The optimal treatment options for your mitral regurgitation patients - a case-based discussion

T. Geisler, M.D.

University Hospital Tübingen, Germany

Potential conflicts of interest

Speaker's name: Tobias Geisler

I have the following potential conflicts of interest to report:

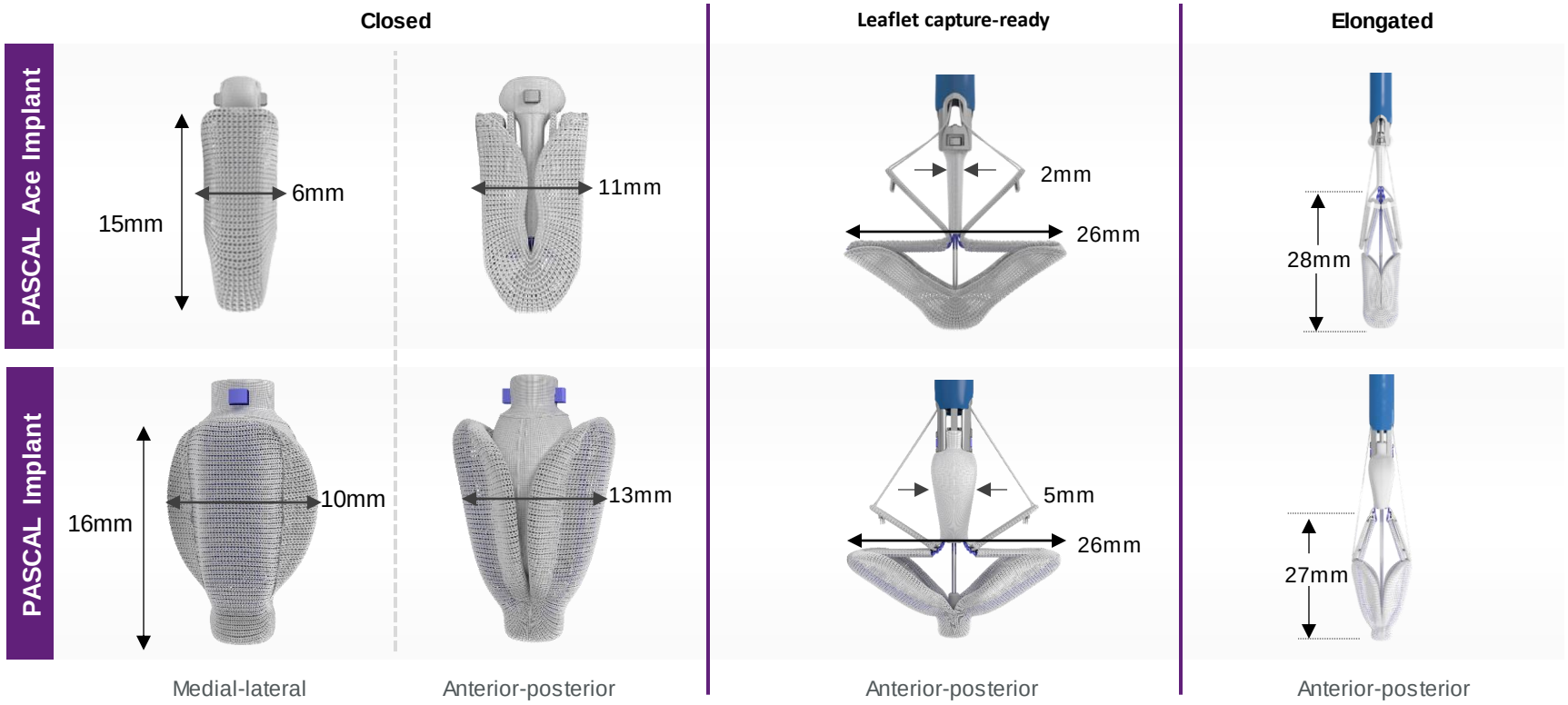
Boston Scientific: Research grants

Edwards Lifesciences: Research grants, honoraria

Medtronic: Honoraria

PASCAL Ace and PASCAL Implants

Implant dimensions



For Professional use. See instructions for use. CE Marked medical device.

PASCAL Implants

Paddle

- PASCAL implant paddles meet the contour of the larger Spacer
  - Paddles meet at the distal end and gradually recede proximally

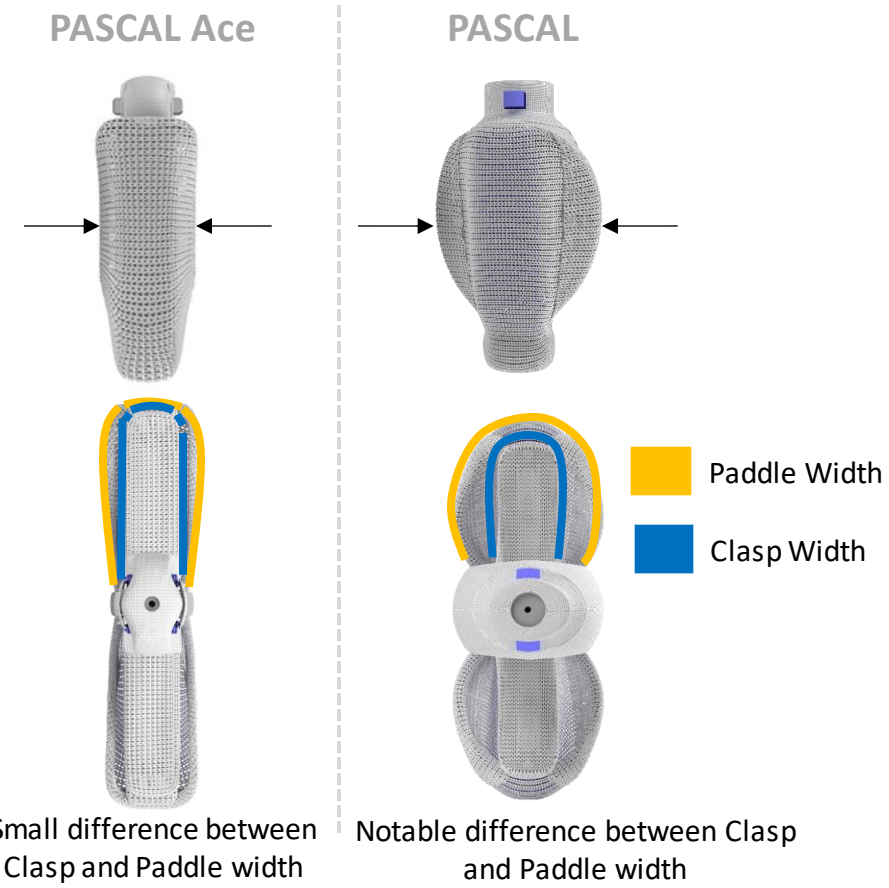
- PASCAL Ace implant paddles closely follow the centerline
  - The Spacer shape allows Paddles to close nearly parallel

PASCAL Implants

Paddle

PASCAL Ace:

- Narrower Paddle width
- Designed to improve navigation through chordae
- Improved visualization
  - Increased confidence during leaflet capture
  - Clasp width relative to Paddle width



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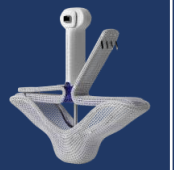
PASCAL Implant Selection for Mitral Regurgitation

Where is PASCAL preferred? 	Where is PASCAL Ace preferred? 	Where do we need consensus? 
Restricted / shorter leaflet	Commissural jet	Calcification near the grasping zone
FMR	Dense chordae	Large flail gap
	Longer leaflet	Extensive prolapse
	DMR	MVA < 4cm^2
		Severe tethering
		Clefts

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Philip Raake, M.D.

University Clinic Heidelberg,
Germany

EAPCI
European Society of Cardiology

Potential conflicts of interest

Speaker's name: Philip Raake

I have the following potential conflicts of interest to report:

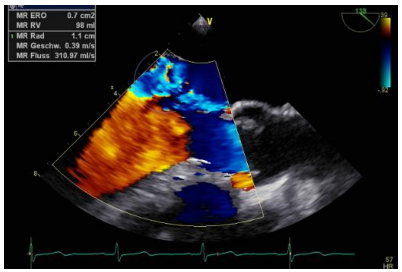
Speaker and/or consultant honoraria:

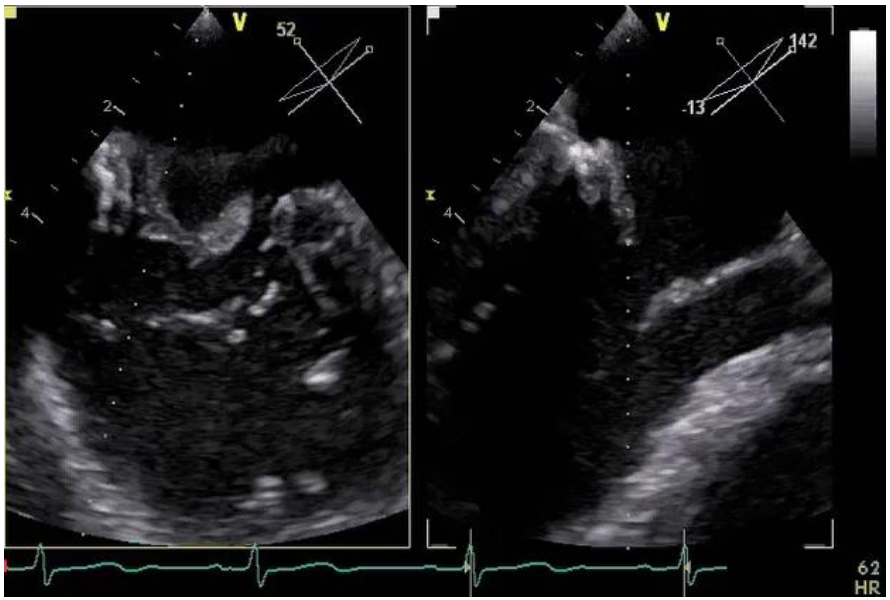
Edwards, Medtronic, Abbott, Biotronik, Astra-Zeneca, Novartis, Bayer, Vifor, Daiichi-Sankyo, CTI GmbH, Diaplan, Elisabeth-KH Essen, Conventus Congressmanagement Jena, BDI, CMI Medizinische Ausstellungs- und Werbegesllschaft Wien, Herzzentrum Leipzig, Leipzig Heart Institute GmbH, Kelcon, Deutsche Gesellschaft für Kardiologie.

Research Grant: Pfizer, Else-Kröner-Fresenius-Stiftung

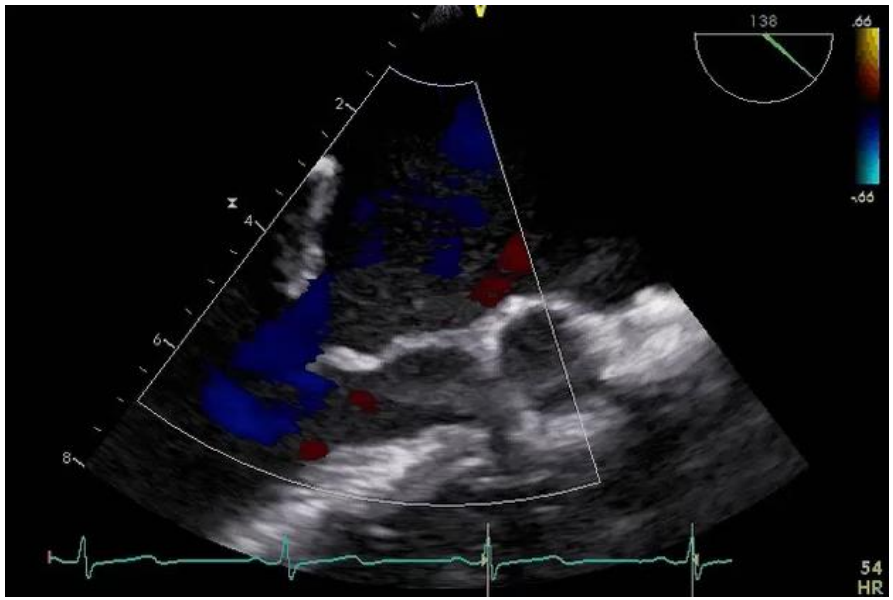
Flail leaflet P1/P2 - baseline

Patient, 84y, f
MR 3+ (Carpentier II)
NYHA III, LV-EF 52%
V-Wave 33mmHg, PAs 65mmHg





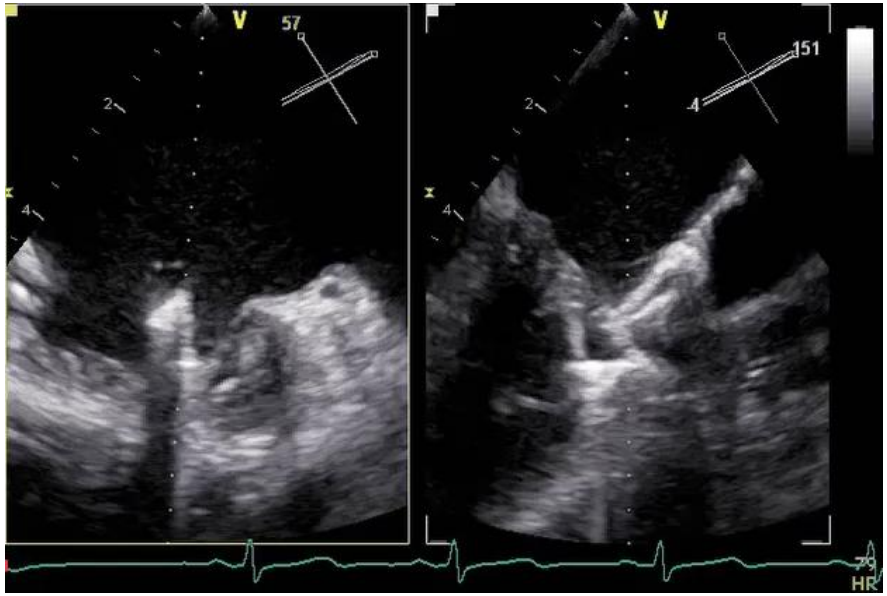
MI III° (Carpentier II, Flail leaflet P1/P2)



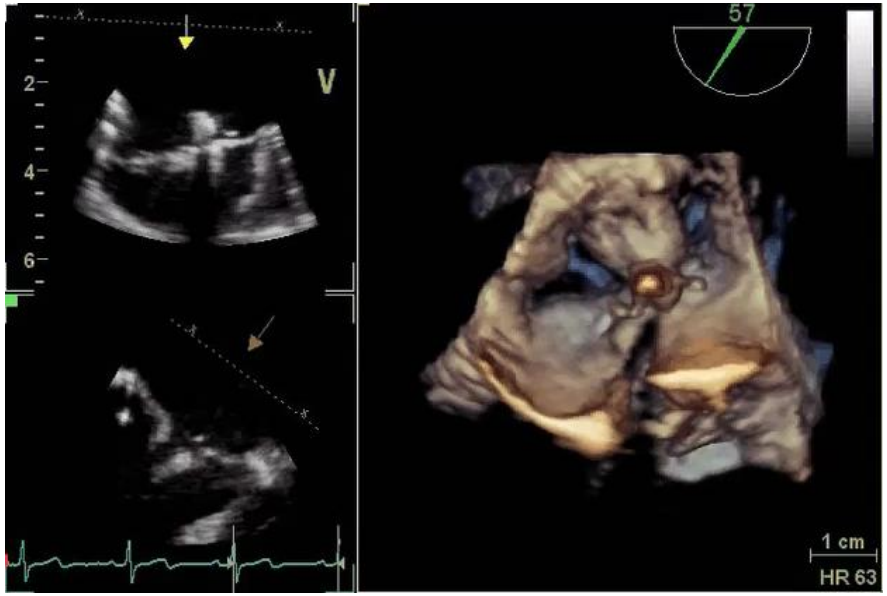
Pre-implantation

Flail leaflet P1/P2 – PASCAL Ace Implant

Patient, 84y, f
MR 3+ (Carpentier II)
NYHA III, LV-EF 52%
V-Wave 33mmHg, PAs 65mmHg



Grasping attempt – 1st PASCAL Ace



3D View

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Flail leaflet P1/P2 – PASCAL Ace Implant

Patient, 84y, f
MR 3+ (Carpentier II)
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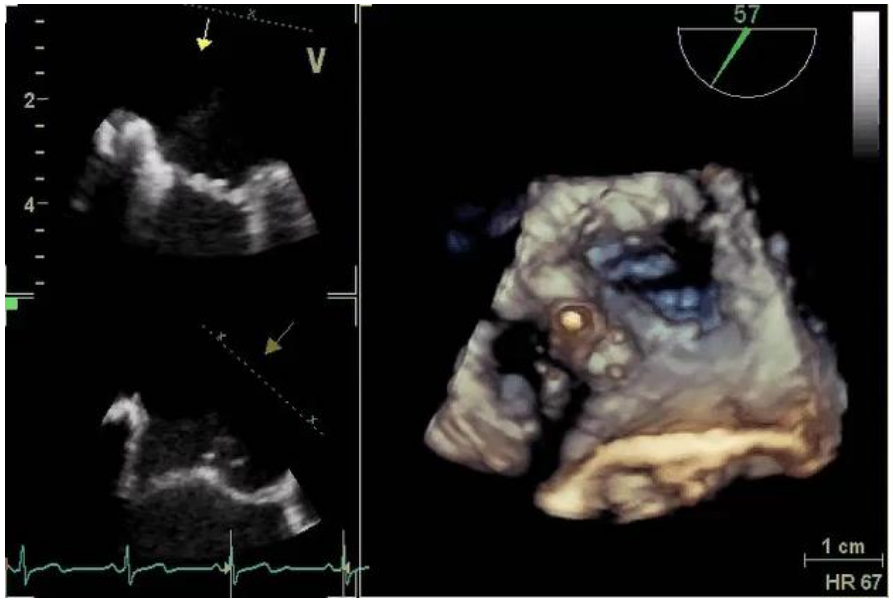
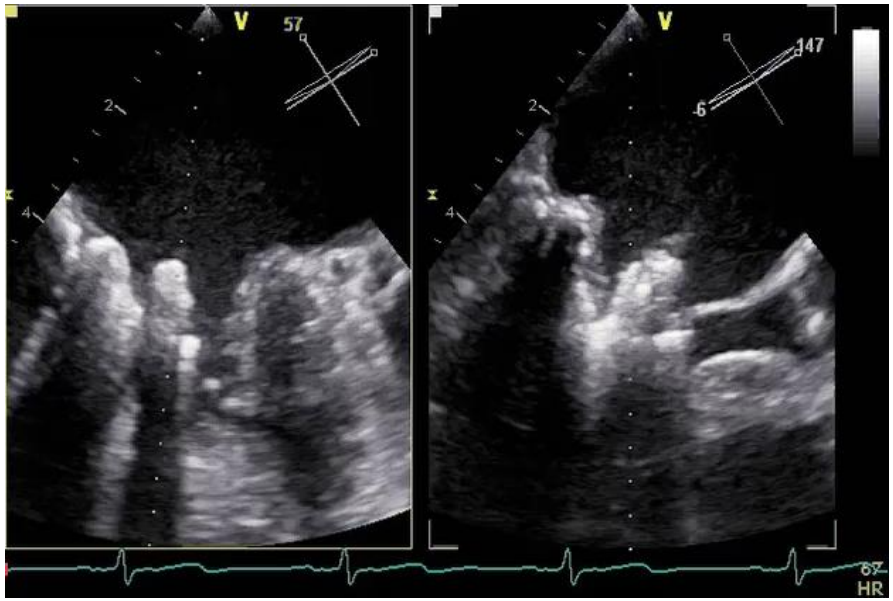


Grasping attempt PASCAL Ace, 3D View



X-Plane View

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Flail leaflet P1/P2 – PASCAL Ace Implant

Patient, 84y, f
MR 3+ (Carpentier II)
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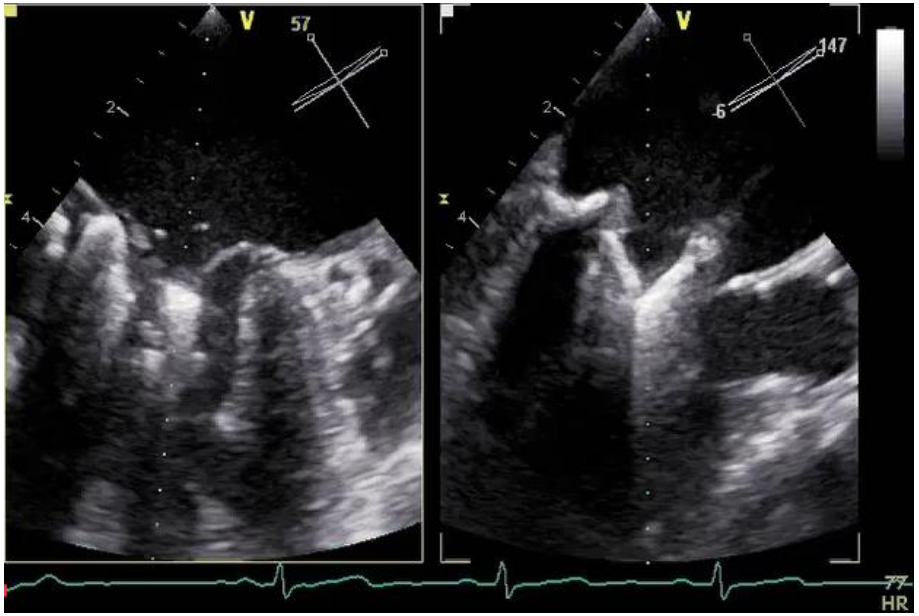
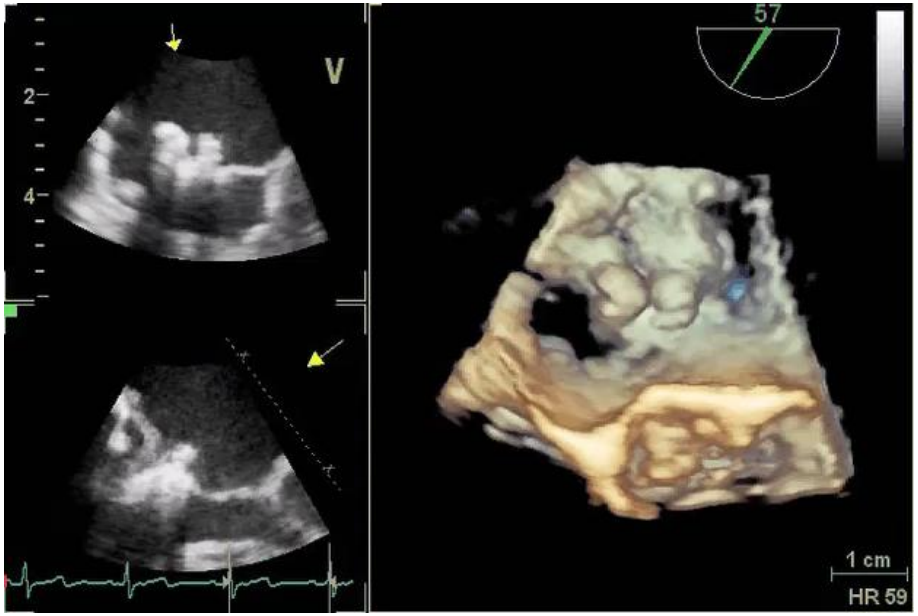


2nd PASCAL Ace



3D View

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Flail leaflet P1/P2 – PASCAL Ace Implant

Patient, 84y, f
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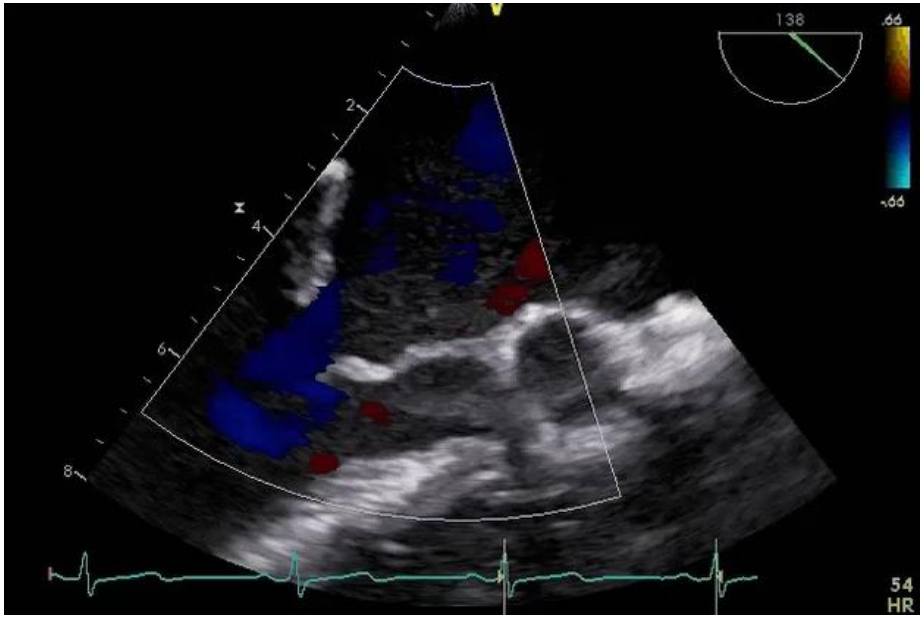
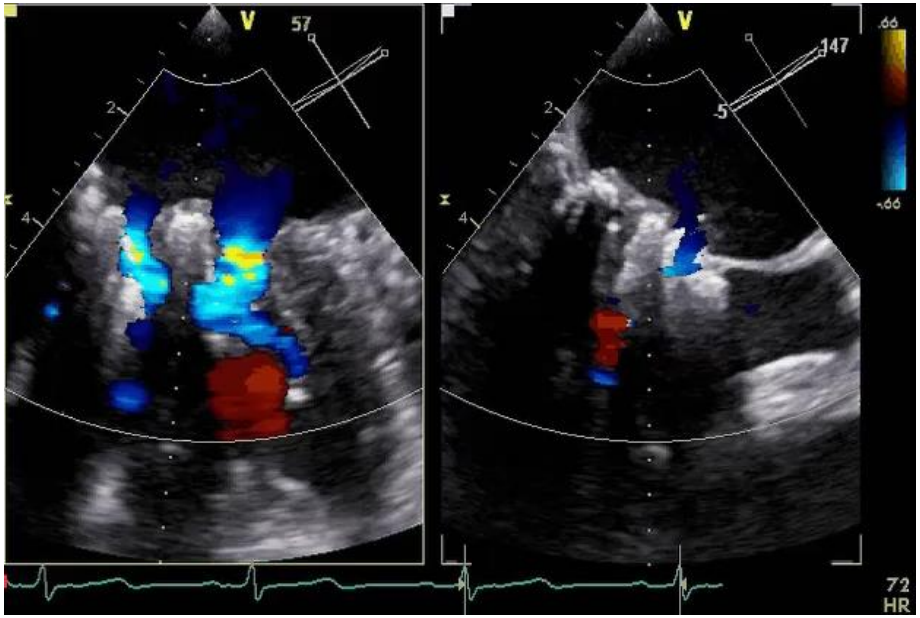


Pre-implantation



Final Result (2 PASCAL Ace)

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PASCAL Case Presentation
Restricted leaflet

Sam Dawkins, M.D.
John Radcliffe Hospital,
Oxford, UK

Potential conflicts of interest

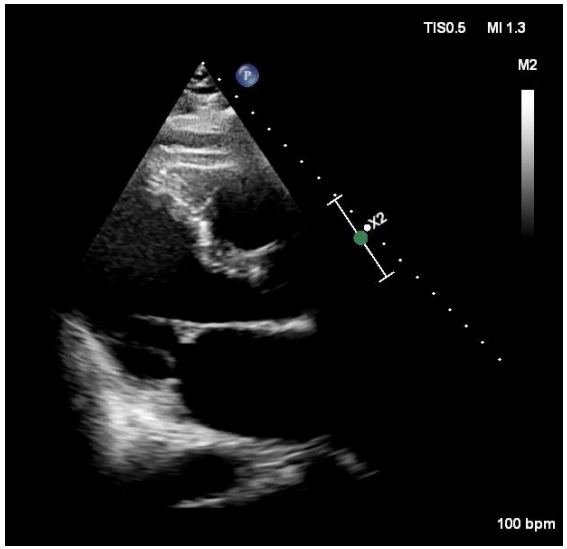
Within the past 12 months, Sam Dawkins has had a financial interest/arrangement or affiliation with the organisations listed below:

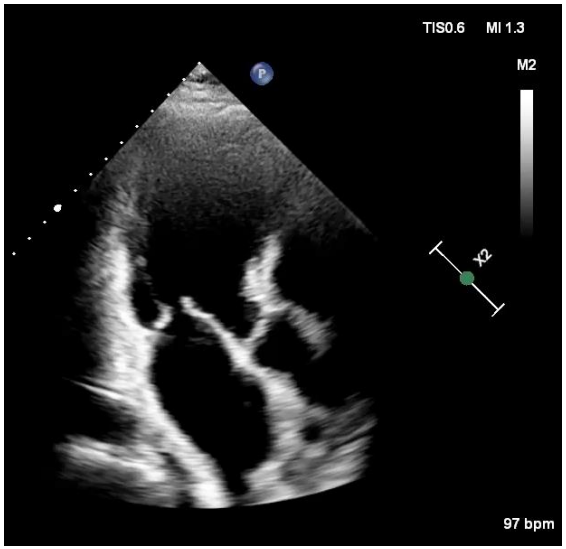
Affiliation/Financial Relationship	Company
Consulting fees/Honoraria	Edwards Lifesciences, Abbott Vascular

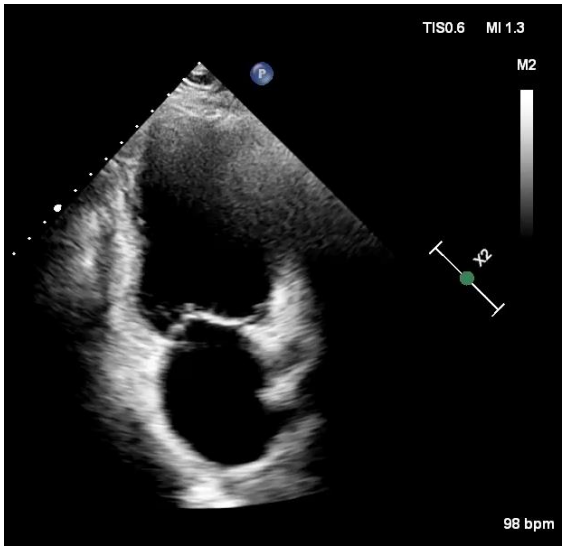
Case presentation

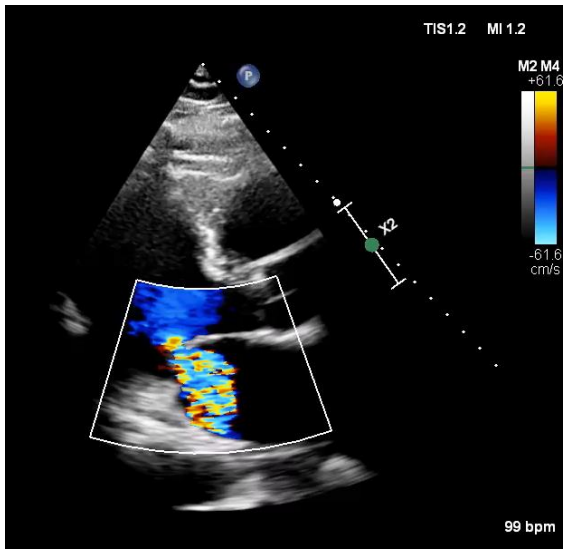
- 65 year old man
  - Presented with breathlessness
  - Chest pain 3 weeks previously
  - Severe 3 vessel coronary artery disease
  - Severe mitral regurgitation with severe left ventricular impairment
  - Full thickness lateral infarction on cardiac MRI
  - Deterioration requiring intra-aortic balloon pump

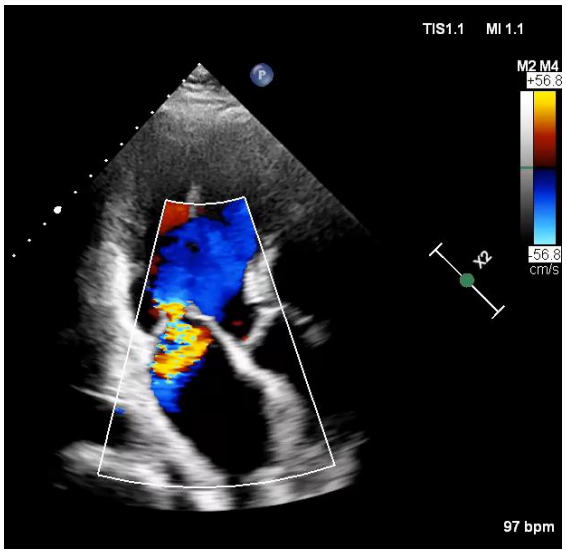
Transthoracic echocardiogram

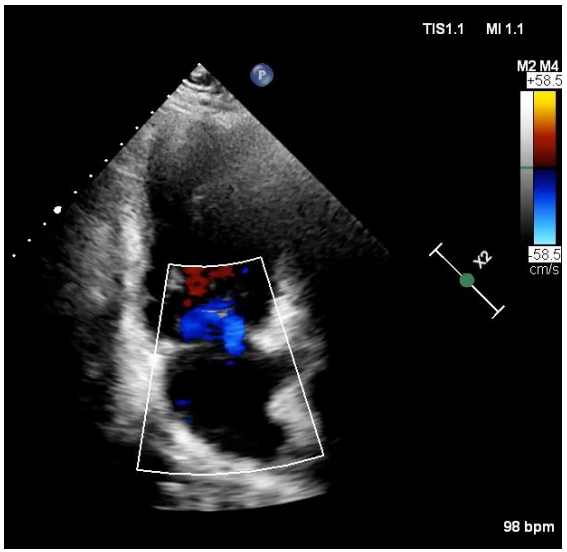








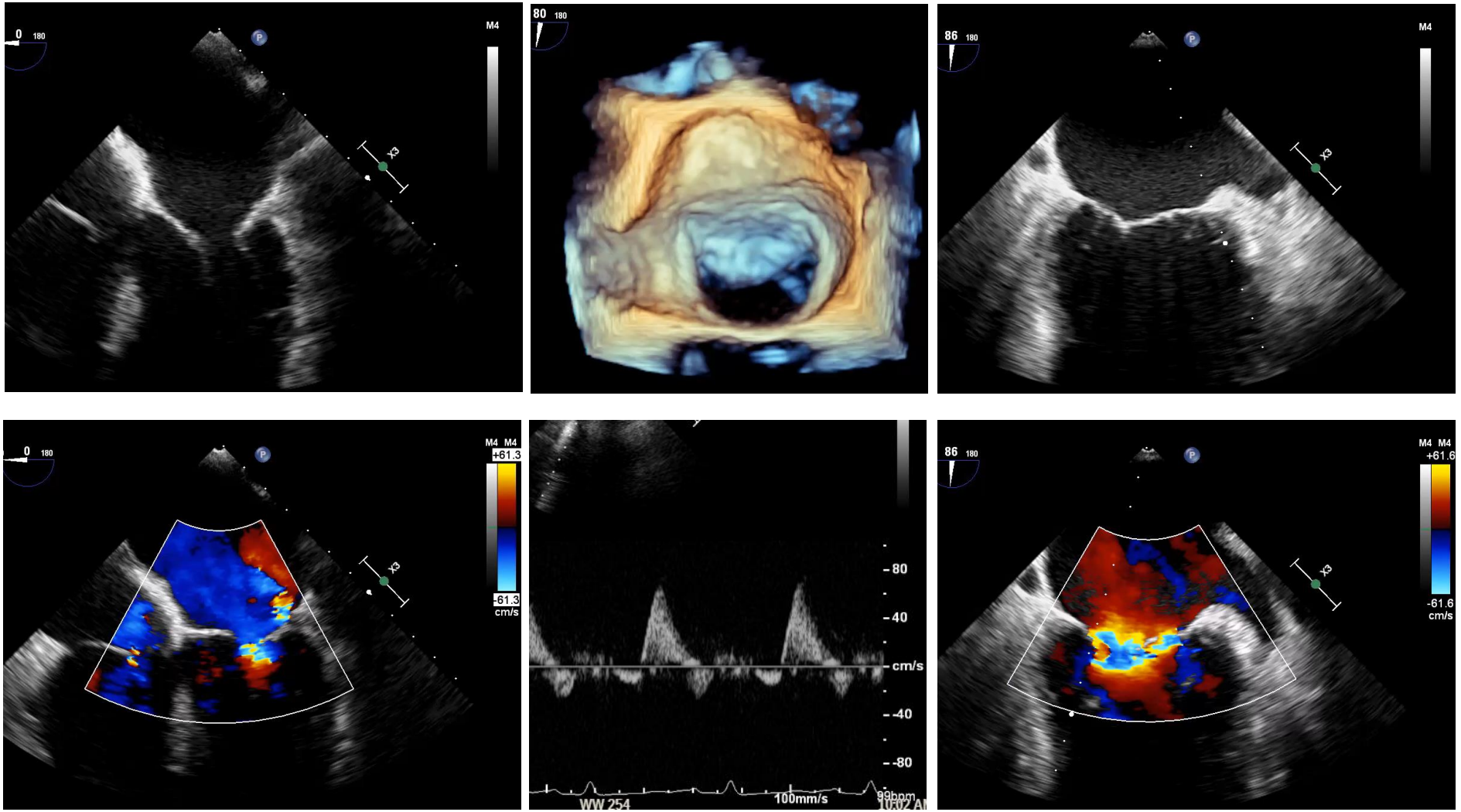




Case presentation

- Heart Team discussion
  - Increased risk for surgery (cardiogenic shock, severe left ventricular impairment and acute renal failure)
  - For mitral edge-to-edge repair and then percutaneous revascularisation of the viable territories

Baseline Transoesophageal Echocardiogram



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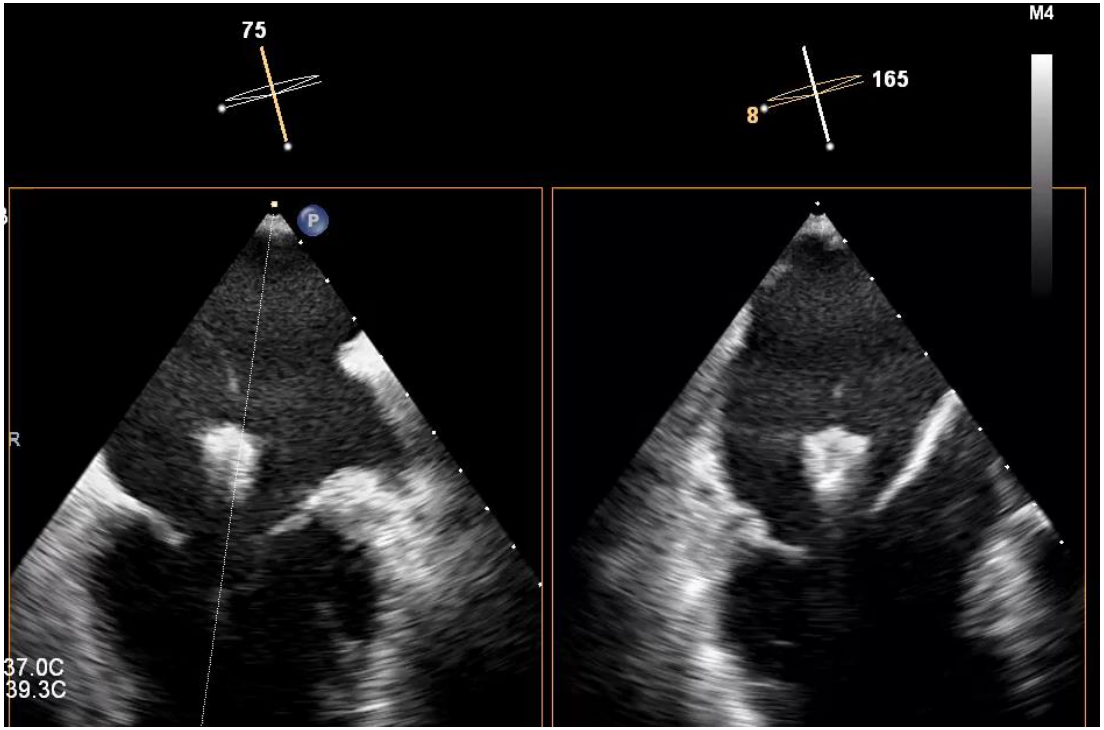
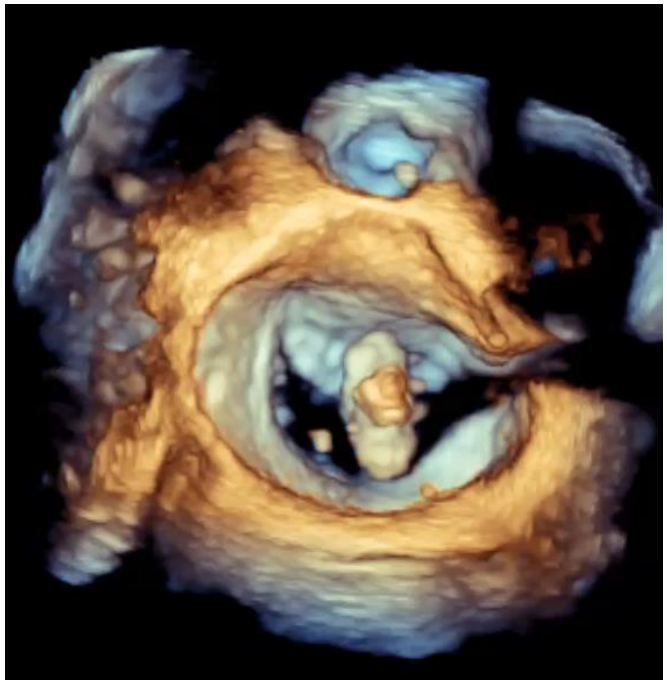
PASCAL Implant





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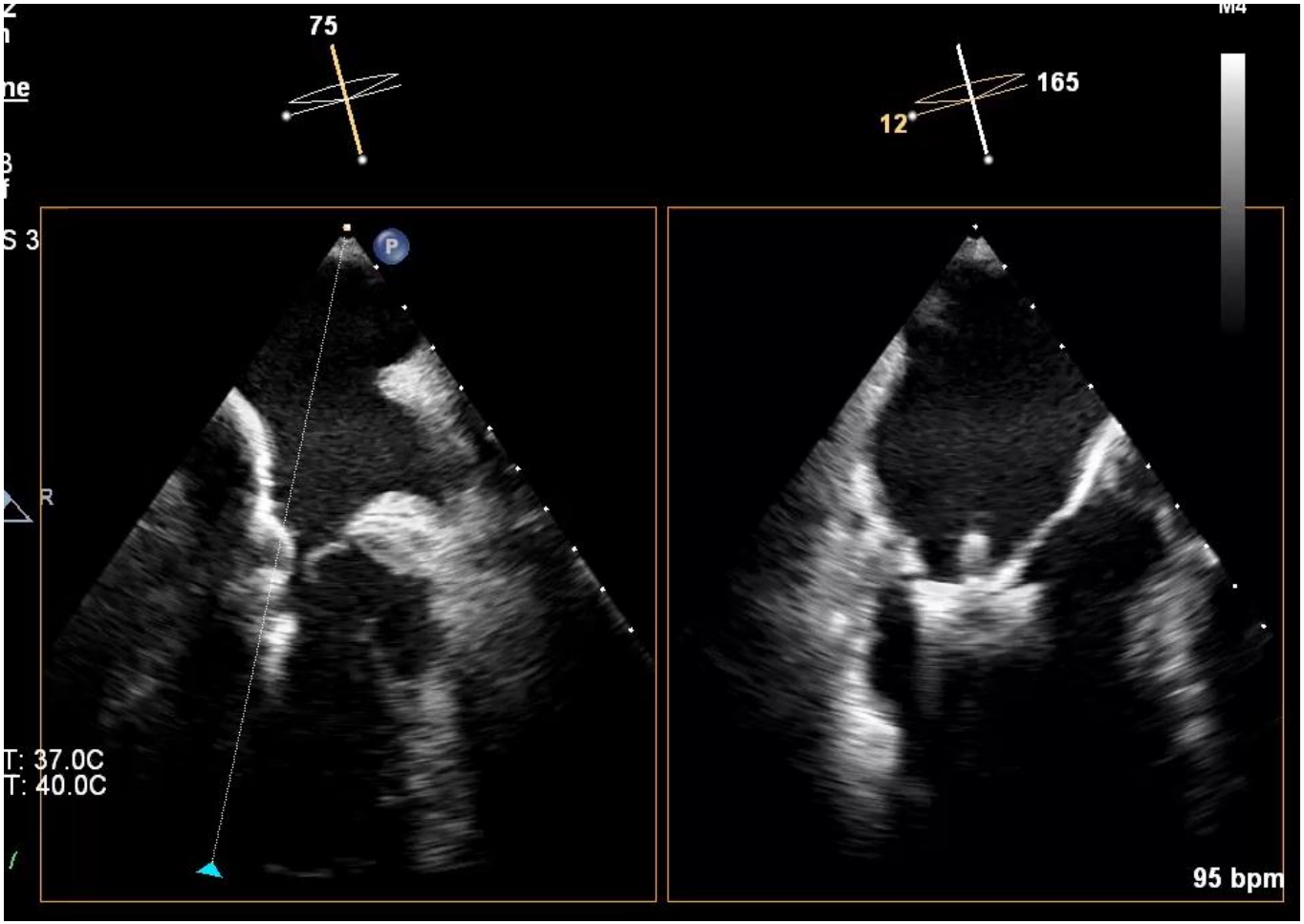

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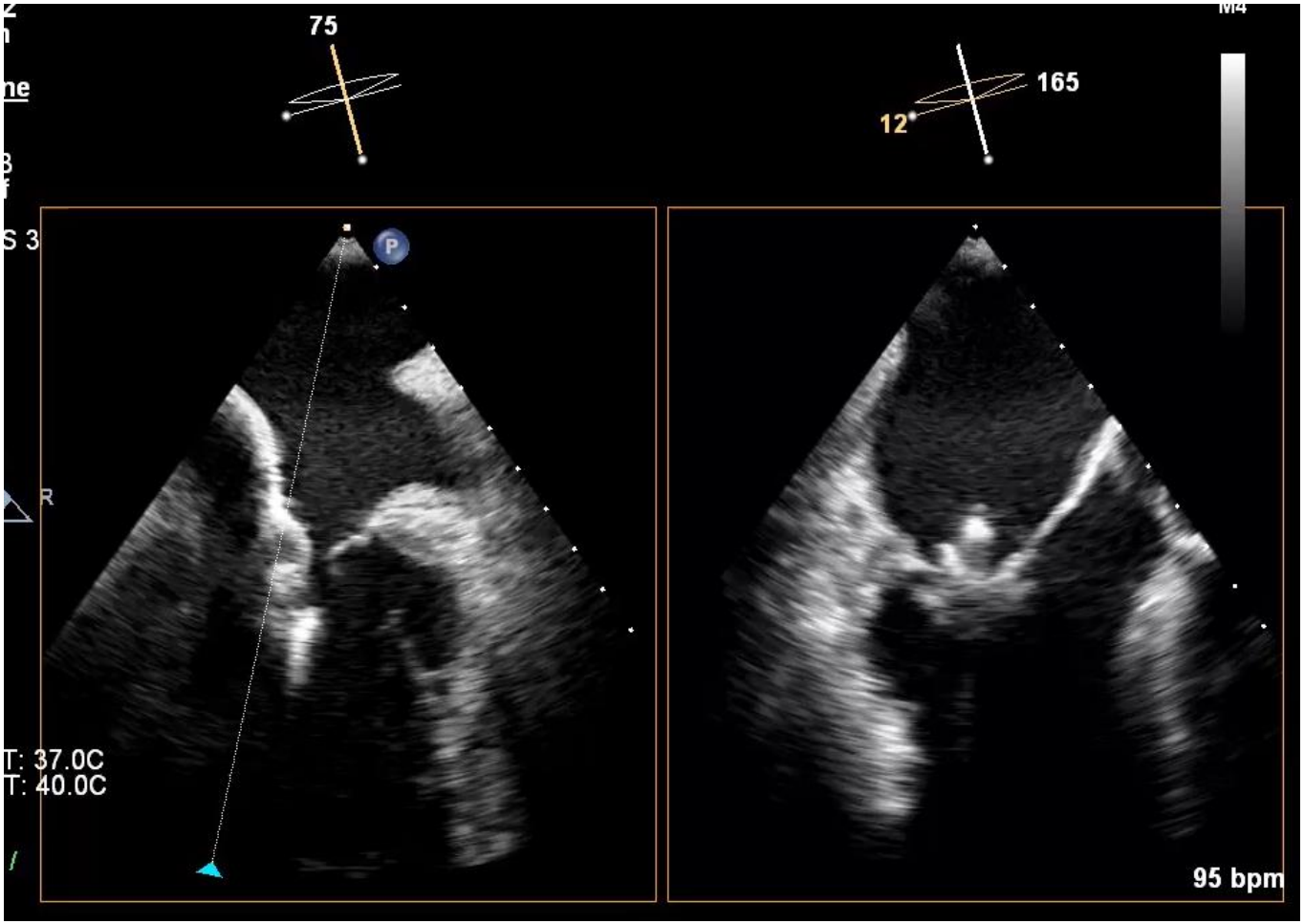

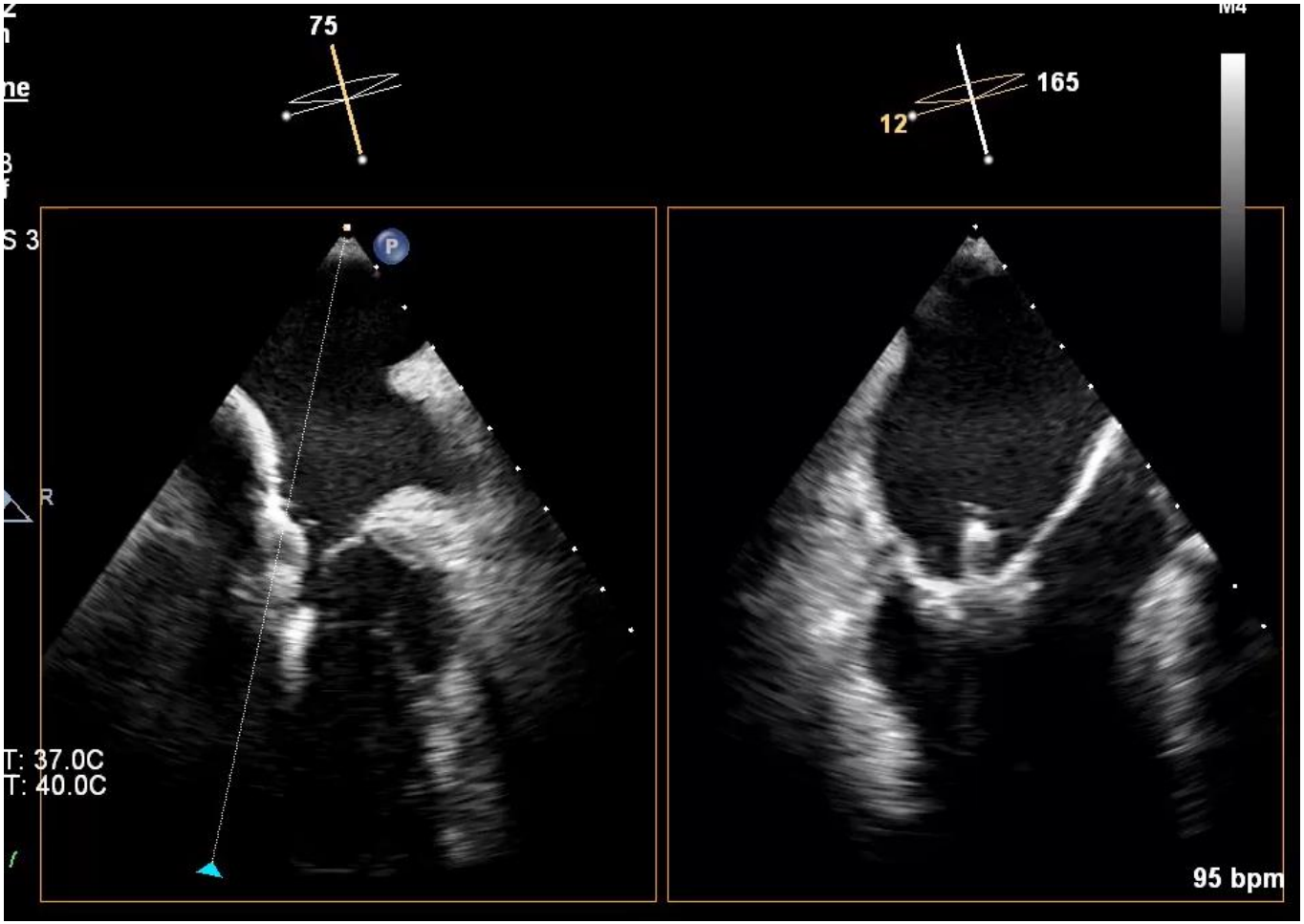

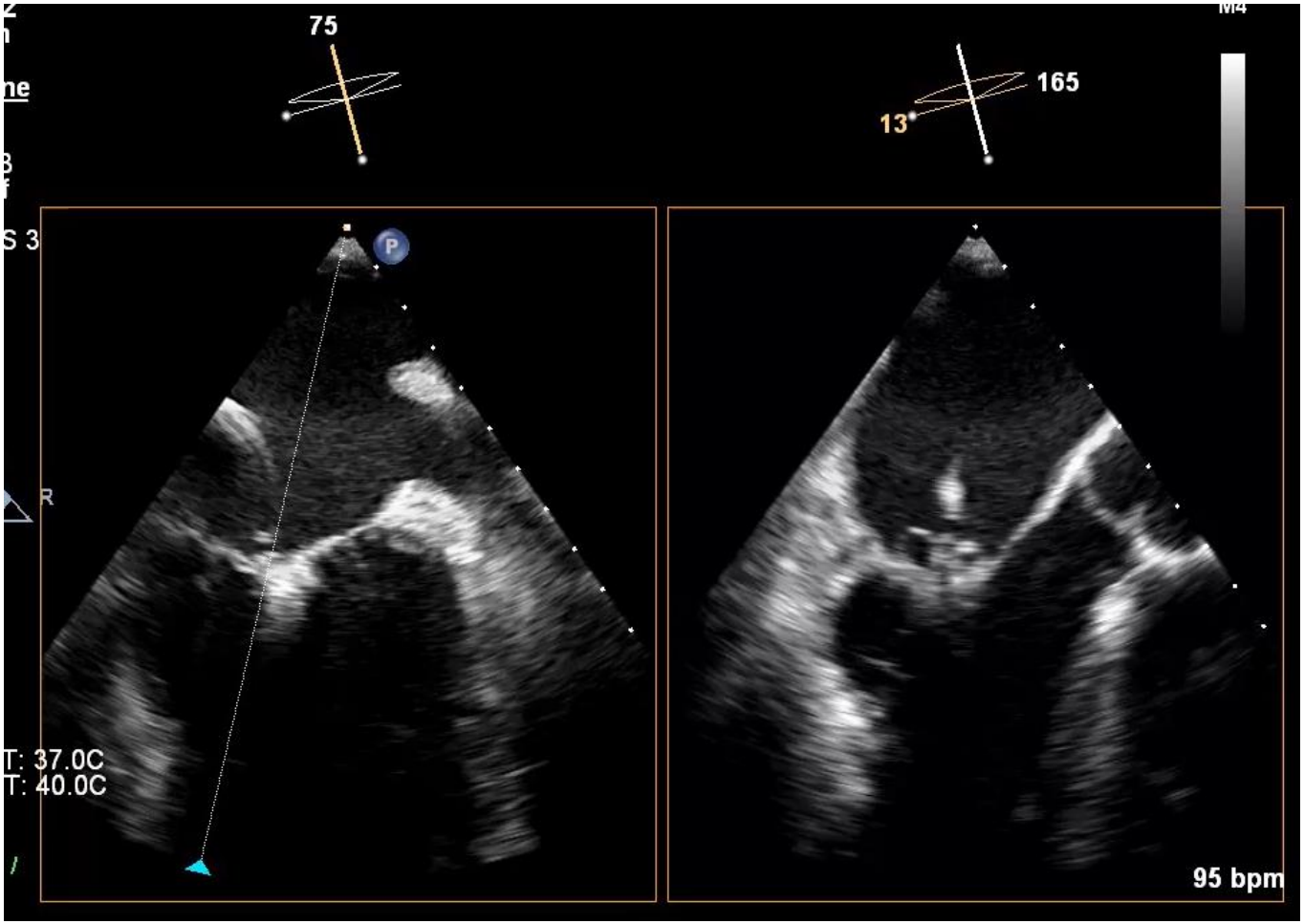

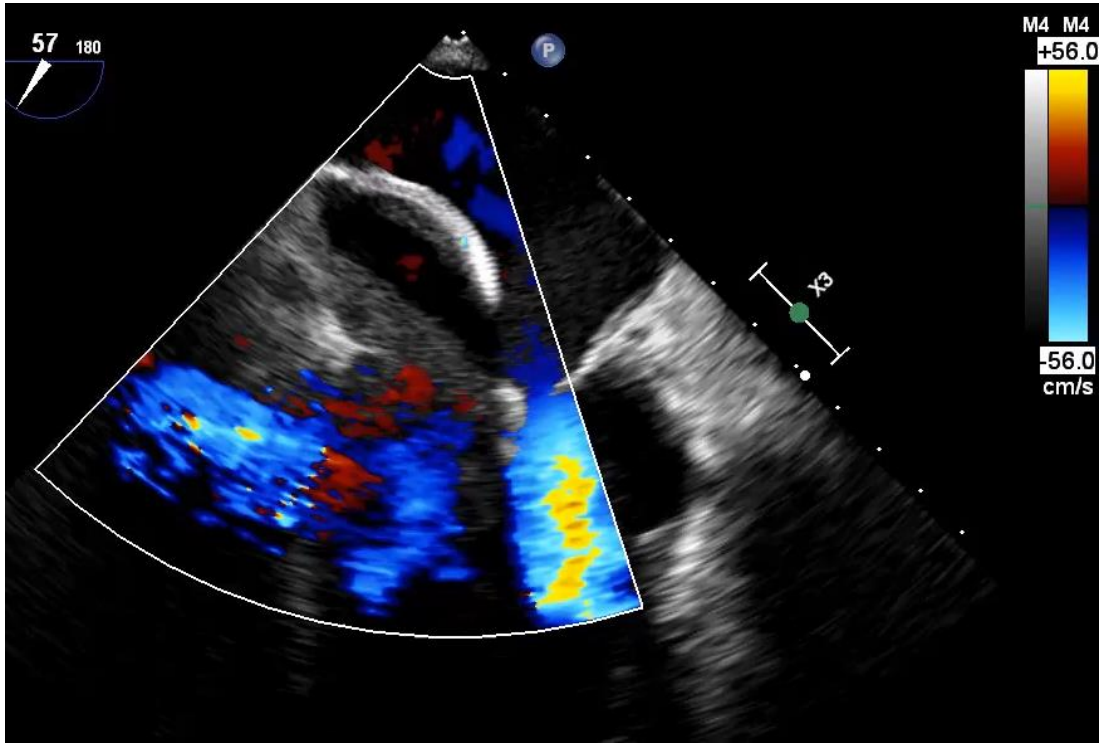

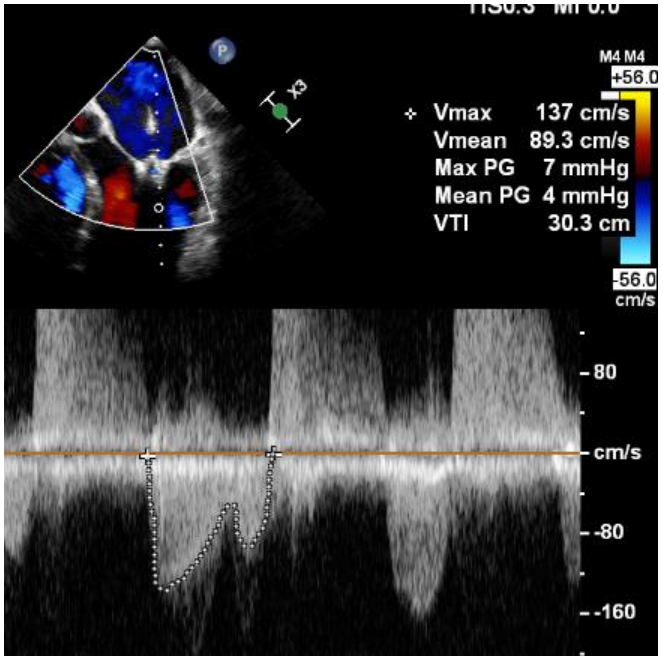

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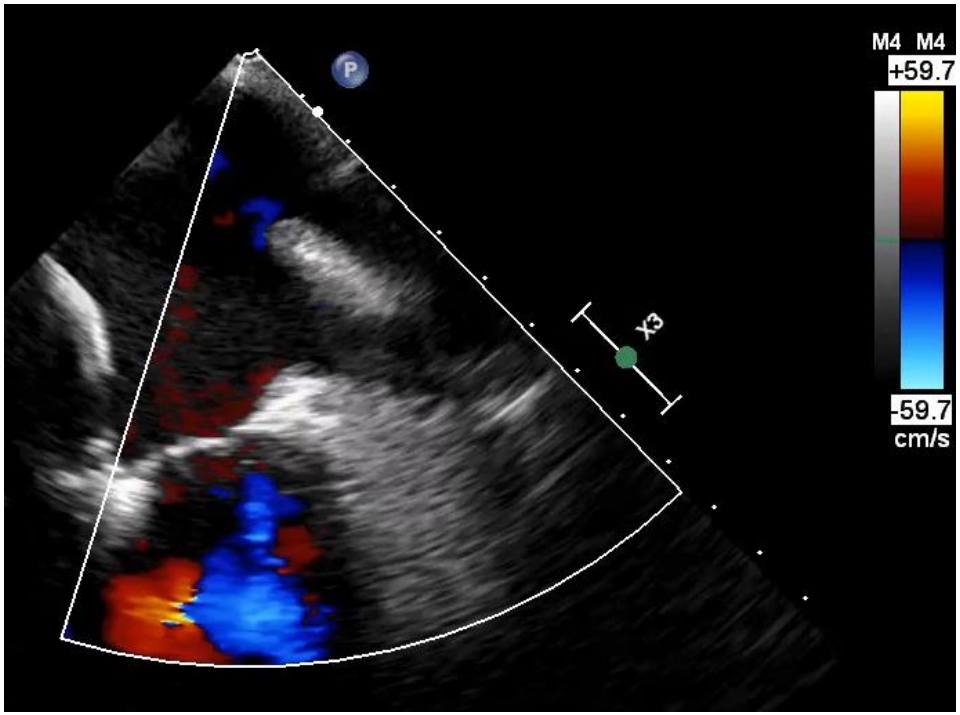
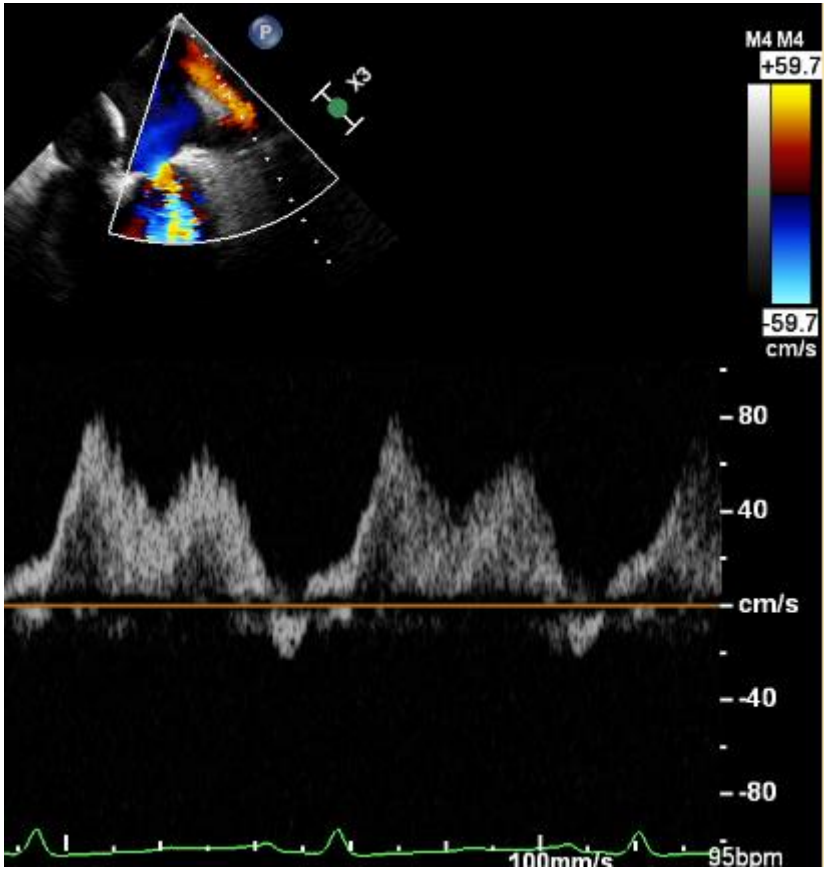
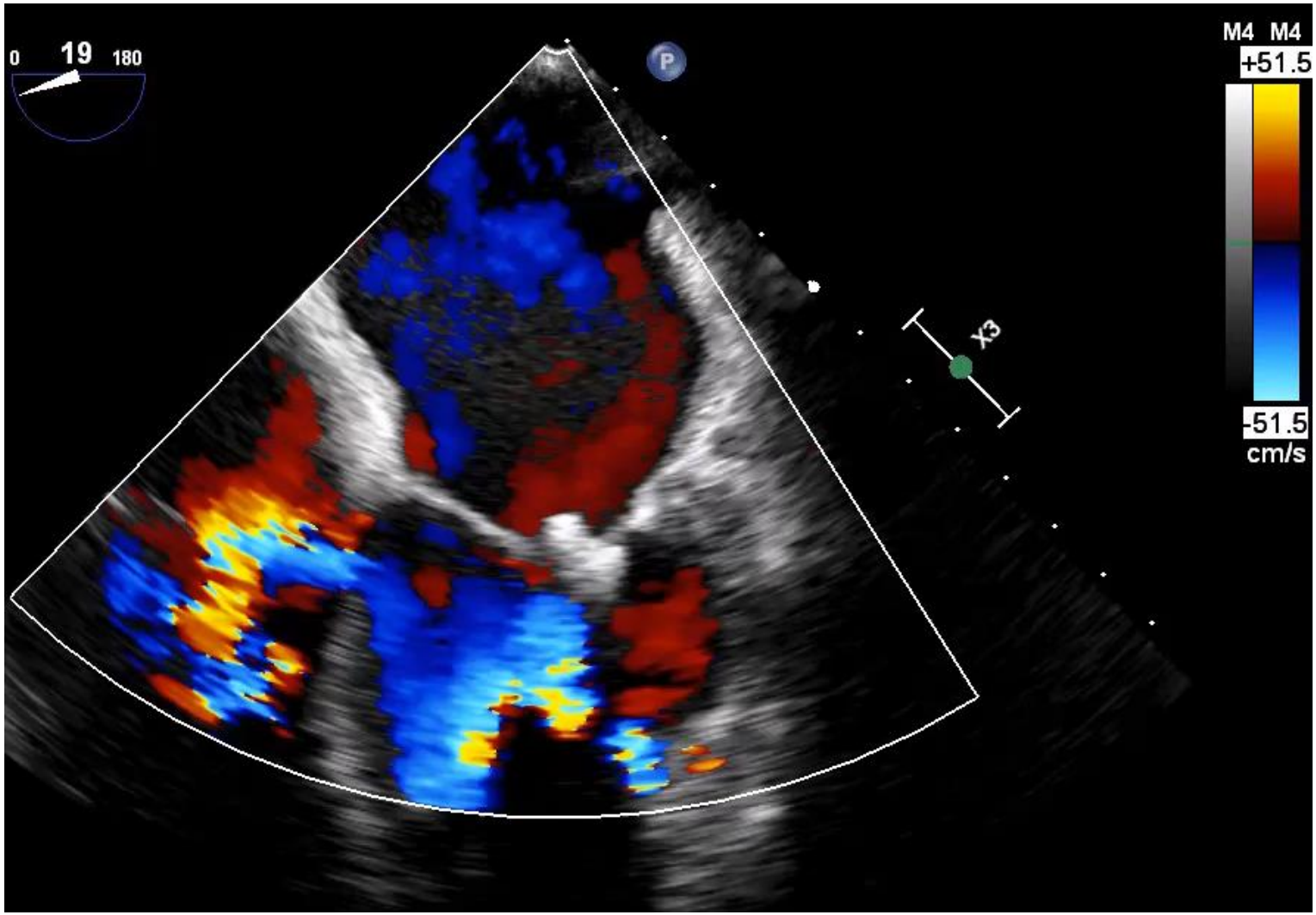
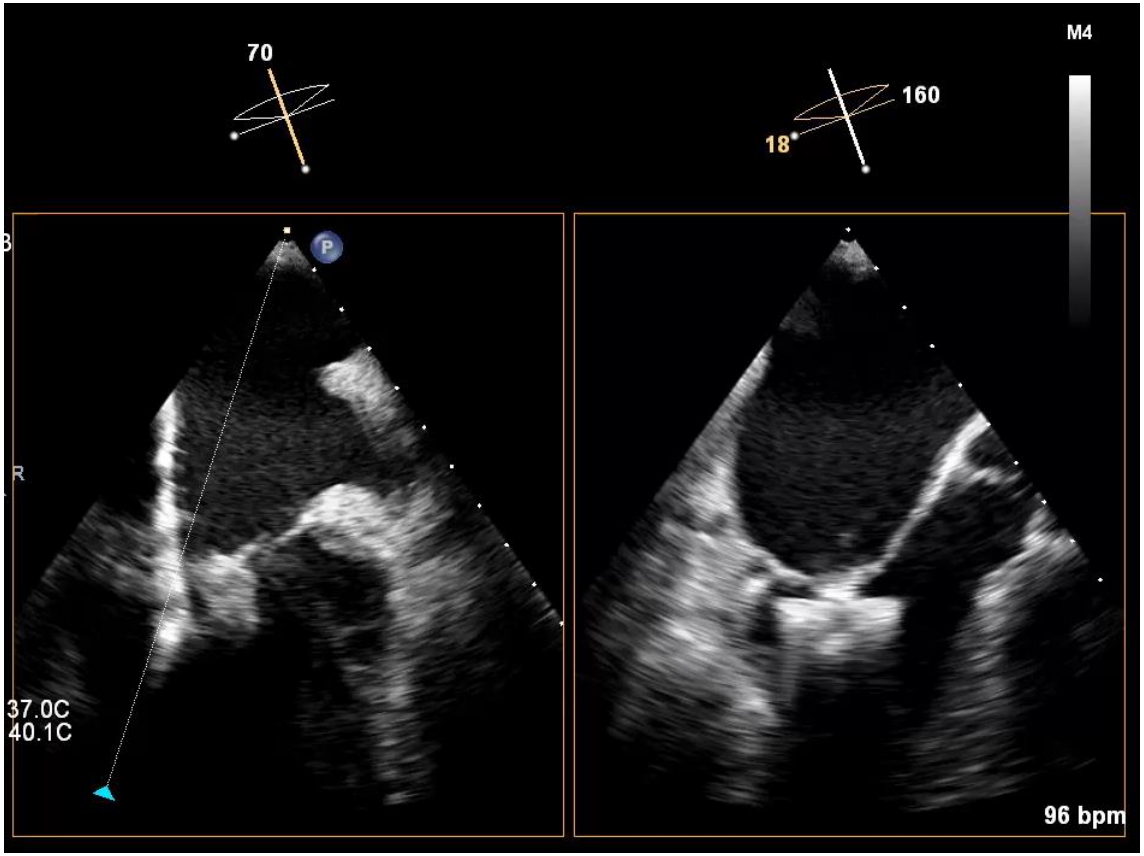
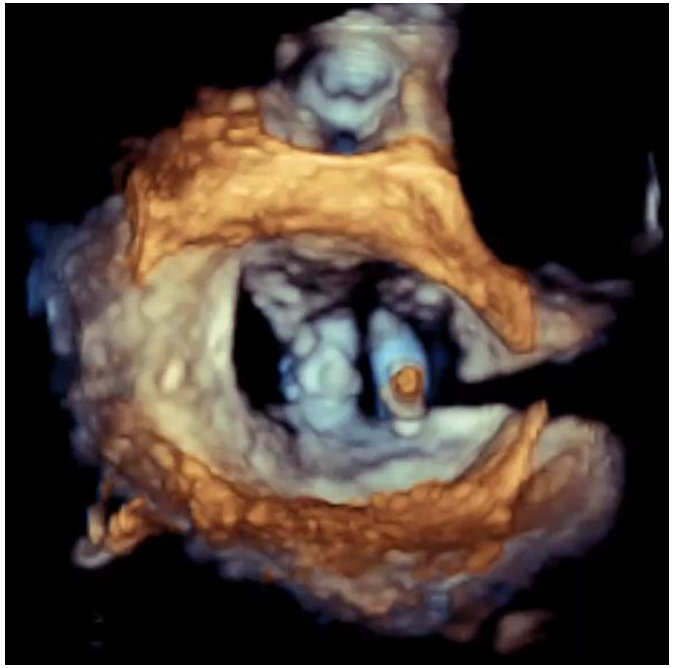






2nd PASCAL Implant





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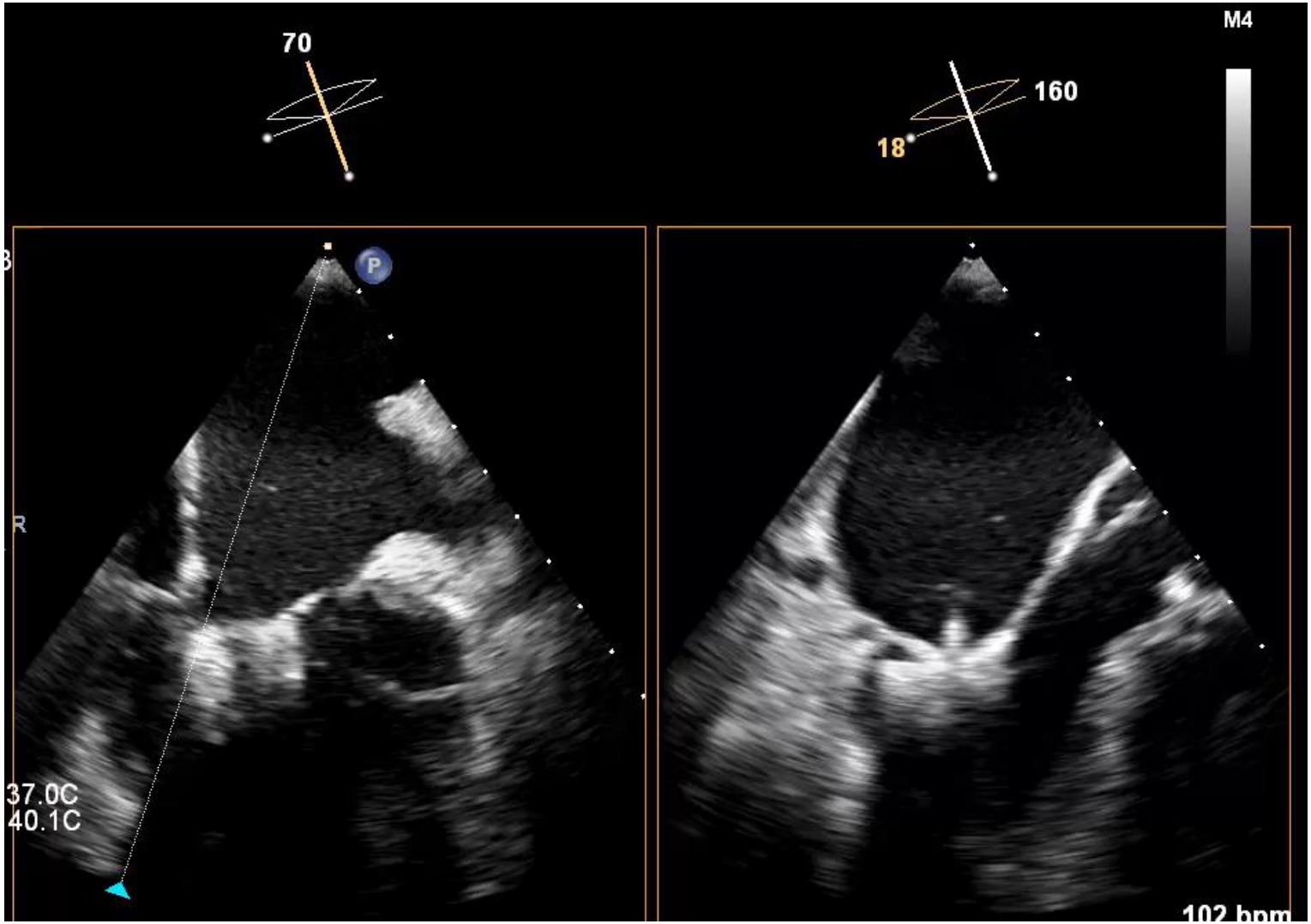

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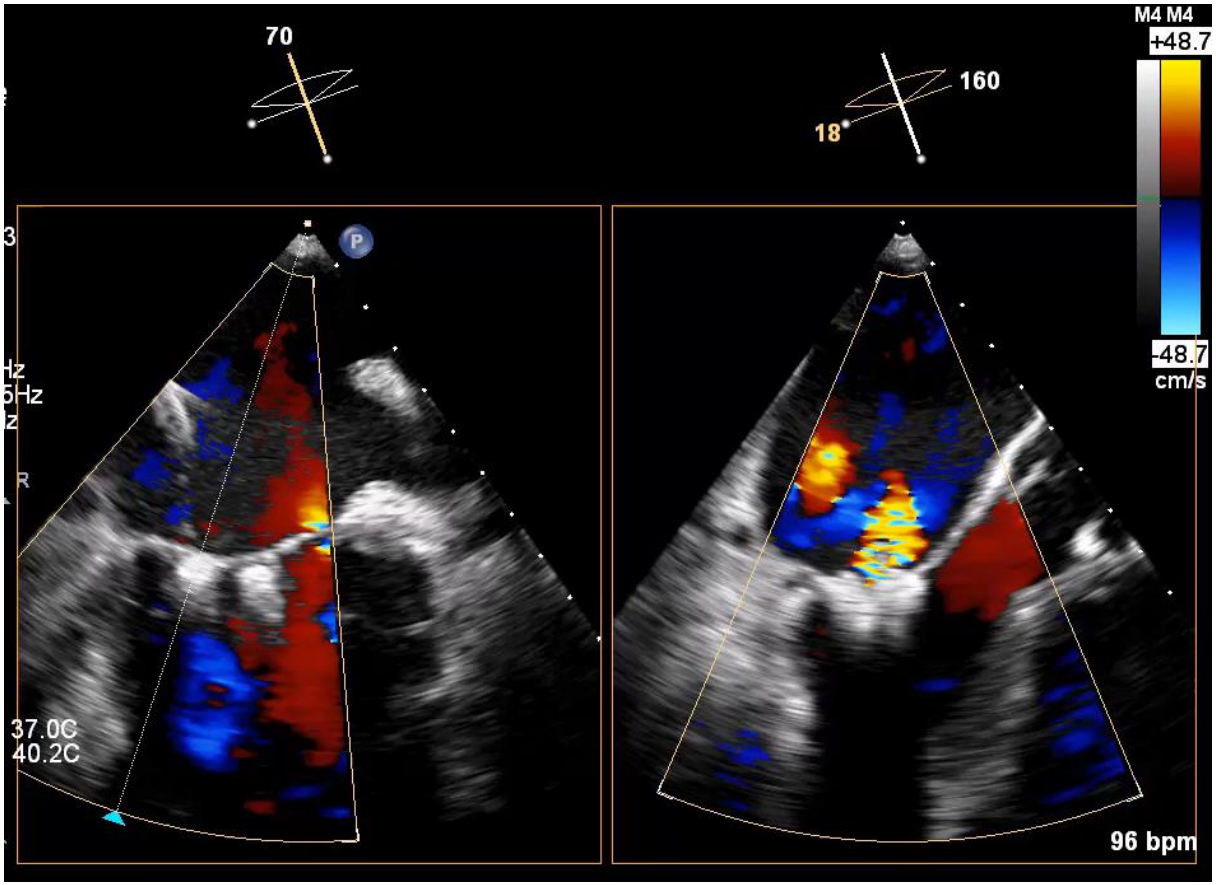

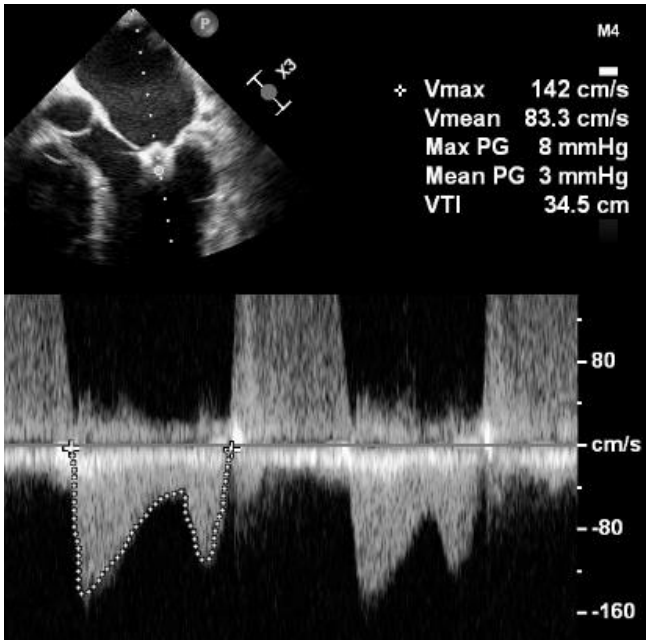

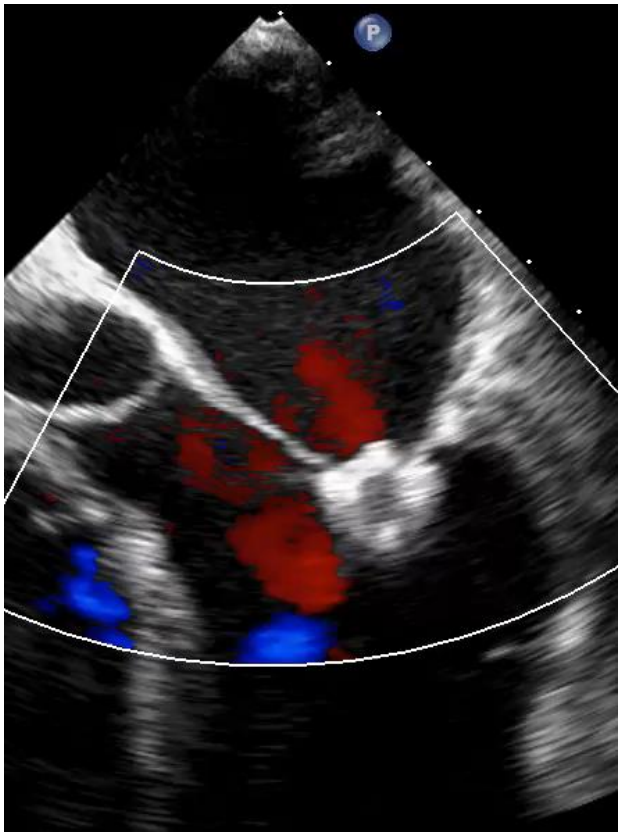

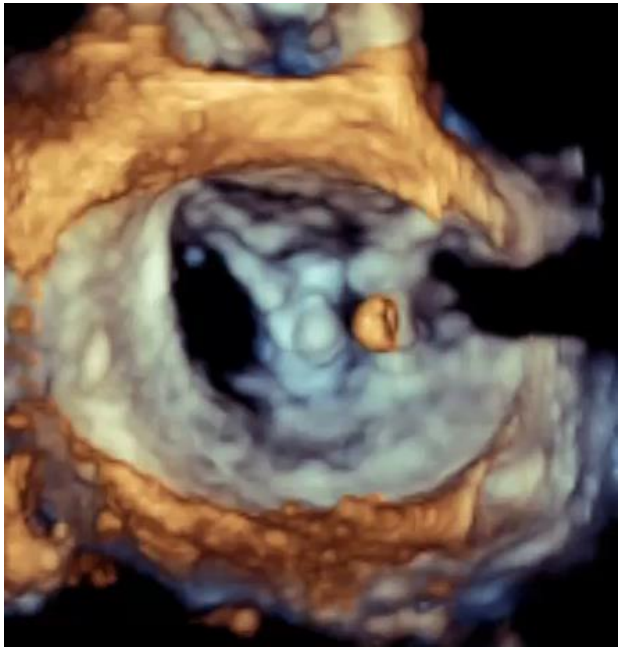

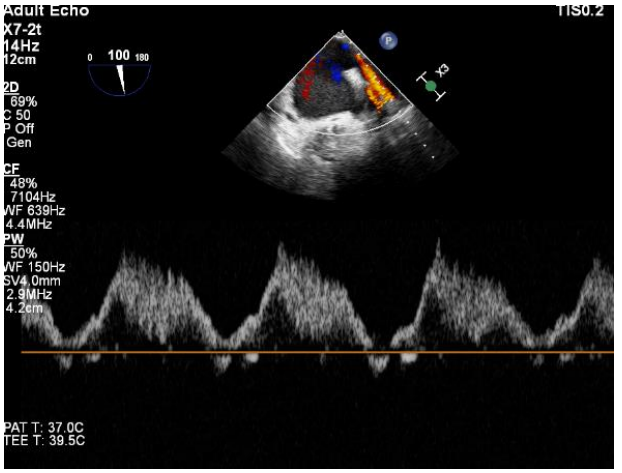

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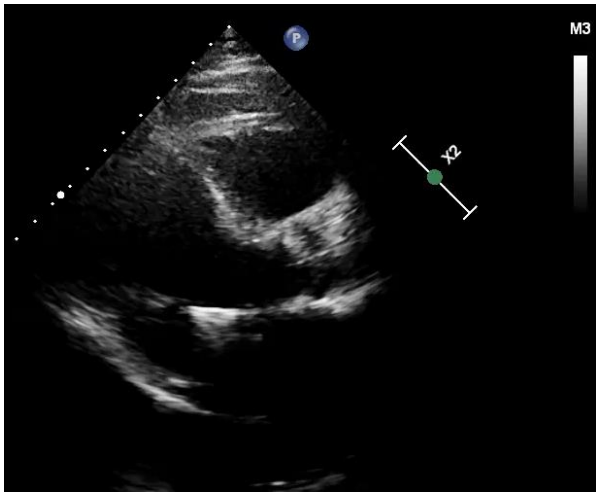
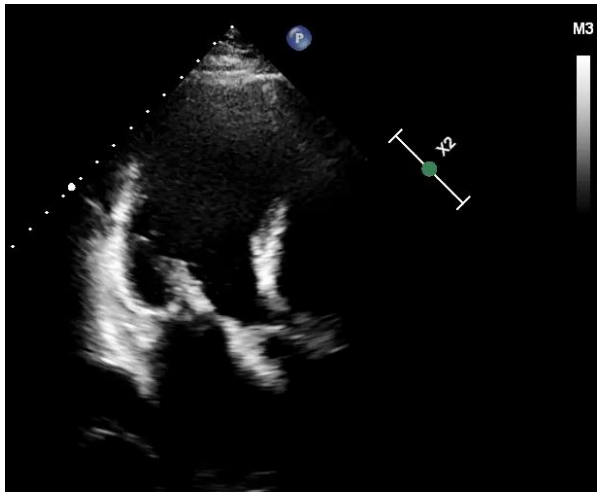
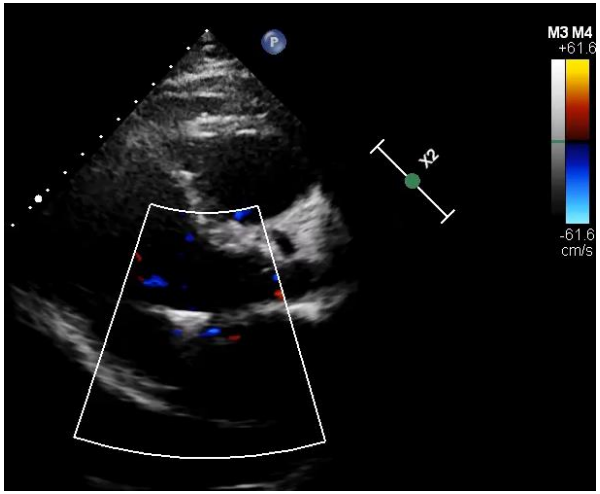
Case presentation

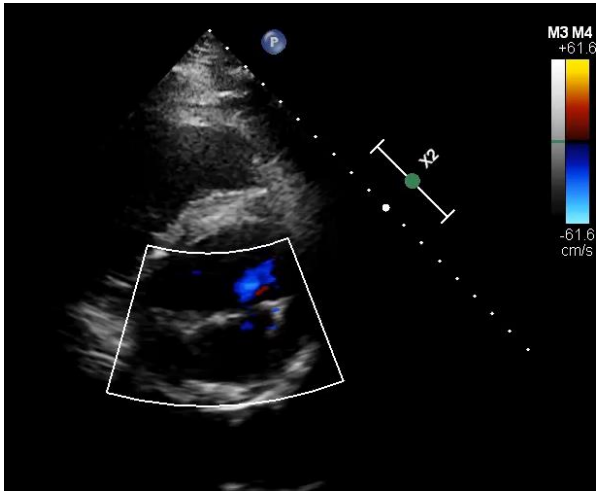
- Intra-aortic balloon pump removed at end of procedure
- Inotropic support weaned over the next 3 days

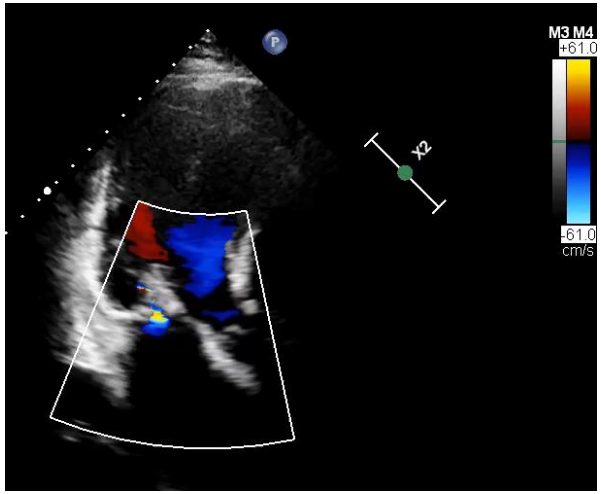
Post-procedure transthoracic echocardiogram











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PASCAL/PASCAL Ace switch

Dabit Arzamendi, M.D., PhD
Hospital de la Santa Creu i Sant Pau
Barcelona, Spain

Potential conflicts of interest

Speaker's name: Dabit Arzamendi

I have the following potential conflicts of interest to report:

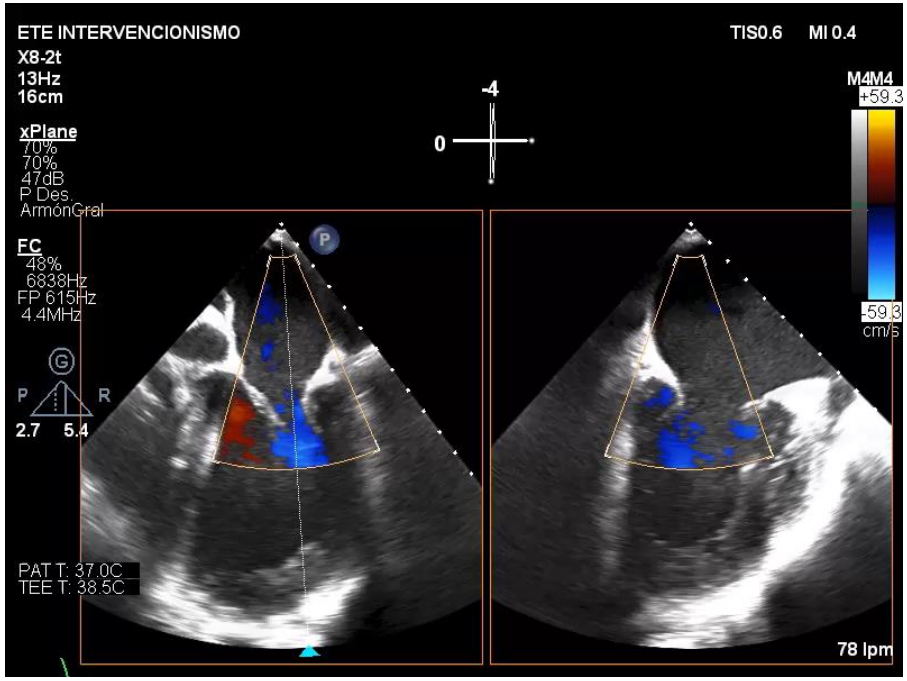
- Abbott consulting fees/Honoraria.
- Edwards Lifesciences consulting fees/Honoraria.
- Boston Scientific consulting fees/Honoraria.
- Ivascular consulting fees/Honoraria.

Leaflet calcification in grasping zone - From PASCAL to PASCAL Ace

CLINICAL SUMMARY

- 84 yo male. PMH:
  - Ischemic cardiomyopathy (bypassx3 2009)
  - Afib
  - Moderate FMR
- Current medical history:
  - Dyspnea NYHA II-III
  - HF admission 2 months ago
  - Optimal medical therapy
- Heart-Team:
  - Prior surgery
  - IMF
  - Geriatrics: no frailty or sarcopenia
- Plan:
  - TEER with PASCAL Repair System

SCREENING TOE



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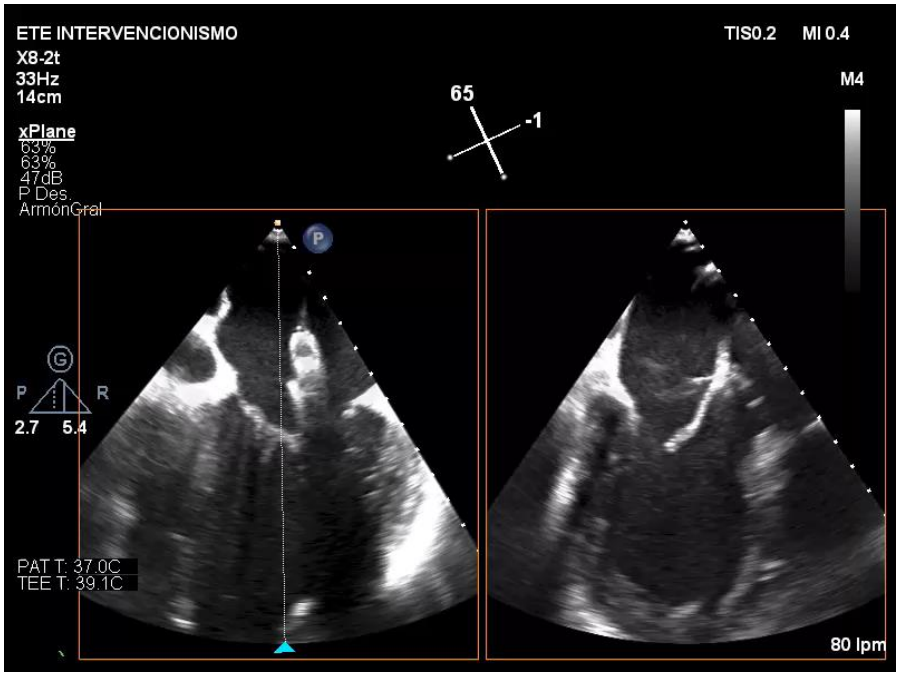
TOE PROCEDURE: PASCAL Repair System



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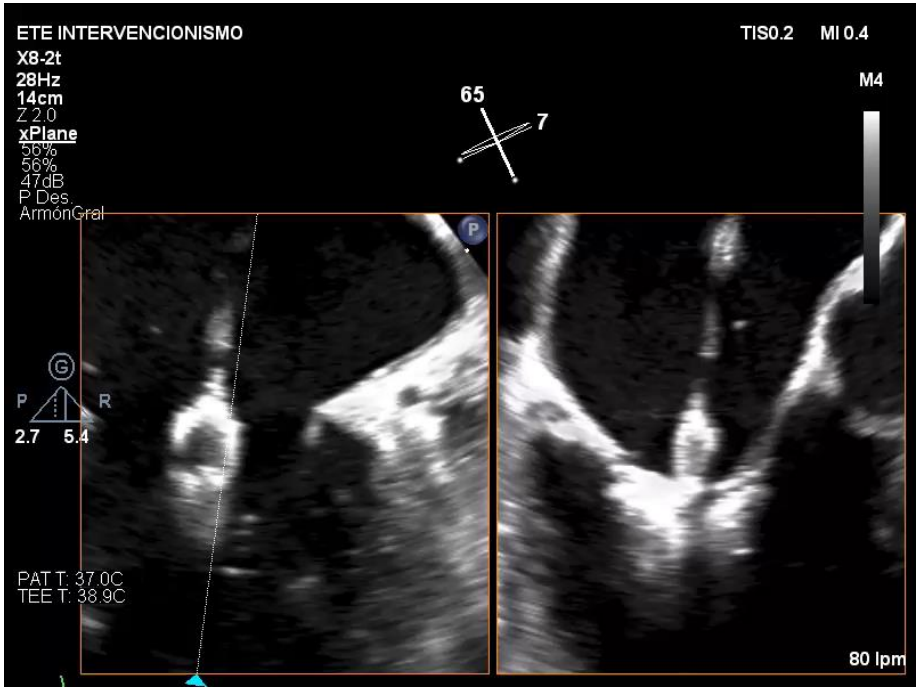
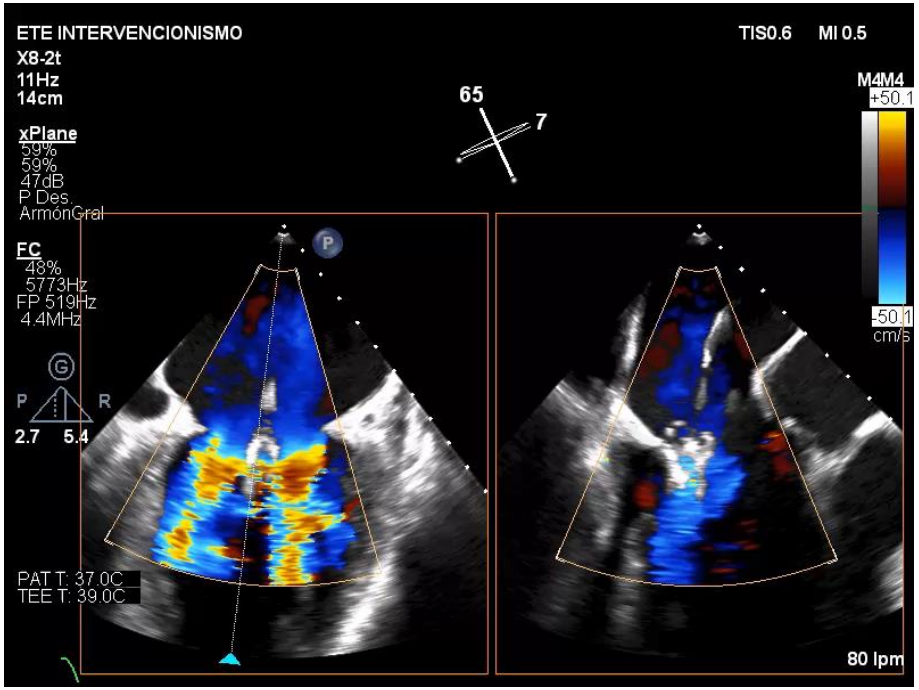
TOE PROCEDURE: PASCAL Repair System





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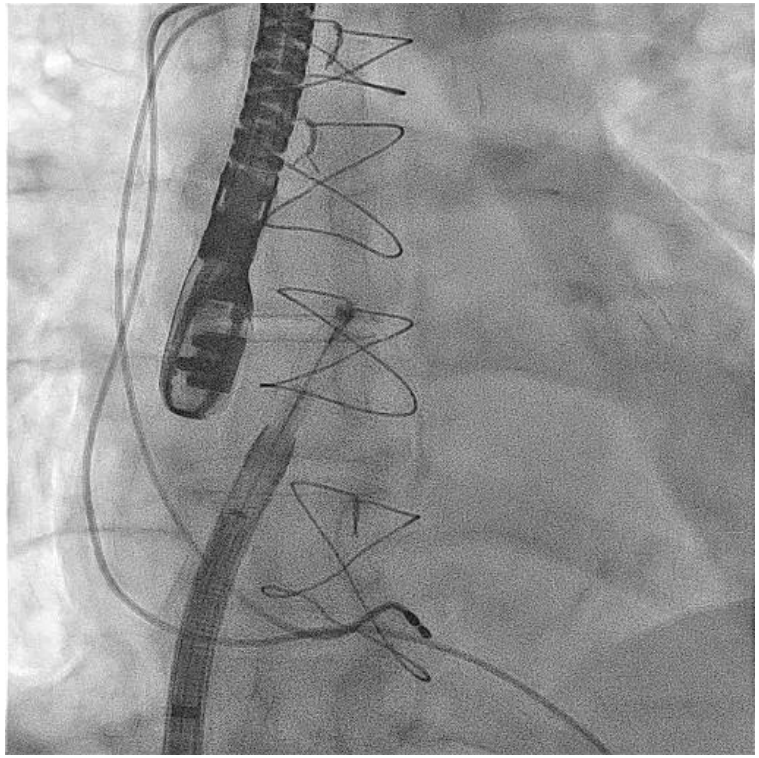
DEVICE SWITCH



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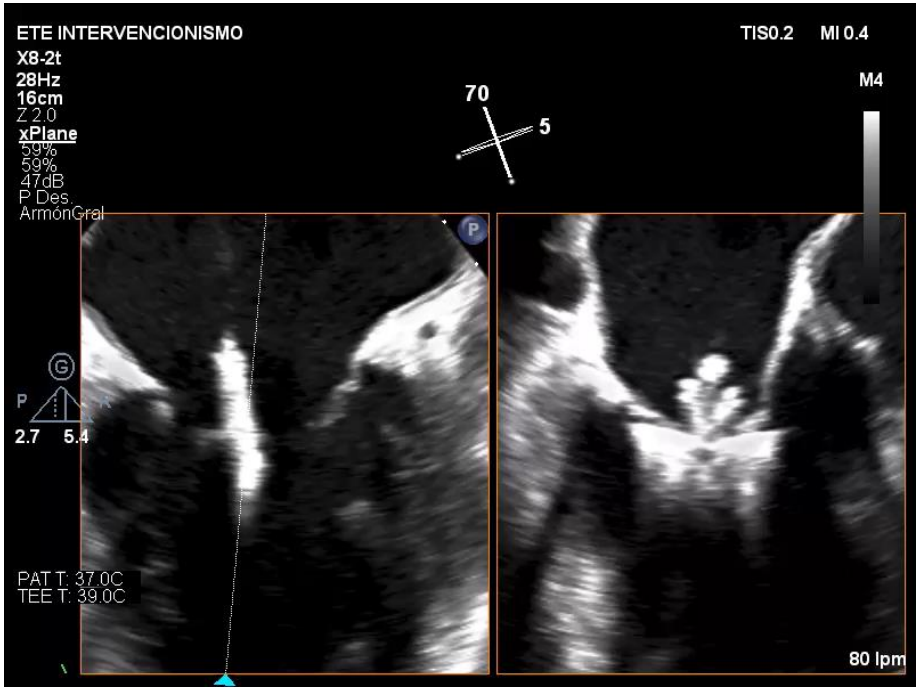
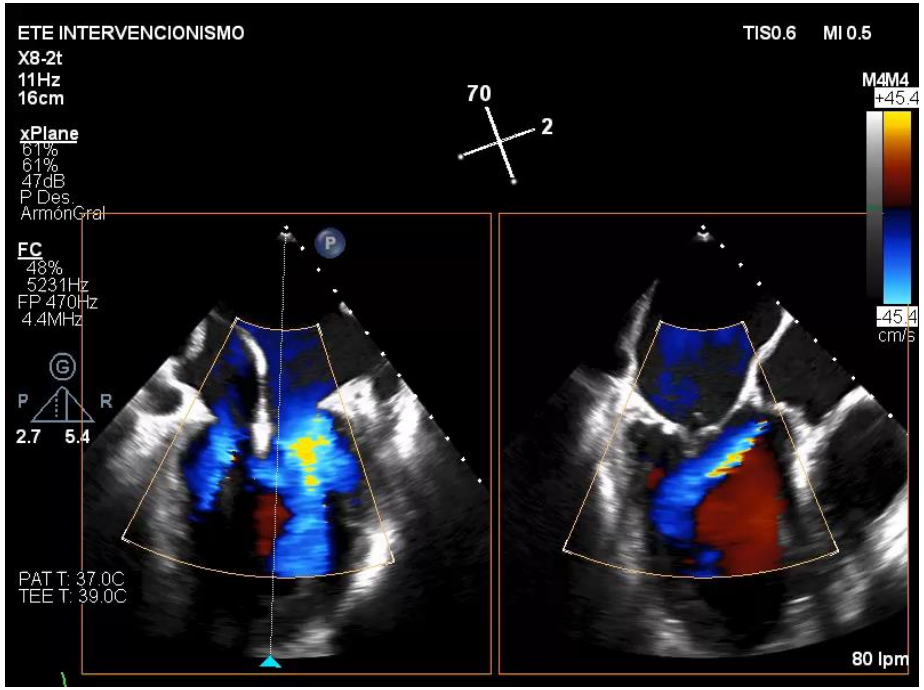
CLASPING WITH PASCAL Ace Implant





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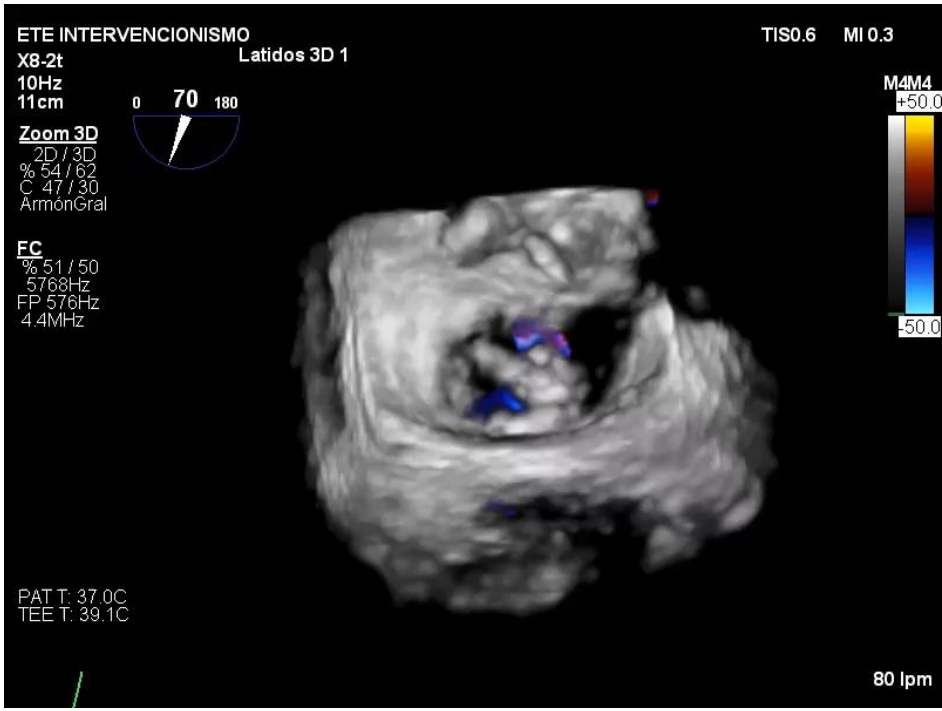
3D FINAL



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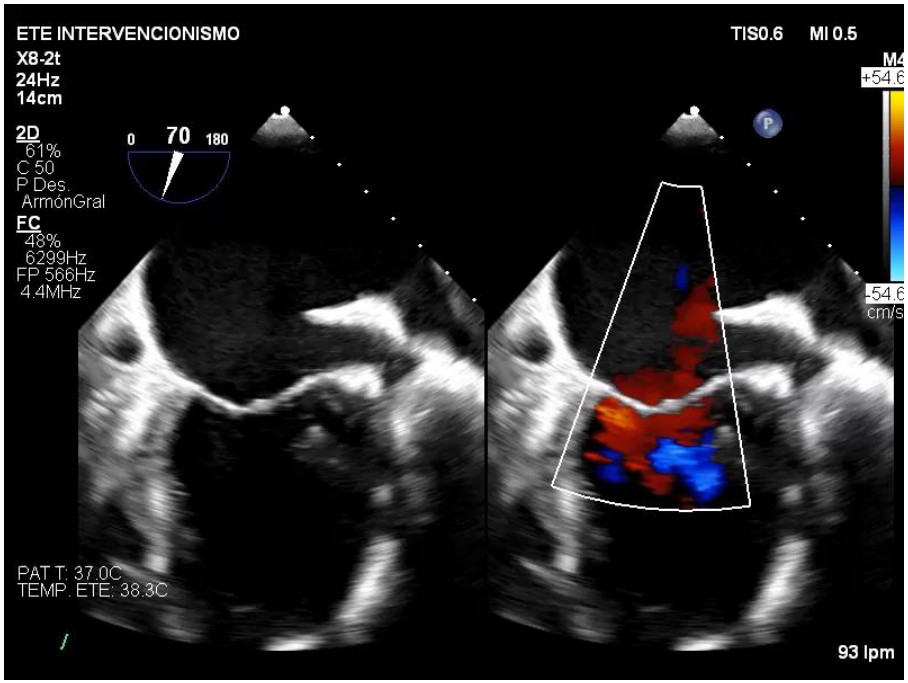
High gradient - From PASCAL Ace to PASCAL

CLINICAL SUMMARY

- 61 yo female. PMH:
  - Heart transplant.
  - Severe FMR.
- Current medical history:
  - Dyspnea NYHA II-III.
  - HF admission 2 months ago.
  - Optimal medical therapy.
- Heart-Team:
  - FMR.
  - Prior heart transplant.
- Plan:
  - TEER with PASCAL Repair System

SCREENING TOE



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TOE PROCEDURE: 3D POST PASCAL ACE IMPLANT

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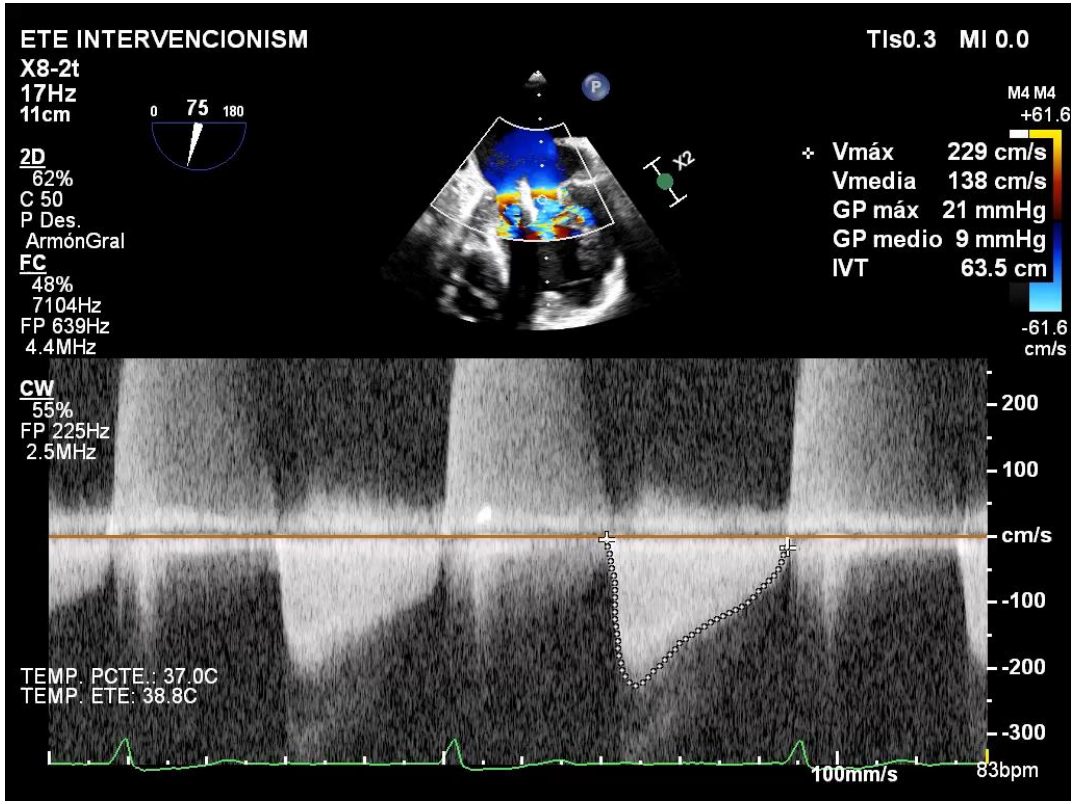
TOE PROCEDURE: MG POST PASCAL ACE IMPLANT



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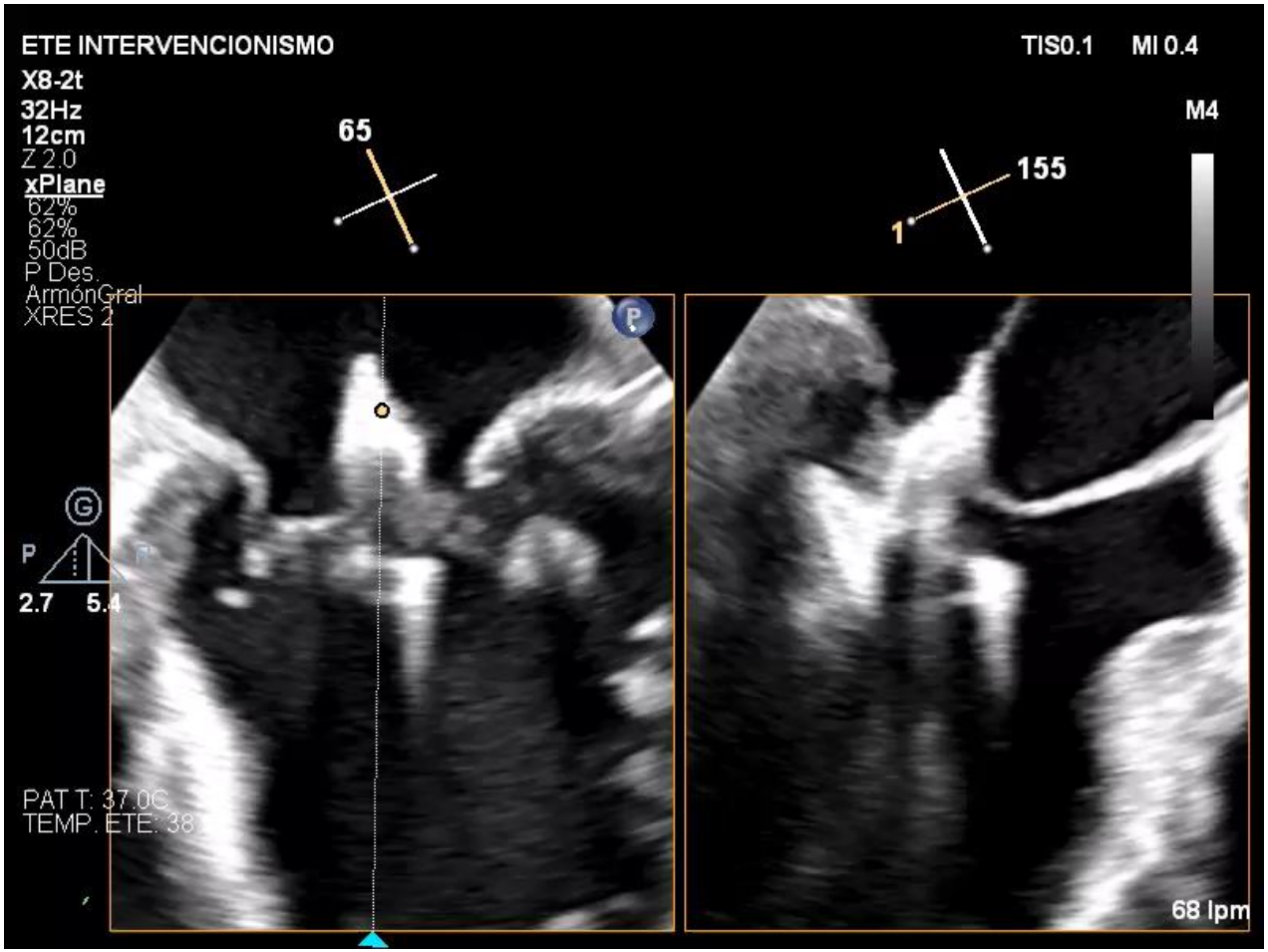
TOE PROCEDURE: LOW (VENTRICULAR) CLASPING OF PASCAL IMPLANT



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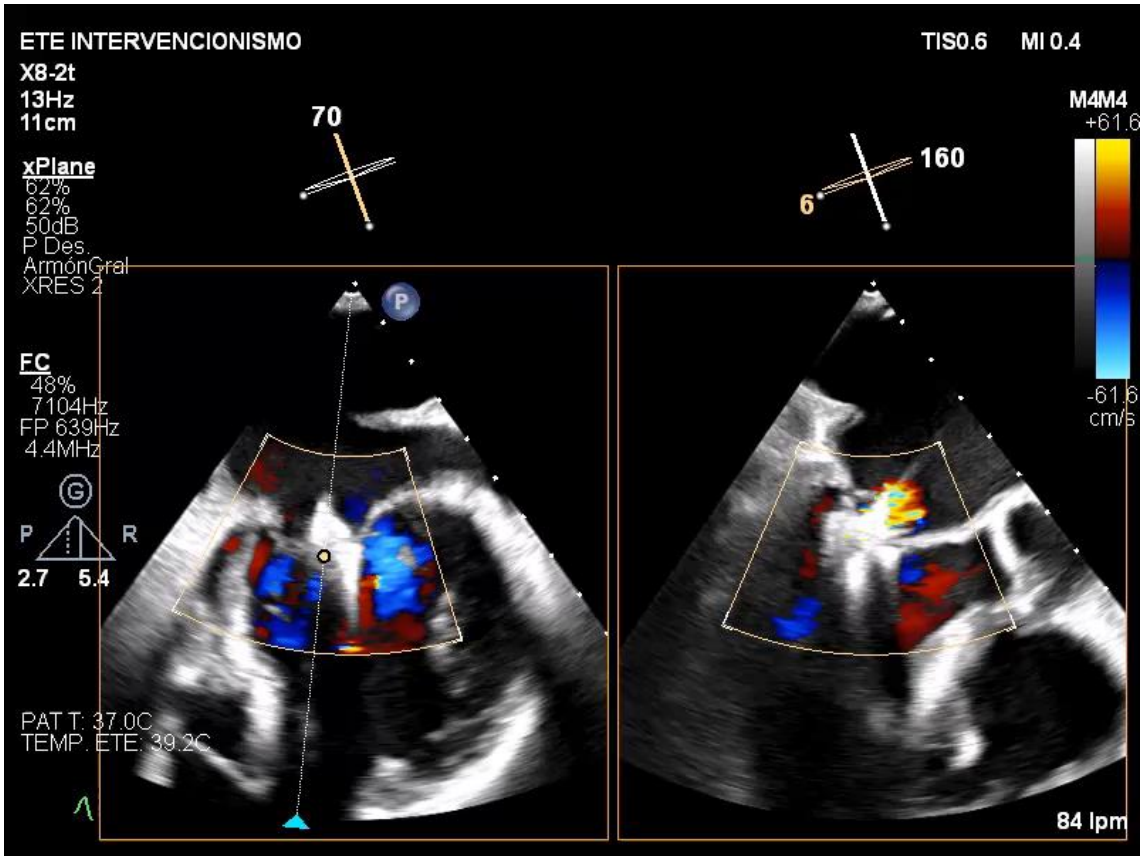
TOE PROCEDURE: XPLANE POST PASCAL IMPLANTATION



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TOE PROCEDURE: 3D POST PASCAL IMPLANTATION

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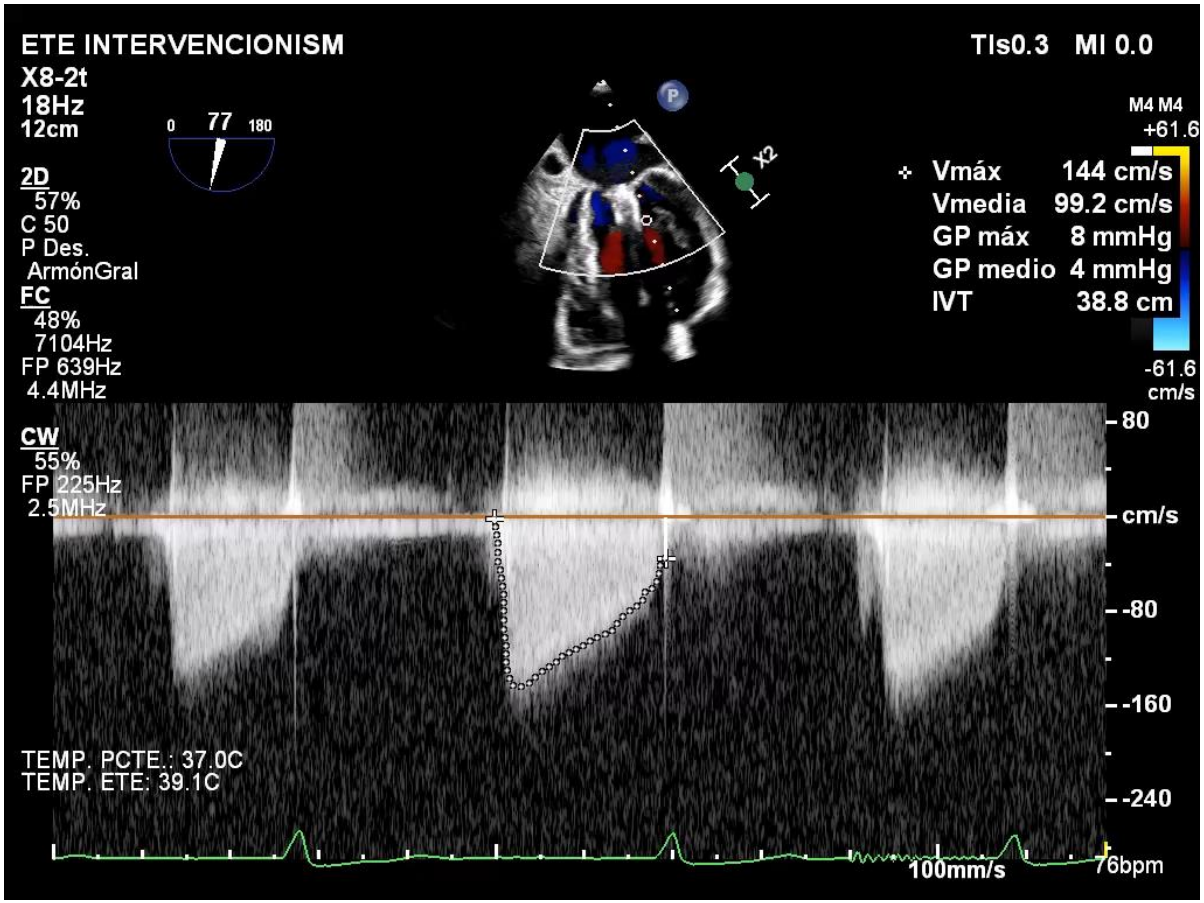
TOE PROCEDURE: MG POST PASCAL IMPLANTATION



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Thank You

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