

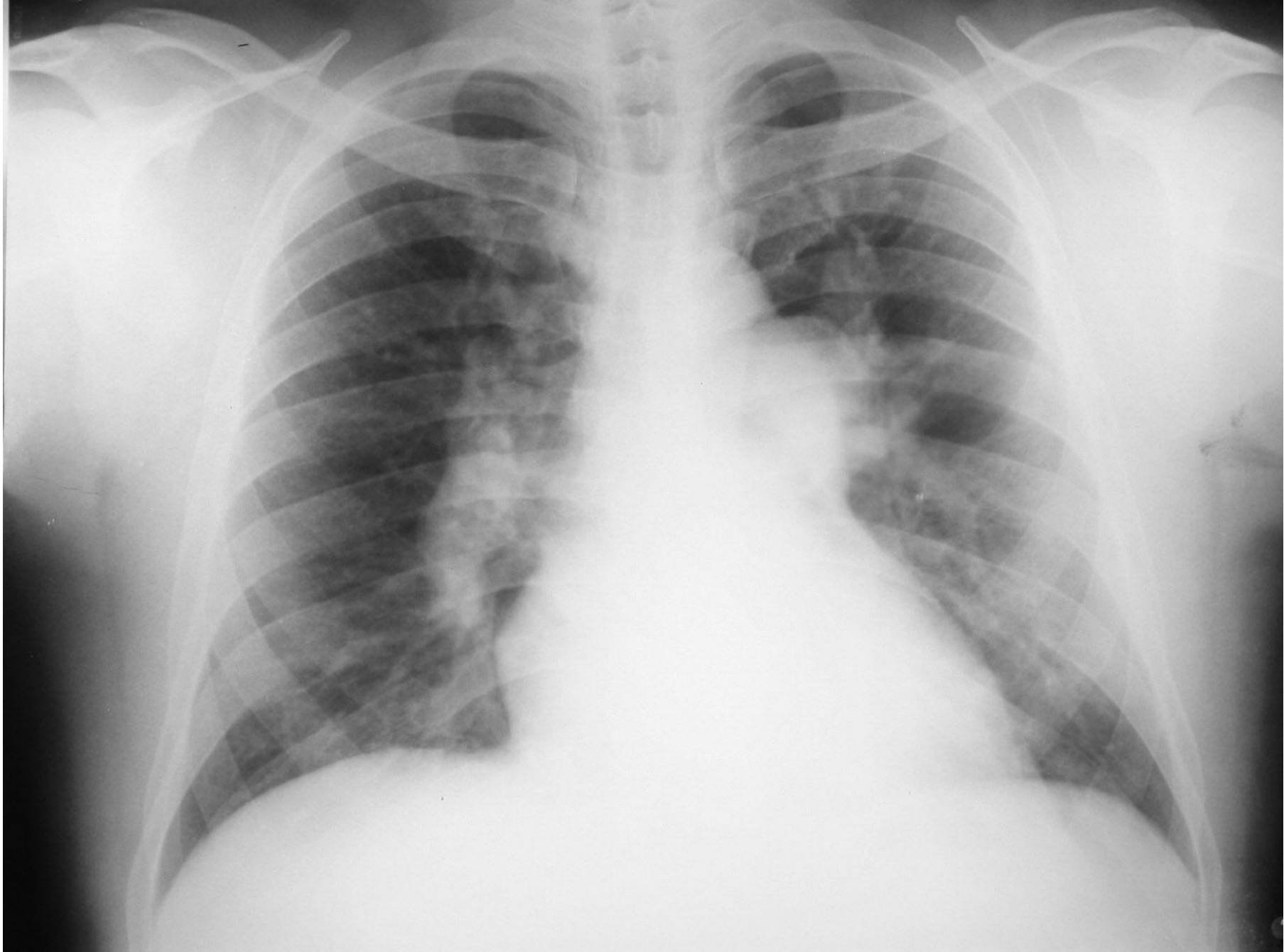
Embolization of ASD Occluder – Lessons learnt

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Glenmark Cardiac Centre
Mumbai, India

Case Scenario

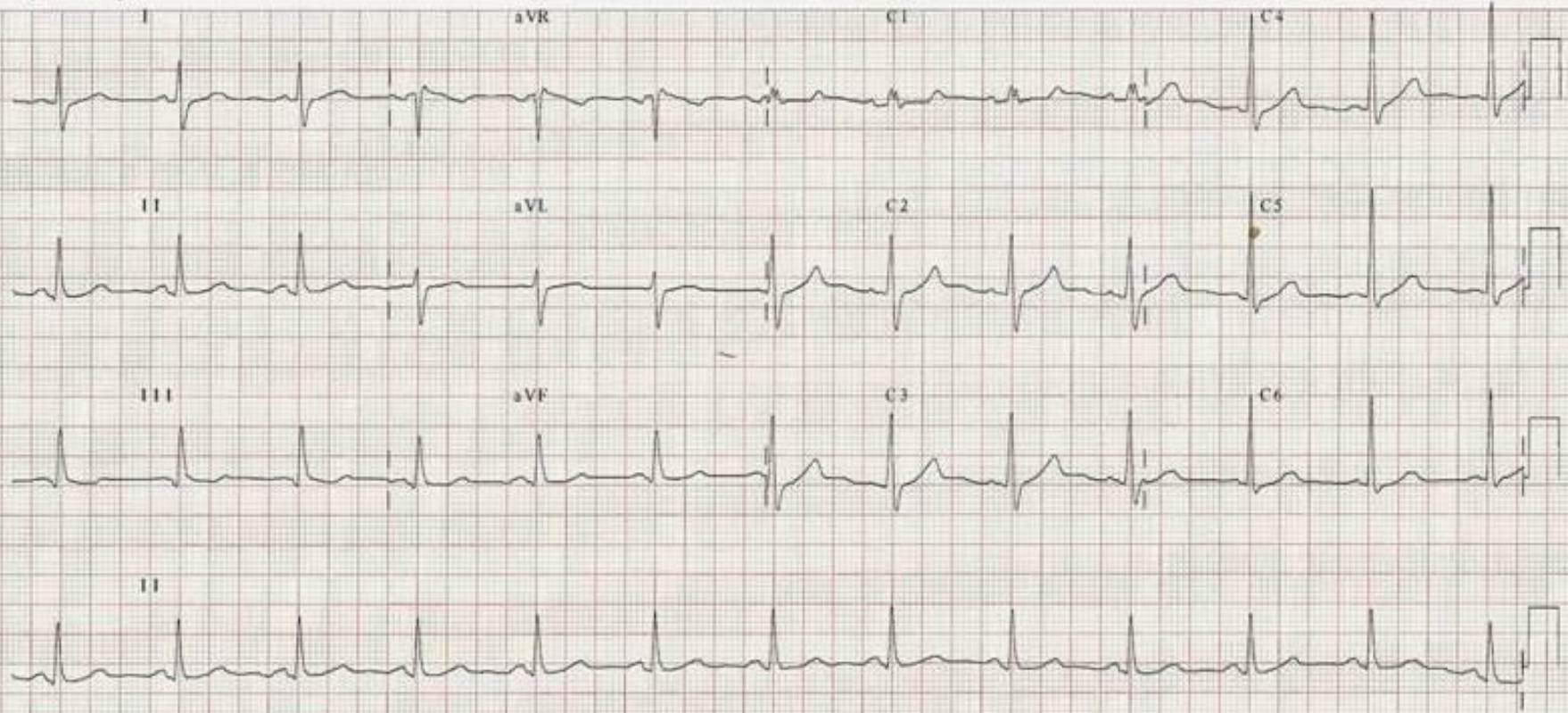
- 37 year old lady
- SOB, palpitations and easy fatiguability
- Vitals were normal
- Precordial activity
- 3/6 ESM in the PA
- 2/6 MDM across the TV
- A2P2 wide and fixed

IONS CHARITABLE
R3 25 JUN 05



Rate 75
PR 154
QRSD 107
QT 390
QTc 436

--Axis--
P 60
QRS 89
T 29

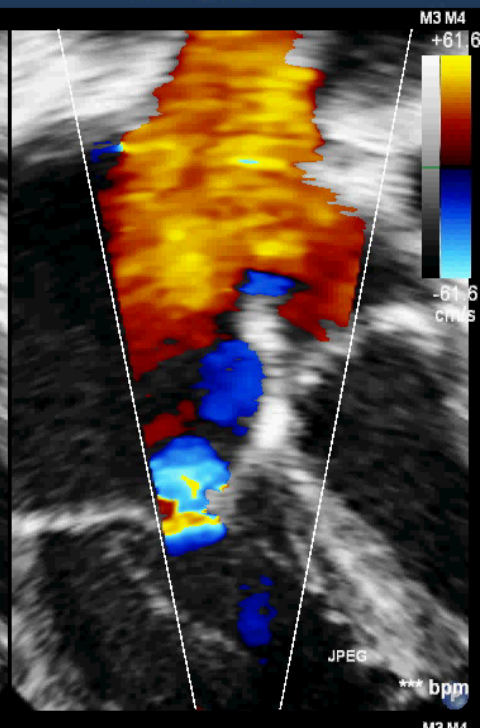
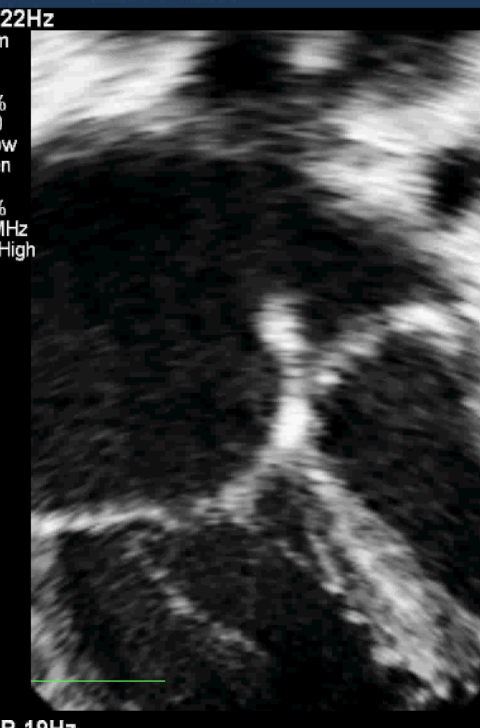
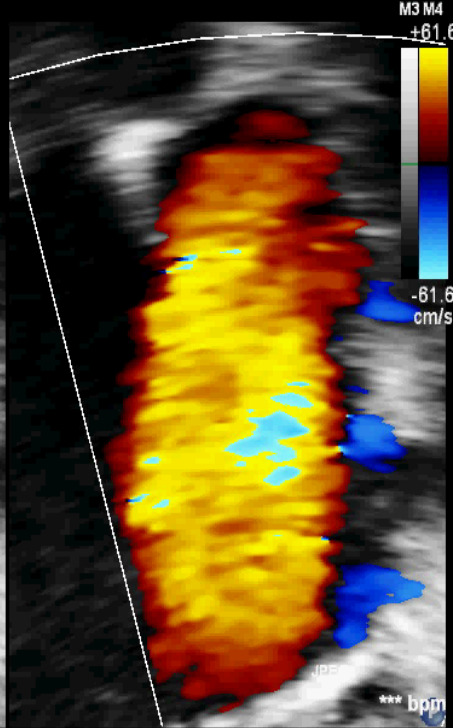
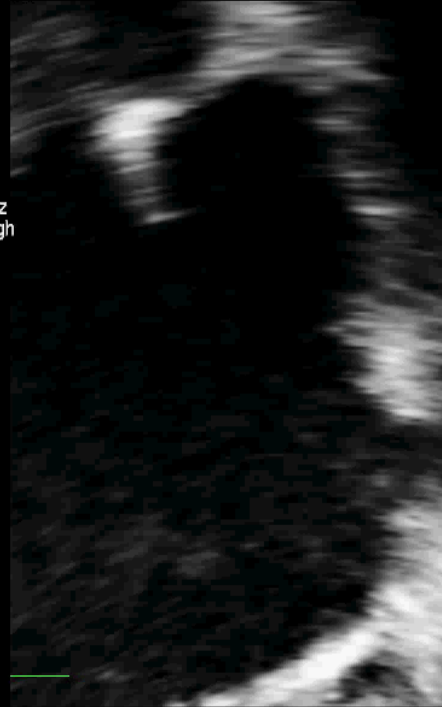


2DE and CD – TTE and TEE

- Large secundum ASD measuring 28 mm
- RA and RVVO
- Mild TR. Estimated RV pressure of 55 mm Hg
- SVC rim 11 mm, AV valve rim 9 mm, atrial rim 6 mm, Aortic rim 3 mm, IVC rim was not well seen on TTE but measured 6 mm on TEE

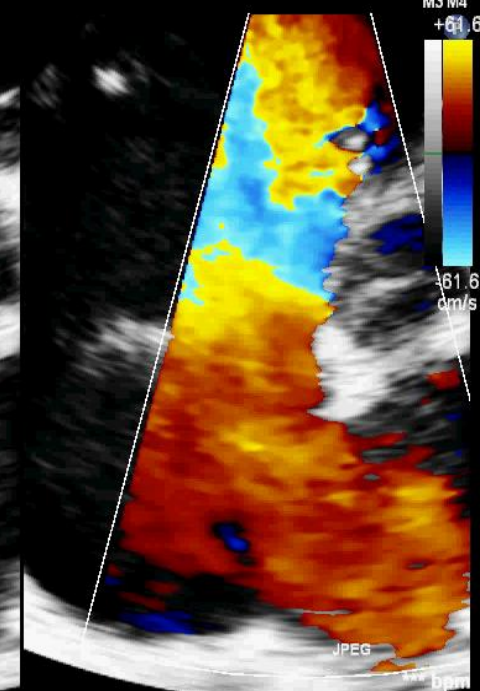
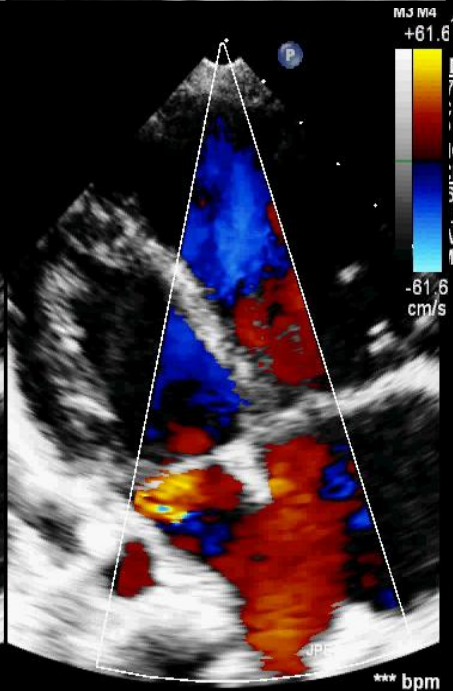
FR 17Hz
16cm

2D
81%
C 50
P Low
HGen
CF
66%
2.5MHz
WF High
Med



FR 19Hz
11cm

2D
75%
C 40
P Low
HGen
CF
66%
2.5MHz
WF High
Med



- Taken up for device closure under GA
- TEE showed large ASD measuring 27-28 mm Hg
- Surrounding rims appeared adequate

MI: 0.5
T6210
14 NOV 11
19:08:58
3/0/E/F3
JR. BALABHAI
VANAVATI HOSP.
TEE
PRAJAKTA
38Y /F
TEE ASD

1:44:10.07
3AIN 39
COMP 65

L2CH
56HZ



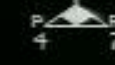
PAT T: 37.0C
TEE T: <37.0C



MI: 0.5
T6210
14 NOV 11
19:09:17
3/0/E/F3
JR. BALABHAI
VANAVATI HOSP.
TEE
PRAJAKTA
38Y /F
TEE ASD

1:44:37.13
3AIN 39
COMP 65

L2CH
56HZ



PAT T: 37.0C
TEE T: <37.0C



MI: 0.5
T6210
14 NOV 11
19:09:08
3/0/E/F3
JR. BALABHAI
VANAVATI HOSP.
TEE
PRAJAKTA
38Y /F
TEE ASD

1:44:28.07
3AIN 39
COMP 65

L2CH
56HZ



PAT T: 37.0C
TEE T: <37.0C

LA

RA



MI: 0.5
T6210
14 NOV 11
19:09:22
3/0/E/F3
JR. BALABHAI
VANAVATI HOSP.
TEE
PRAJAKTA
38Y /F
TEE ASD

1:44:42.17
3AIN 39
COMP 65

L2CH
56HZ



PAT T: 37.0C
TEE T: <37.0C

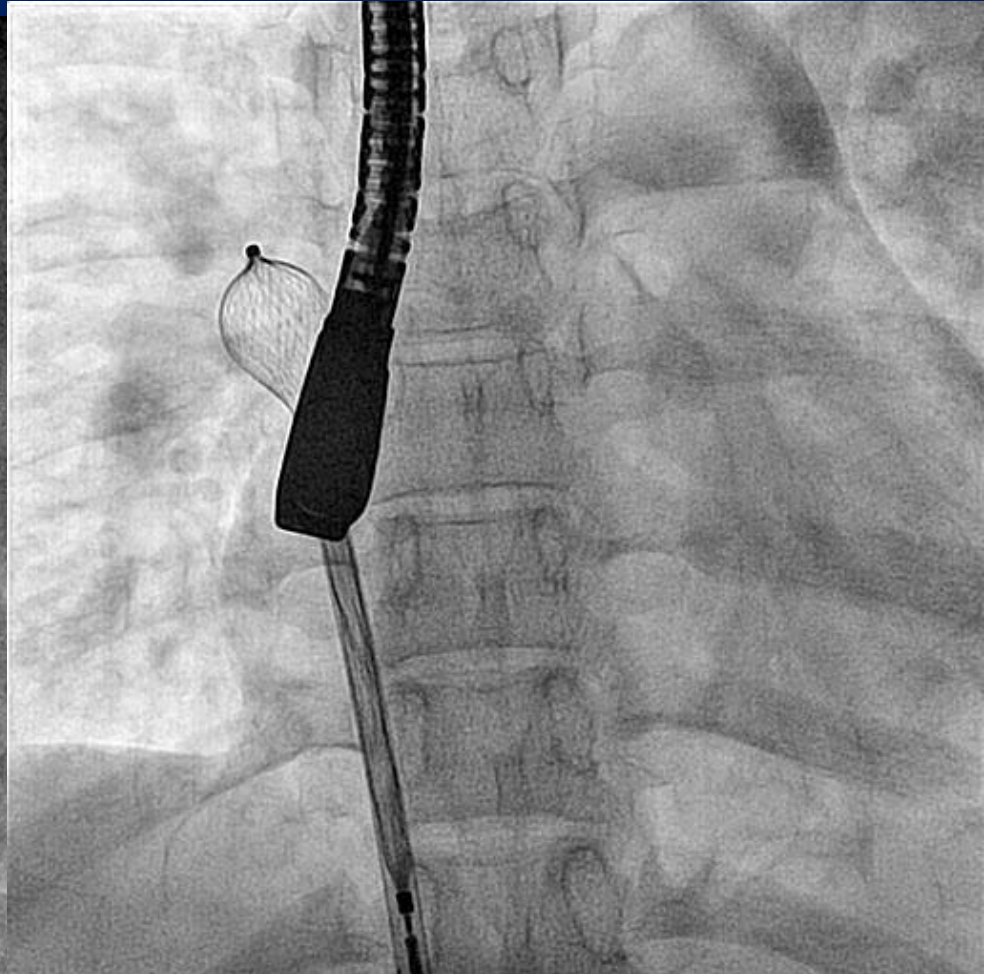
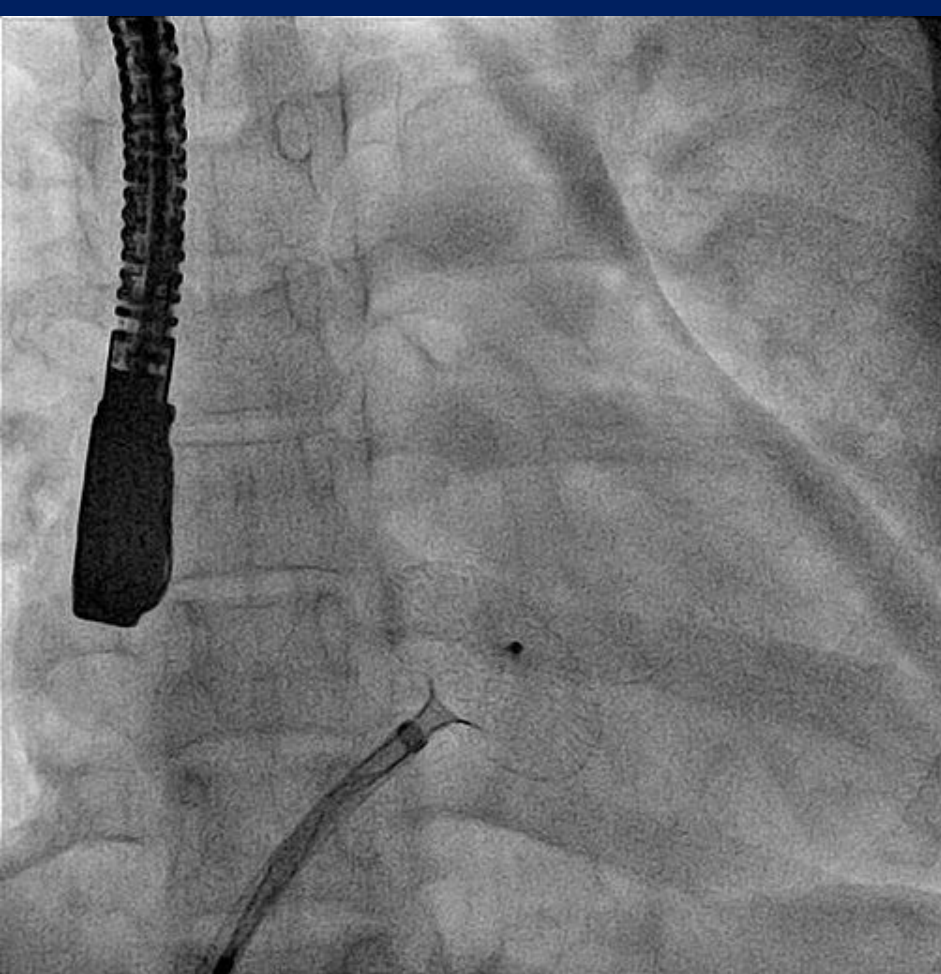
LA

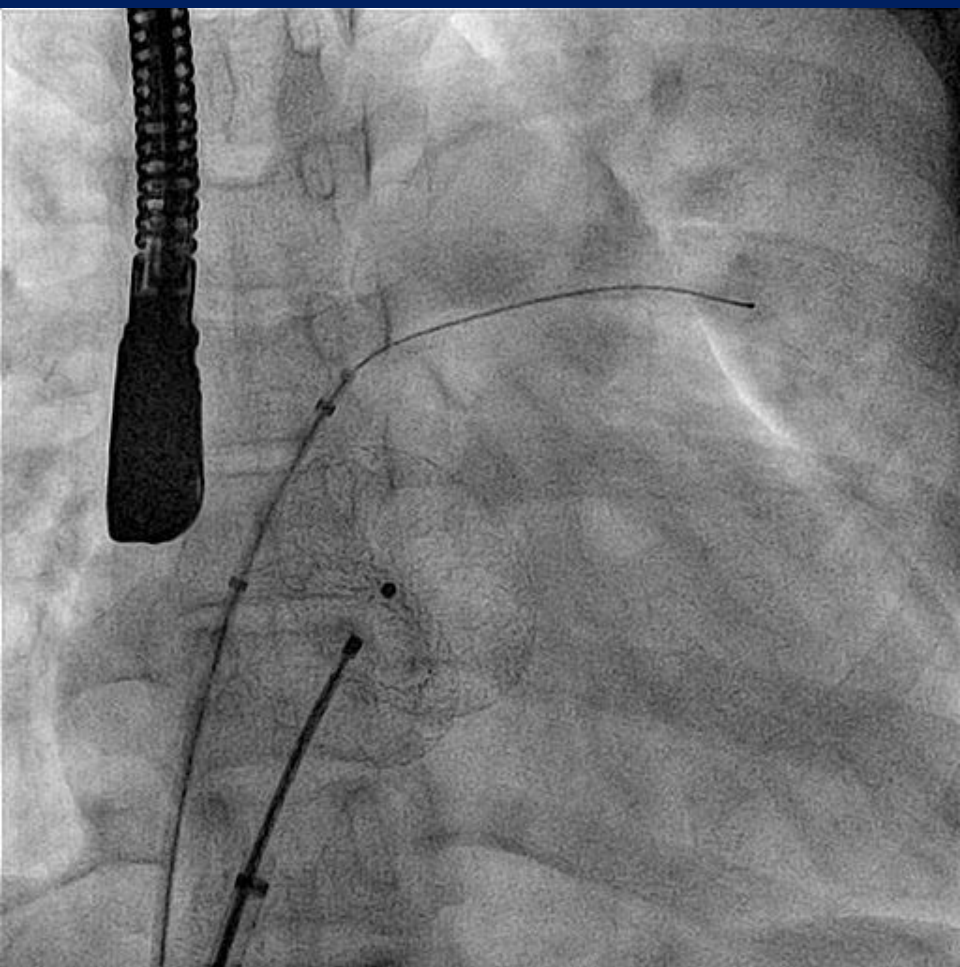
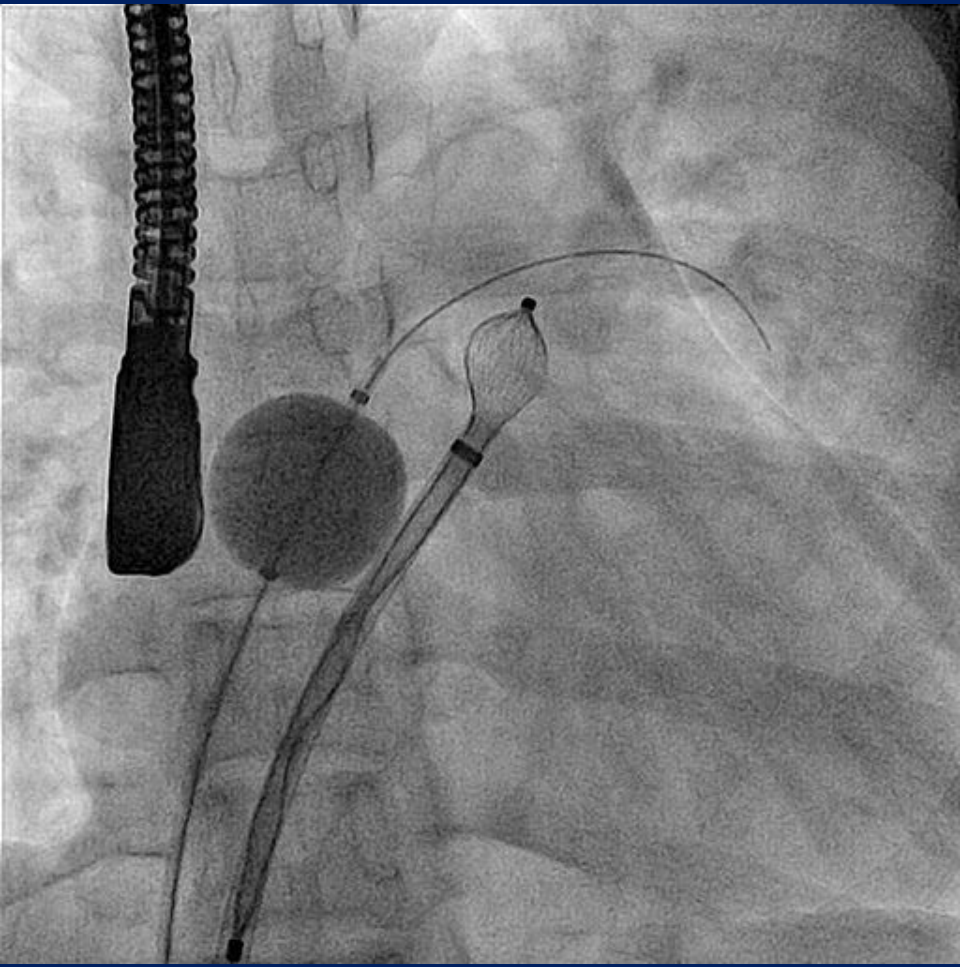
RA

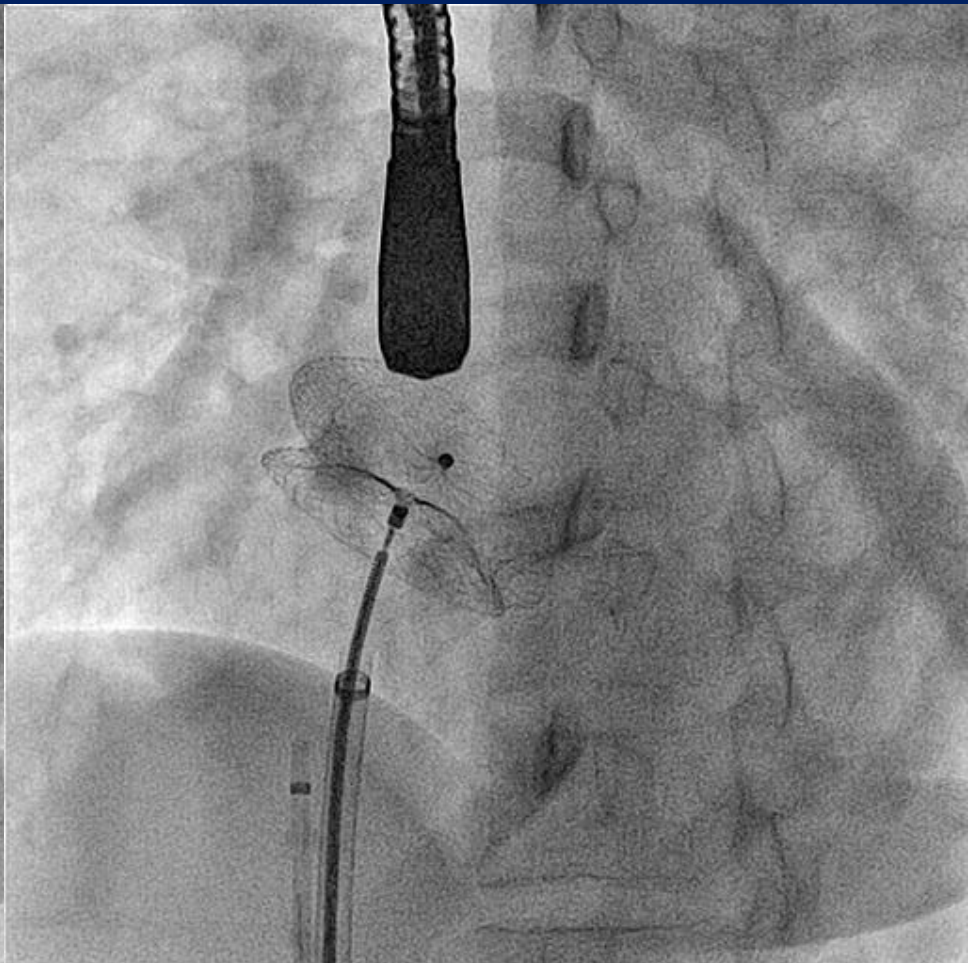
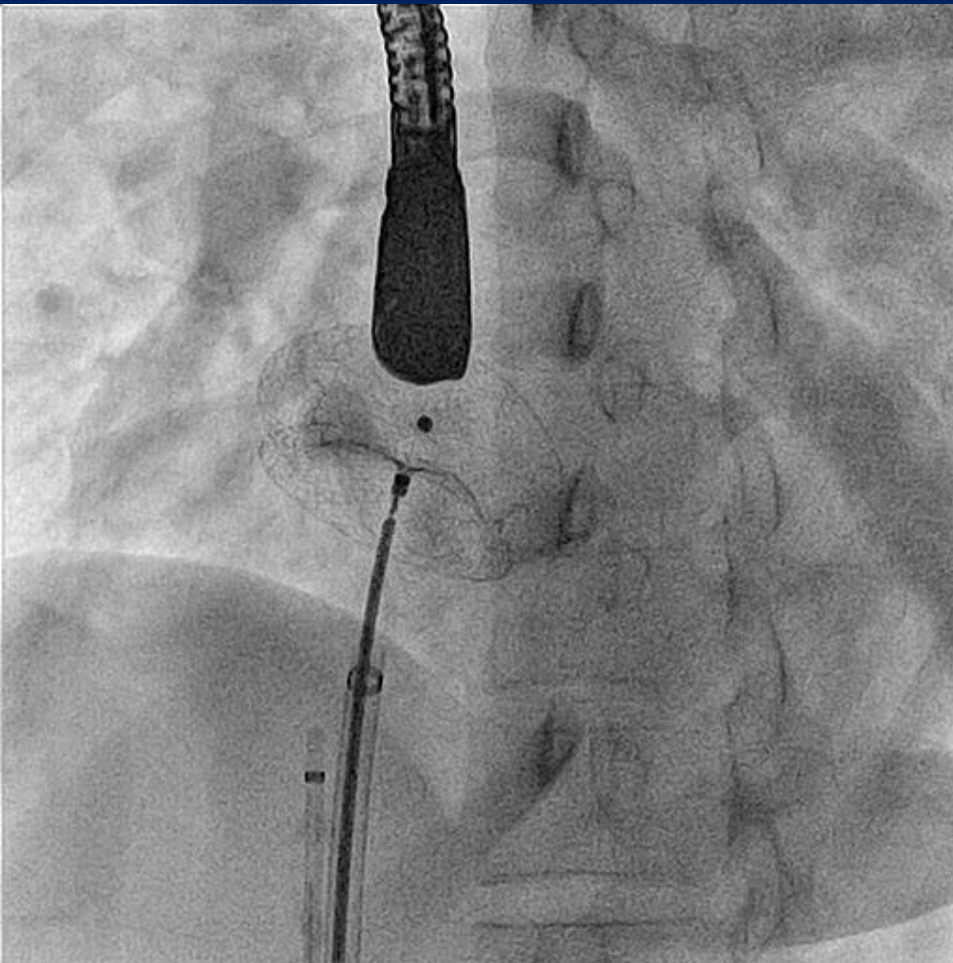
AO

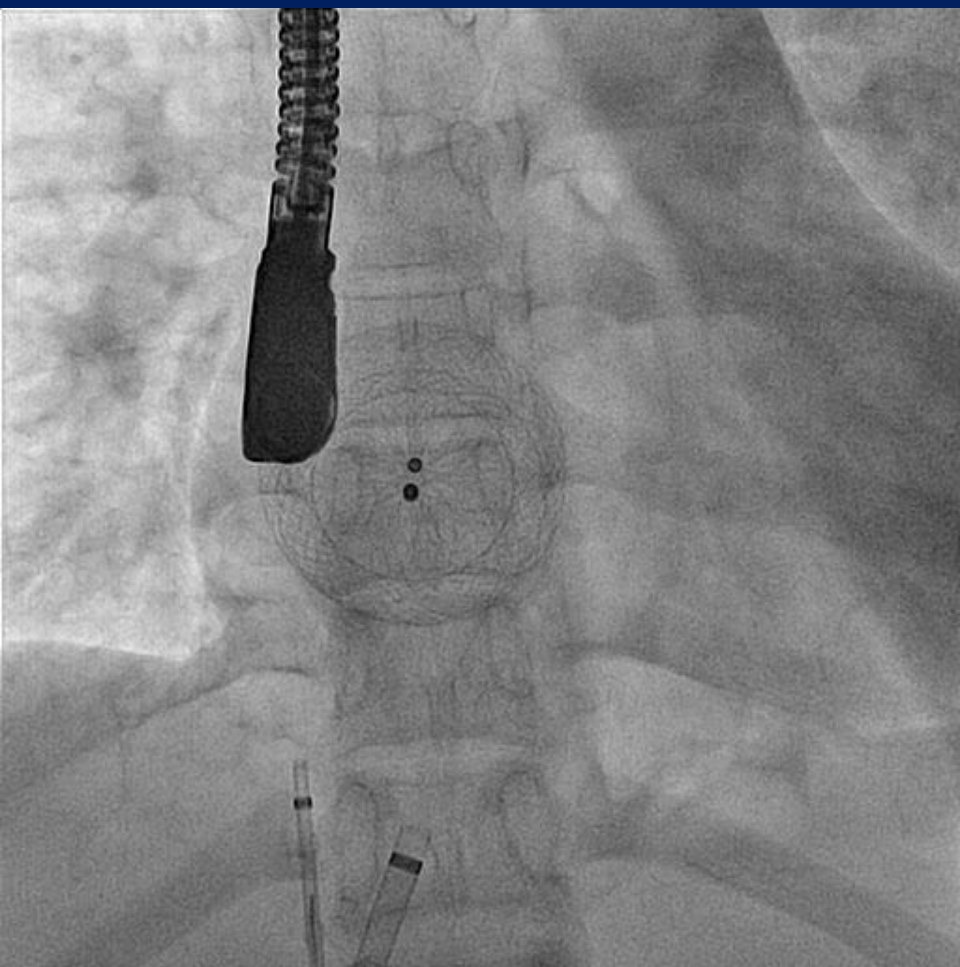
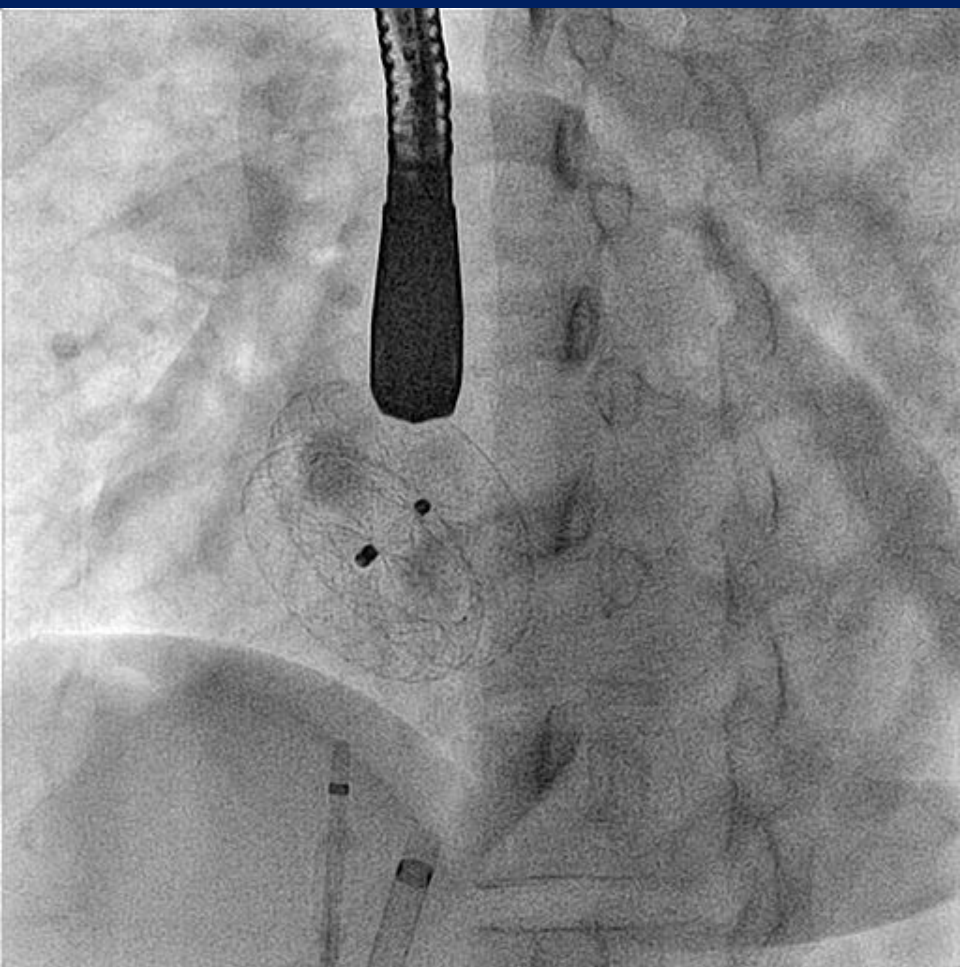








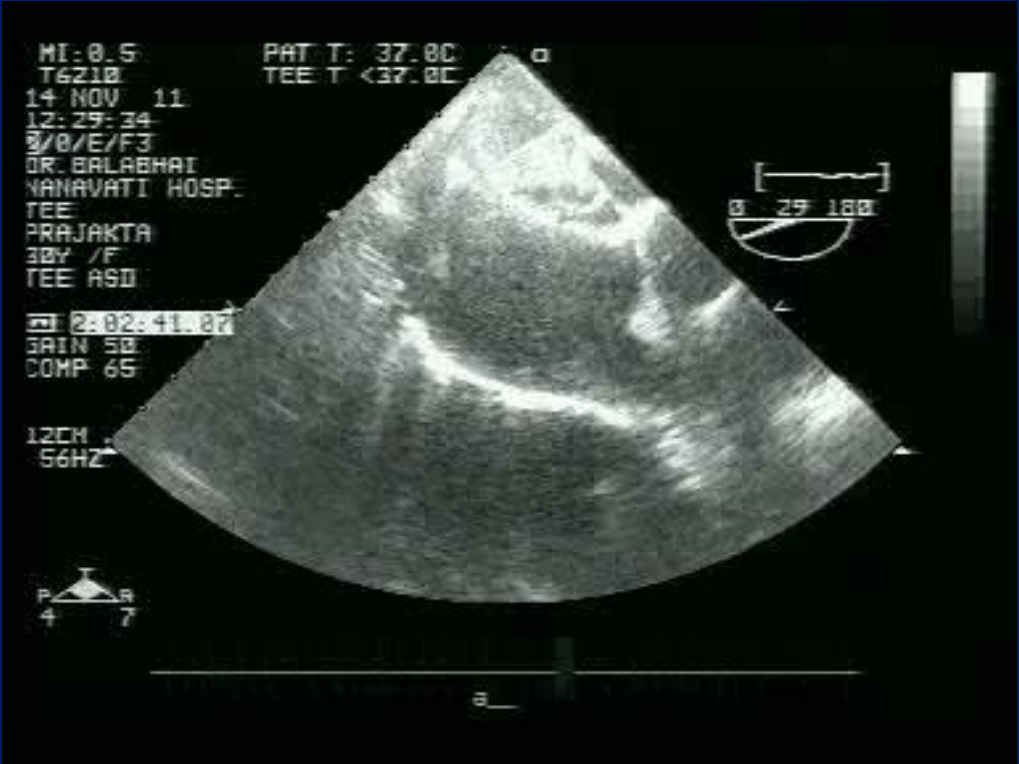




MI: 0.5 PAT T: 37.0C
T6210 TEE T: <37.0C
14 NOV 11
12:29:34
9/0/E/F3
DR. BALABHAI
NANAVATI HOSP.
TEE
PRAJAKTA
30Y /F
TEE ASD

20081107
GAIN 58
COMP 65

12CH
56HZ



MI: 0.5
T6210
14 NOV 11
12: 31: 21
0/0/E/F3
DR. BALABHAI
NANAVATI HOSP.
TEE
PRAJAKTA
30Y / F
TEE ASD

2:04:27.25
GAIN 50
COMP 65

12CM
56HZ



PAT T: 37.8C
TEE T: <37.8C



TIS: 0.8
T6210
14 NOV 11
12: 32: 09
0/0/E/10/A
DR. BALABHAI
NANAVATI HOSP.
TEE
PRAJAKTA
30Y / F
TEE ASD

2:05:16.10
GAIN 50
COMP 65

12CM
16HZ



PAT T: 37.8C
TEE T: <37.8C



4.4MHZ
59
59

MI: 0.5 PAT T: 37.0C
T6210 TEE T: <37.0C

14 NOV 11
12: 37: 07
0/0/E/F3
DR. BALABHAI
NANAVATI HOSP.
TEE
PRAJAKTA
30Y /F
TEE ASD

2:10:13.22
GAIN 50
COMP 65

12CM
56HZ

P 4 R 7



MI: 0.3 PAT T: 37.0C
T6210 TEE T: <37.0C

14 NOV 11
12: 38: 17
0/0/E/F3
DR. BALABHAI
NANAVATI HOSP.
TEE
PRAJAKTA
30Y /F
TEE ASD

2:10:24.08
GAIN 50
COMP 65

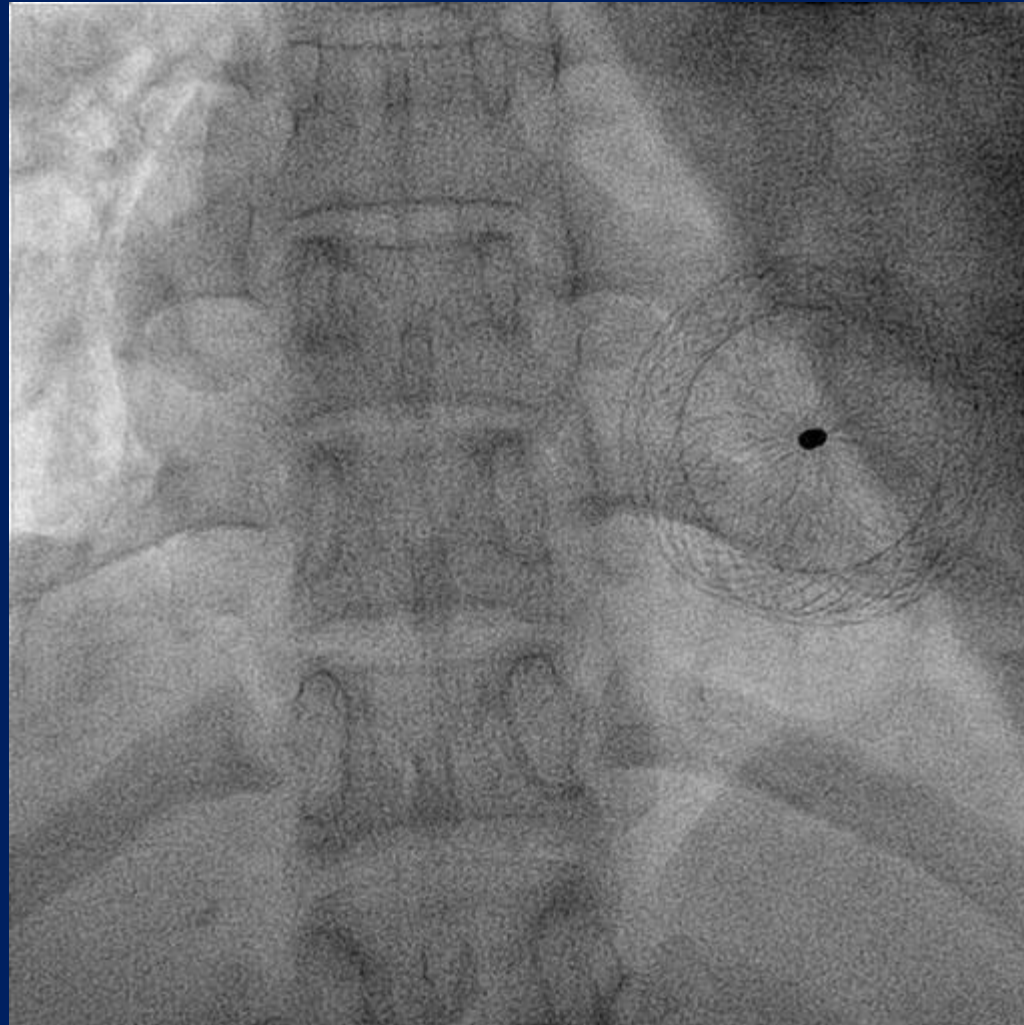
12CM

P 4 R 7



Most important step in large ASD closure

- EXTUBATION
- Retching and coughing
- More retching
- Scope showing VPBS!!!!!!!!!!!!!!



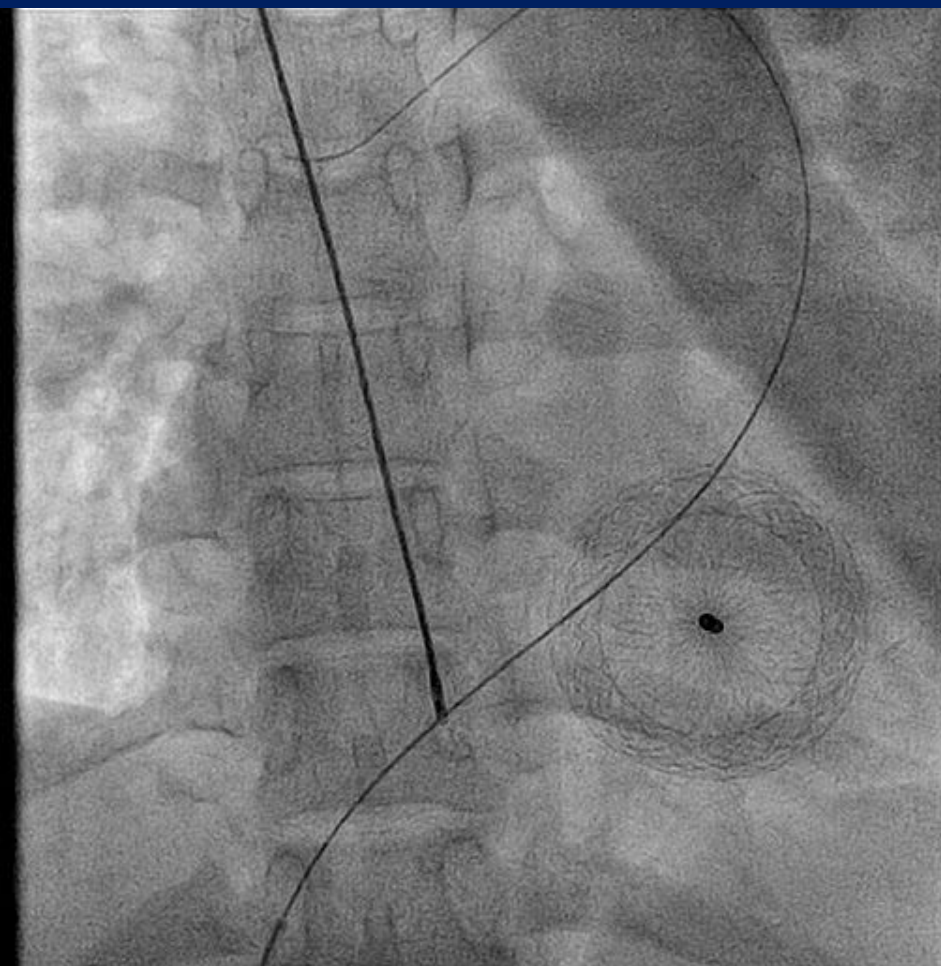
Actions Taken

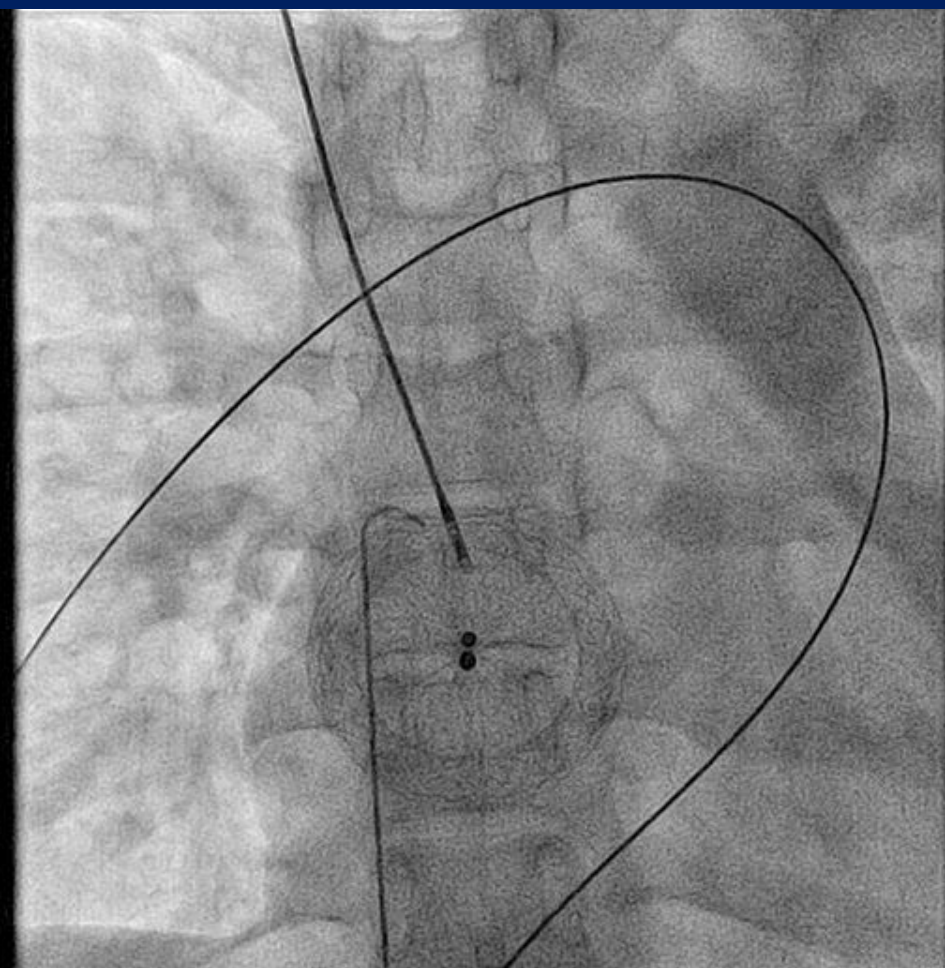
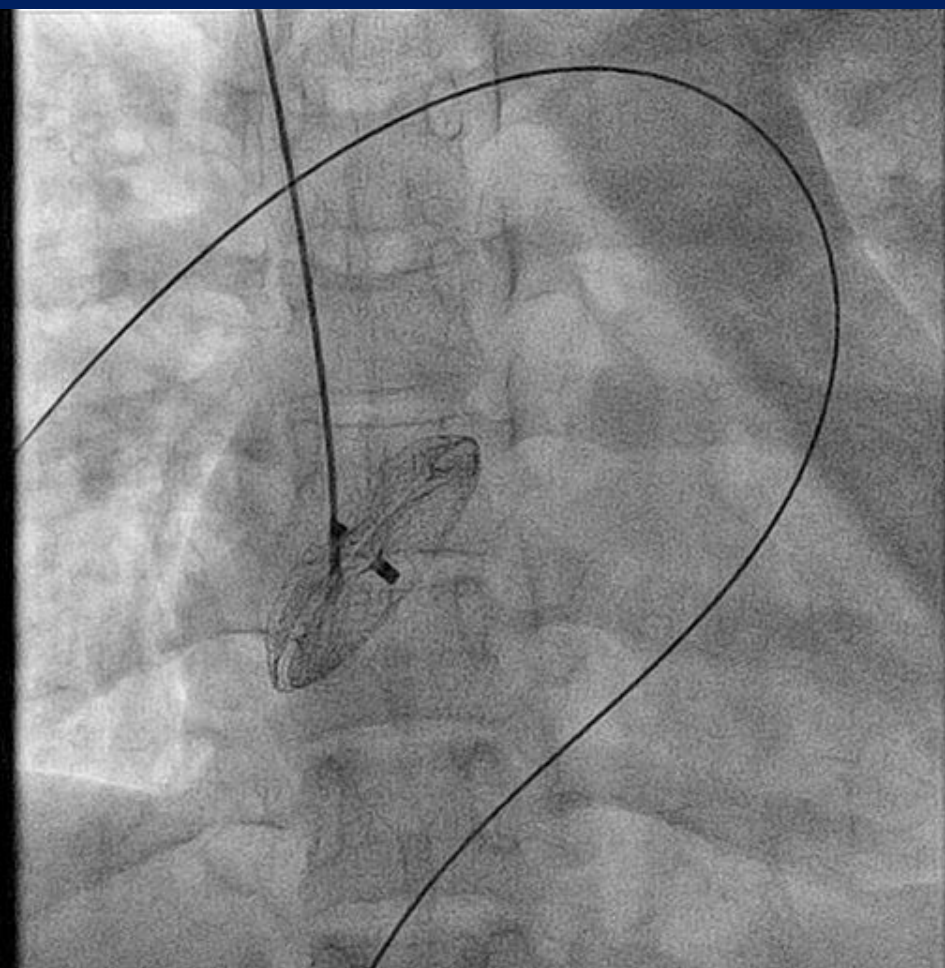
- Family informed
- Surgical team informed
- OR informed
- Decision to attempt retrieval
- Put under GA and intubated

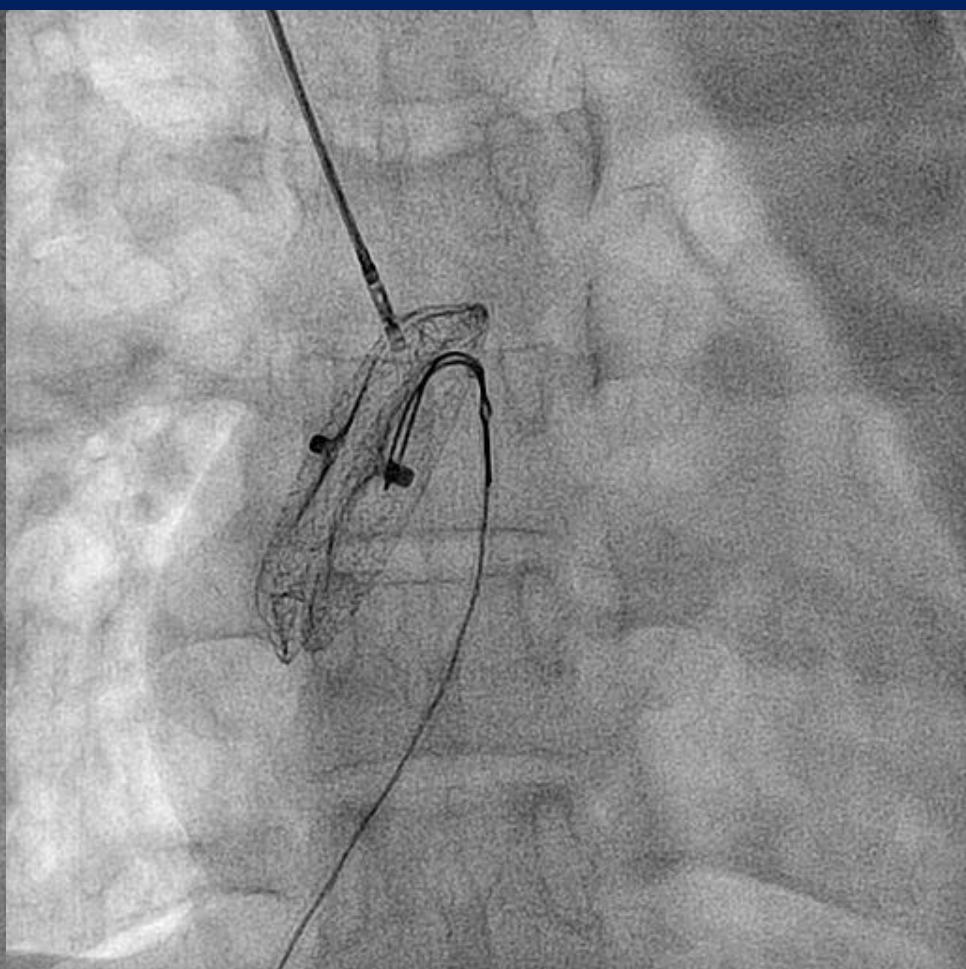
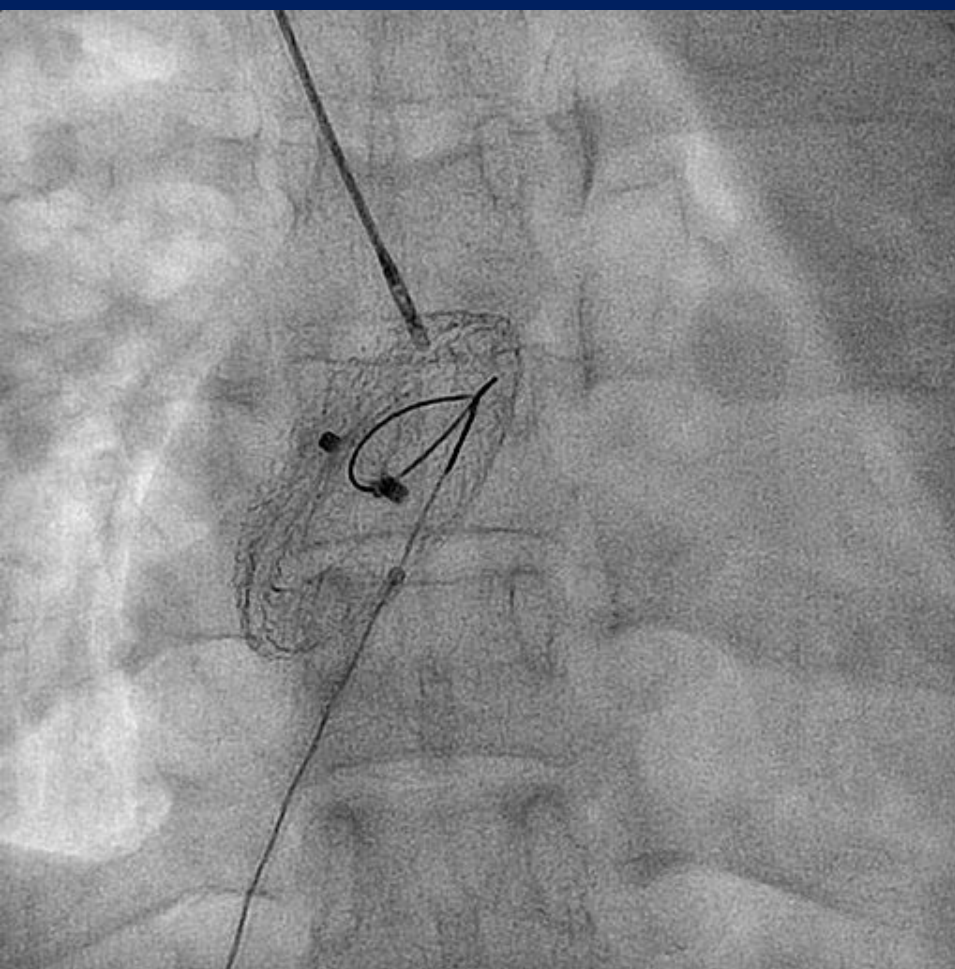
Issues

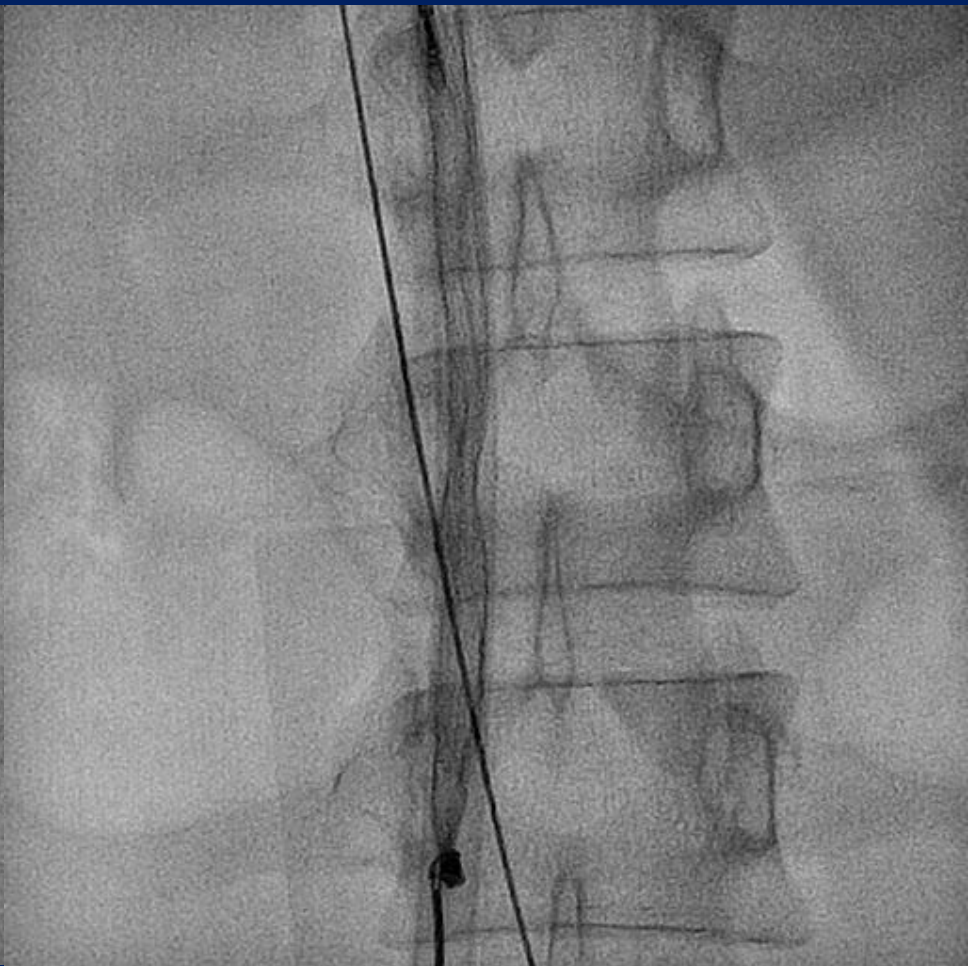
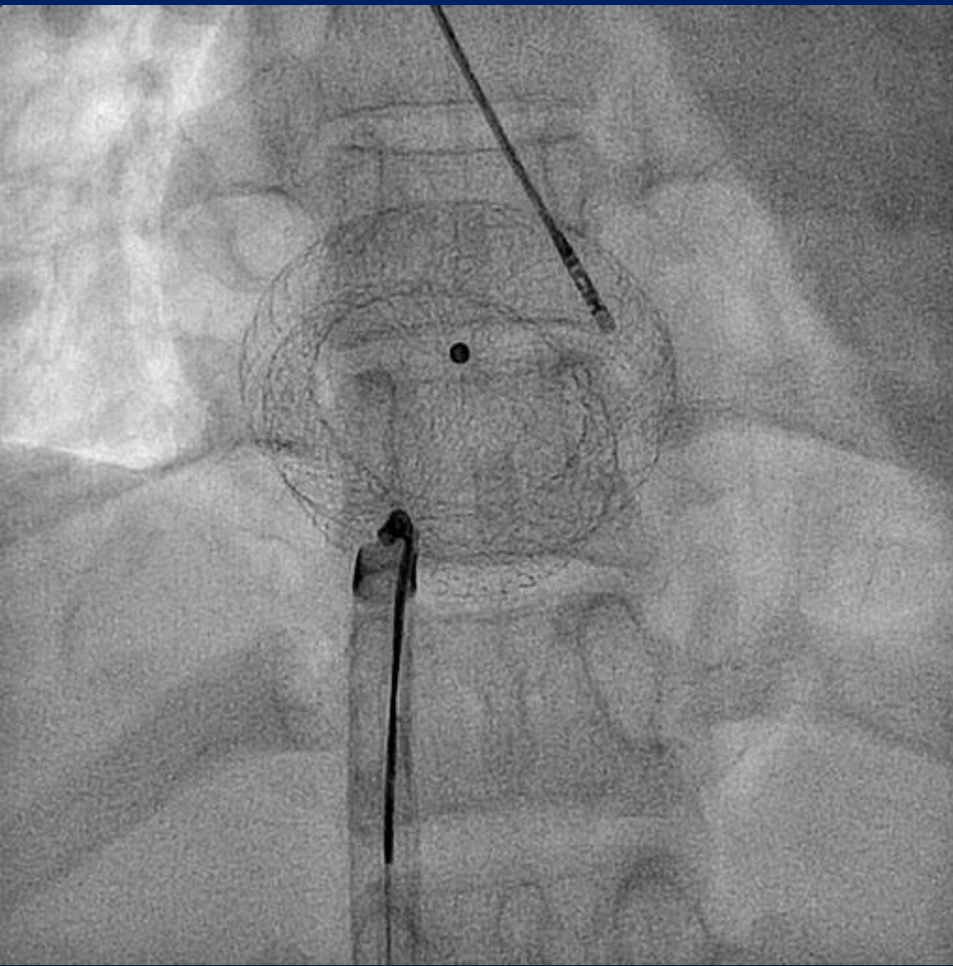
- What size sheath is needed to retrieve a 34 mm device
- Can it be retrieved by holding the RA screw alone or will need to be held at both ends
- How safe is it to retrieve the device from RV?
- What is an alternative?

- 16F sheath
- Holding the device at two ends – Good strategy : Right jugular access and a biptome
- Dislodging the device from the RV would be helpful.
 - Put a wire and then a catheter through the other groin across the TV – Prevent it from coapting
 - VPBs to produce AV dissociation



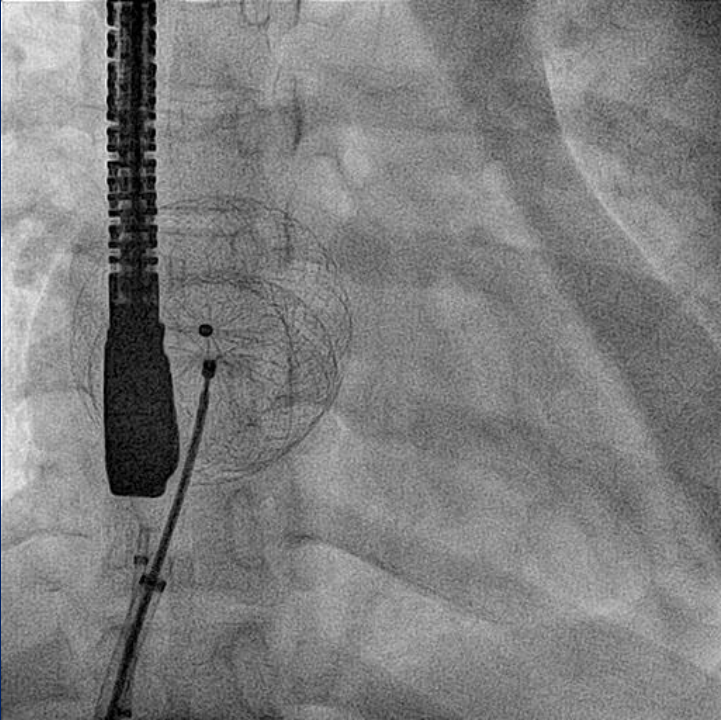
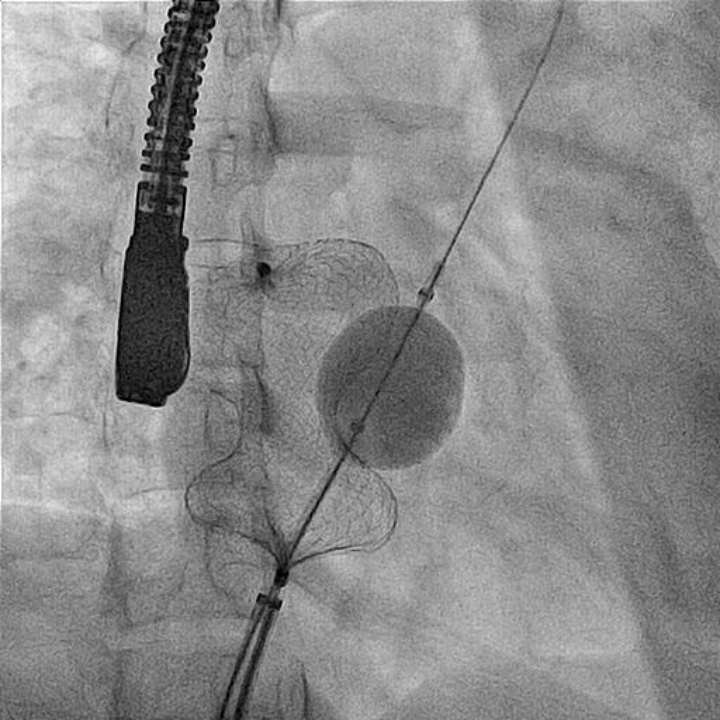
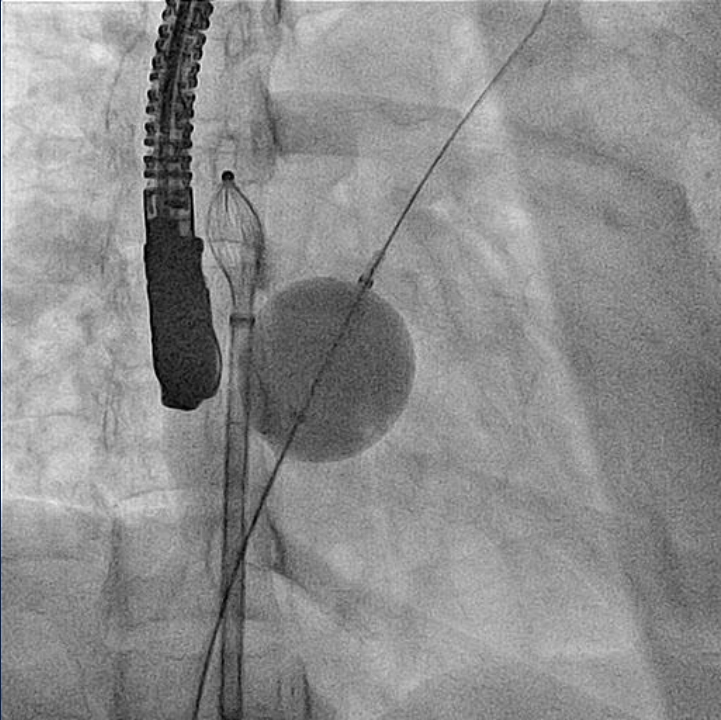
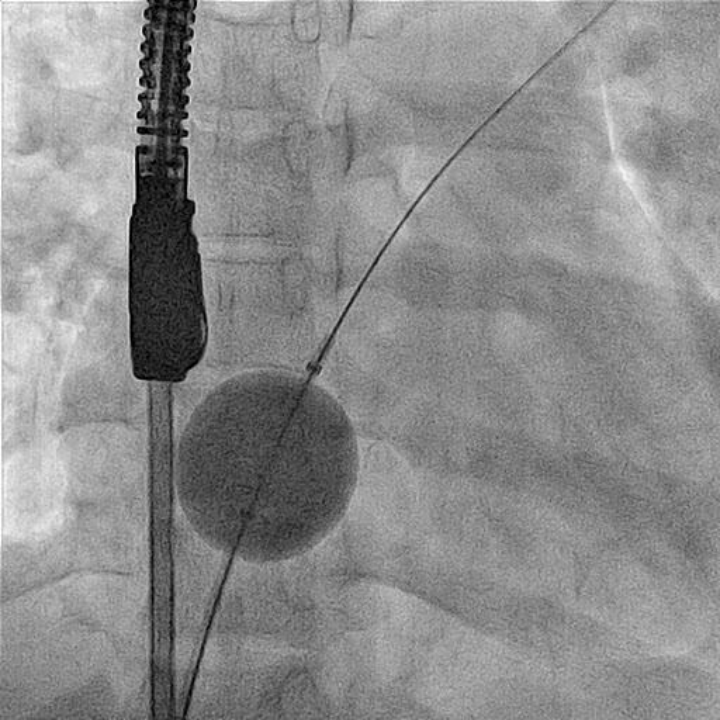


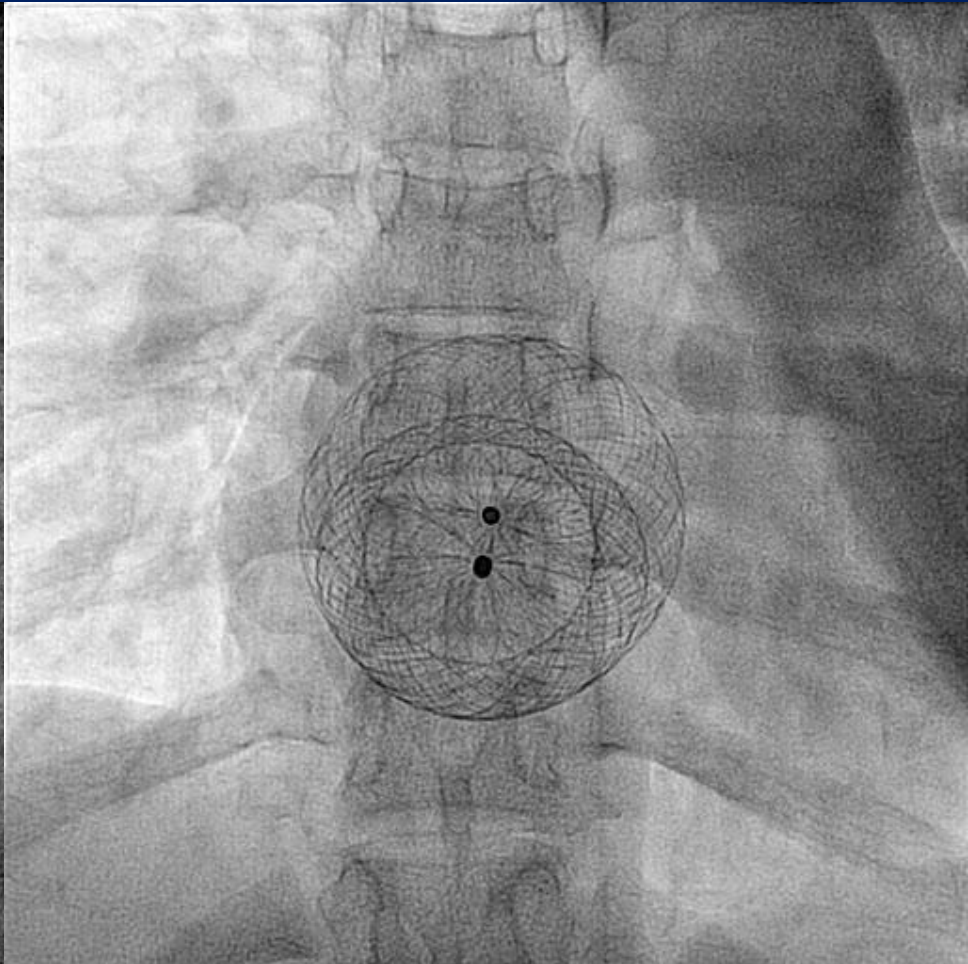
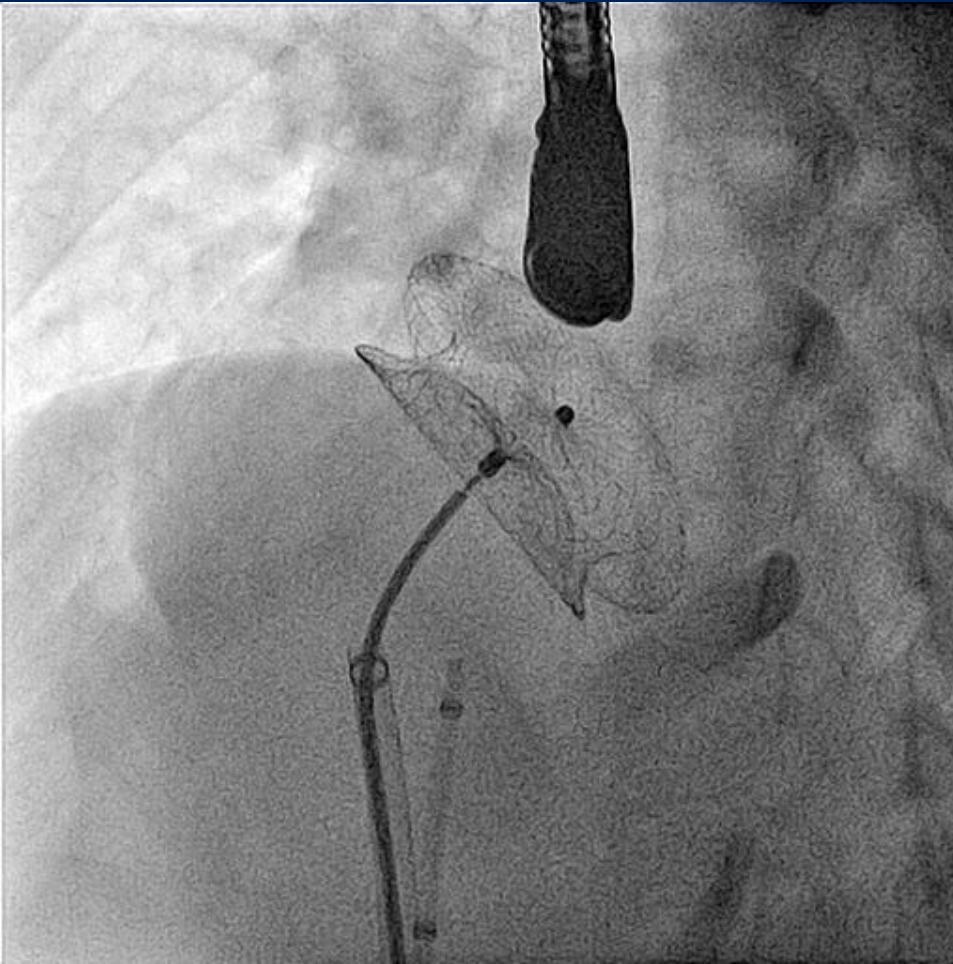




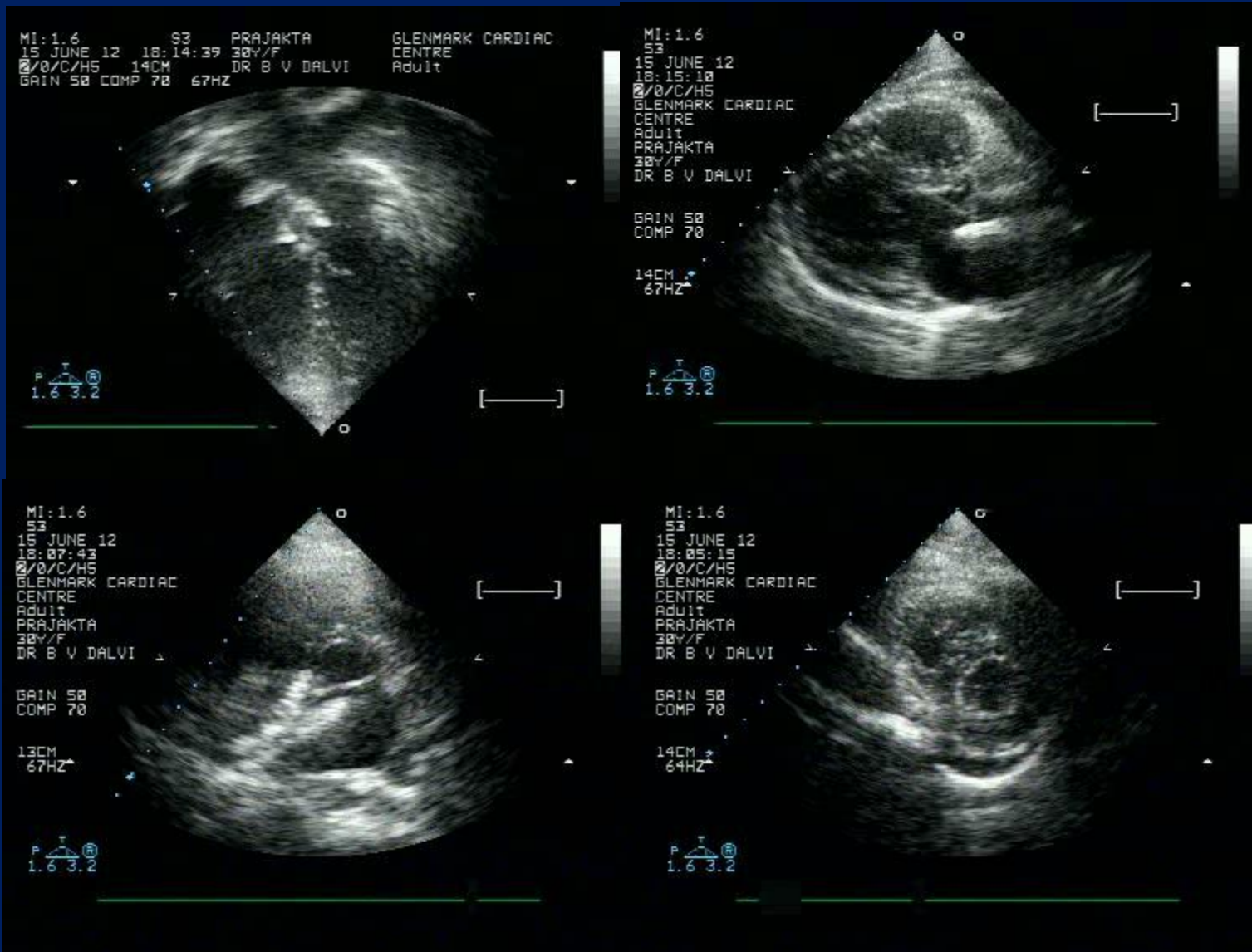
What Next?

- Surgery?
- Device?
- What size device? 36, 38, 40???



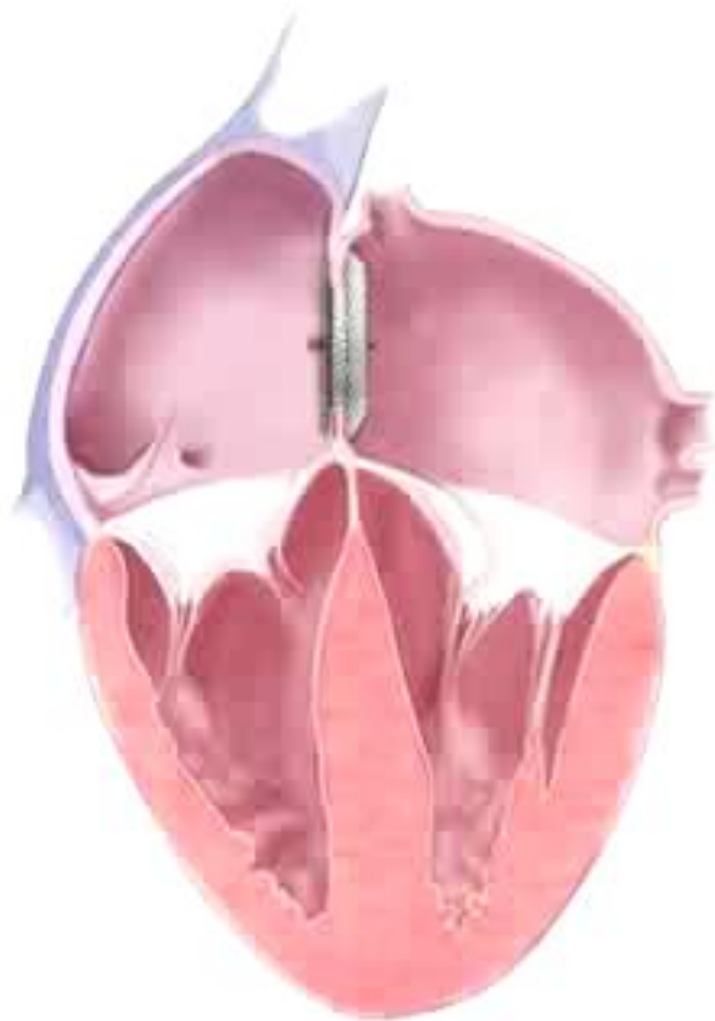


Seven month Follow Up



Lessons learnt

- Embolization remains a problem despite “experience”
- Undersizing is probably the commonest cause
- The exact mechanism remains unknown so also its relation to retching and coughing



Lessons learnt

- There needs to be a plan in place
- Large sheaths, snare and bioptome are essential
- This technique almost always works (3)
- Whether to proceed with larger device ?????
- If you are confident that the rims are adequate in length as well as in strength – another try may be worthwhile



“No
intervention
is a slam
dunk”