

Finding a way through a maze

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India

Clinical details

- 3.5 yr old girl
- Repeated RTI
- Weight 15 kg
- Vitals : Normal
- 3/6 ESM with wide and fixed A2P2
- 2/6 MDM across the TV
- Clinically: Pretricuspid shunt; >2:1

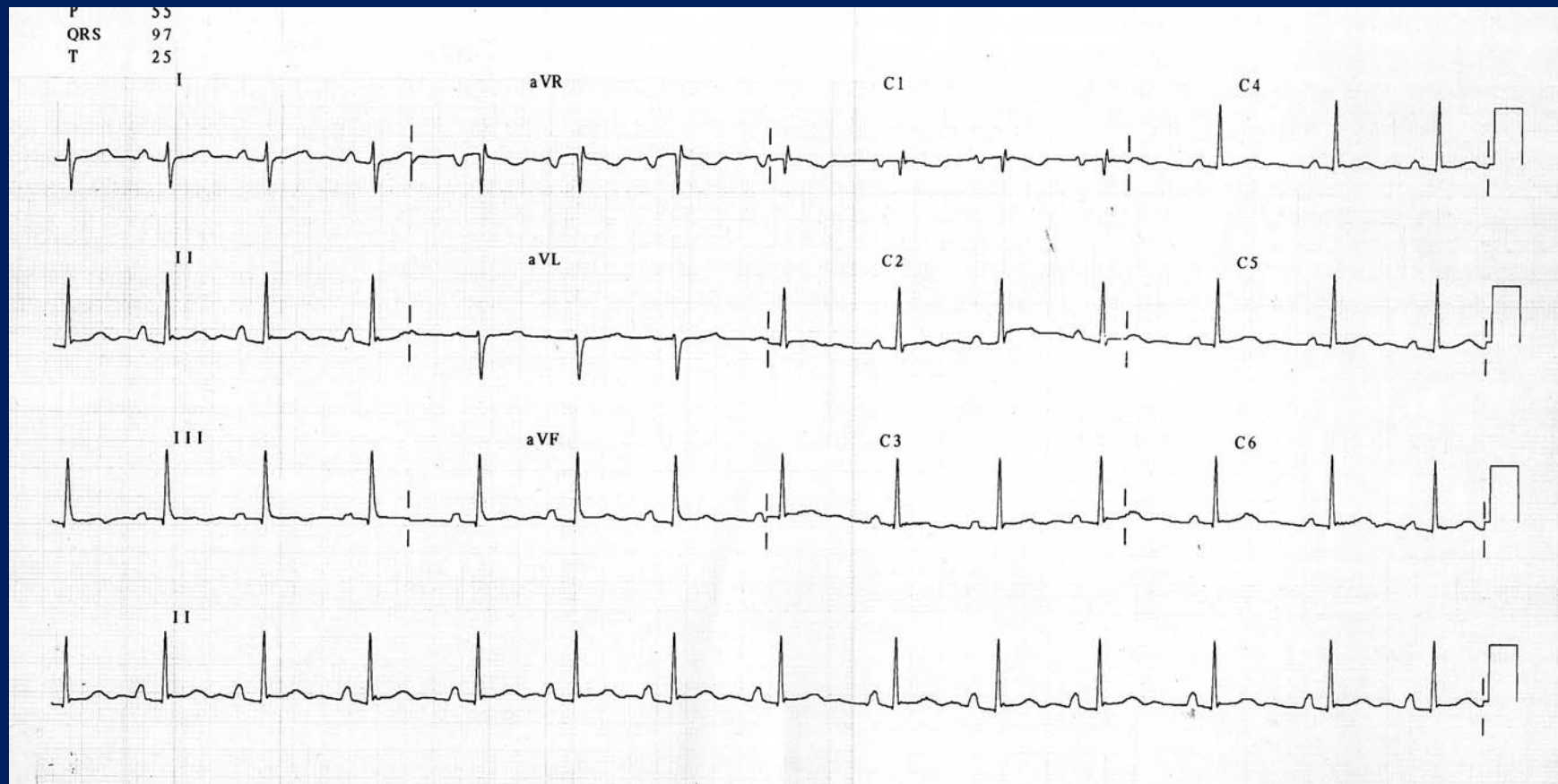
Investigations

- X-Ray chest: CTR 55%, Pulmonary plethora
- ECG: SR, RAD, rsR' in V1
- ECHO: Large secundum ASD
Deficient aortic rim
Dilated RA and RV

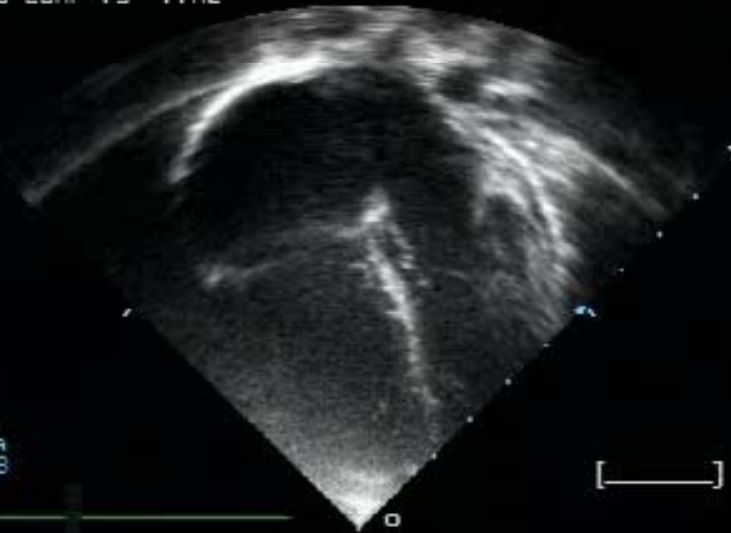
X-ray chest



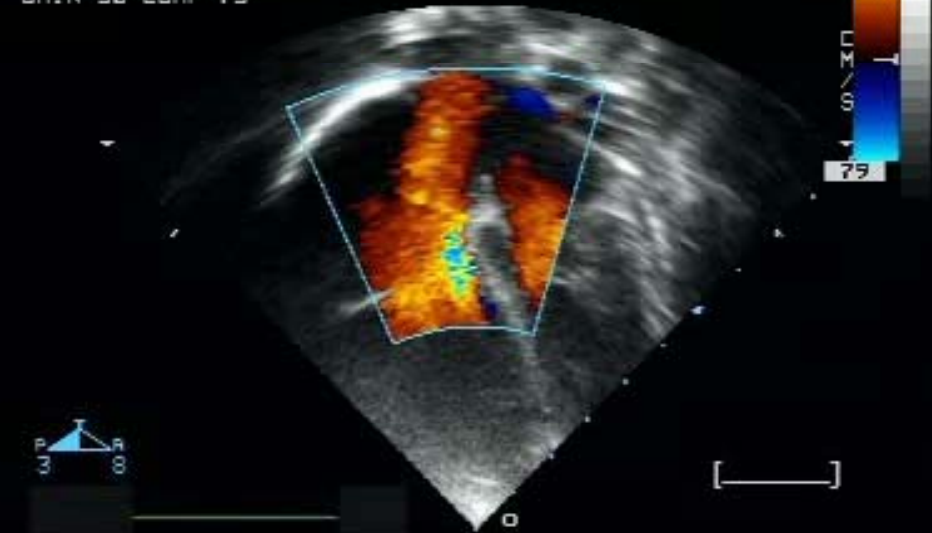
ECG



MI: 1.0 S8 TANISHKA GLENMARK CARDIAC
25 MAY 11 13:48:07 3Y6M/F CENTRE
2/1/B/F2 18CM DR KUMBLA MOD-PED
GAIN 50 COMP 75 77HZ



TIS: 1.6 S8 TANISHKA GLENMARK CARDIA 3.3MHZ
25 MAY 11 13:48:25 3Y6M/F CENTRE
2/0/B/M/A 18CM DR KUMBLA MOD-PED
GAIN 50 COMP 75 79



MI: 1.3 S8
25 MAY 11
13:36:08
2/1/B/F2
GLENMARK CARDIAC
CENTRE
MOD-PED
TANISHKA
3Y6M/F
DR KUMBLA



GAIN 50
COMP 75

16CM
113HZ

MI: 1.0 S8
25 MAY 11
13:48:36
2/1/B/F2
GLENMARK CARDIAC
CENTRE
MOD-PED
TANISHKA
3Y6M/F
DR KUMBLA



GAIN 50
COMP 75

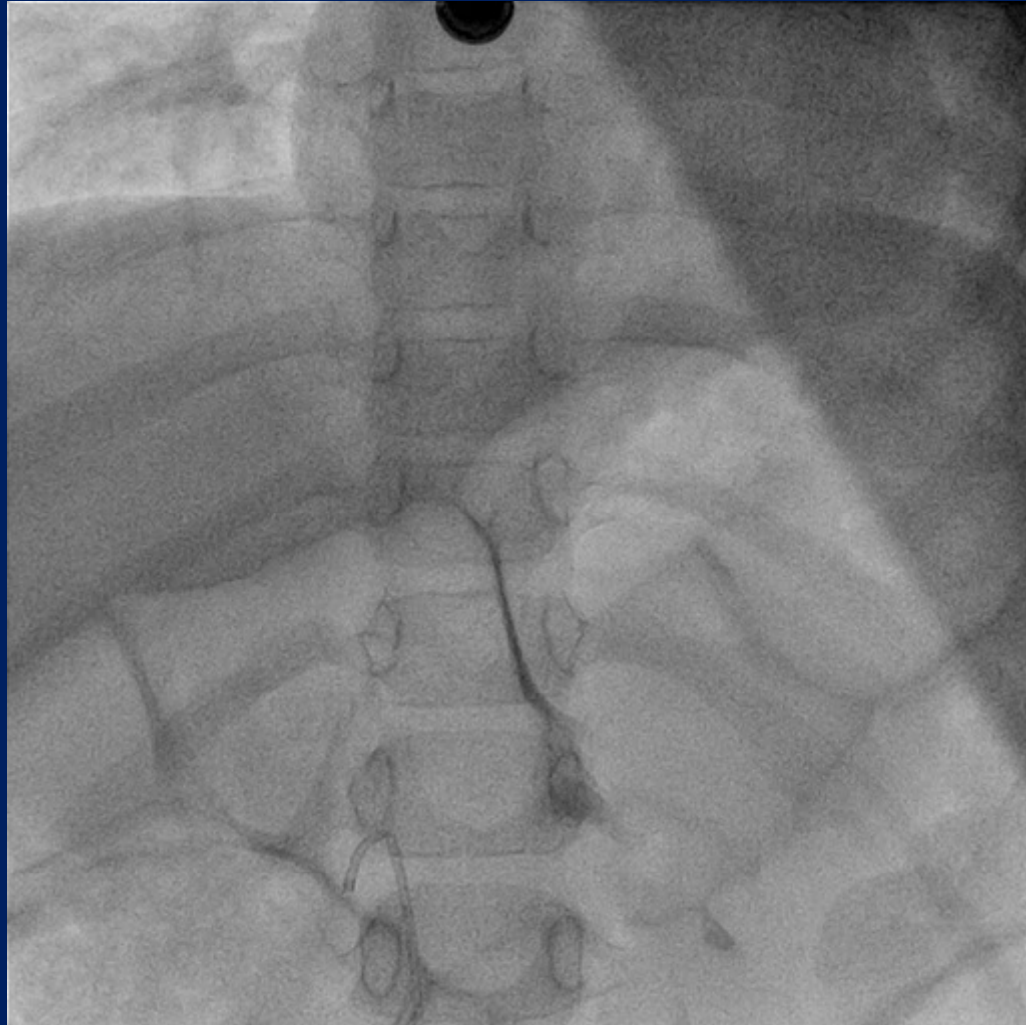
18CM
77HZ

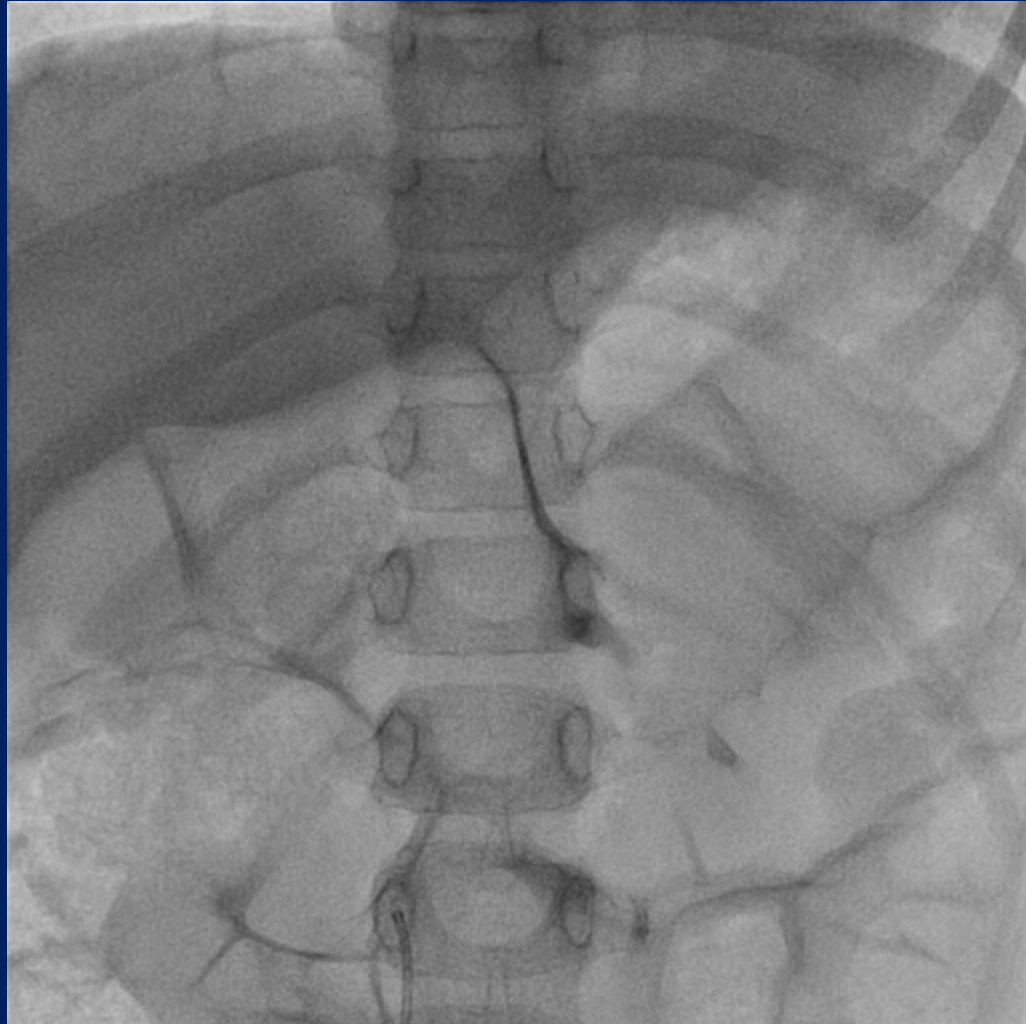
Plan

- Transcatheter device closure of ASD.

Procedure

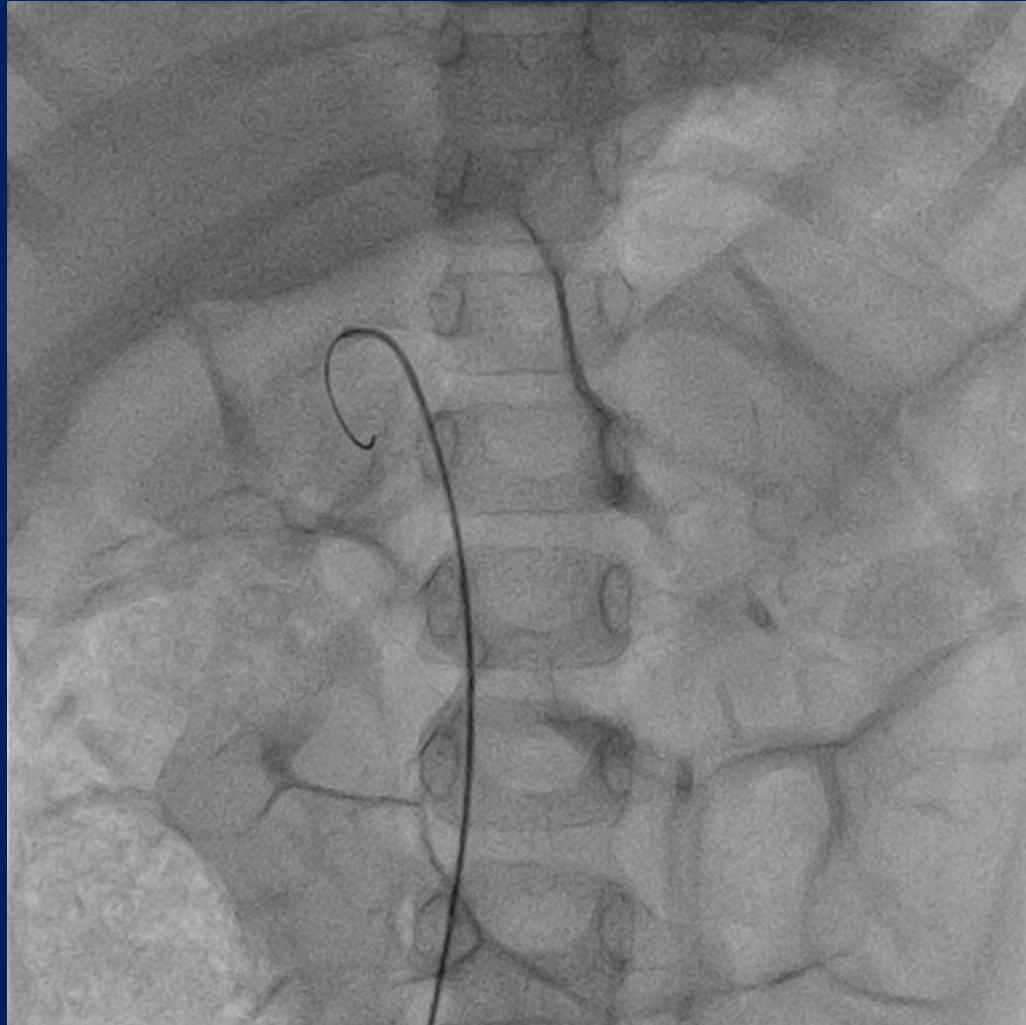
- Under general anesthesia
- TEE – 19 mm ASD
- All the rims were adequate except the aortic rim

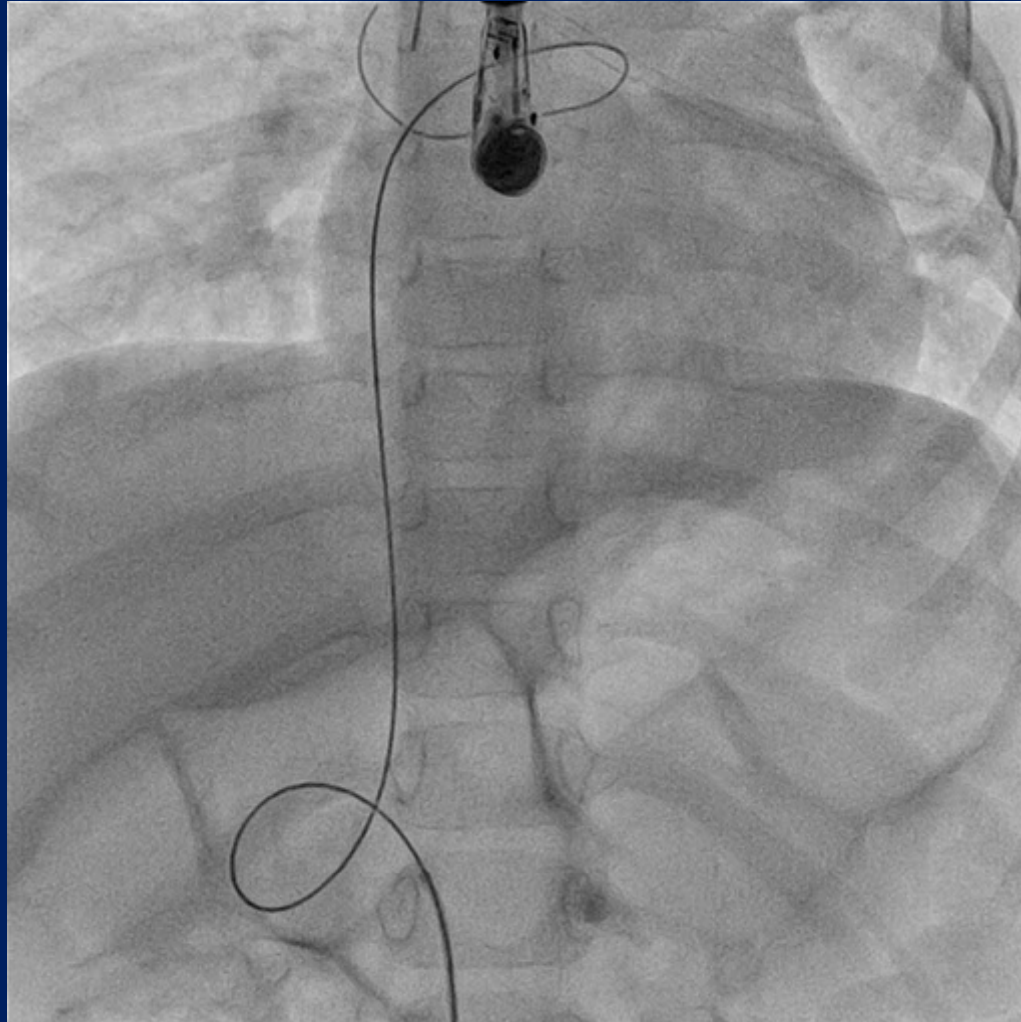




Options

- Transjugular approach
 - Cumbersome
 - Large sheath
- Transhepatic approach
 - Limited experience
 - Assistance by Radiologist
 - Rescheduling the procedure





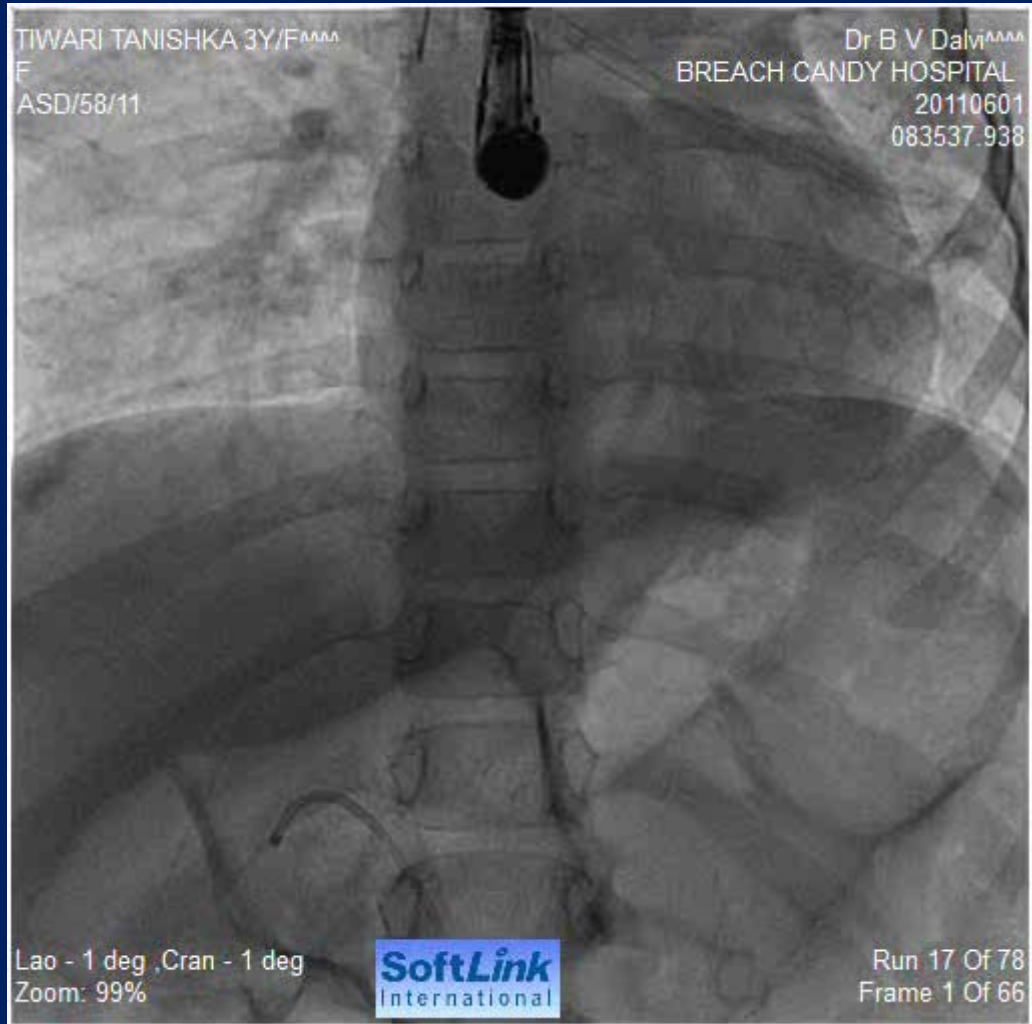
TIWARI TANISHKA 3Y/F^{MM}
F
ASD/58/11

Dr B V Dalvi^{MM}
BREACH CANDY HOSPITAL
20110601
083537.938

Lao - 1 deg ,Cran - 1 deg
Zoom: 99%

SoftLink
International

Run 17 Of 78
Frame 1 Of 66



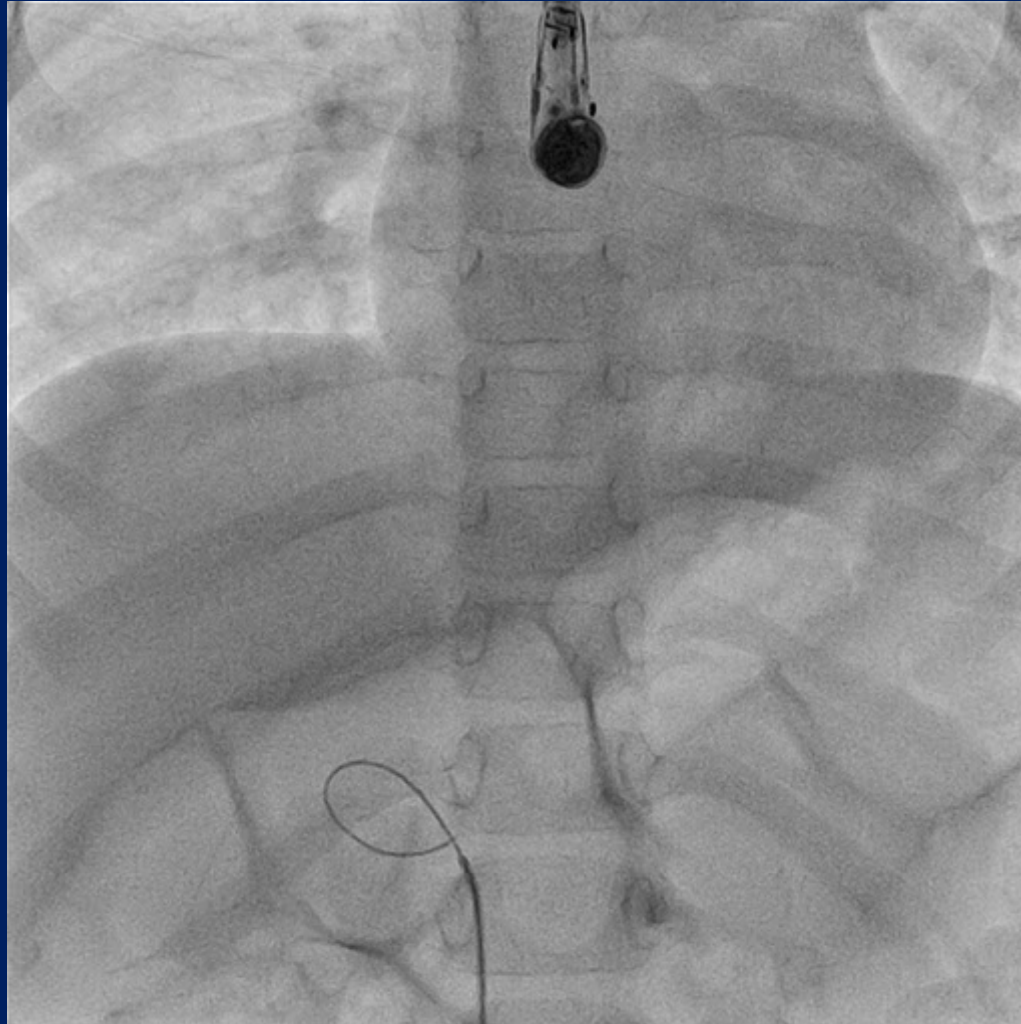
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F
ASD/58/11

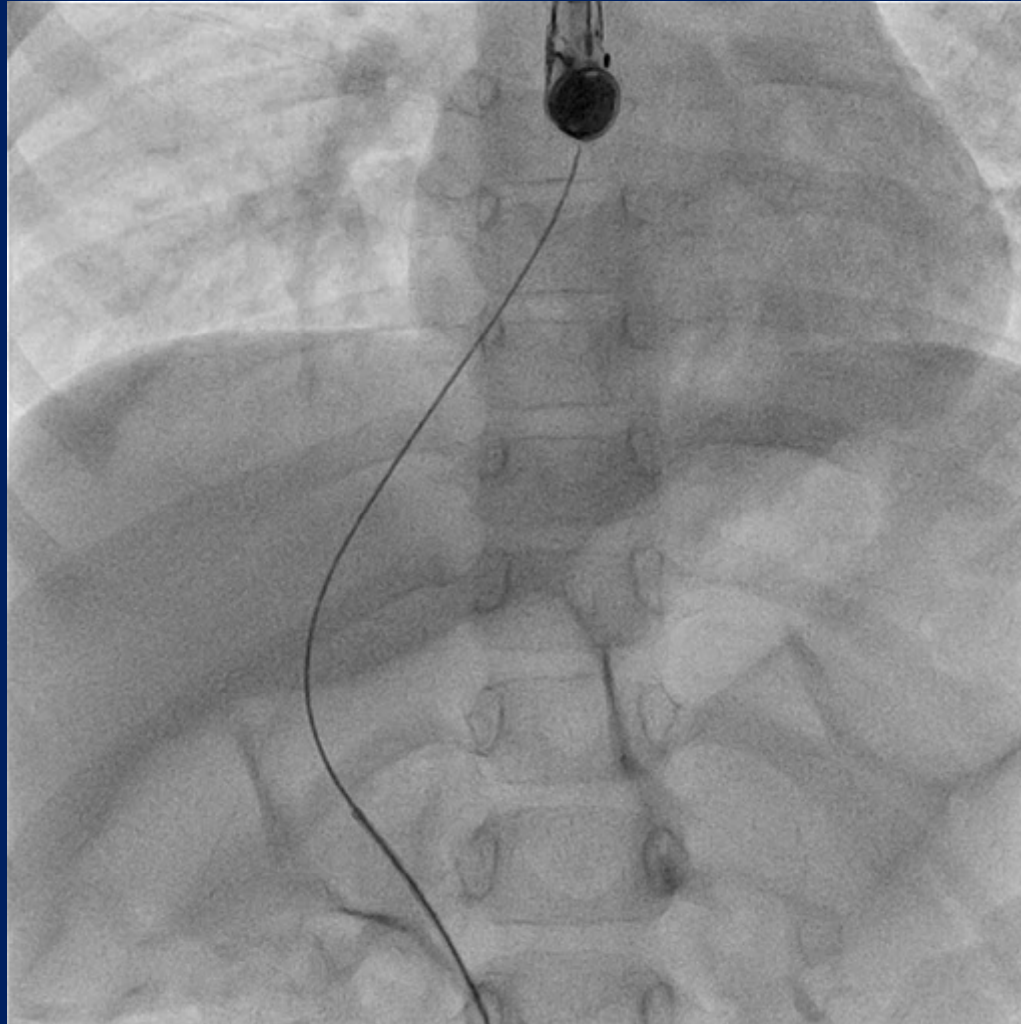
Dr B V Dalvi
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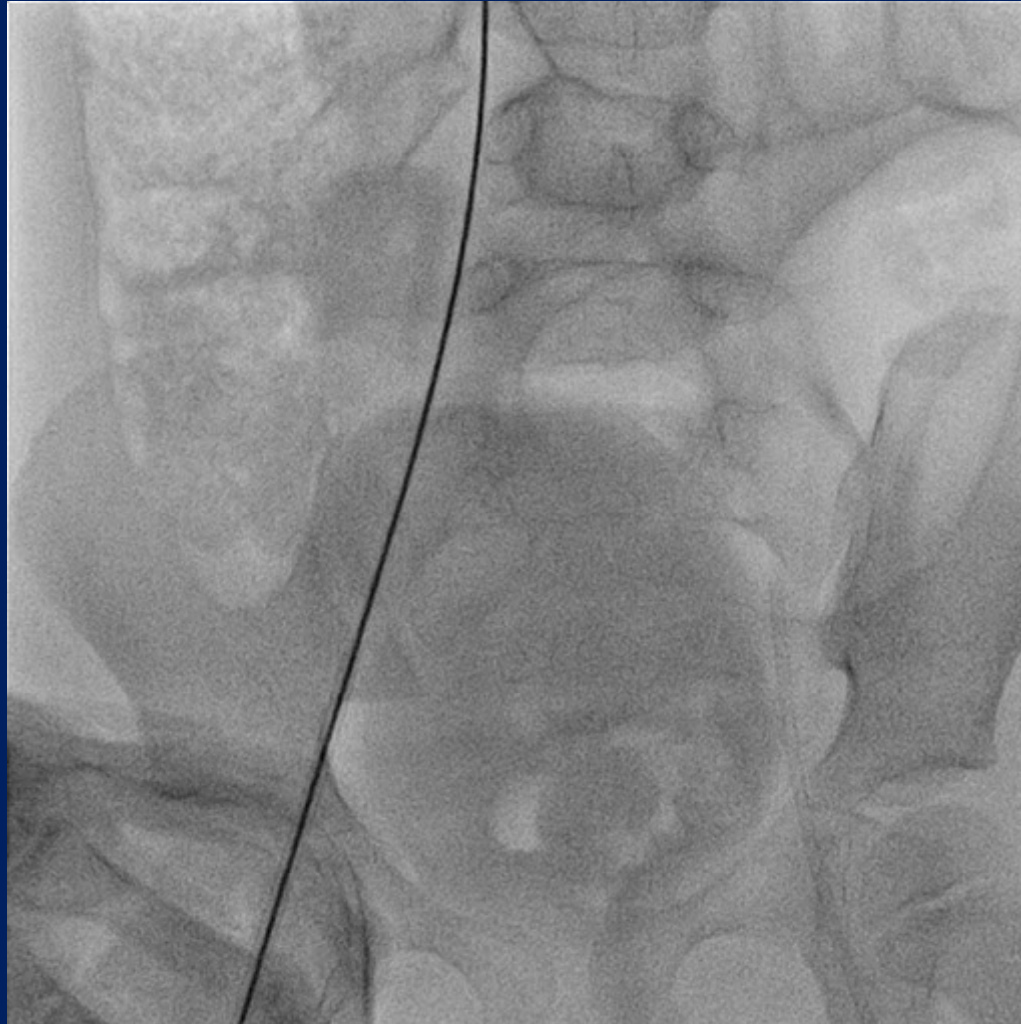
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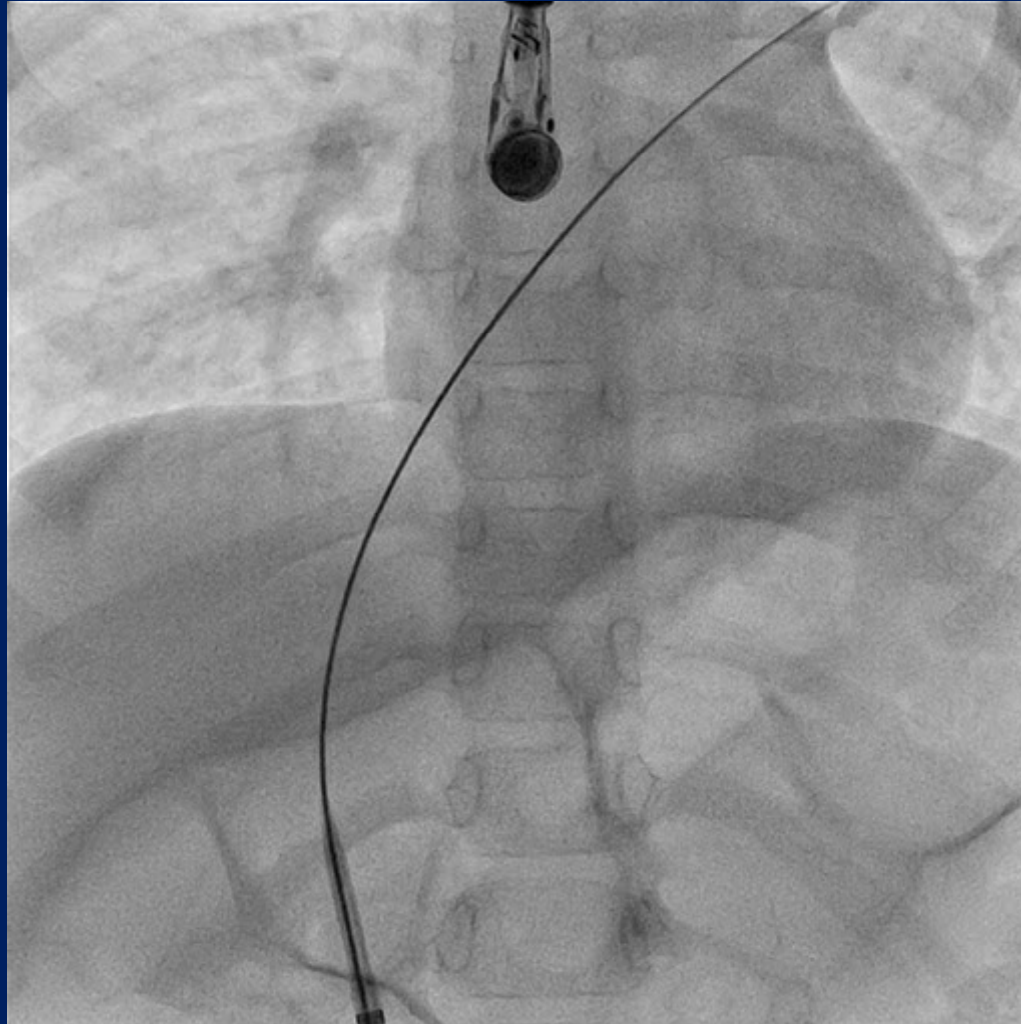
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International

Run 17 Of 78
Frame 47 Of 66



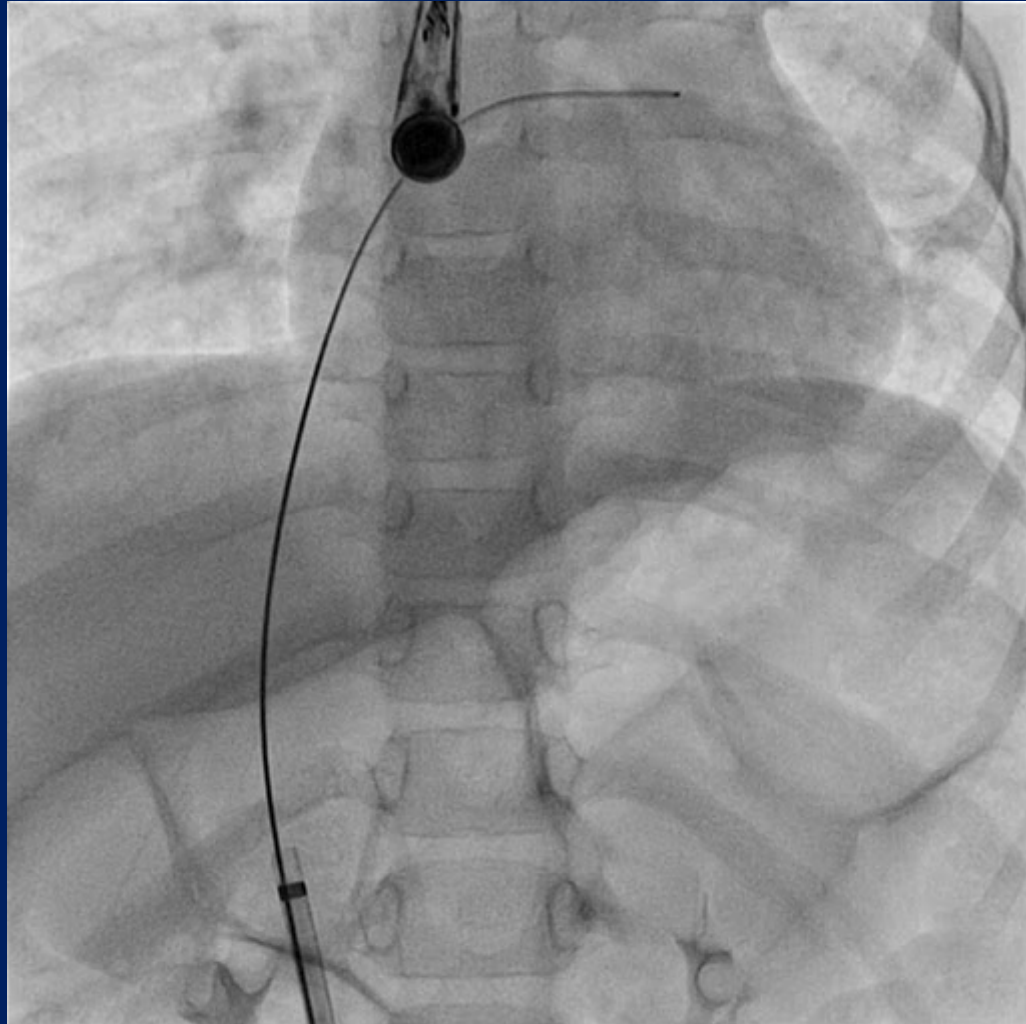


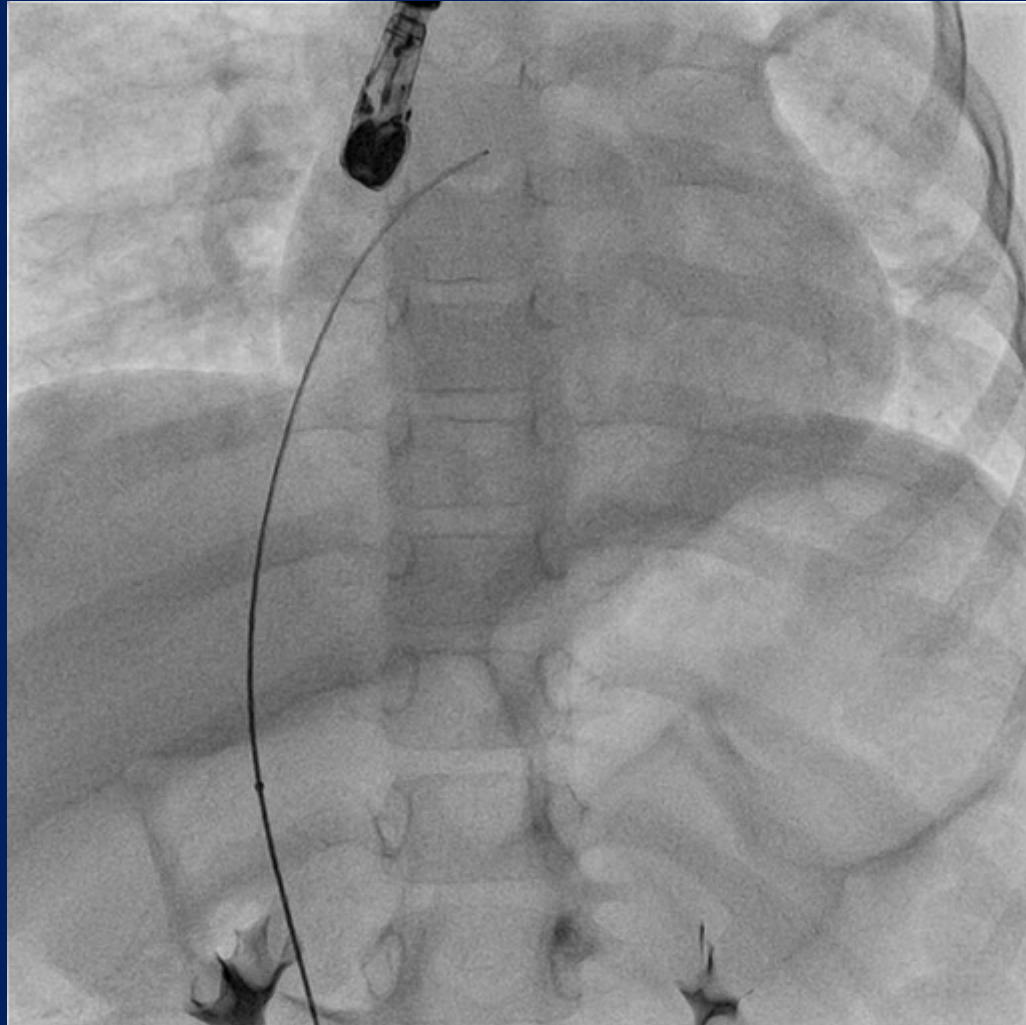


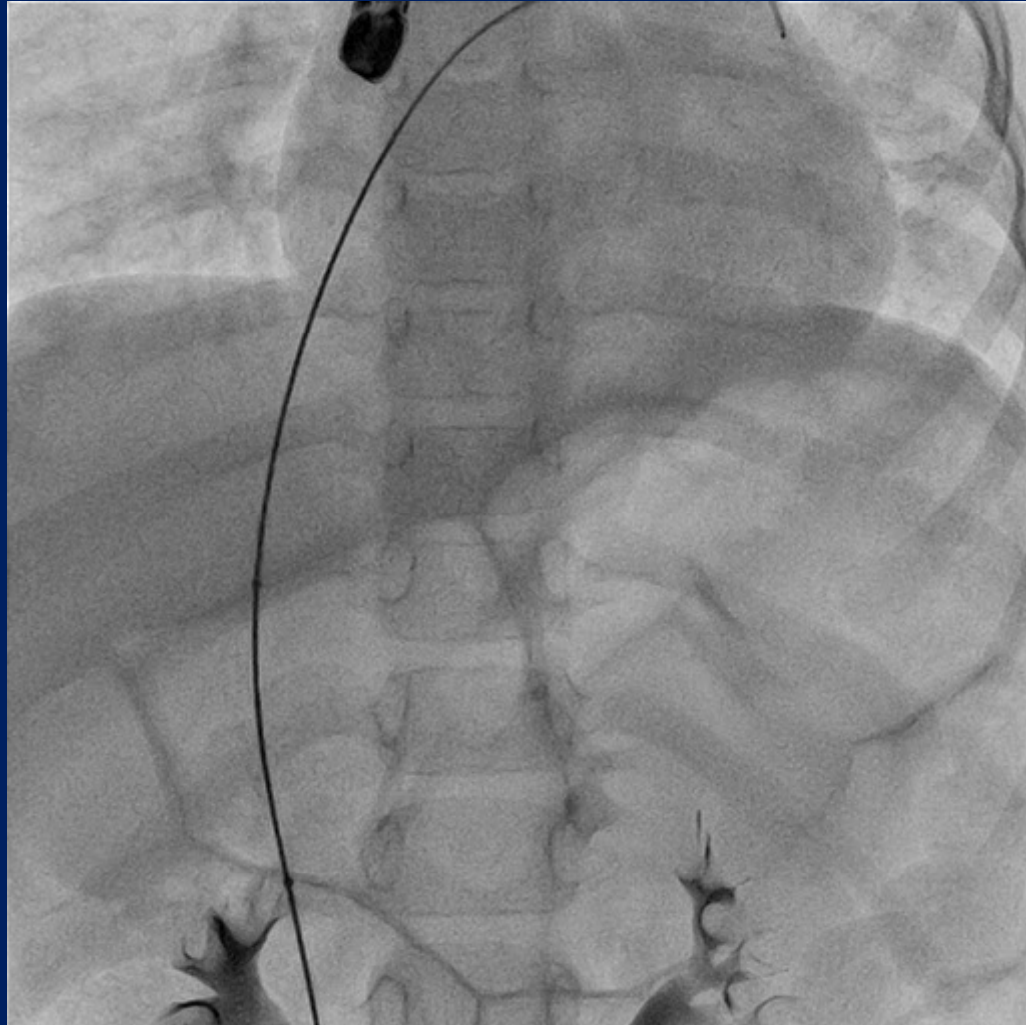


NOW

WHAT?







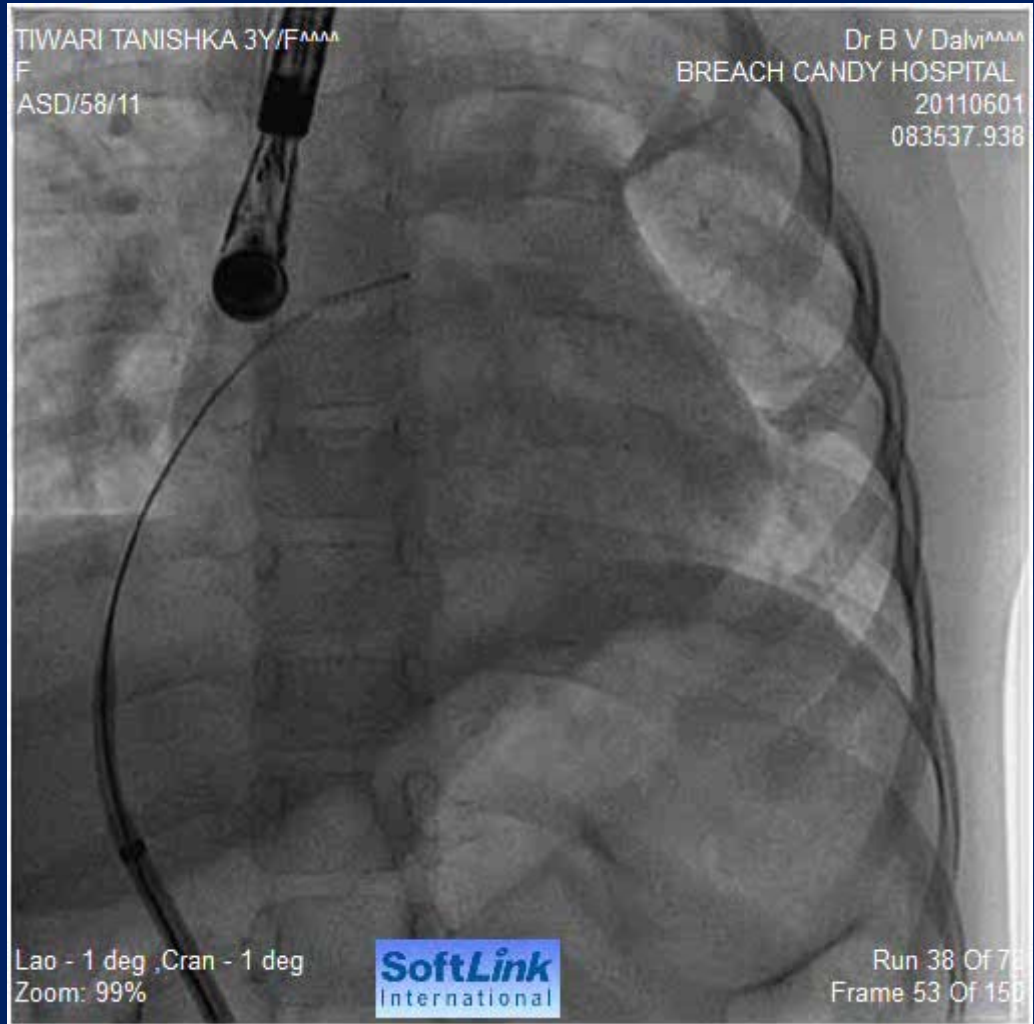
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Lao - 1 deg ,Cran - 1 deg
Zoom: 99%

SoftLink
International

Run 38 Of 75
Frame 53 Of 150



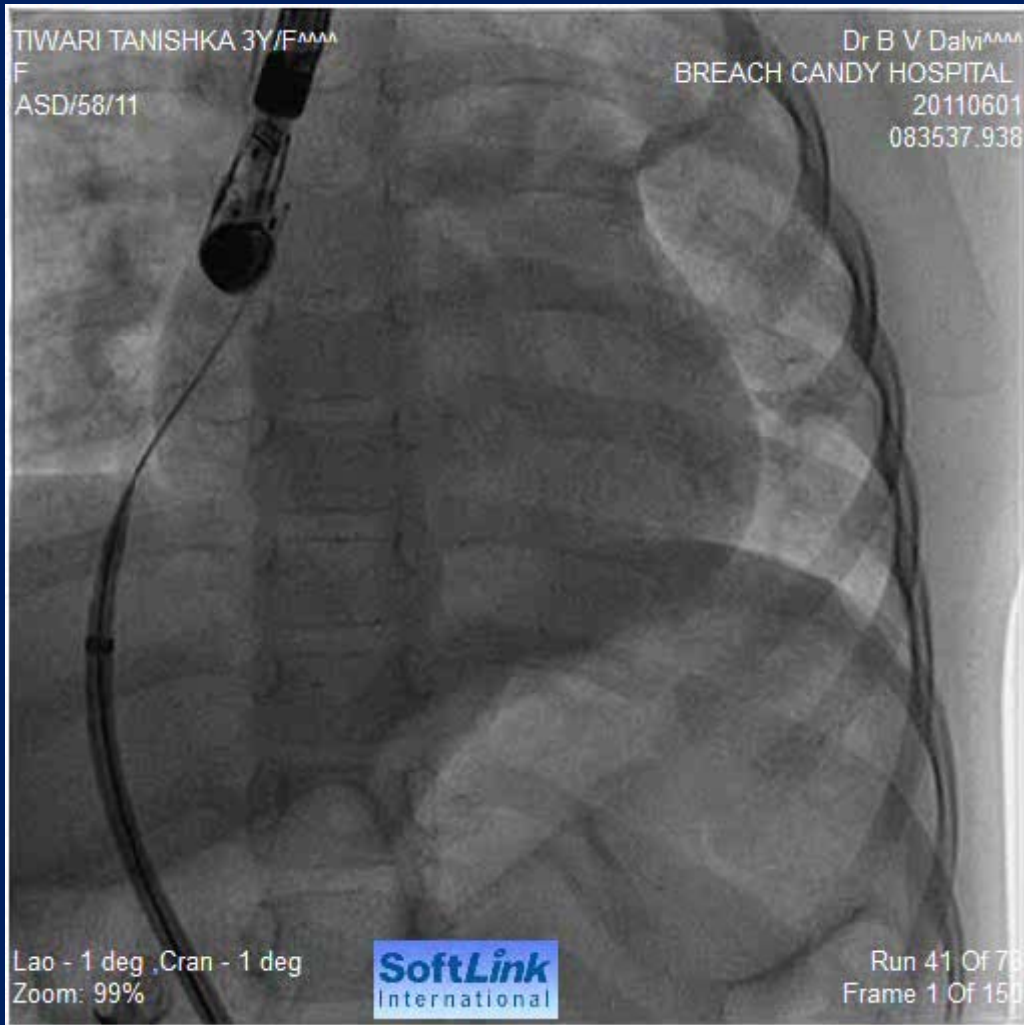
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F
ASD/58/11

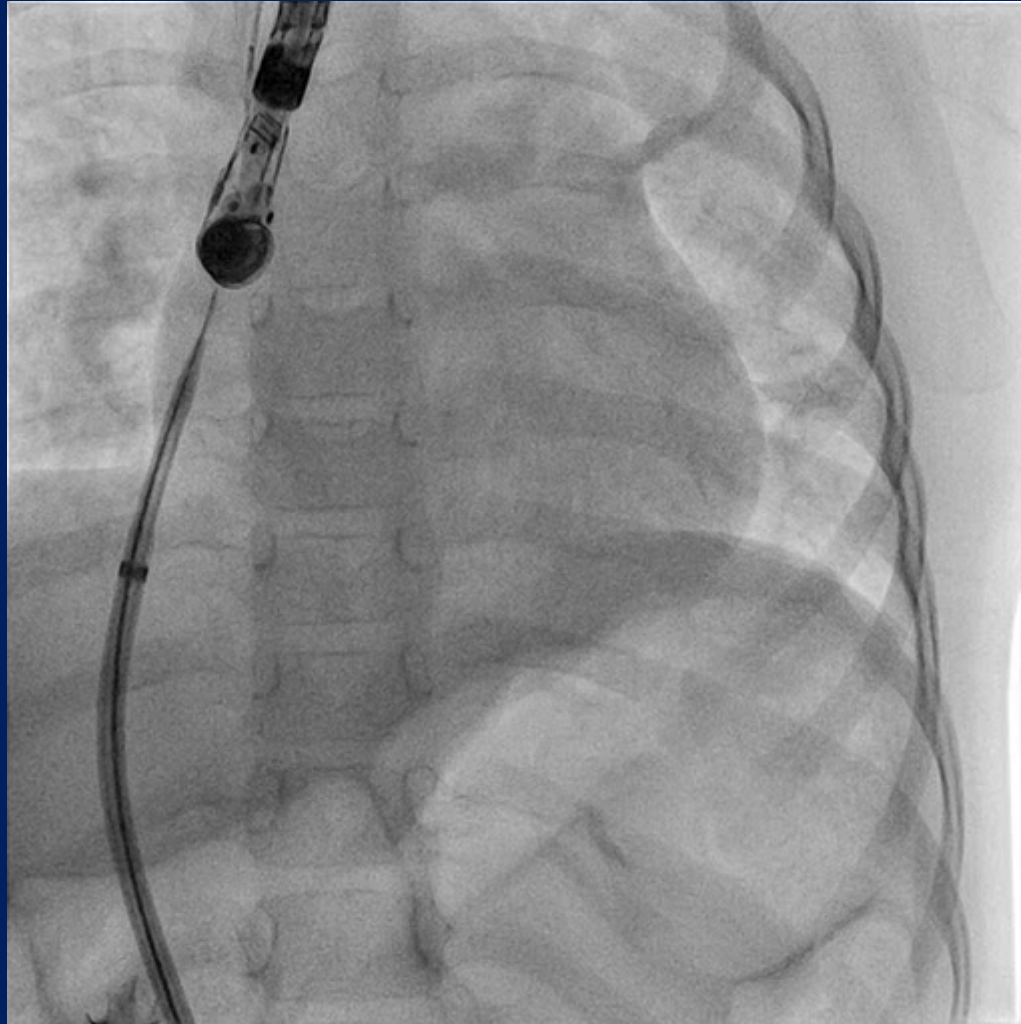
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083537.938

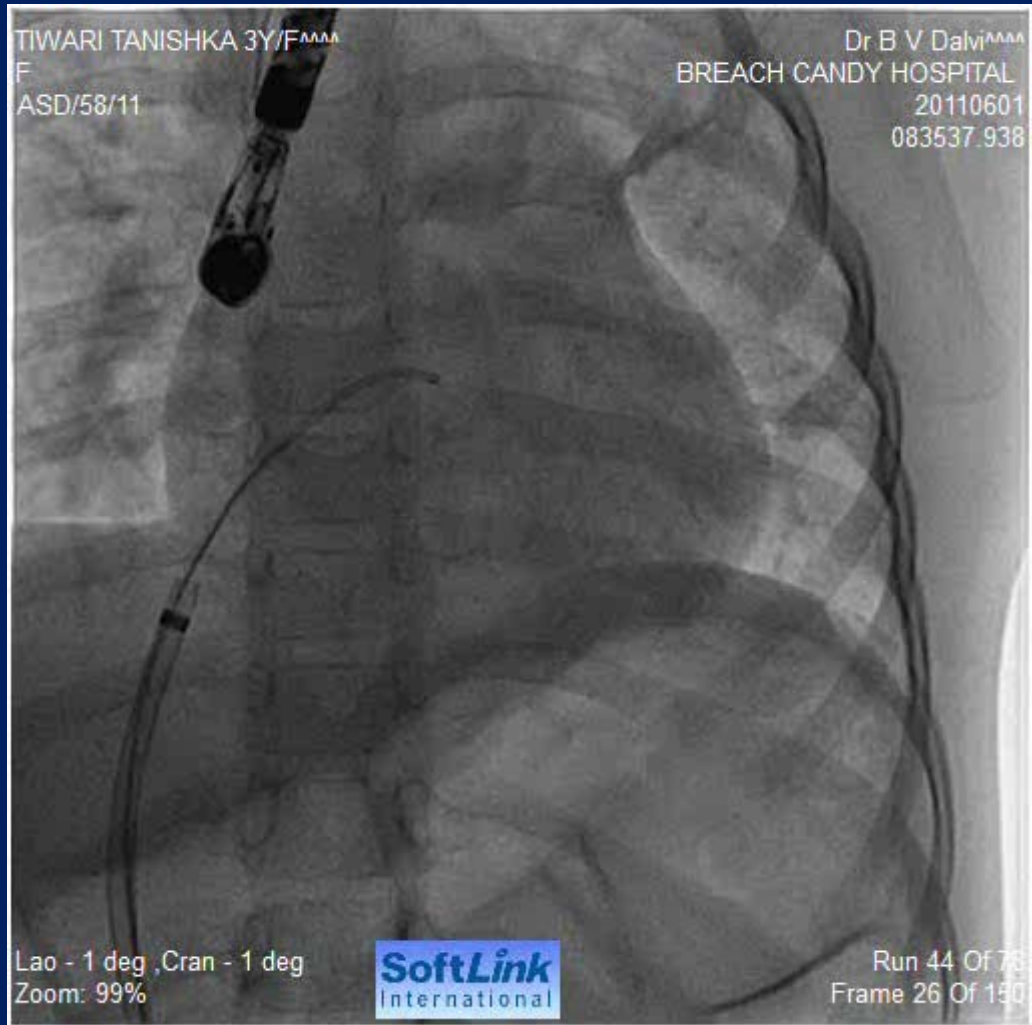
Lao - 1 deg ,Cran - 1 deg
Zoom: 99%

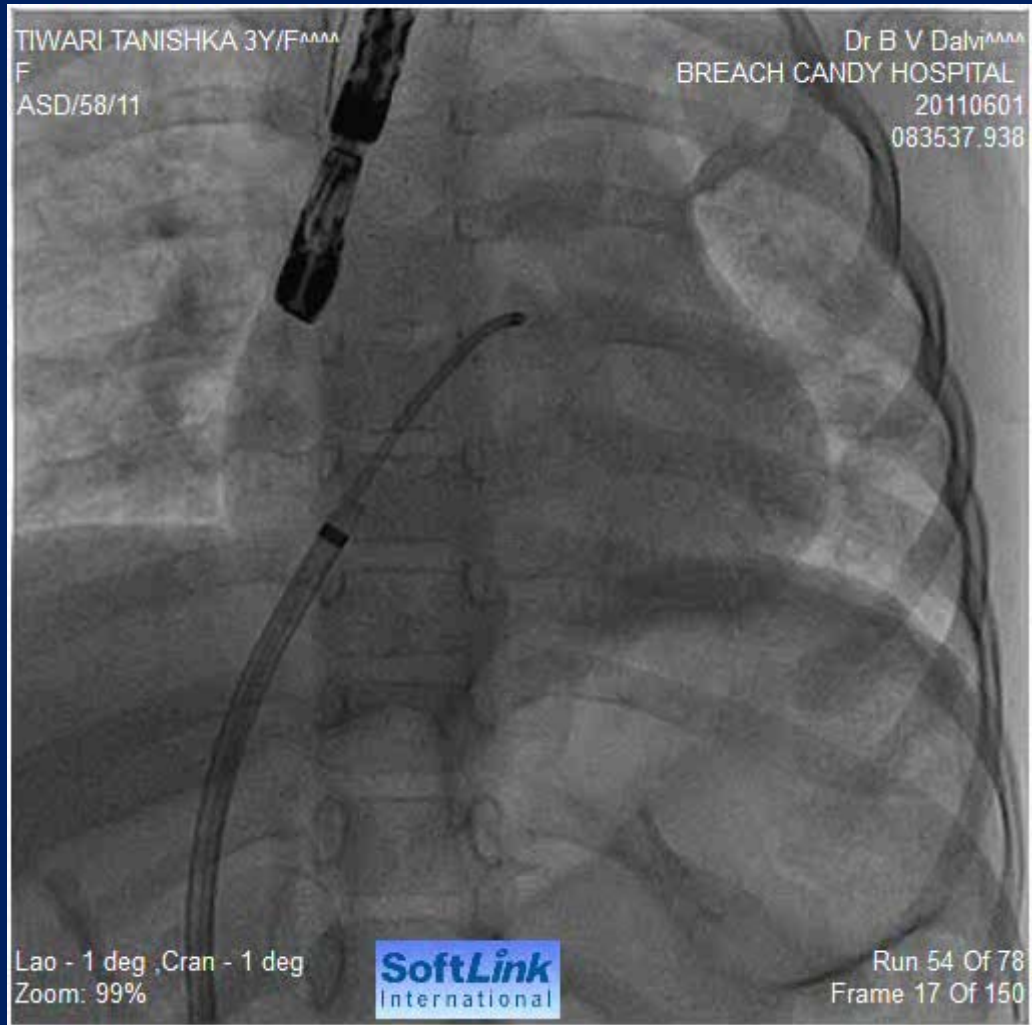


Run 41 Of 73
Frame 1 Of 150









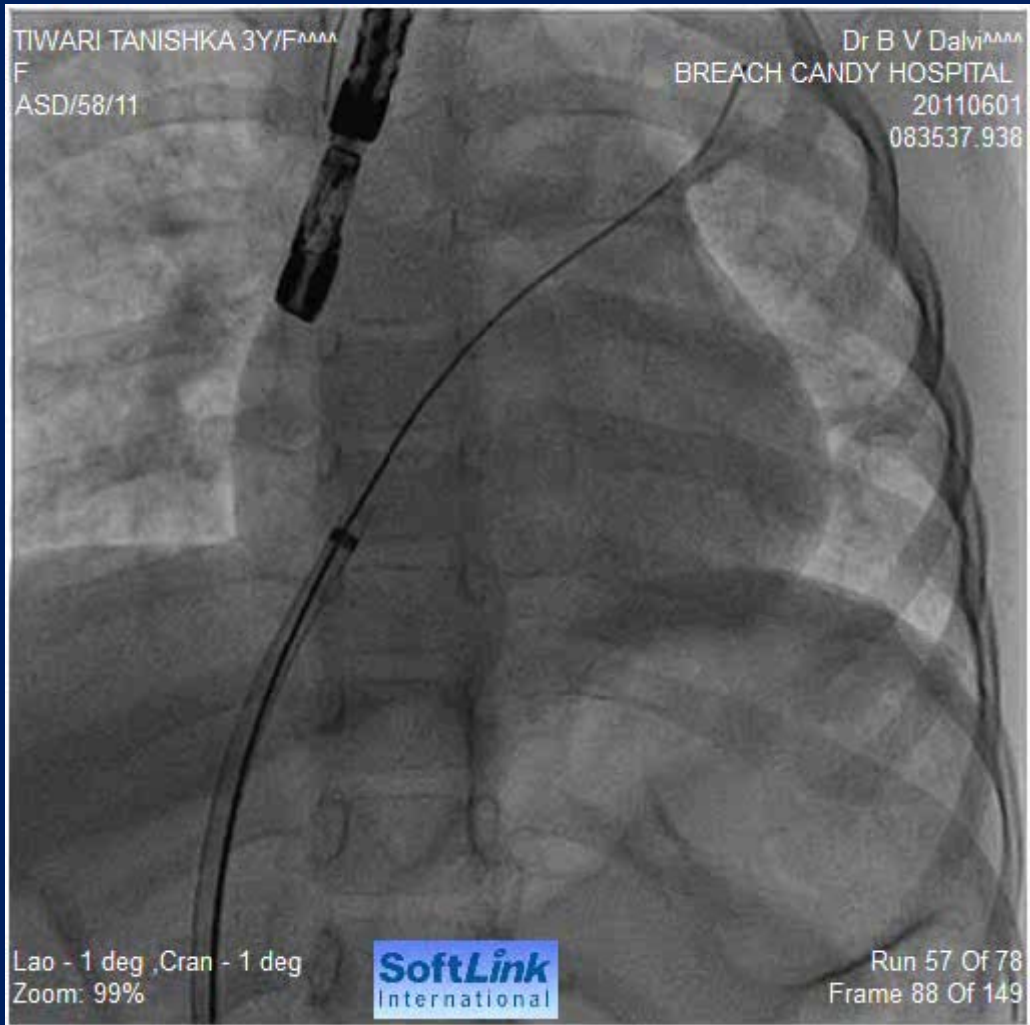
TIWARI TANISHKA 3Y/F^{MM}
F
ASD/58/11

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Lao - 1 deg ,Cran - 1 deg
Zoom: 99%

SoftLink
International

Run 57 Of 78
Frame 88 Of 149



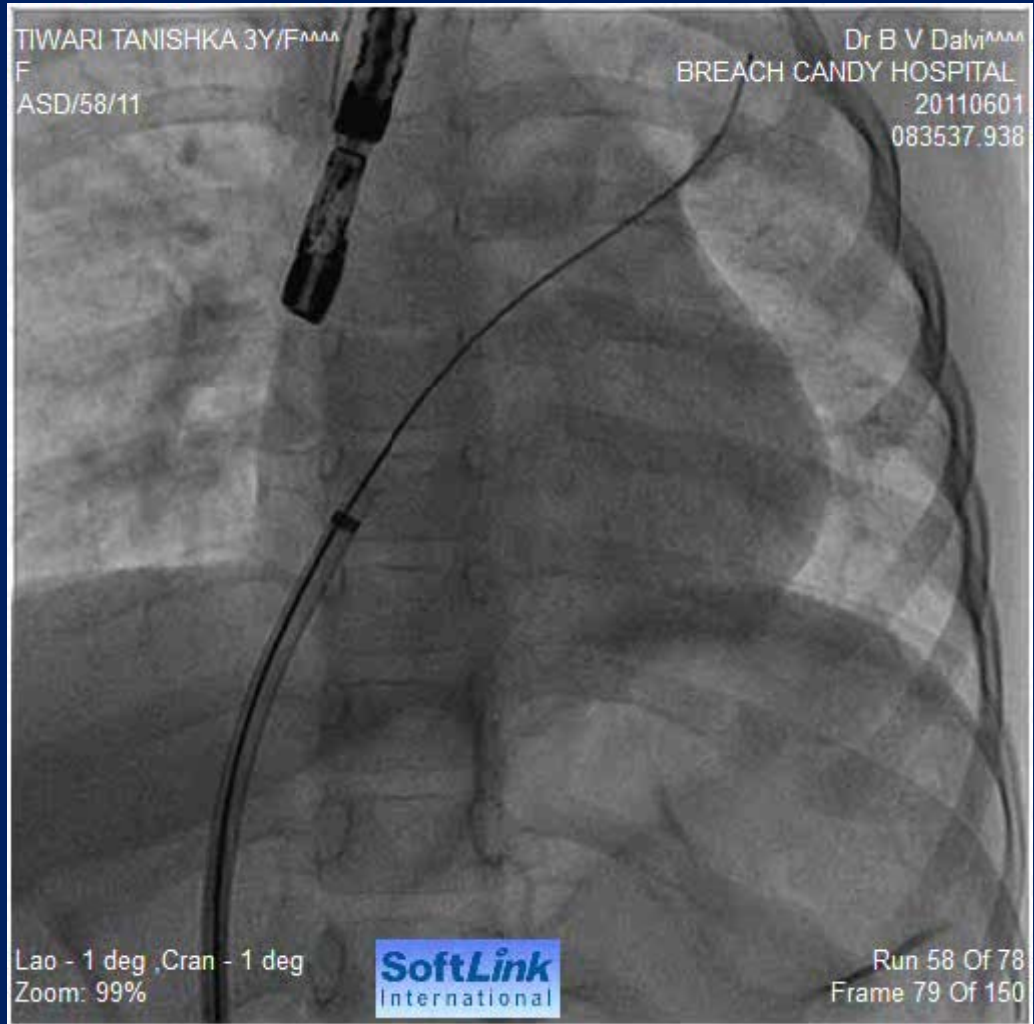
TIWARI TANISHKA 3Y/F^{MM}
F
ASD/58/11

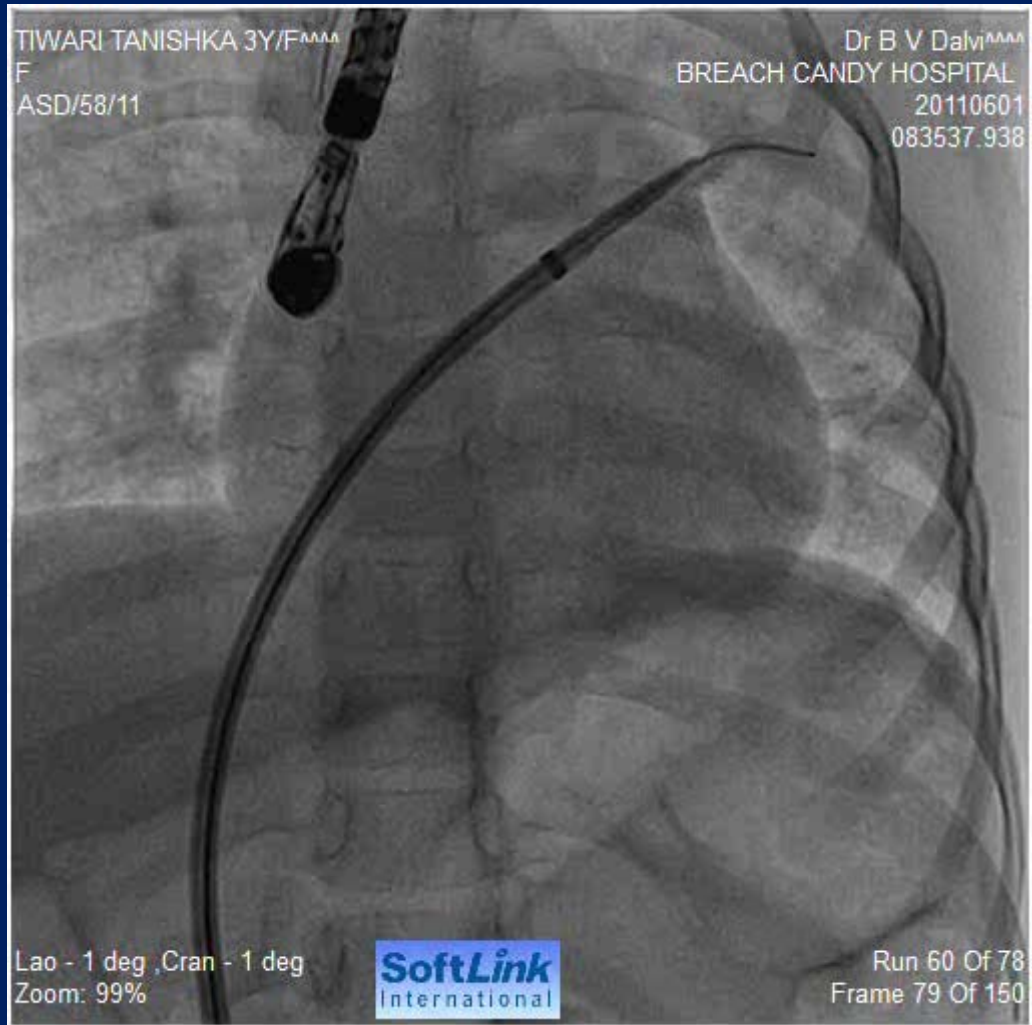
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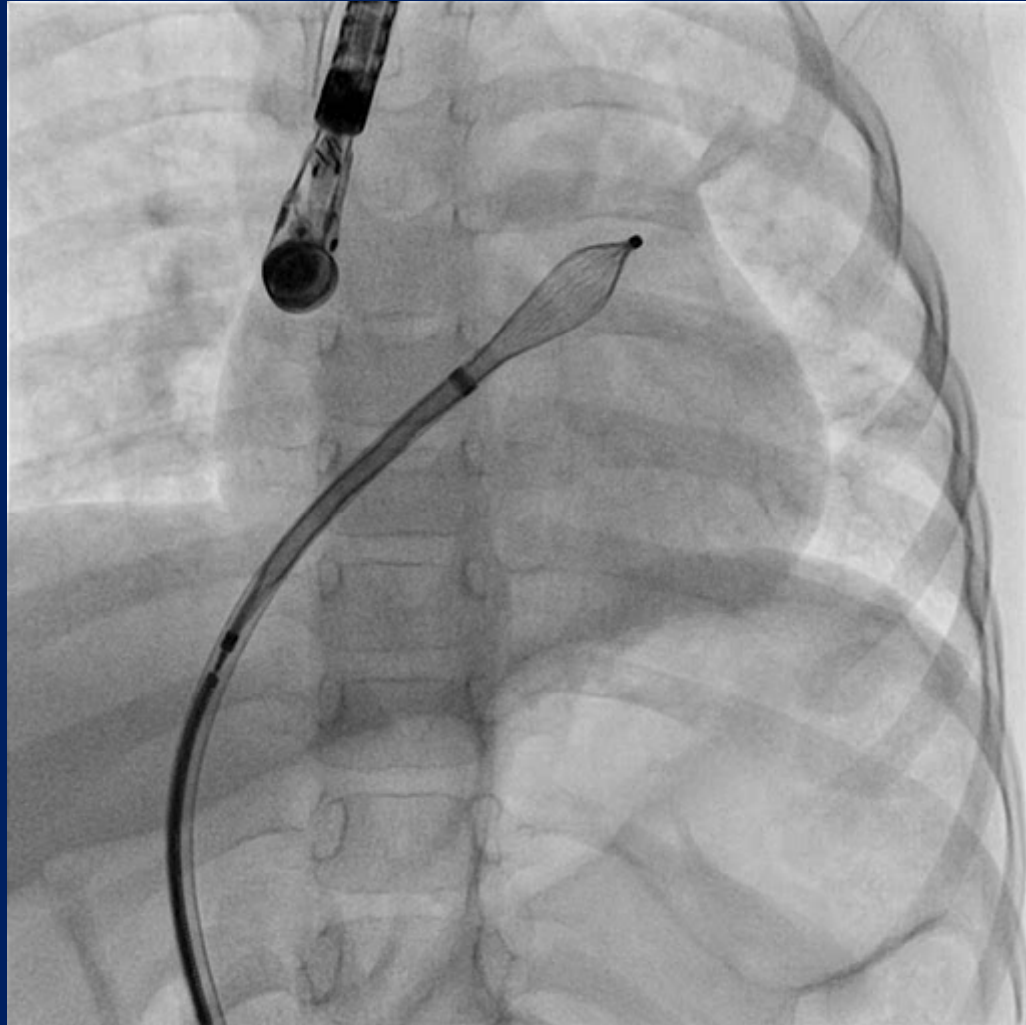
Lao - 1 deg ,Cran - 1 deg
Zoom: 99%

SoftLink
International

Run 58 Of 78
Frame 79 Of 150







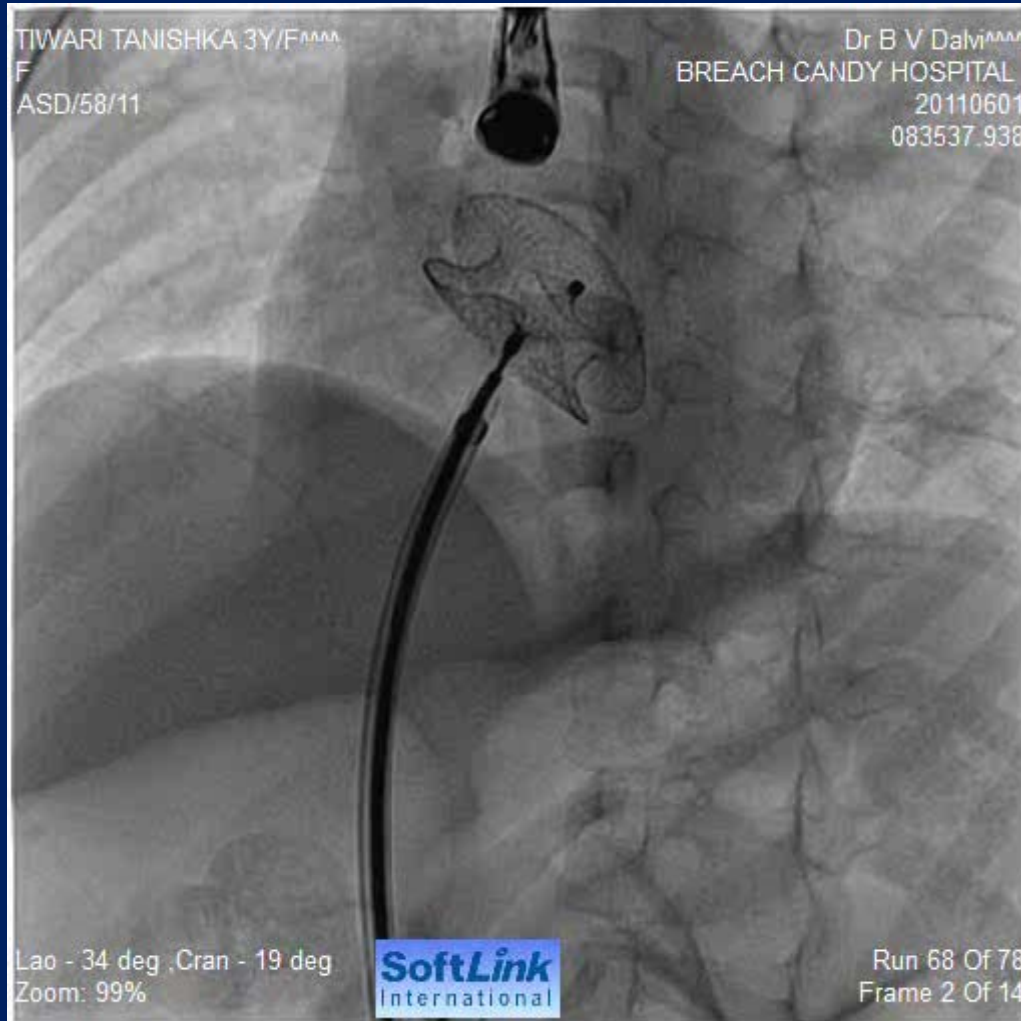
TIWARI TANISHKA 3Y/F^{MM}
F
ASD/58/11

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Lao - 34 deg ,Cran - 19 deg
Zoom: 99%

SoftLink
International

Run 68 Of 78
Frame 2 Of 14



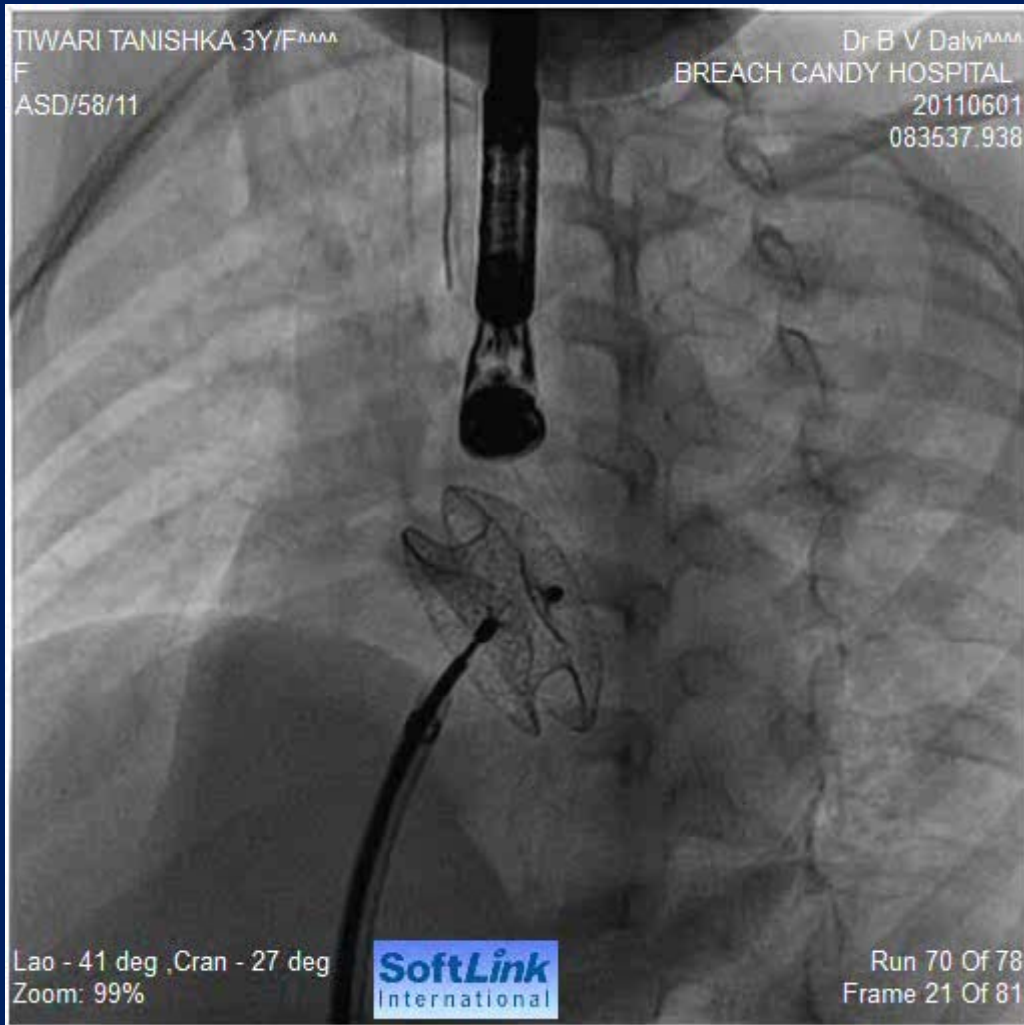
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F
ASD/58/11

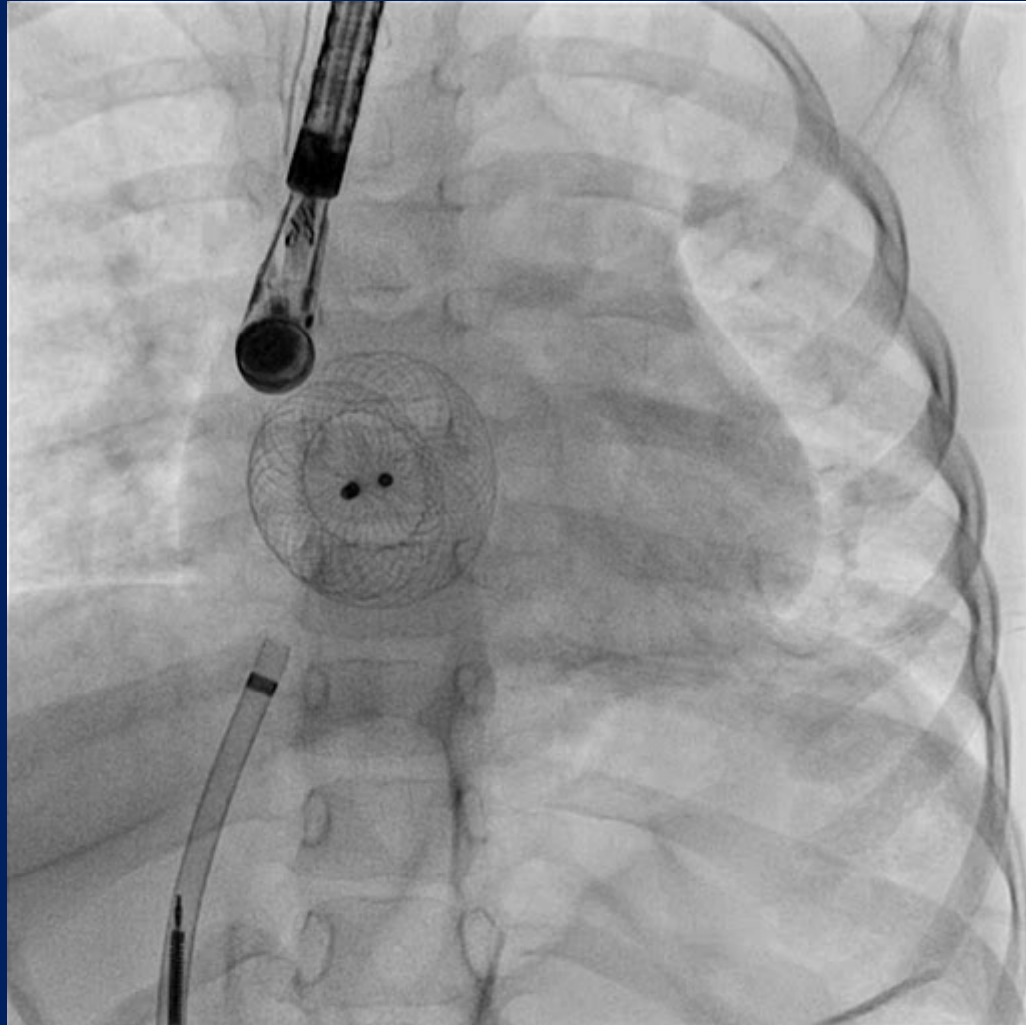
Dr B V Dahi^{MMM}
BREACH CANDY HOSPITAL
20110601
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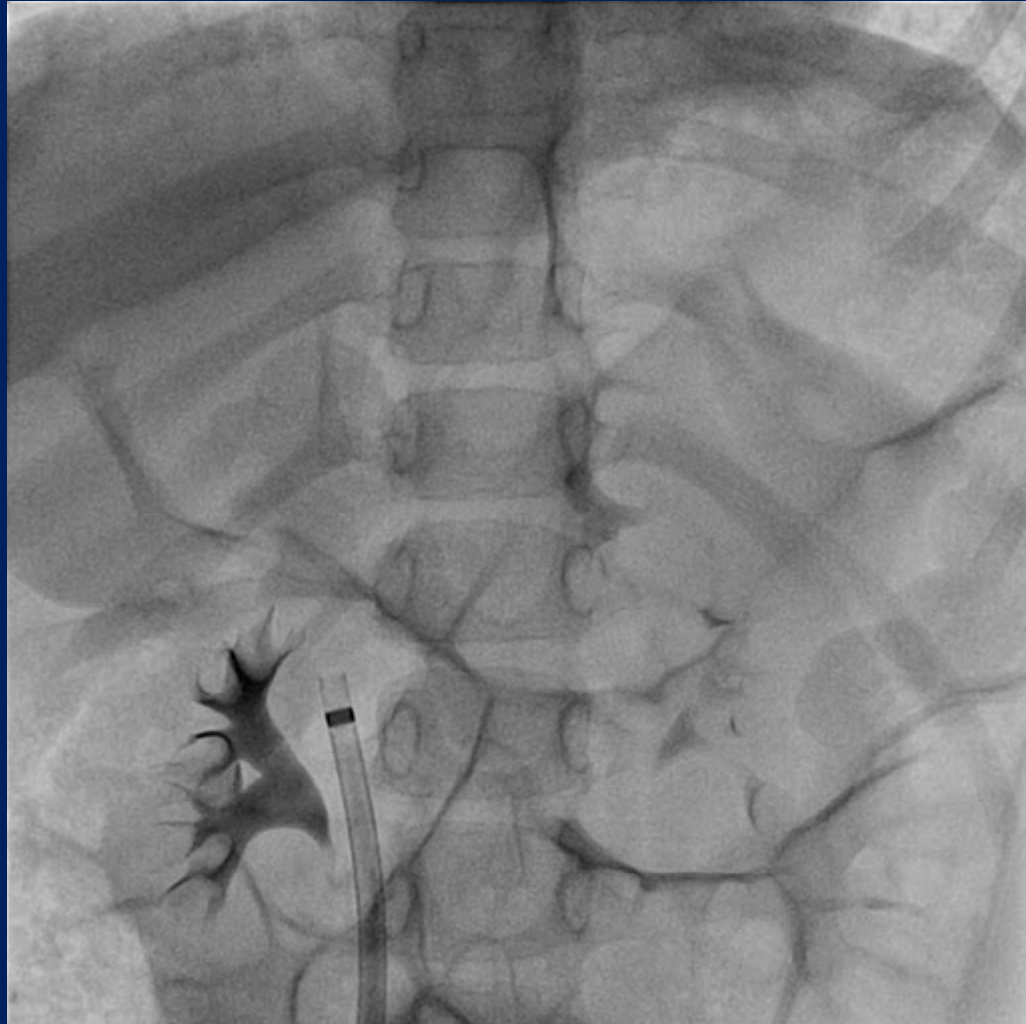
Lao - 41 deg ,Cran - 27 deg
Zoom: 99%

SoftLink
International

Run 70 Of 78
Frame 21 Of 81







USG Abdomen

- Membranous web like obstruction in subhepatic IVC with no flows seen across it on color Doppler

FR 33Hz

RS
Z 1.4

2D
50%
C 55
P Med
HGen

P

M2

LL LIVER

IVC



USG Abdomen

- Multiple venous collaterals were seen bypassing the segment and draining into the proximal IVC and in the right hepatic vein which appeared dilated
- IVC confluence with right atrium was normal.
- Infrarenal IVC was normal.

FR 13Hz

RP

Z 2.4

2D

36%

C 55

P Med

Gen

CF

49%

1320Hz

WF 85Hz

Med

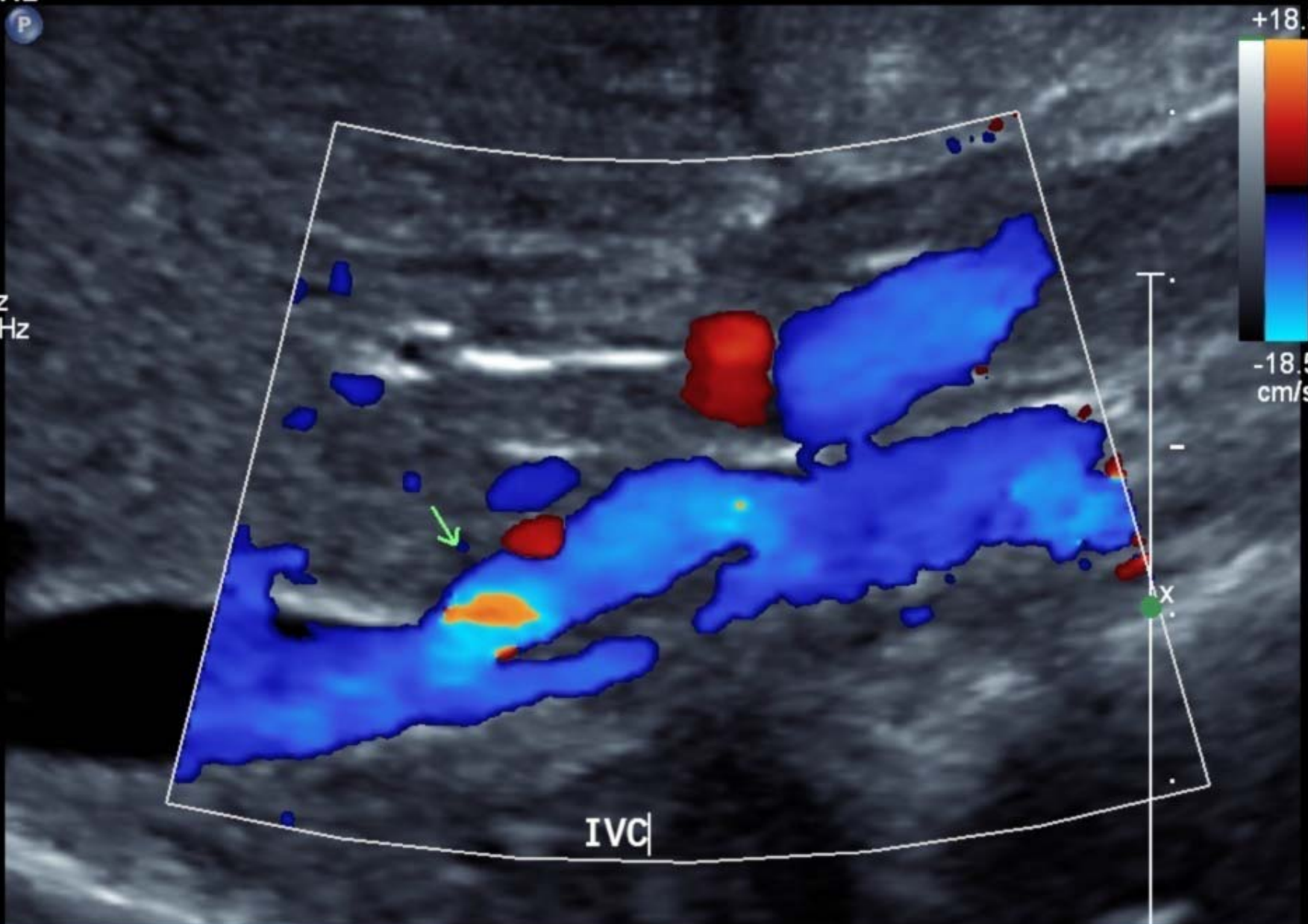
P

M2 M4

+18.5



-18.5
cm/s



IVC

FR 13Hz

RP

Z 2.0

2D

31%

C 55

P Med

Gen

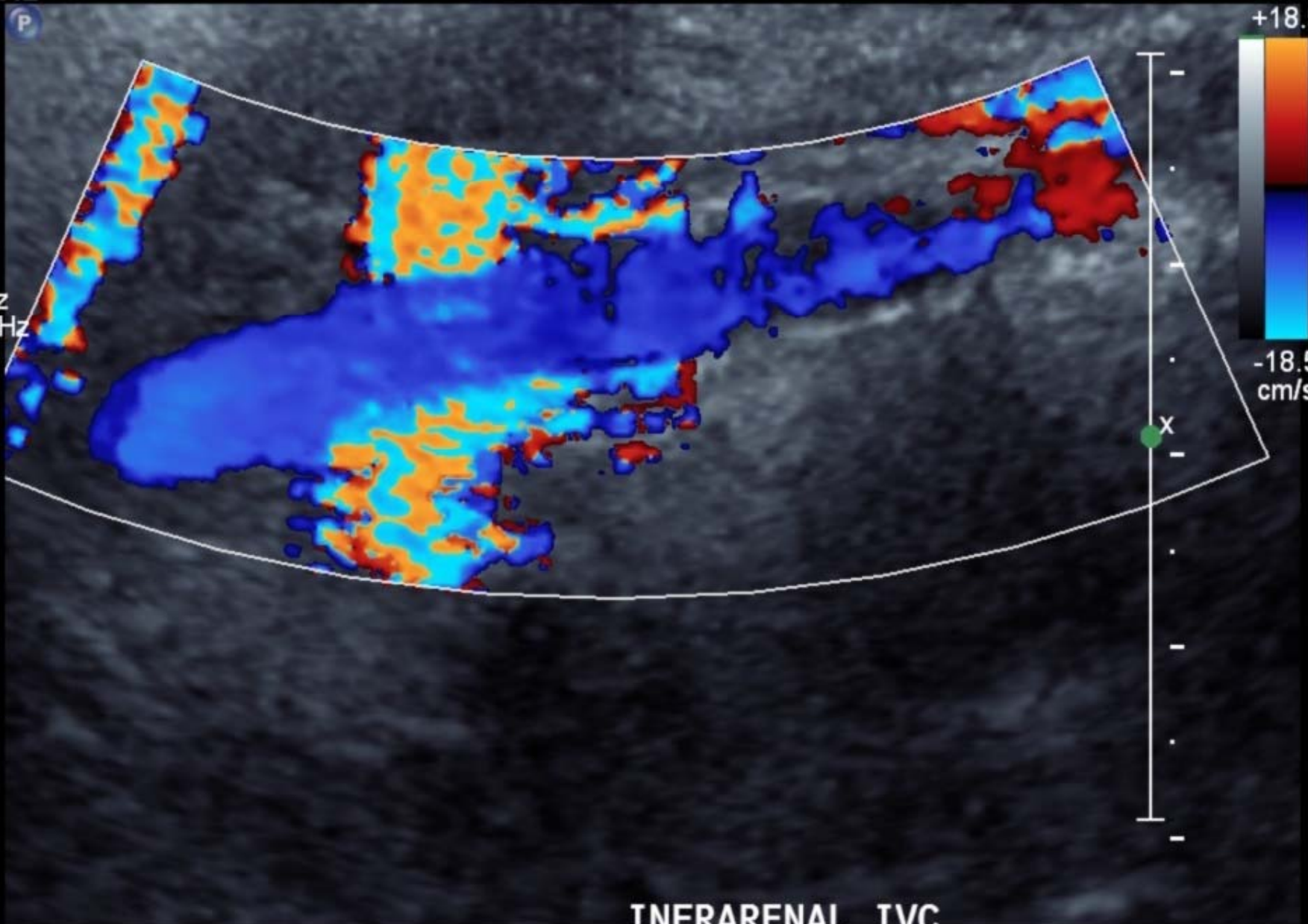
CF

49%

1440Hz

WF 93Hz

Med



M2 M4

+18.5

-18.5

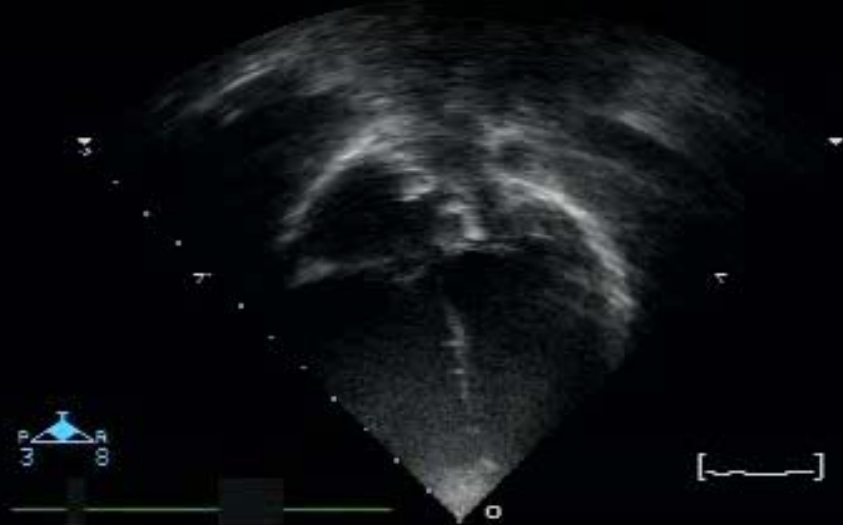
cm/s

INFRARENAL IVC

Follow up

- General condition stable
- Gained weight
- No evidence of hepatic involvement
- ASD device in position
- No residual shunt
- Reduction in the RA, RV size

MI:1.3 S8 TANISHKA GLENMARK CARDIA
04 JULY 11 17:22:21 3Y6M/F CENTRE
0/0/D/F3 12CM DR B DALVI Adult



MI:0.9 TIS:1.5 S8 TANISHKA GLENMARK CARDIA 3.3MHZ
04 JULY 11 17:23:16 3Y6M/F CENTRE
0/0/D/M/A 12CM DR B DALVI Adult



MI:1.3 S8
04 JULY 11 17:18:07
0/0/D/F3
GLENMARK CARDIAC
CENTRE
Adult
TANISHKA
3Y6M/F
DR B DALVI.

GAIN 50
COMP 70
14CM



MI:0.9 TIS:1.5 S8
04 JULY 11 17:18:28
0/0/D/M/A
GLENMARK CARDIAC
CENTRE
Adult
TANISHKA
3Y6M/F
DR B DALVI.

GAIN 50
COMP 70
14CM
29HZ



Lessons learnt

- There is no “Slam Dunk” in interventions
- “Surprises” are a part of our business
- You can minimize them by being thorough
- Always have a fall back plan
- Innovation is at the heart of many successes (and may be as many disasters)
- It is important to know **WHEN TO STOP**