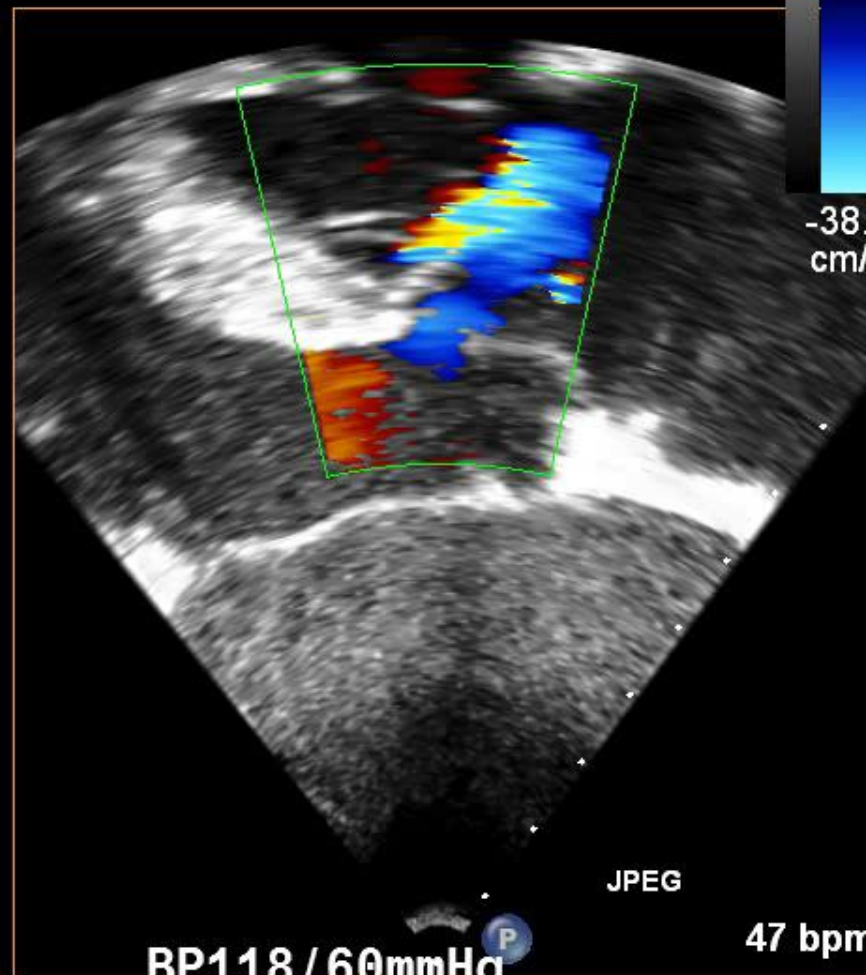
M4 M4

+38.5



-38.5

cm/s



JPEG

47 bpm

BP118 / 60mmHg

PAT T: 37.0C

TEE T: 39.6C



FR 17Hz

17cm

2D

78%

C 49

P Off

HGen

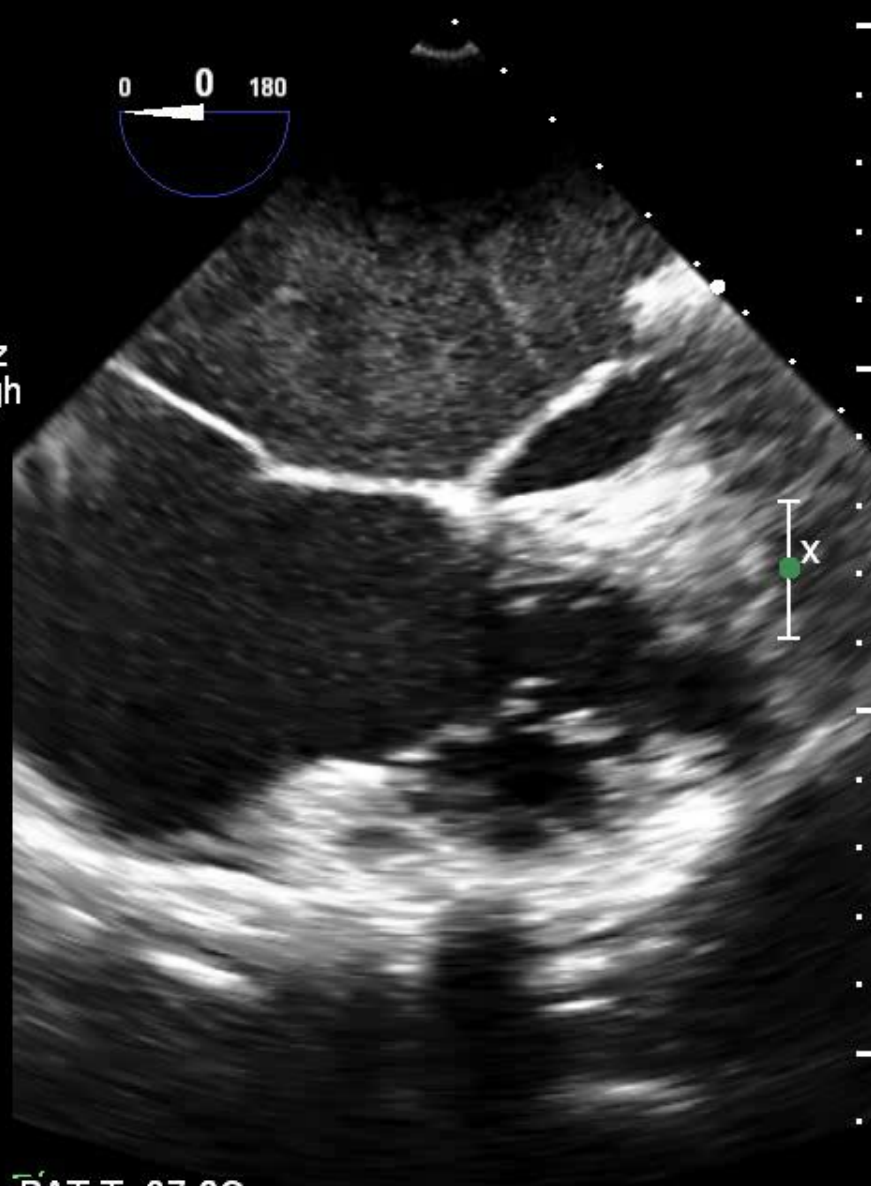
CF

67%

4.4MHz

WF High

Med

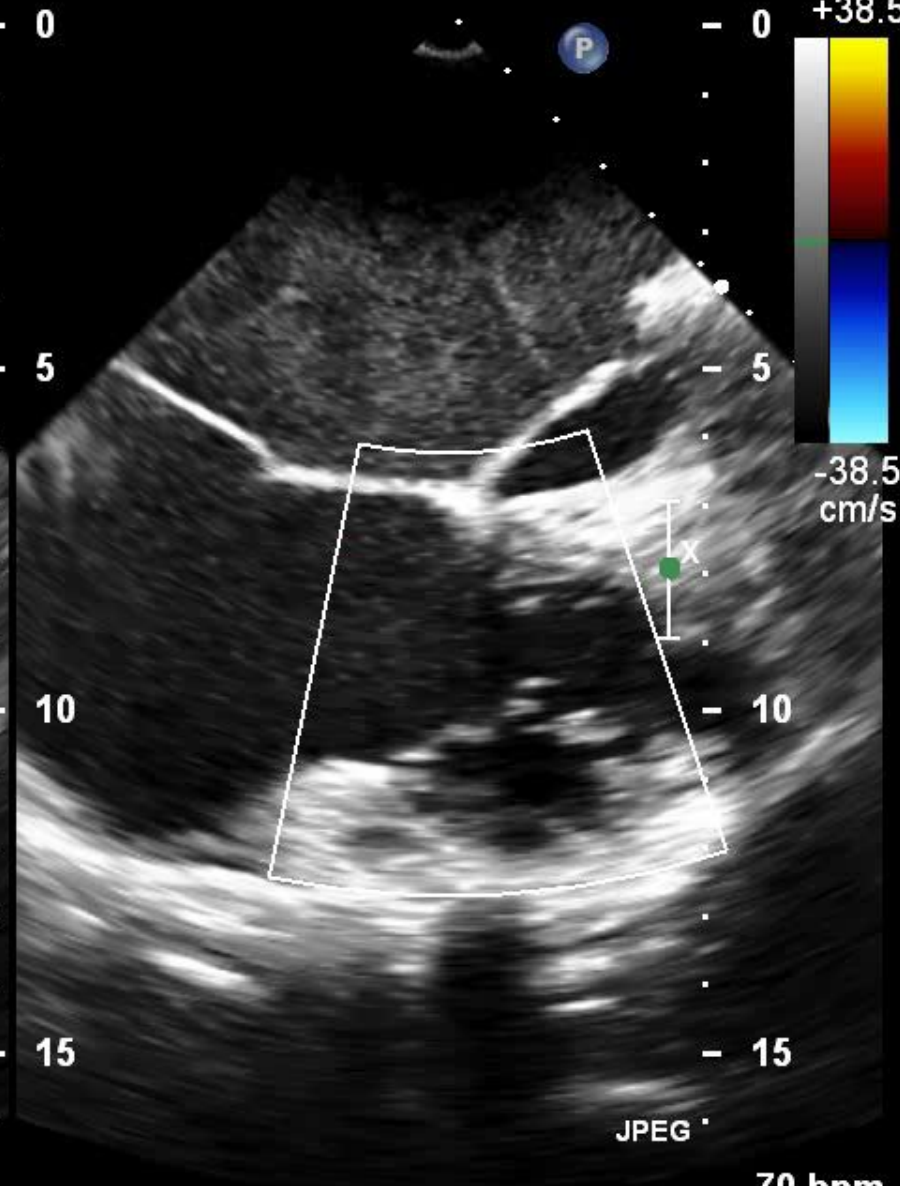
PAT T: 37.0C  
TEE T: 38.7C

- 0

- 5

10

15



M4 M4

+38.5

-38.5

cm/s

JPEG

BP118 / 60mmHg

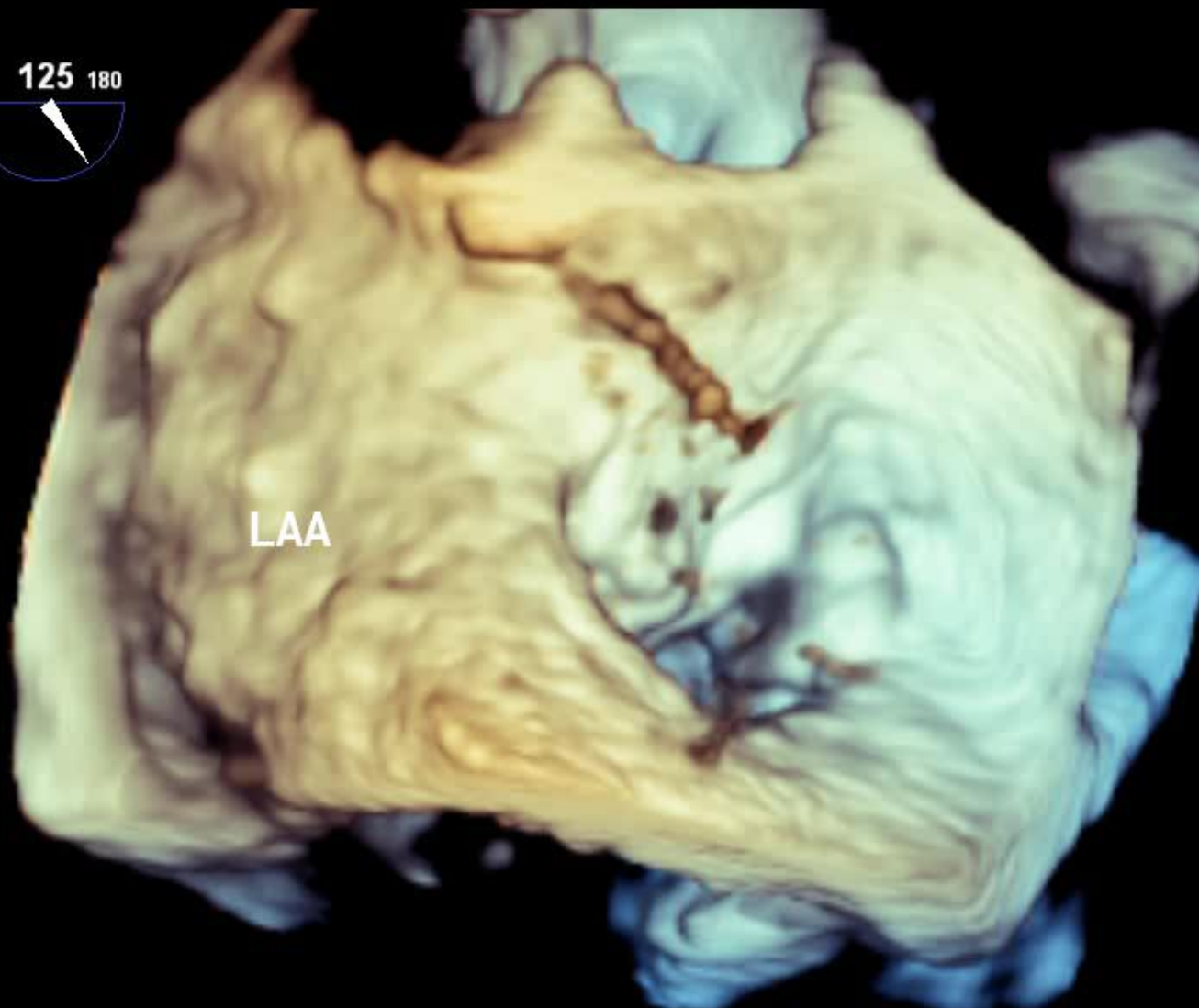
70 bpm

FR 6Hz  
9.2cm

3D Beats 1

M4

3D  
3D 0%  
3D 0dB



JPEG

PAT T: 37.0C  
TEE T: 39.2C

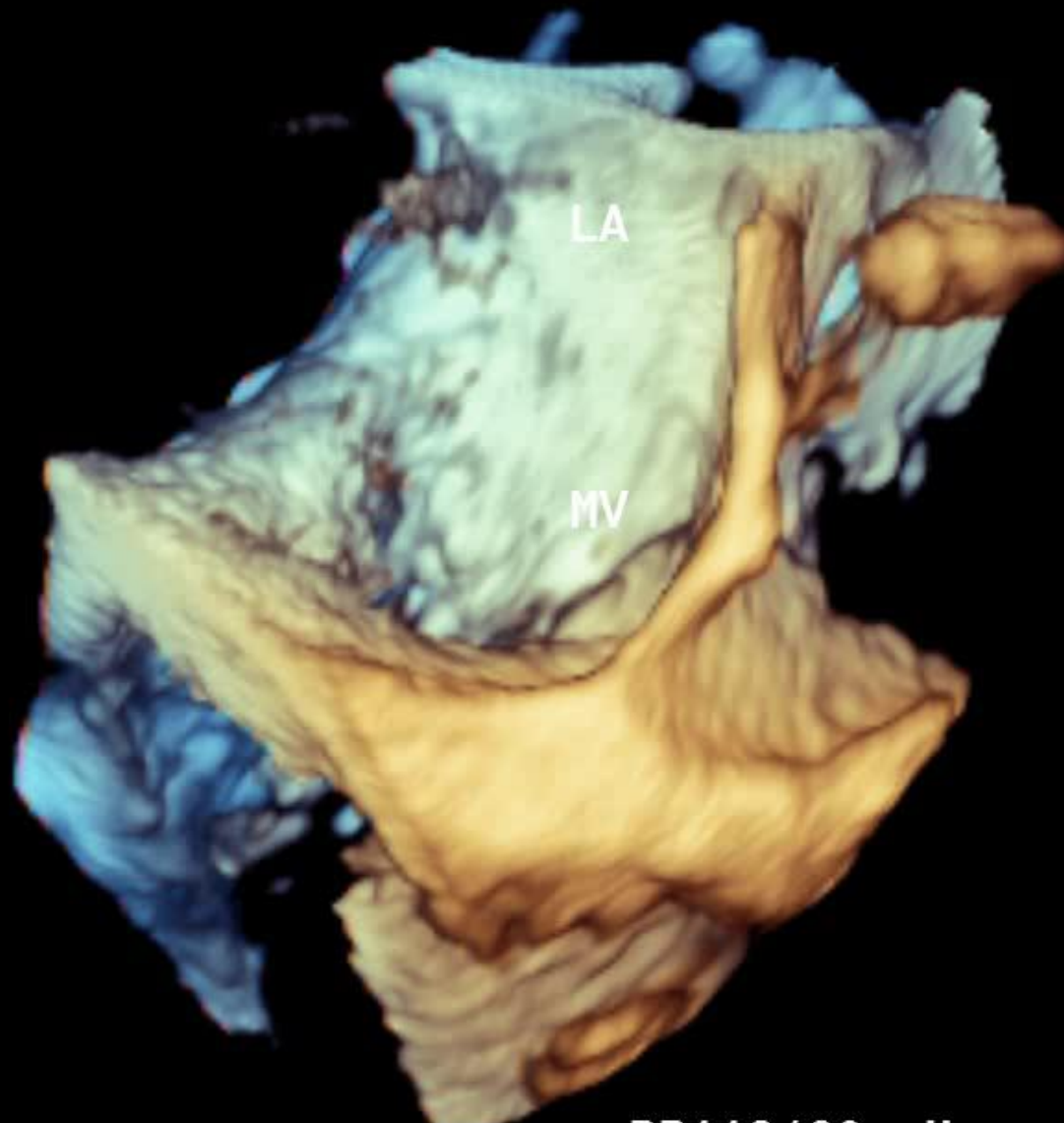
BP118 / 60mmHg

54 bpm

FR 6Hz  
9.2cm

3D Beats 1

M4

3D  
3D 0%  
3D 0dB

JPEG

PAT T: 37.0C  
TEE T: 39.2C

BP118 / 60mmHg

54 bpm

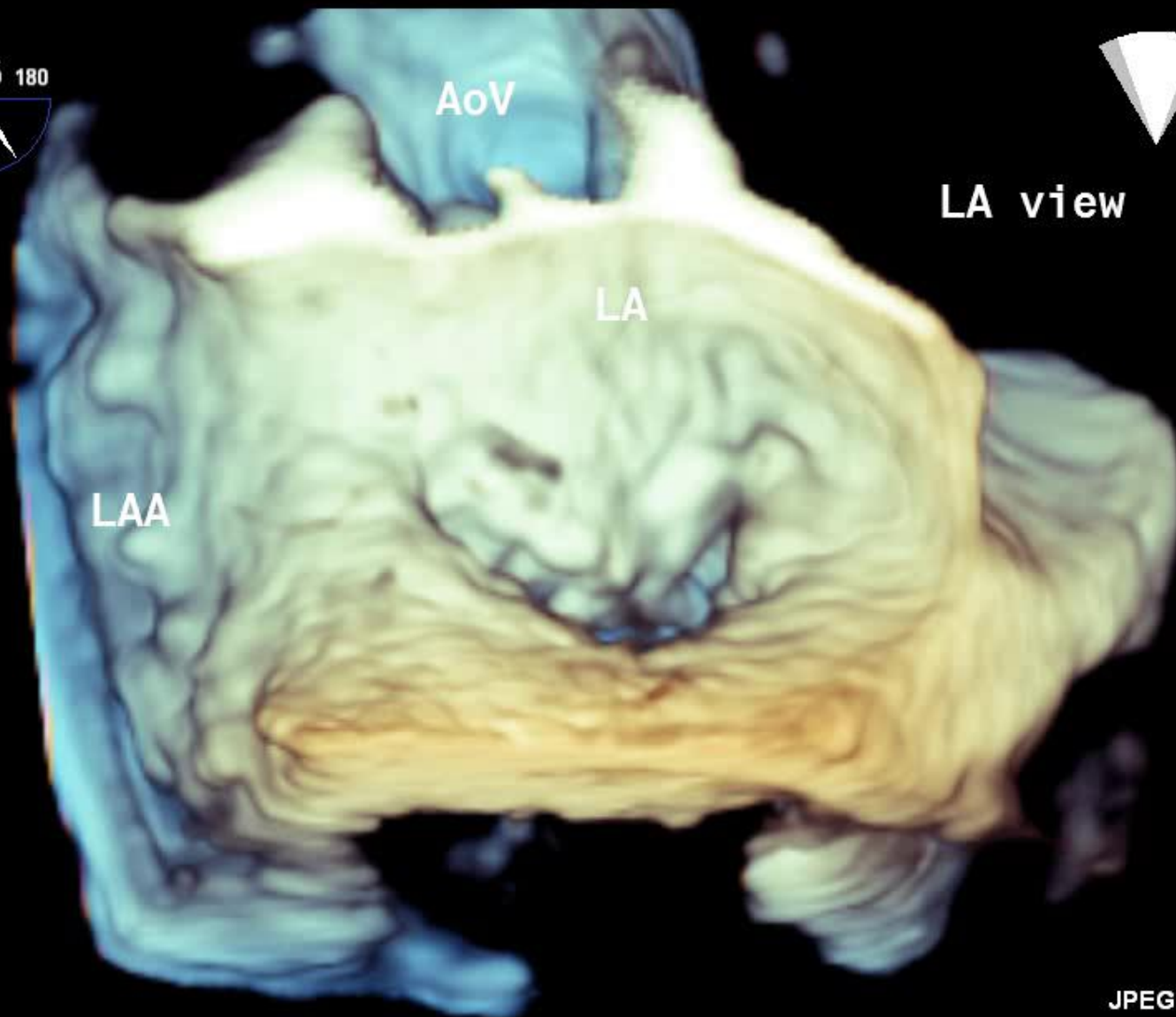
FR 6Hz  
9.2cm

3D Beats 1

M4

3D  
3D 0%  
3D 0dB

LA view



JPEG

PAT T: 37.0C  
TEE T: 39.2C

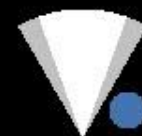
BP118 / 60mmHg

65 bpm

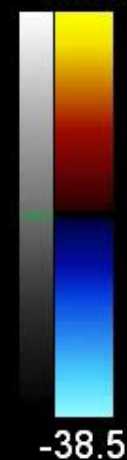
FR 3Hz  
14cm

3D Beats 1

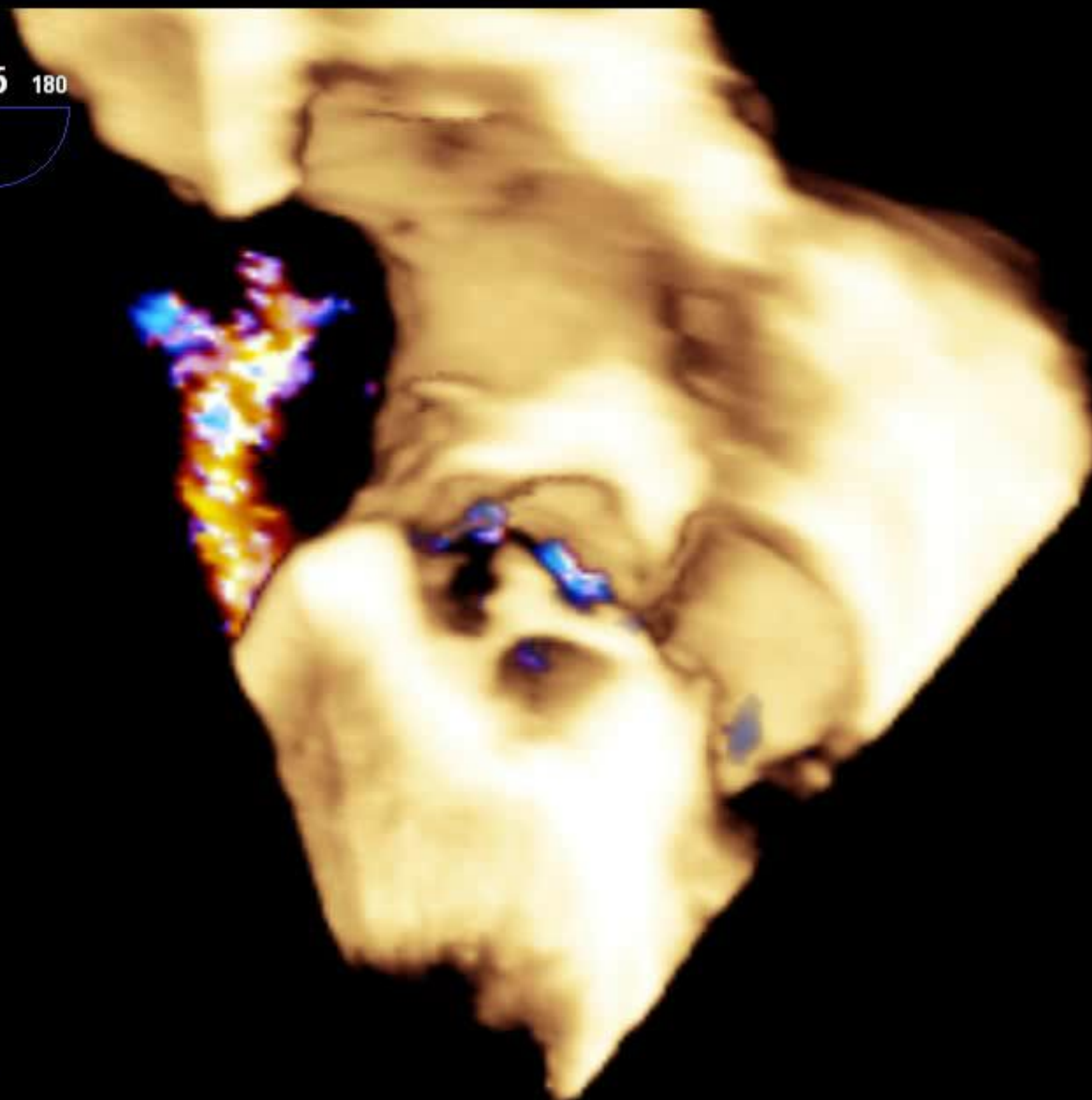
3D  
3D 0%  
3D 0dB  
CF  
50%  
4.4MHz



M4 M4  
+38.5



-38.5



JPEG

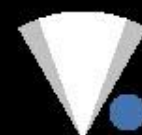
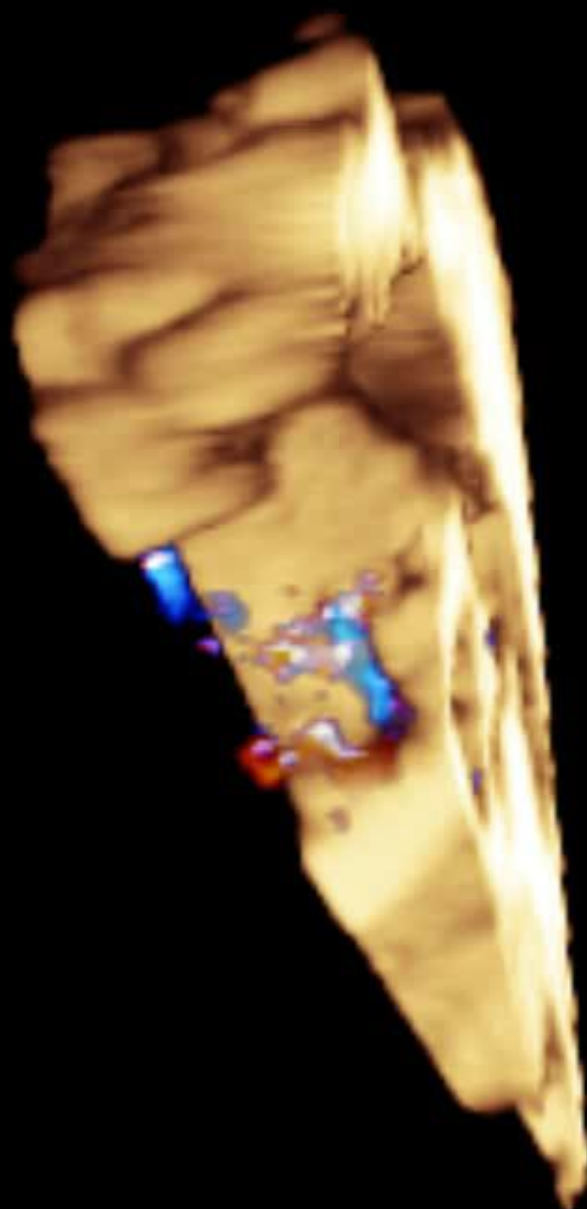
PAT T: 37.0C  
TEE T: 40.3C

53 bpm

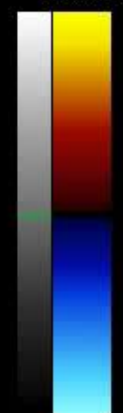
FR 3Hz  
14cm

3D Beats 1

3D  
3D 0%  
3D 0dB  
CF  
50%  
4.4MHz



M4 M4  
+38.5



-38.5

PAT T: 37.0C  
TEE T: 40.5C

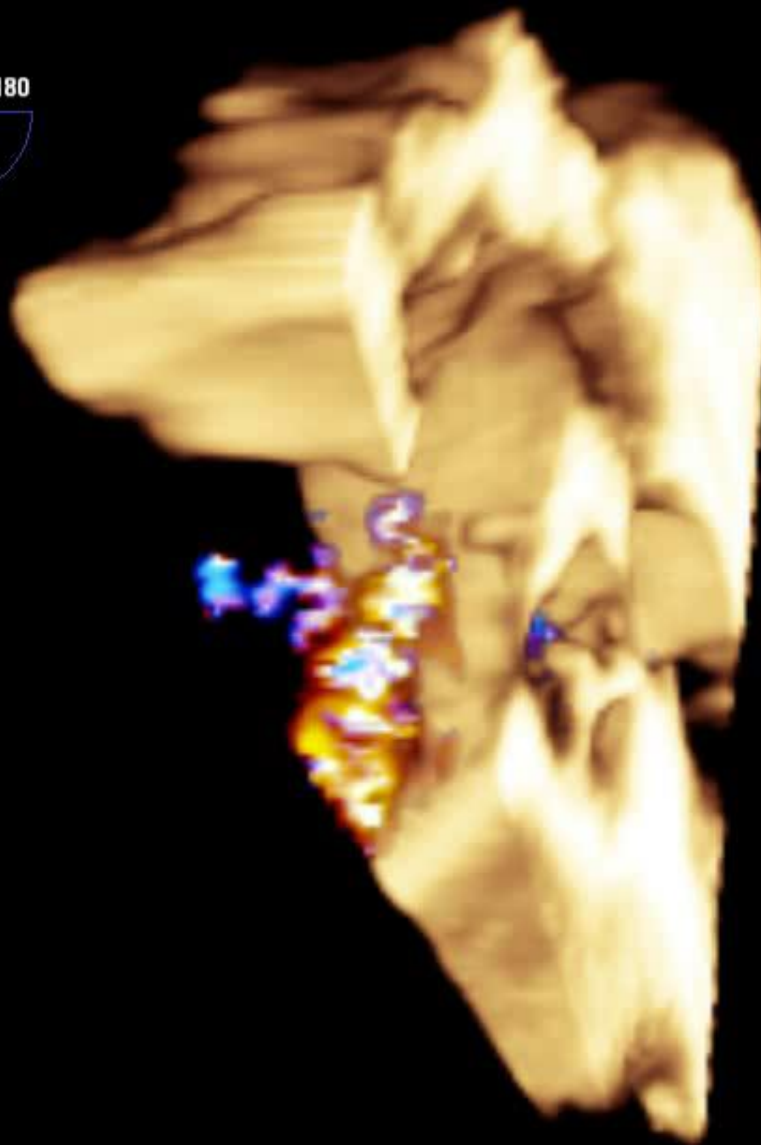
JPEG

45 bpm

FR 3Hz  
14cm

3D Beats 1

3D  
3D 0%  
3D 0dB  
CF  
50%  
4.4MHz



PAT T: 37.0C  
TEE T: 40.3C

JPEG

53 bpm

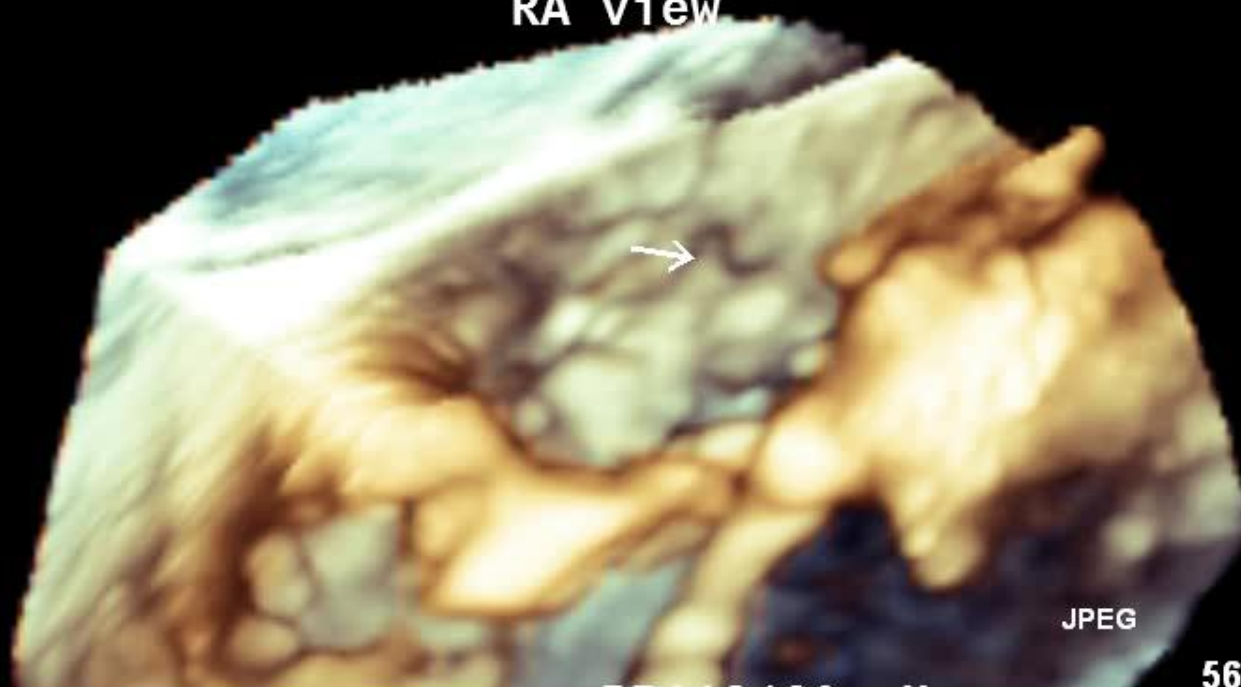
FR 10Hz  
11cm

3D Beats 1

M4

3D  
3D 24%  
3D 16dB

RA view



JPEG

PAT T: 37.0C  
TEE T: 39.4C

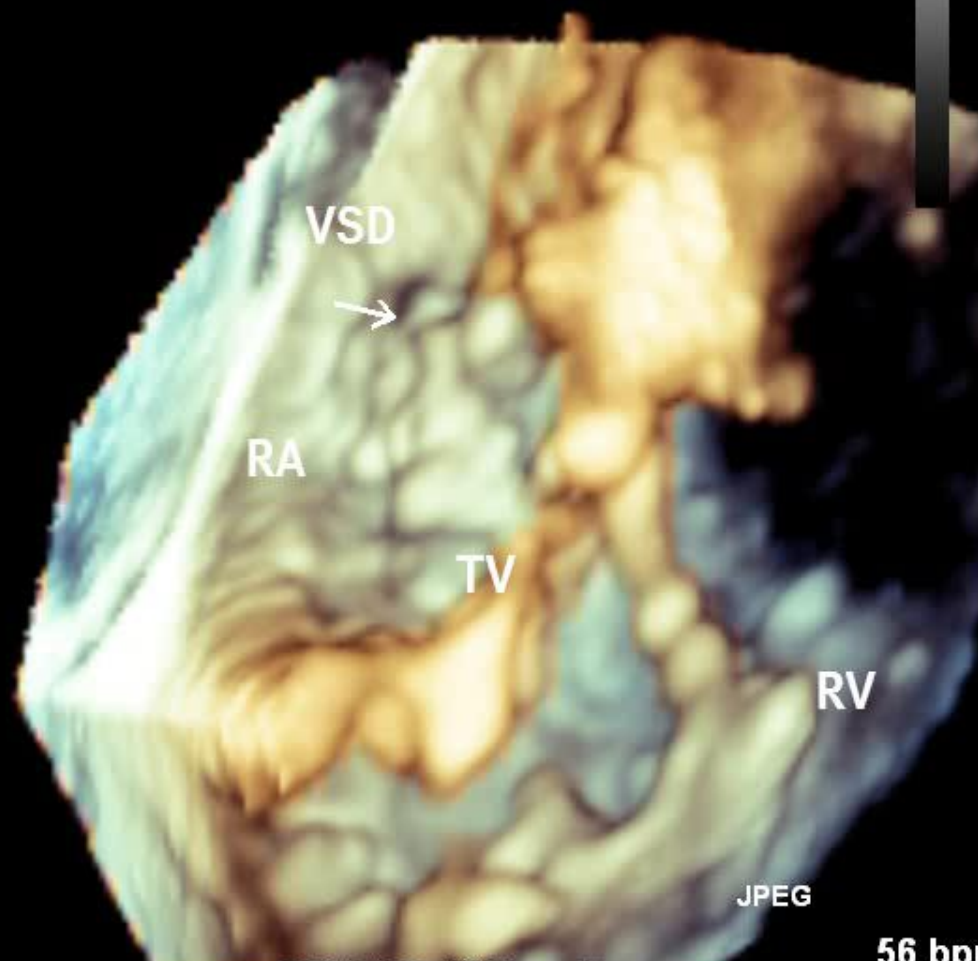
BP118 / 60mmHg

56 bpm

FR 10Hz  
11cm

3D Beats 1

M4

3D  
3D 12%  
3D 19dB

JPEG

PAT T: 37.0C  
TEE T: 39.4C

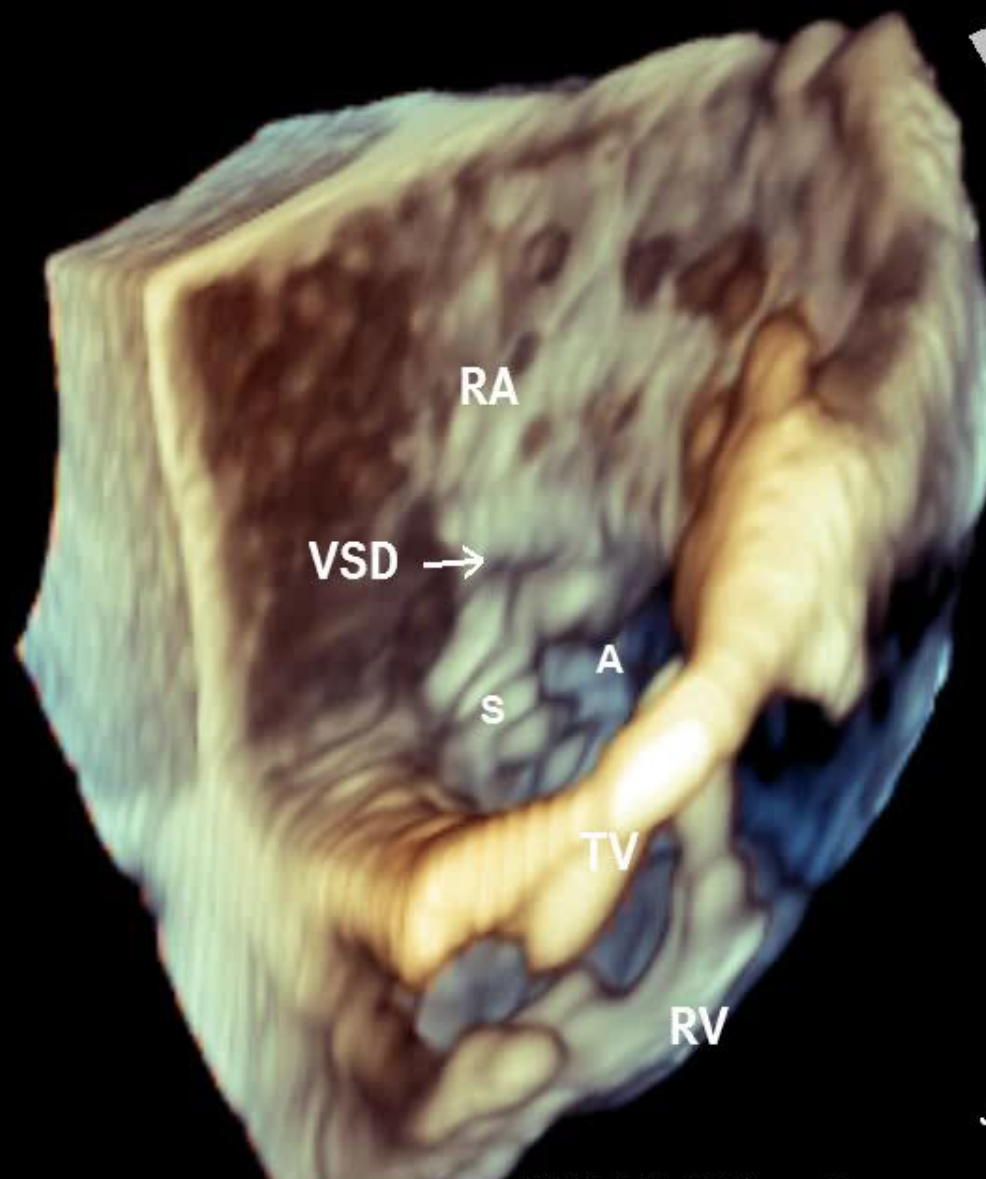
BP118 / 60mmHg

56 bpm

FR 12Hz  
11cm

3D Beats 1

M4

3D  
3D 11%  
3D 0dB

JPEG

PAT T: 37.0C  
TEE T: 39.0C

BP118 / 60mmHg

55 bpm

FR 16Hz  
12cm

3D Beats 1

M4

3D  
3D 10%  
3D 0dB



RA view



JPEG

PAT T: 37.0C  
TEE T: 39.2C

BP118 / 60mmHg

51 bpm

FR 4Hz  
17cm

3D Beats 1

3D  
3D 0%  
3D 0dB  
CF  
50%  
4.4MHz

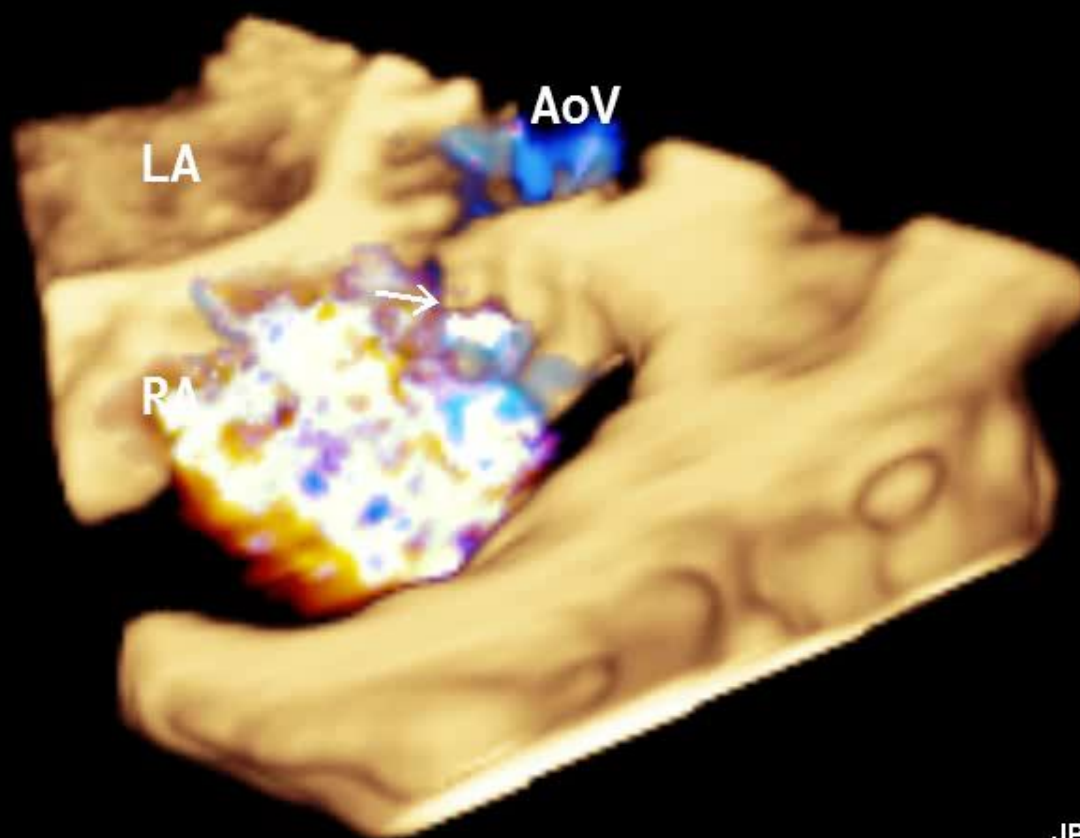


M4 M4

+35.8



-35.8



JPEG

PAT T: 37.0C  
TEE T: 40.3C

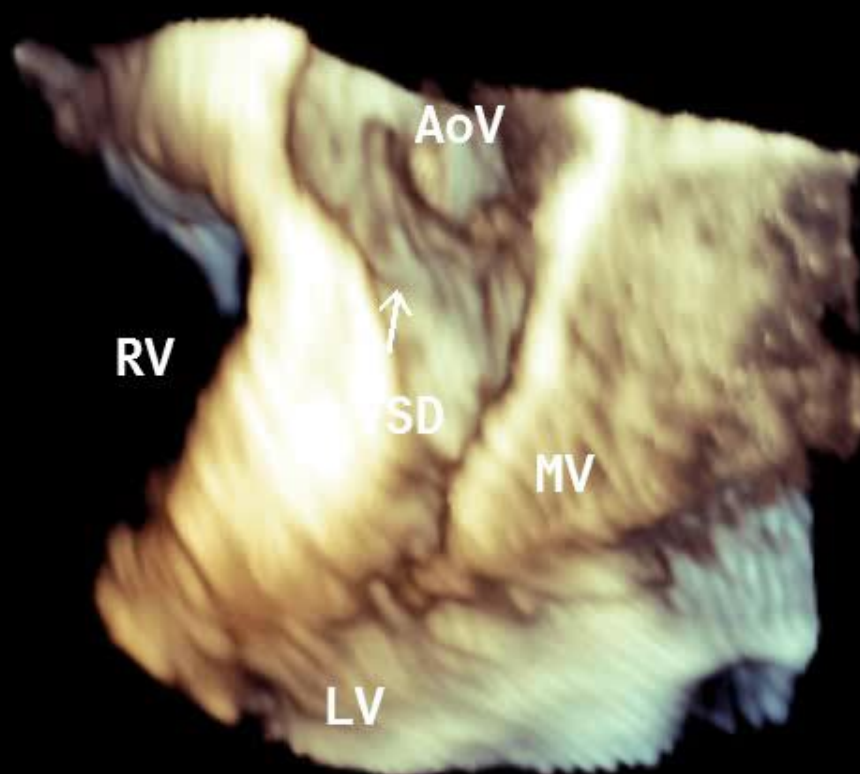
BP118 / 60mmHg

65 bpm

FR 17Hz  
11cm

3D Beats 1

M4

3D  
3D 0%  
3D 0dB

JPEG

PAT T: 37.0C  
TEE T: 39.1C

BP118 / 60mmHg

61 bpm

FR 10Hz  
11cm

3D Beats 1

M4

3D  
3D 0%  
3D 0dB

AoV

↑  
VSD

MV

LV

JPEG

PAT T: 37.0C  
TEE T: 39.4C

BP118 / 60mmHg

56 bpm

FR 17Hz  
11cm

3D Beats 1

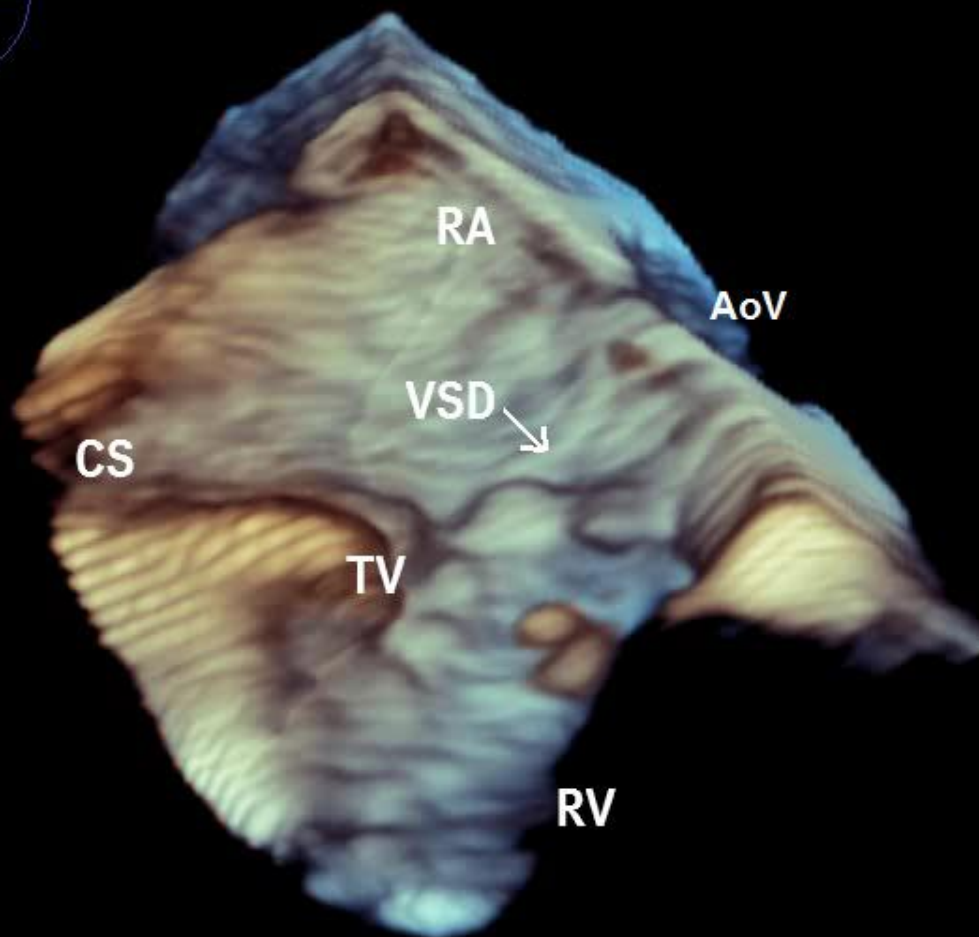
M4

3D  
3D 2%  
3D 0dB



Posterior

Anterior



JPEG

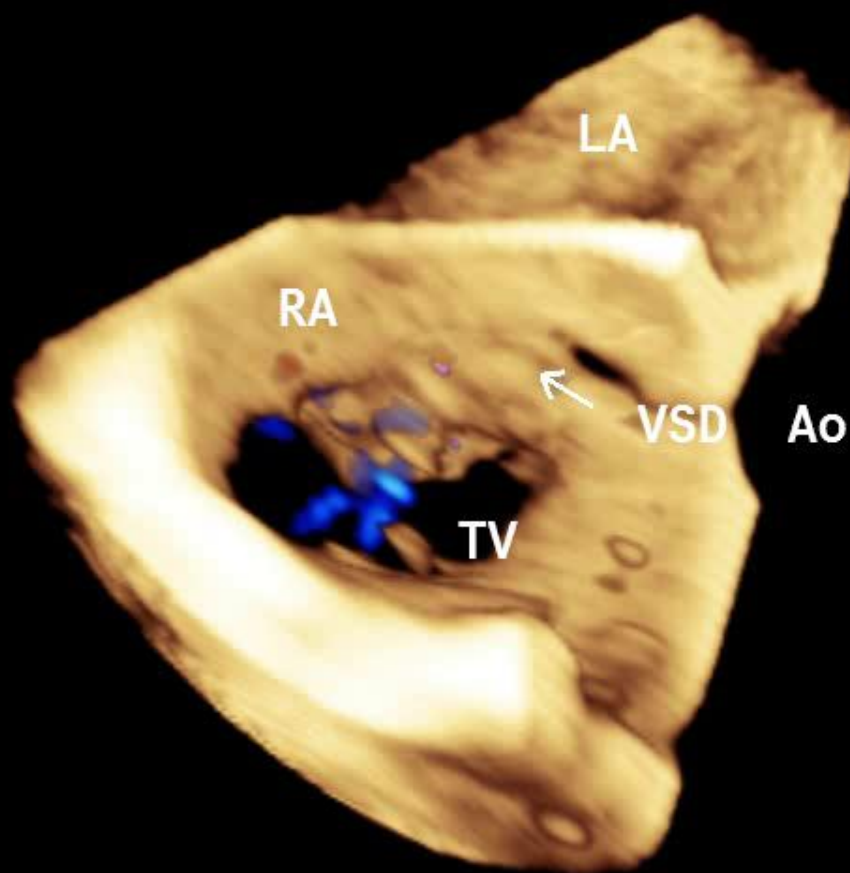
PAT T: 37.0C  
TEE T: 39.1C

BP118 / 60mmHg

61 bpm

FR 3Hz  
13cm

3D Beats 1

3D  
3D 0%  
3D 0dB  
CF  
50%  
4.4MHzM4 M4  
+38.5PAT T: 37.0C  
TEE T: 40.0C

JPEG

BP118 / 60mmHg

51 bpm

FR 12Hz  
11cm

3D Beats 1

M4

3D  
3D 6%  
3D 0dB

Posterior

Superior

Anterior

RA

VSD  


RV

JPEG

PAT T: 37.0C  
TEE T: 39.0C

59 bpm

FR 17Hz  
11cm

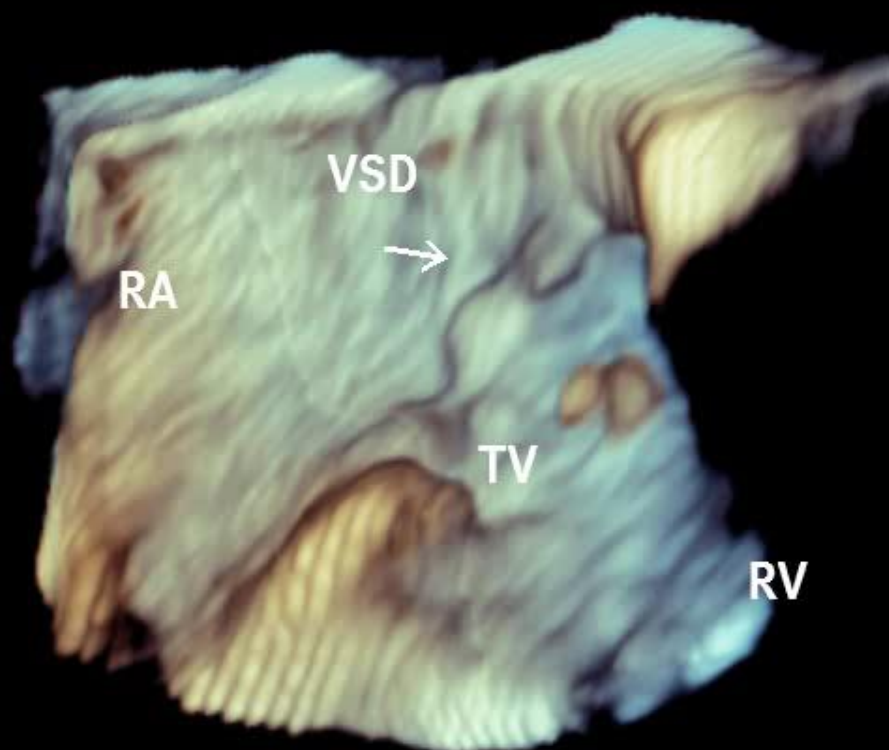
3D Beats 1

M4

3D  
3D 1%  
3D 0dB

Posterior

Anterior



JPEG

PAT T: 37.0C  
TEE T: 39.1C

BP118 / 60mmHg

61 bpm

FR 10Hz  
11cm

3D Beats 1

M4

3D  
3D 16%  
3D 0dB



Posterior

RA

Anterior



TV

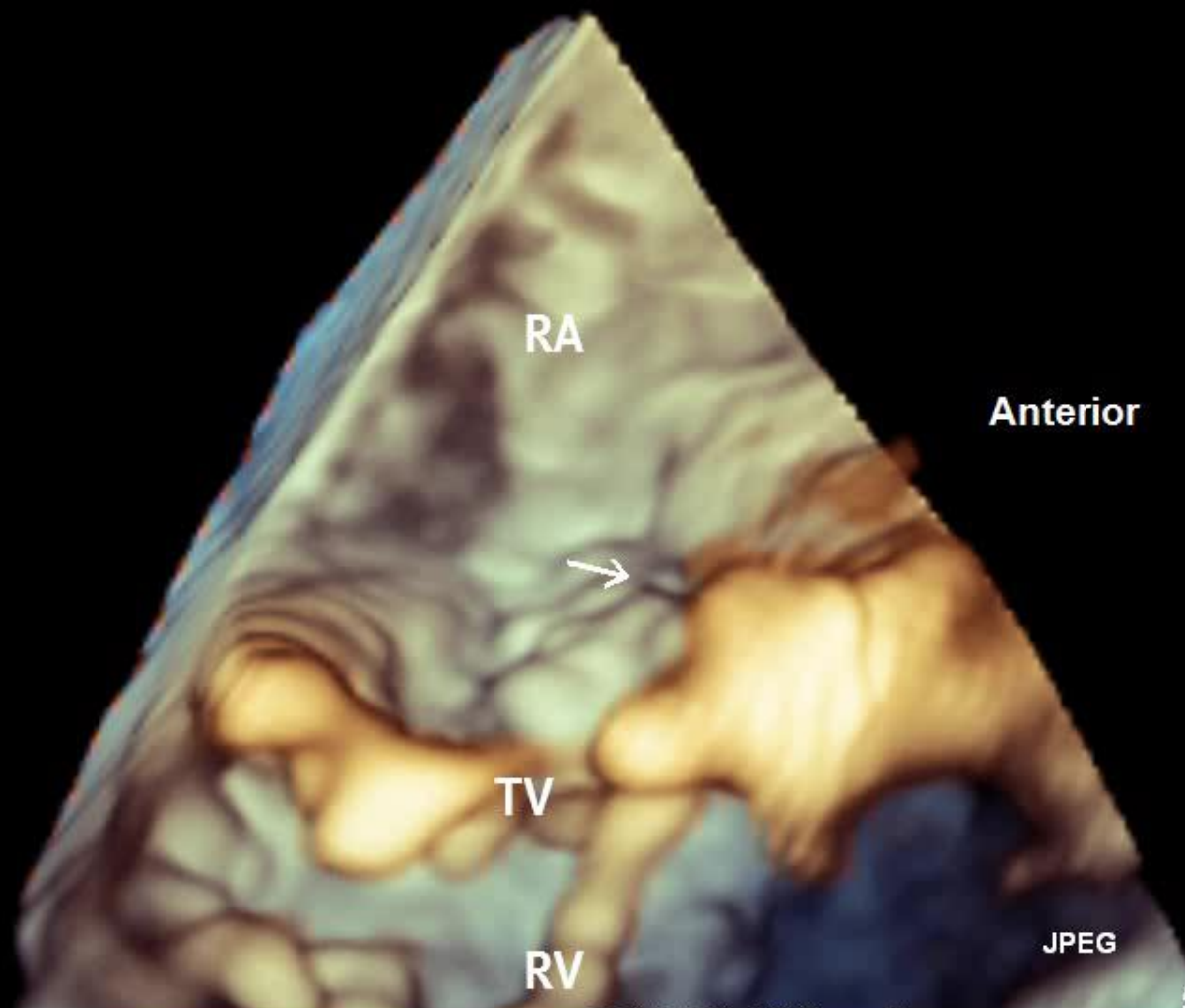
RV

JPEG

PAT T: 37.0C  
TEE T: 39.4C

BP118 / 60mmHg

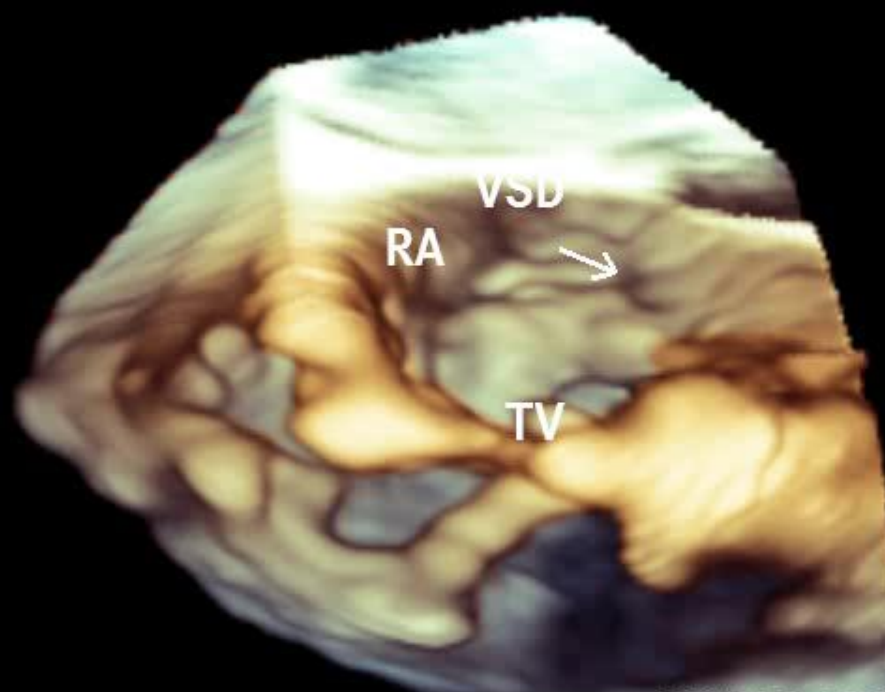
56 bpm



FR 10Hz  
11cm

3D Beats 1

M4

3D  
3D 26%  
3D 0dB

JPEG

PAT T: 37.0C  
TEE T: 39.4C

BP118/60mmHg

56 bpm

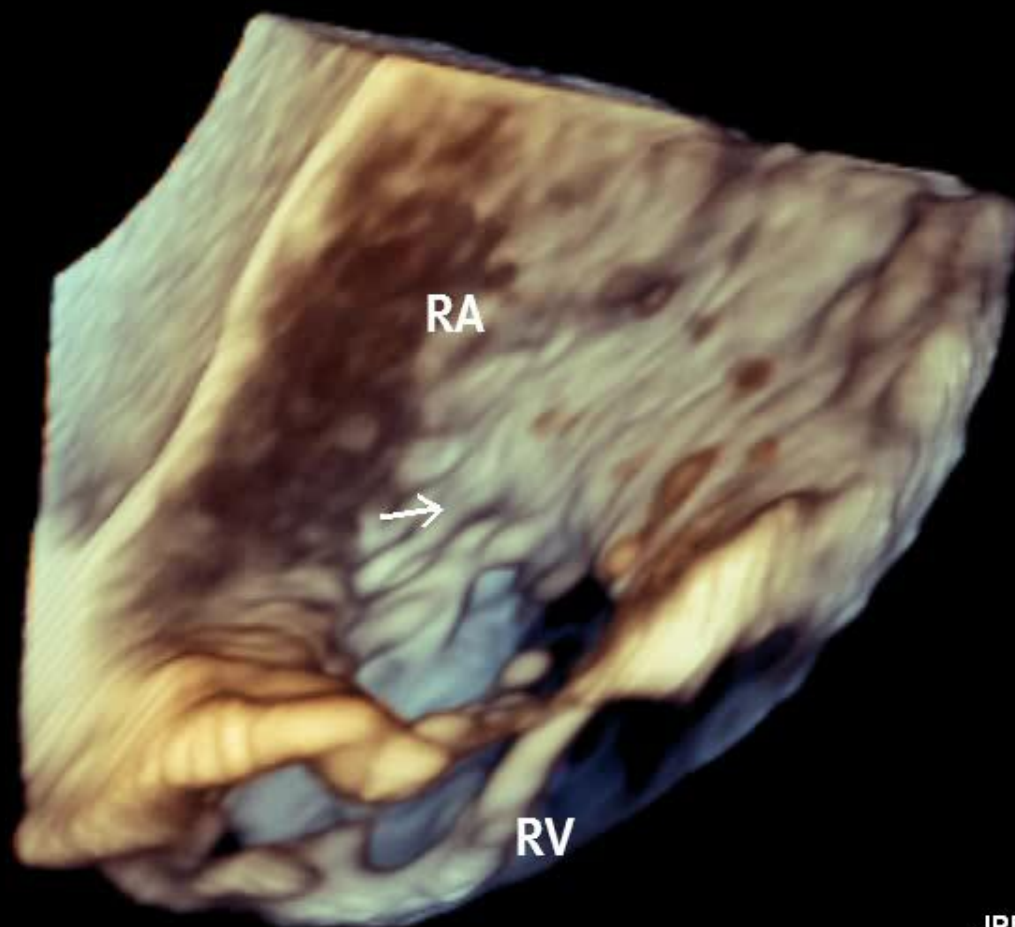
FR 10Hz  
11cm

3D Beats 1

M4

3D  
3D 0%  
3D 0dB

RA view



JPEG

PAT T: 37.0C  
TEE T: 39.3C

BP118 / 60mmHg

57 bpm