

Percutaneous mitral valve-in-valve for degenerated bioprosthesis

Paul TL Chiam

MBBS, FRCP, FESC, FACC, FSCAI



National Heart
Centre Singapore

SingHealth

Case 1

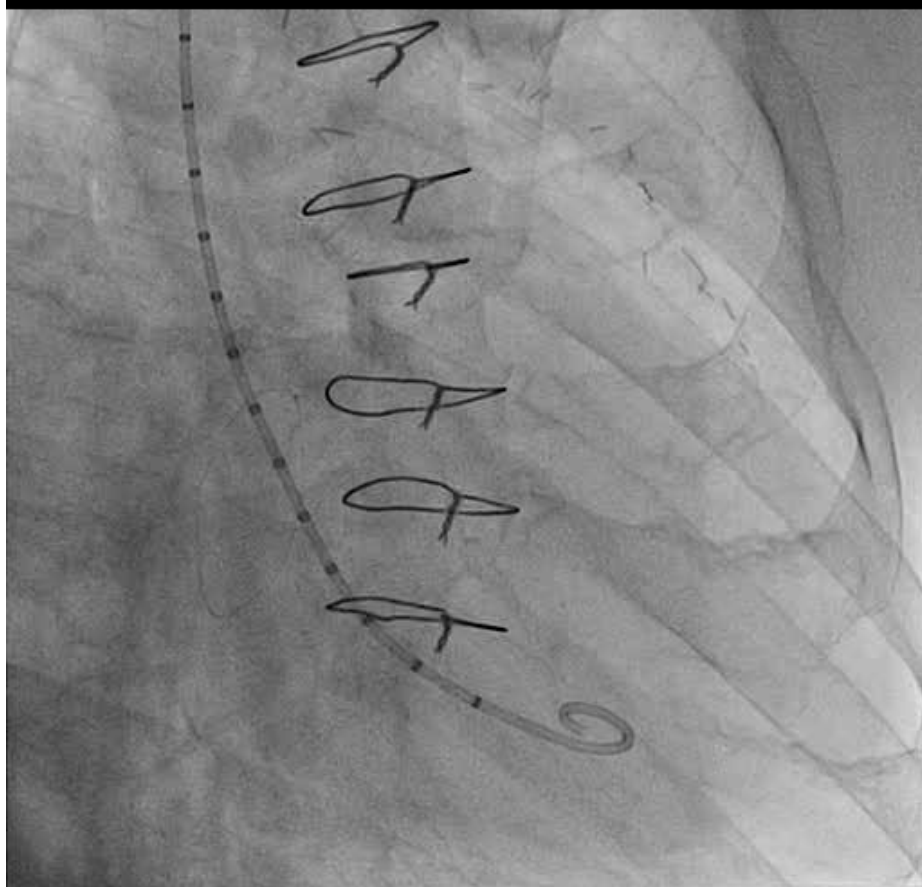
- 72 year male
- CABG
- MVR (bioprosthetic) St. Jude Epic 33mm
- DM
- HPT
- Dyslipidemia

- Presented with SOB
- NYHA III

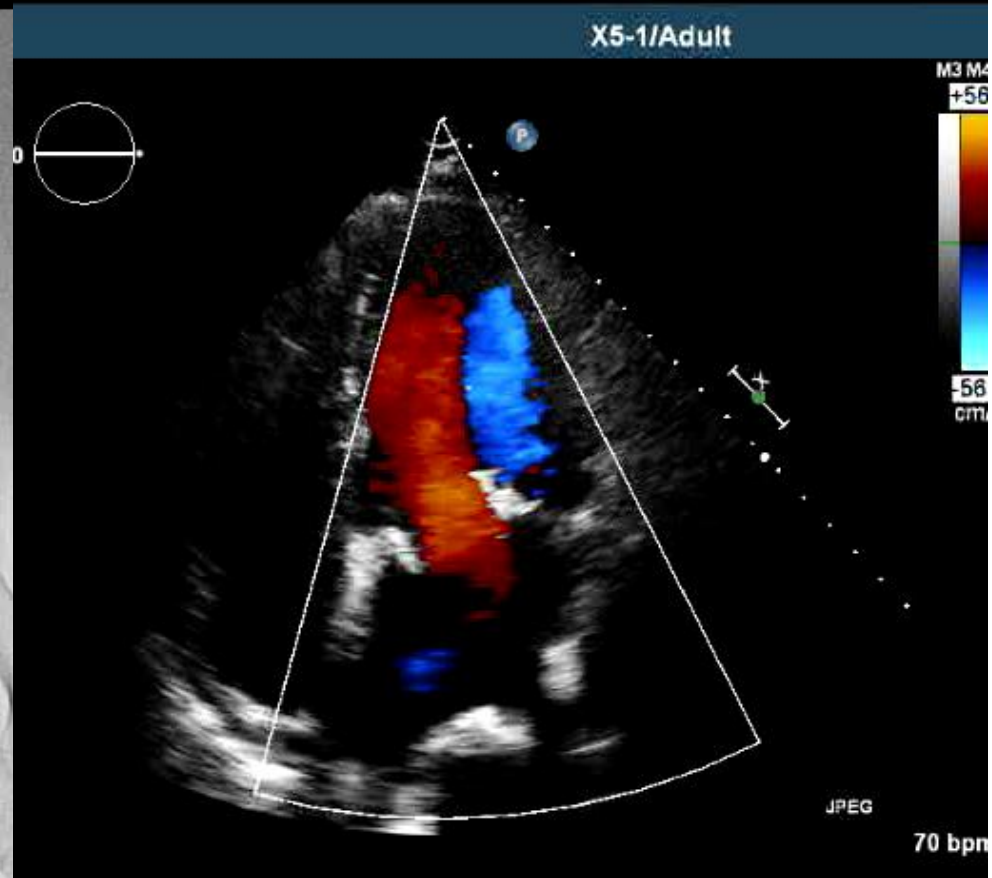
- Cath: Patent LIMA-LAD, SVG-OM, SVG-ramus
- Echo: EF 55%
- Severe bioprosthetic transvalvular MR (MPG 3mmHg)
- Mod TR
- Based on previous sternotomy and patent LIMA-LAD, decision was made to transcatheter mitral valve replacement
- Inner diameter of the St. Jude 33mm Epic = 31mm (manufacturer); CTA = 28mm



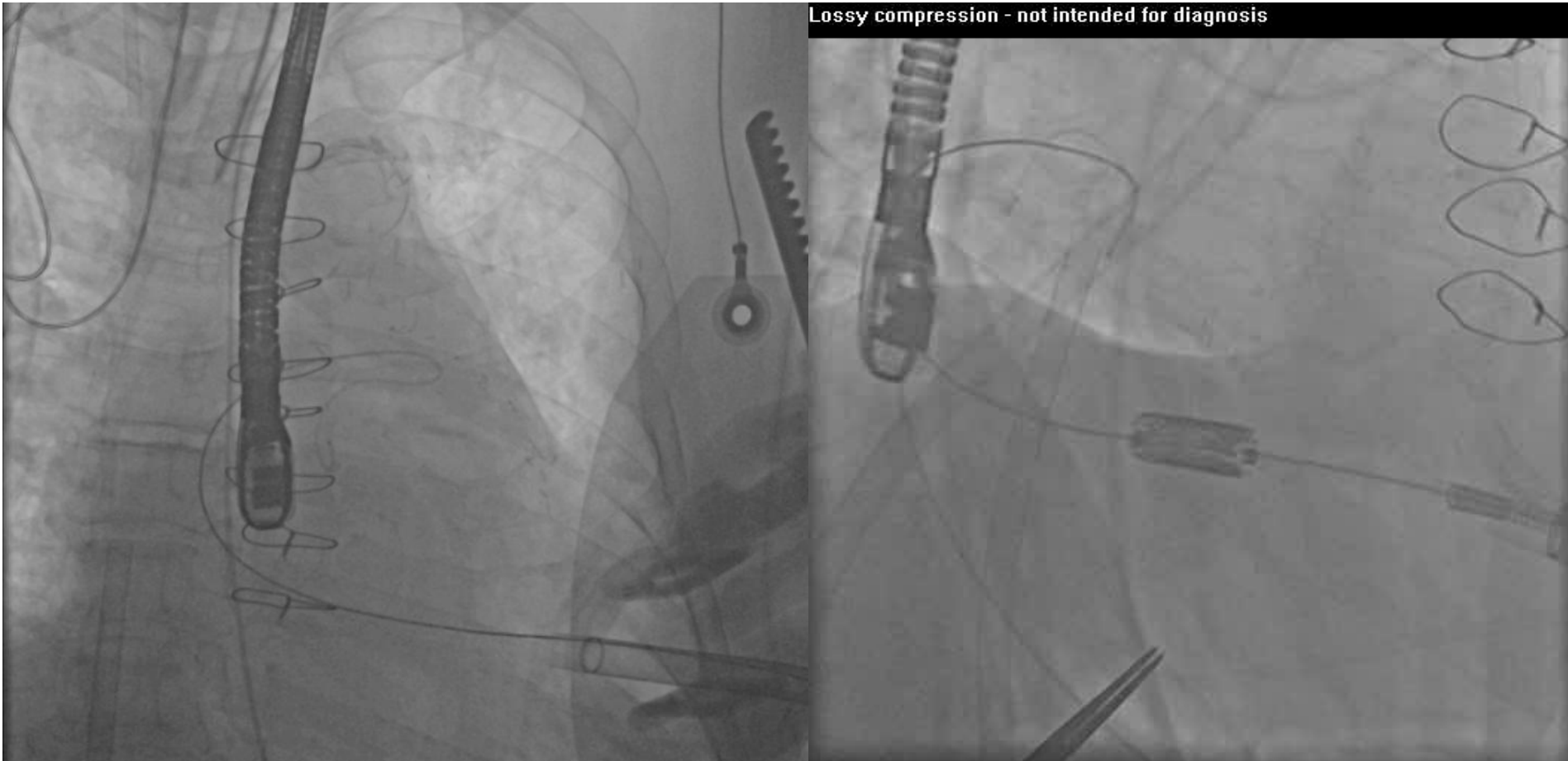
Lossy compression - not intended for diagnosis



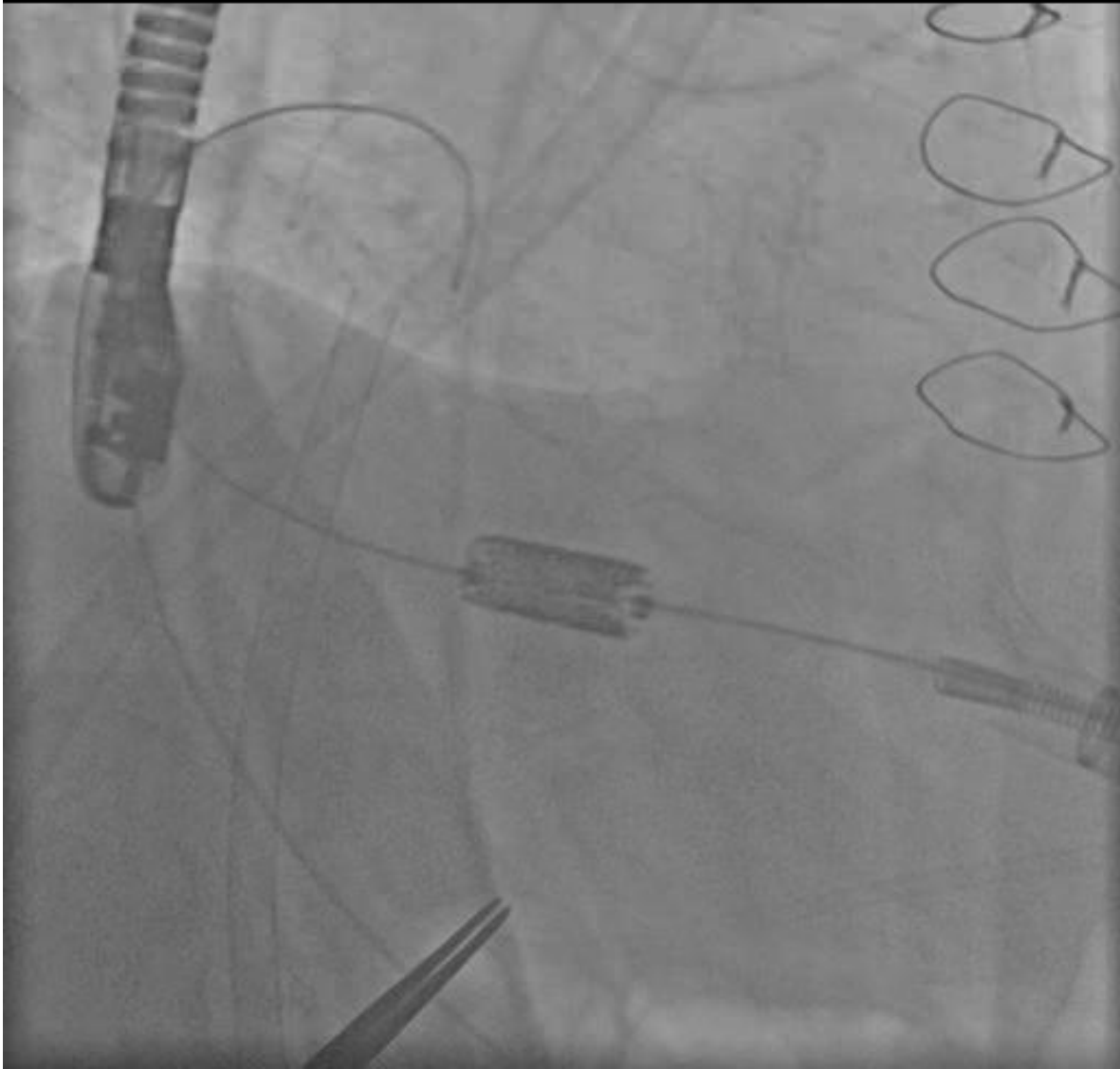
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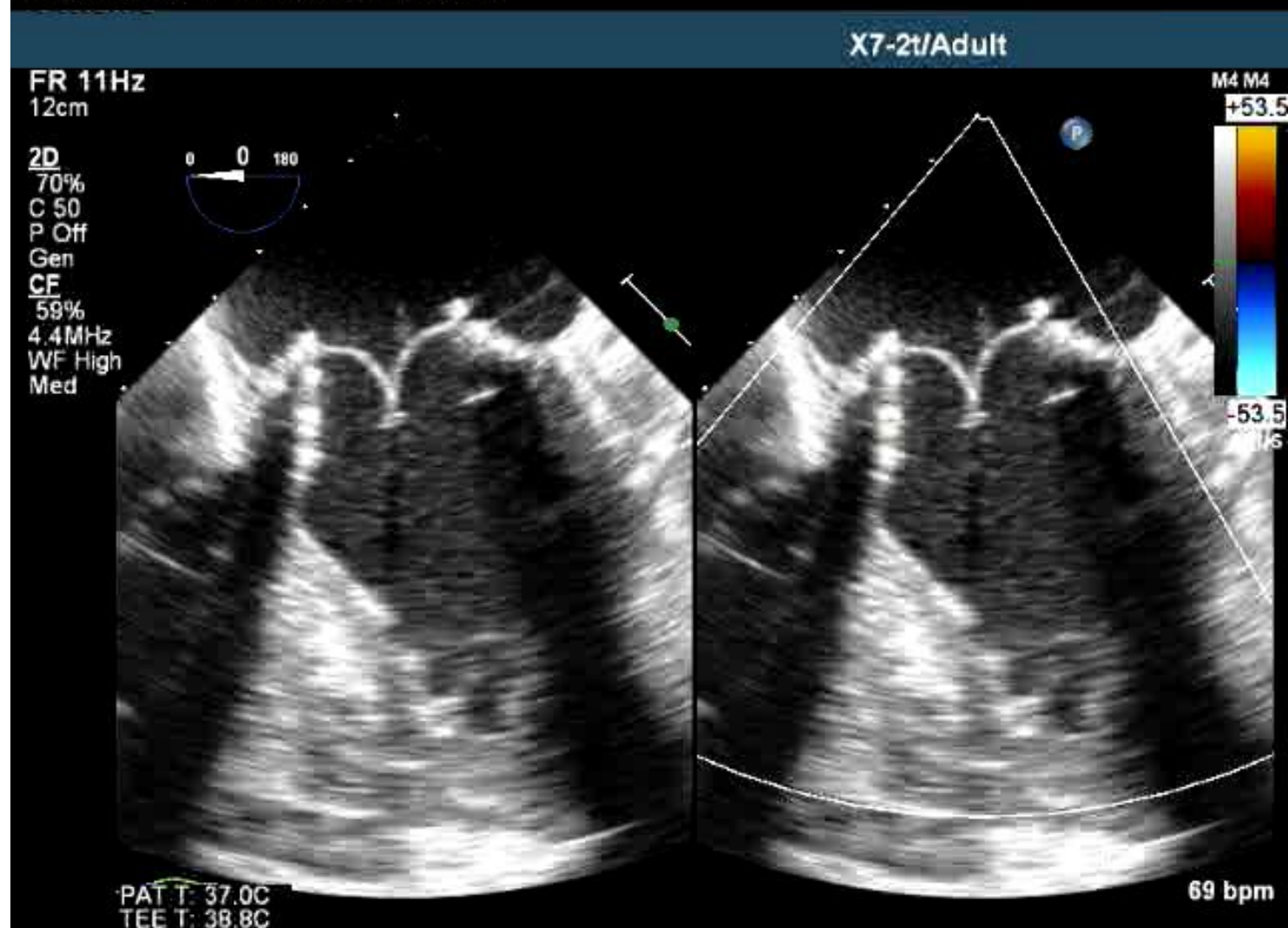
Lossy compression - not intended for diagnosis



Lossy compression - not intended for diagnosis



Lossy compression - not intended for diagnosis



Immediately post implant of a 29mm Sapien XT valve
No MR, MPG 2mmHg

Lossy compression - not intended for diagnosis

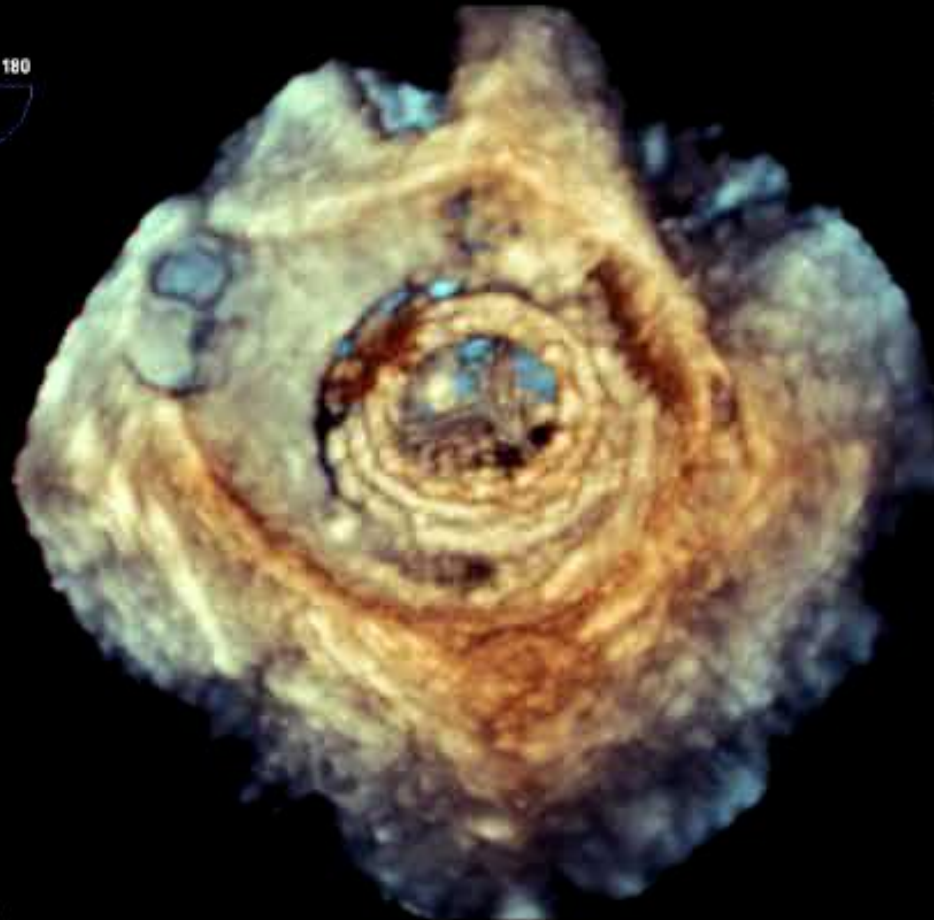
X7-2t/Adult

FR 4Hz
7.9cm

3D Beats 1

M4

3D
3D 45%
3D 40dB



PAT T: 37.0C
TEE T: 39.8C

JPEG

67 bpm

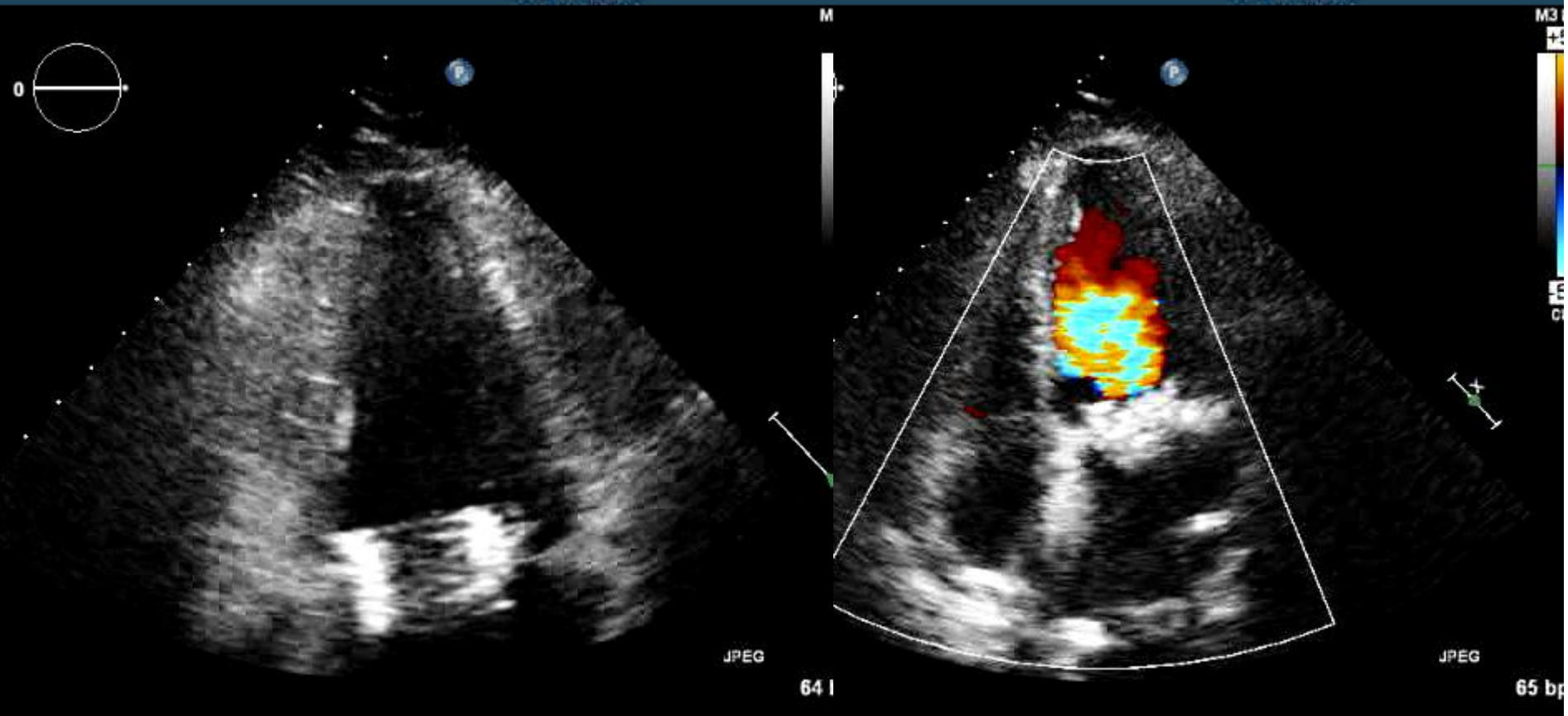
3D TEE post implant.

not intended for diagnosis

for diagnosis

X5-1/Adult

X5-1/Adult



At 1-year, NYHA I
LVEF 55%, trivial MR, MPG 4 mmHg

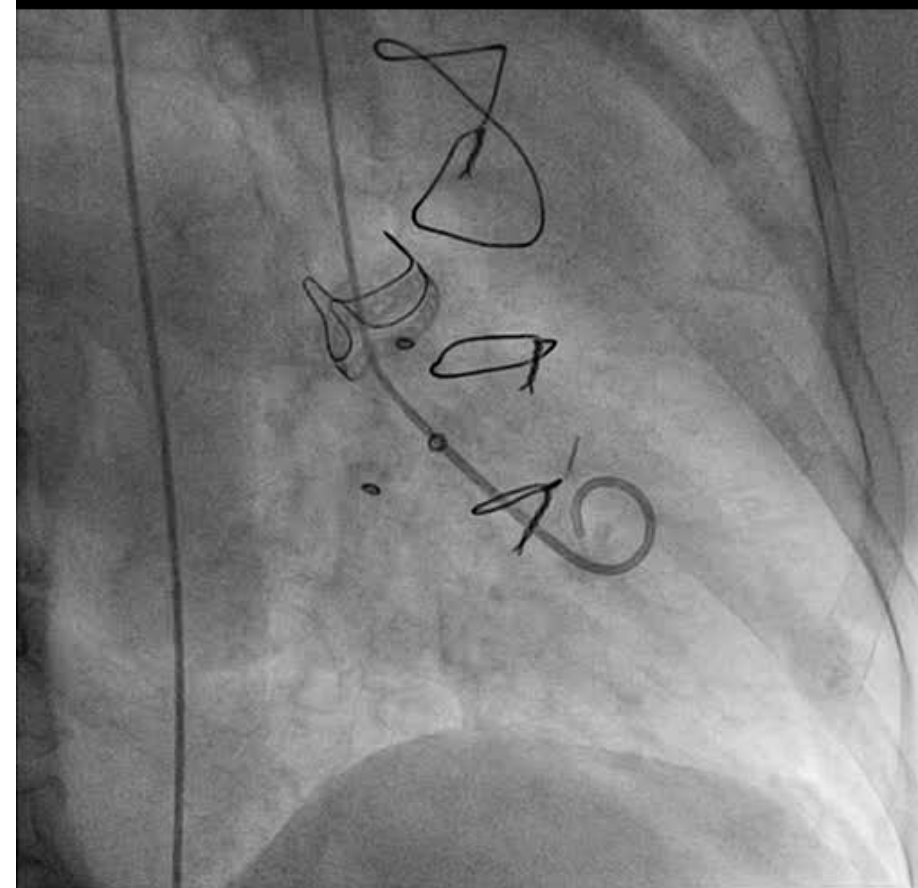
Case 2

- 77 year female
 - AVR + mitral valvotomy 1989
 - Redo AVR 19mm CE Pericardial
 - MVR (27mm Mosaic)
- } 2003
- Now NYHA III
 - AF
 - DM
 - HPT
 - Dyslipidemia

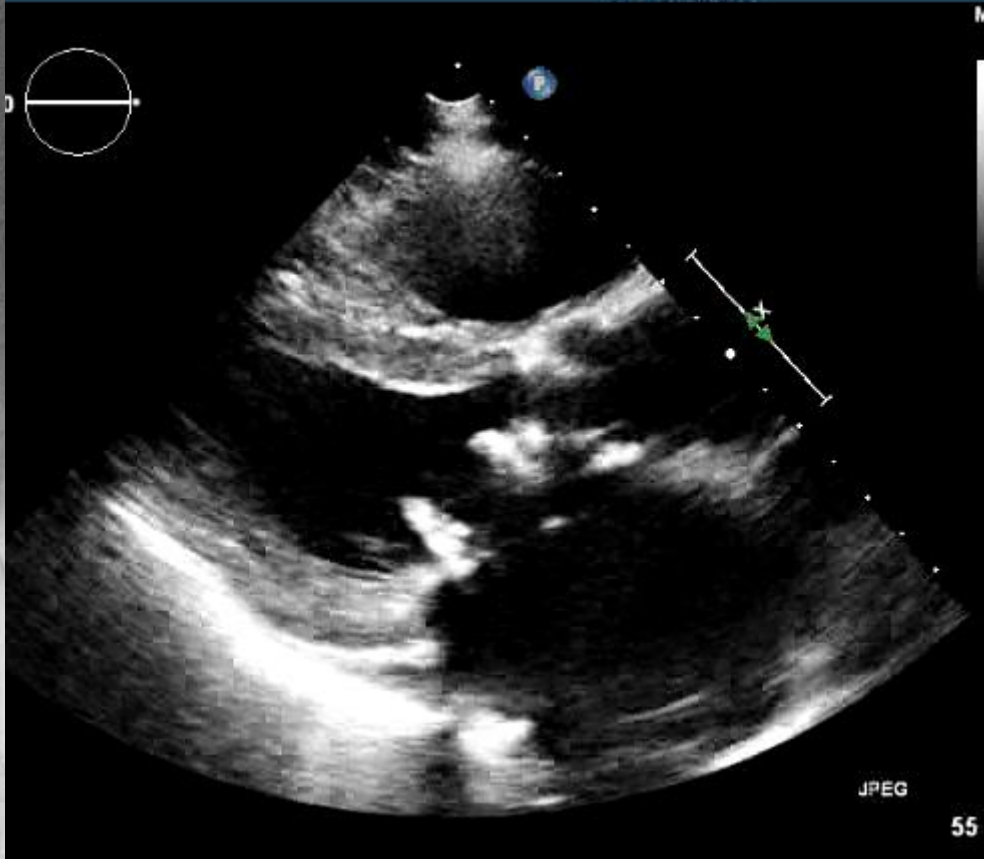
- Cath: Normal coronaries
- Echo:
- EF 55%
- Bioprosthetic AV: MPG 22mmHg, trivial AR
- Bioprosthetic MV: MPG 6mmHg, severe transvalvular MR
- Severe TR; PASP 72mmHg
- Mosaic 27mm: ID 24mm (manufacturer), 23mm (CT)



Lossy compression - not intended for diagnosis

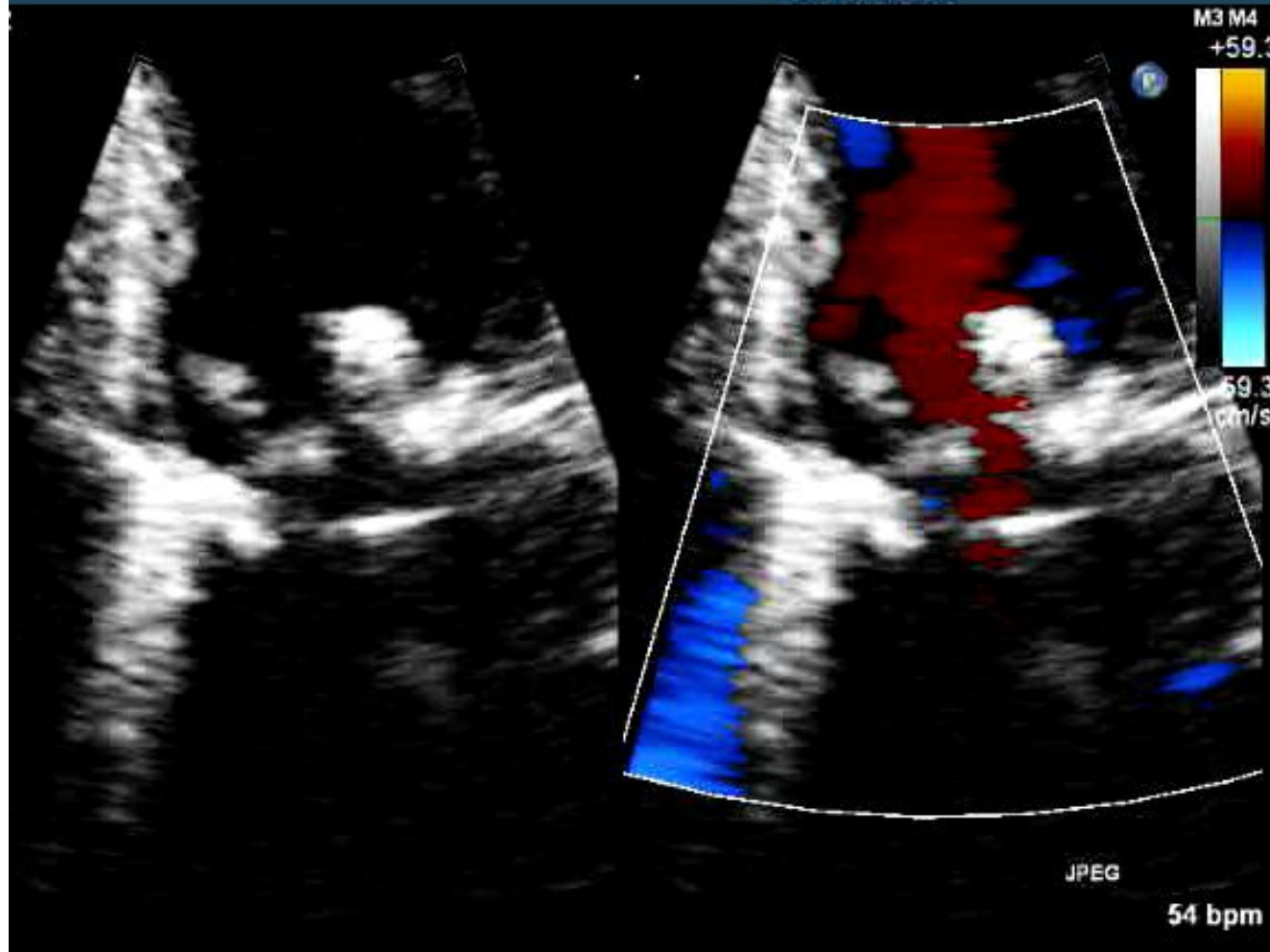


X5-1/Adult



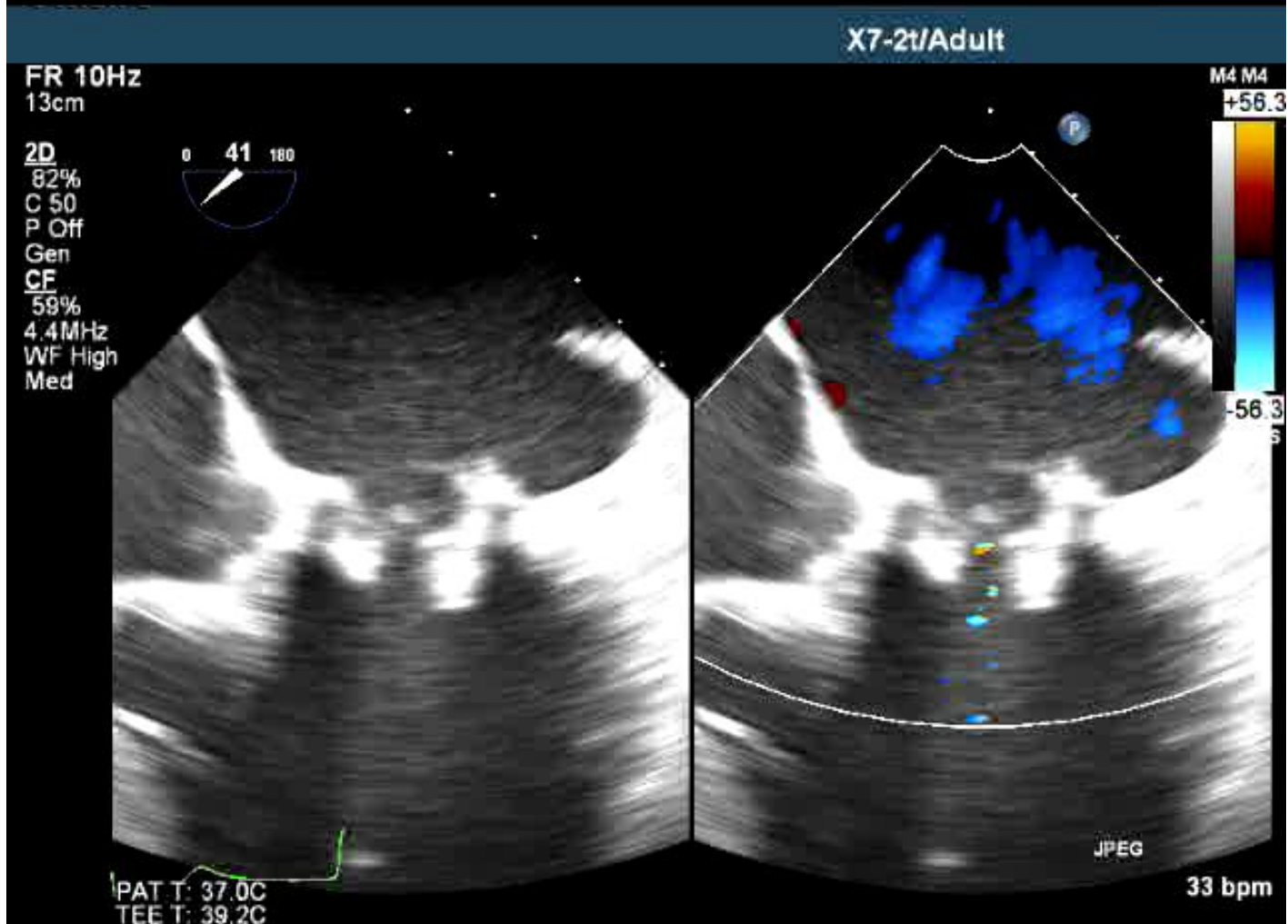
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X5-1/Adult



TTE showing MR

Lossy compression - not intended for diagnosis



TEE showing MR

Lossy compression - not intended for diagnosis



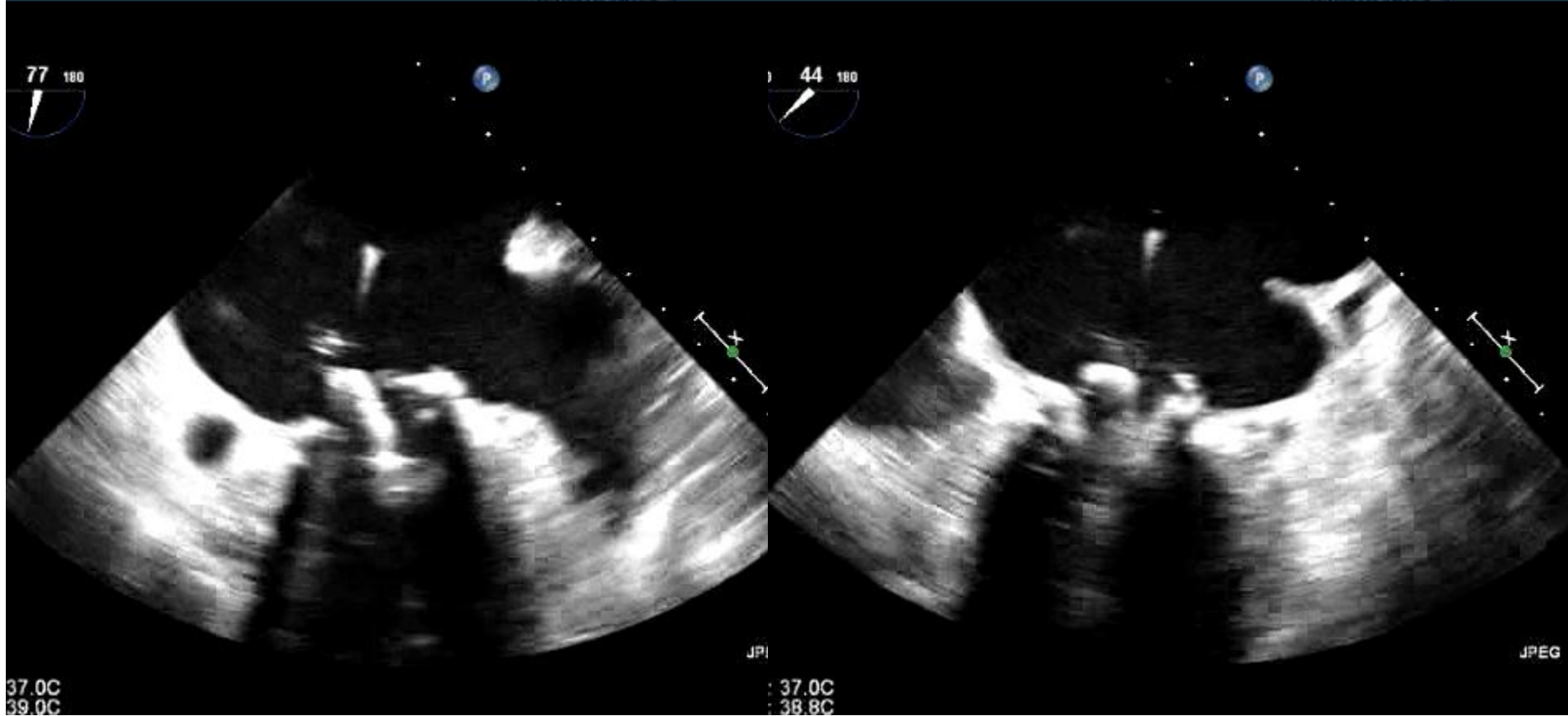
Note only 3 radio-opaque markers are seen at the level of the stent posts

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on - not intended for diagnosis

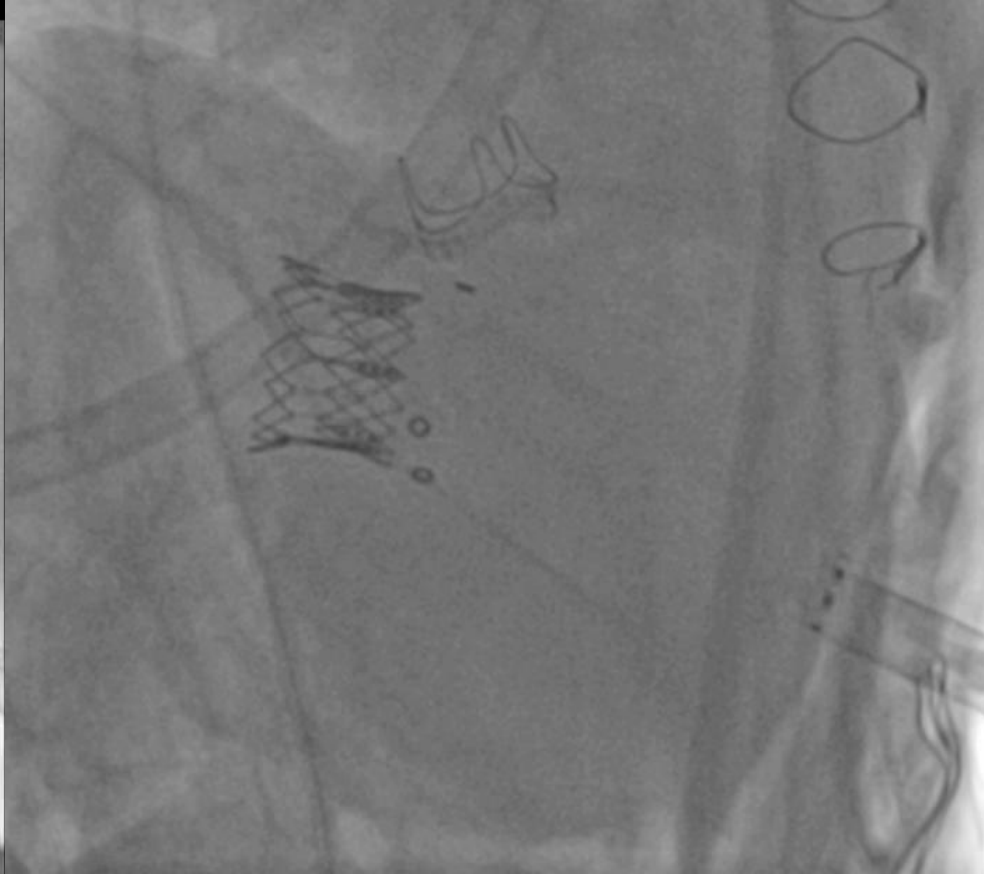
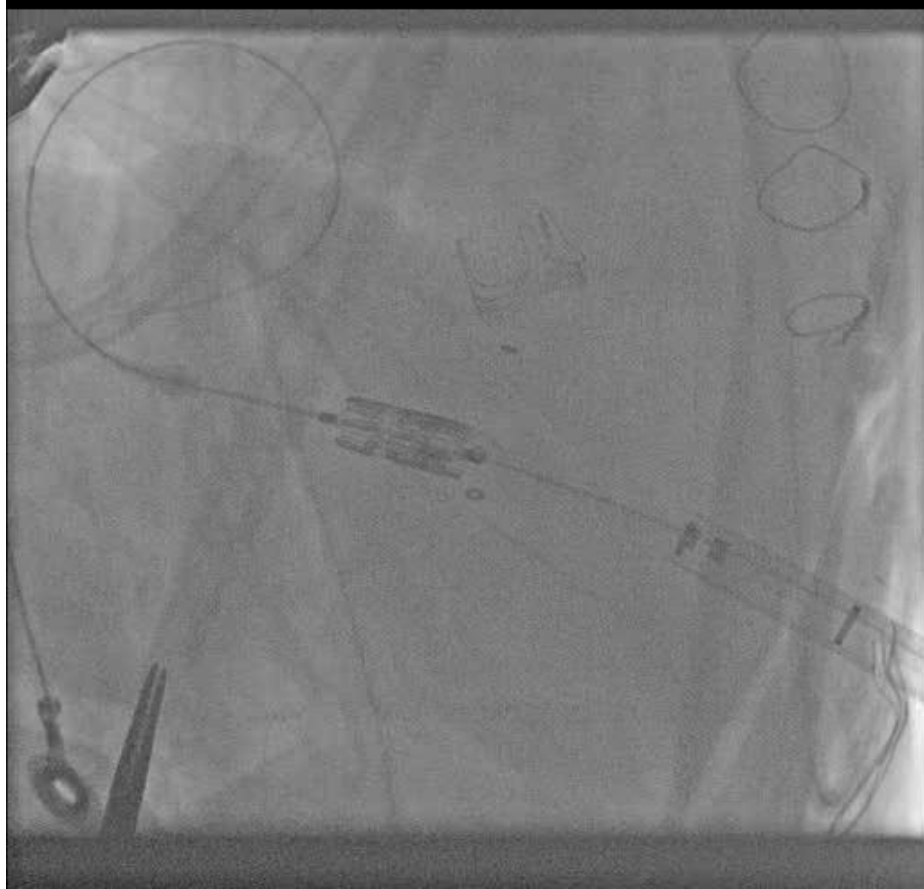
X7-2t/Adult

X7-2t/Adult

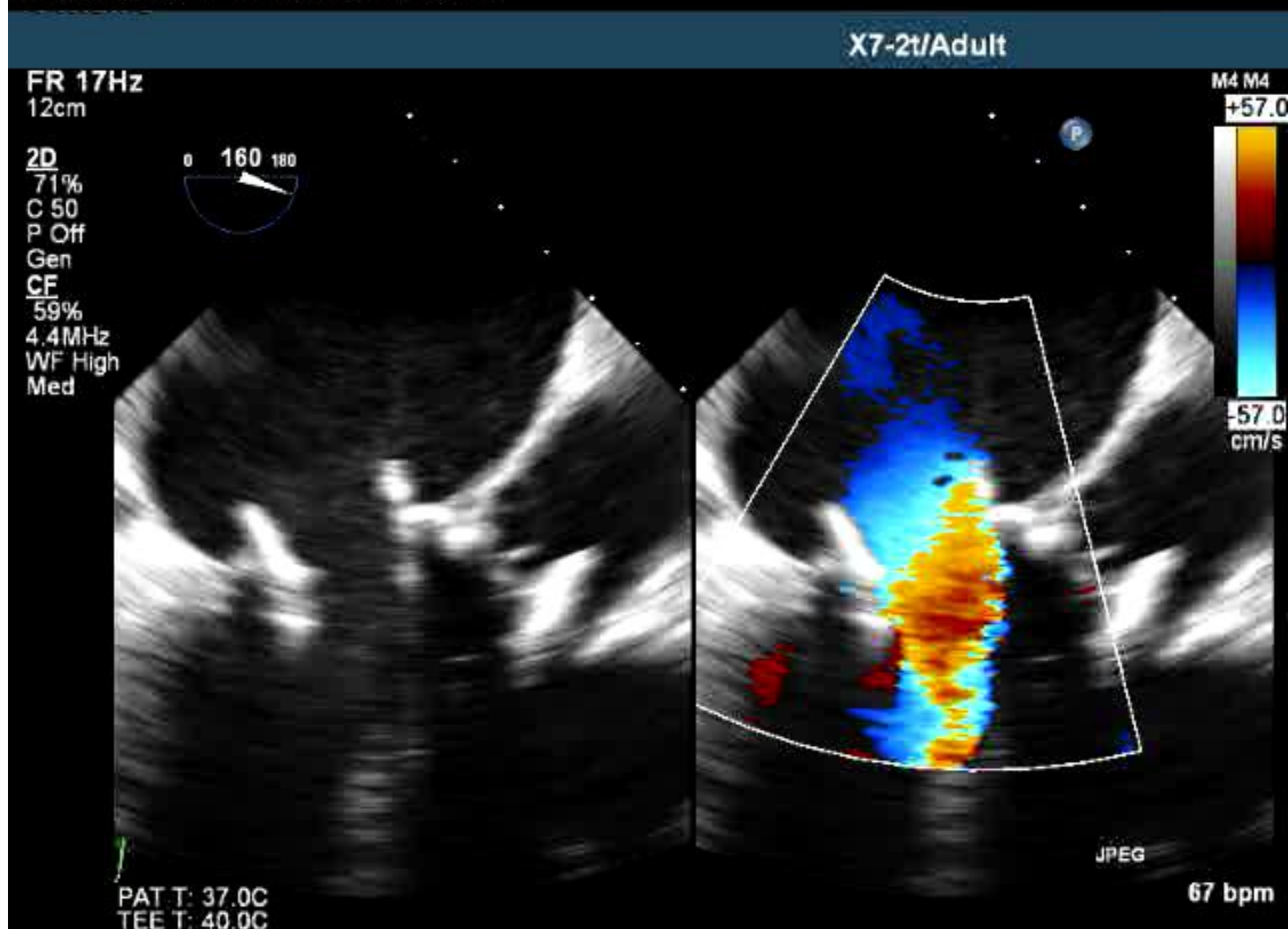


Valve positioning with TEE

Lossy compression - not intended for diagnosis

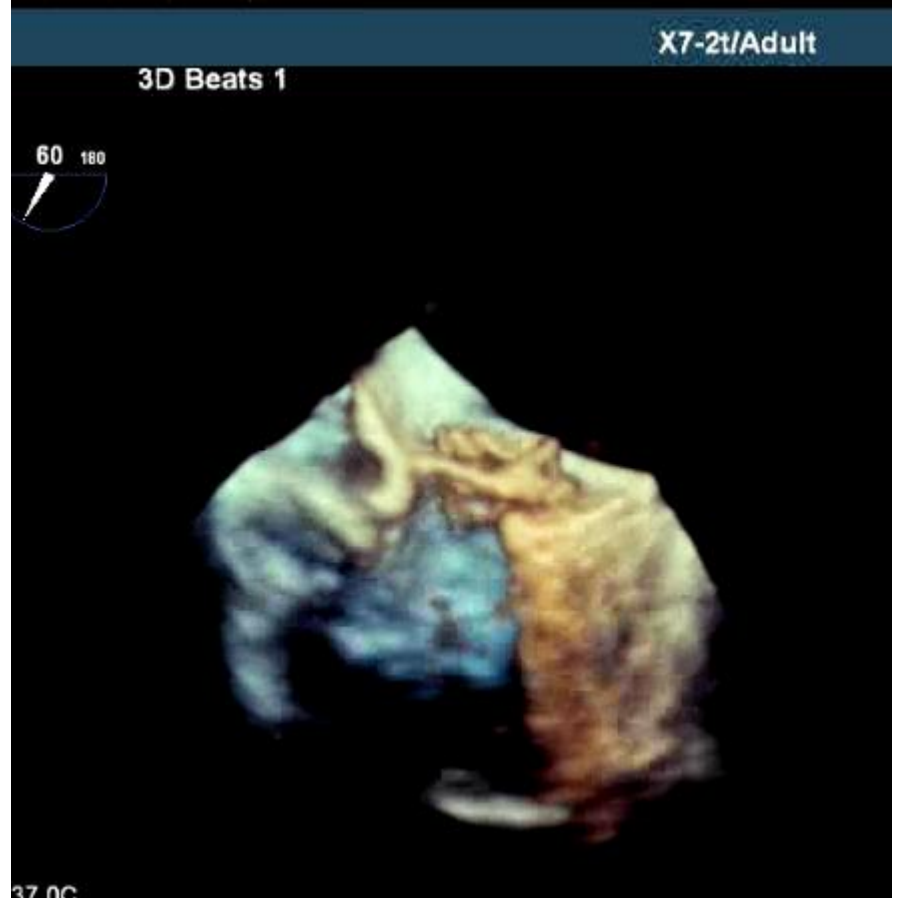


Lossy compression - not intended for diagnosis



TEE immediately post implant of a 26mm Sapien XT valve

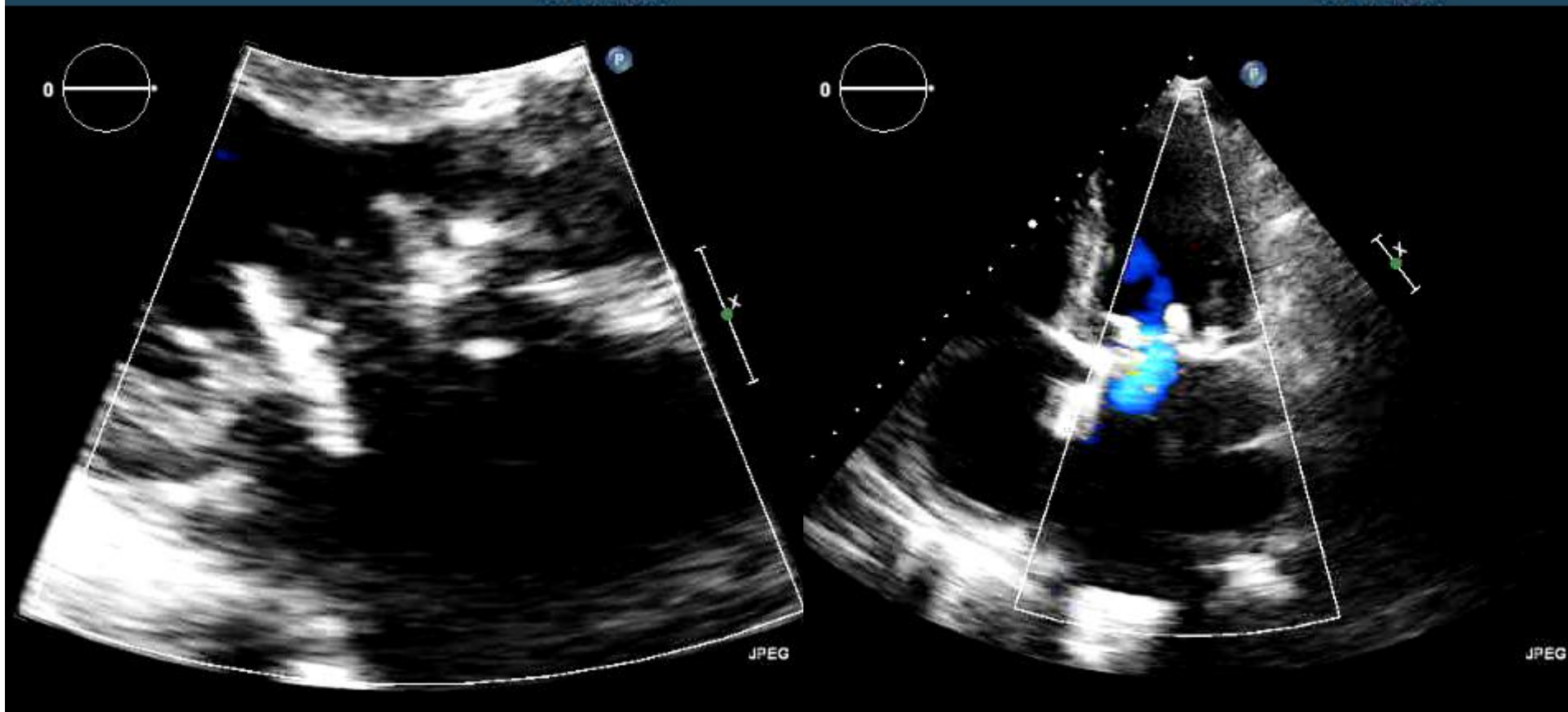
not intended for diagnosis



3D TEE post implant

X5-1/Adult

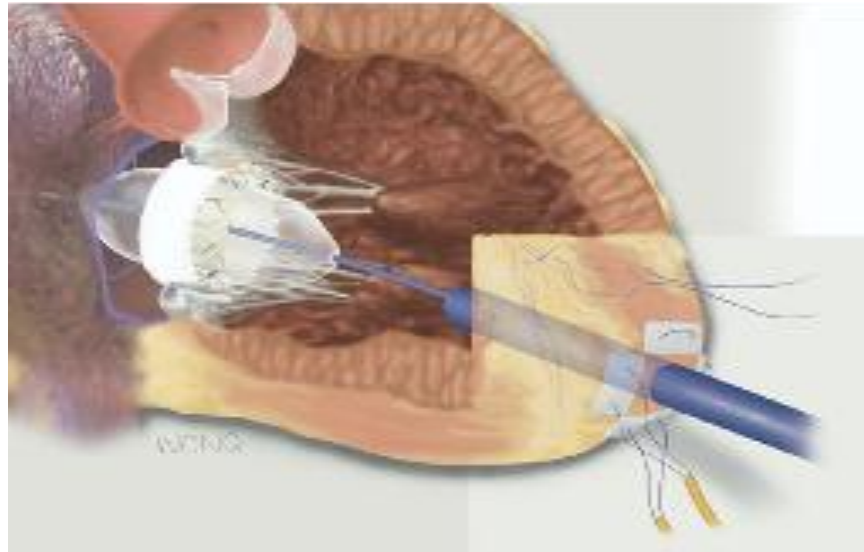
X5-1/Adult



At 6 months, NYHA I-II
LVEF 69%, MPG 8mmHg, mild transvalvular MR

Conclusion

- Mitral valve-in-valve a feasible option for some patients with degenerated mitral bioprosthesis
- Knowledge of inner diameter essential
- Need to understand the fluoroscopic landmarks of the surgical bioprosthesis
- Good hemodynamics and symptom relief can be obtained



Thank you