

# *Two Clip or Not Two Clip*

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# Disclosure Statement of Financial Interest

## *Saibal Kar, MD, FACC*

Within the past 12 months, I or my spouse/partner have had a financial interest/arrangement or affiliation with the organization(s) listed below.

### **Affiliation/Financial Relationship**

- Grant/Research Support
- Consulting Fees/Honoraria
- Other Financial Benefit

### **Company**

- Abbott Vascular, Boston Scientific, St Jude Medical, Circulite, Coherex, Gore, Biotronics
- Abbott Vascular, Boston Scientific, St Jude Medical, Gore
- Coherex, Biosensors International

# Case Summary

## ***Patient Demographics***

- Age: 85 years old
- Gender: Male

## ***Past Surgical History***

- Prostatectomy [1999]
- Surgical AVR [2006]

## ***Past Medical History***

- Hyperlipidemia
- Hypertension
- Atrial fibrillation
- Prostate cancer

## ***Clinical Presentation***

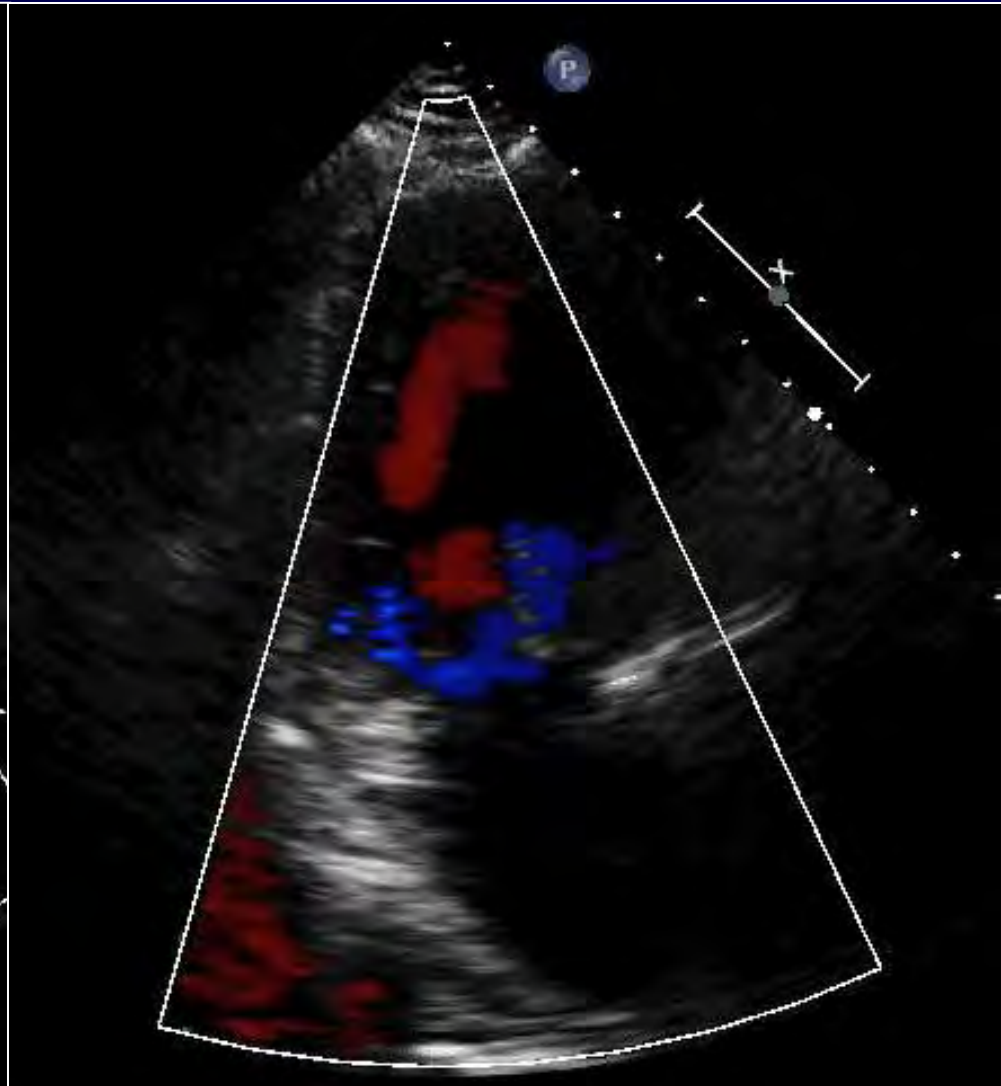
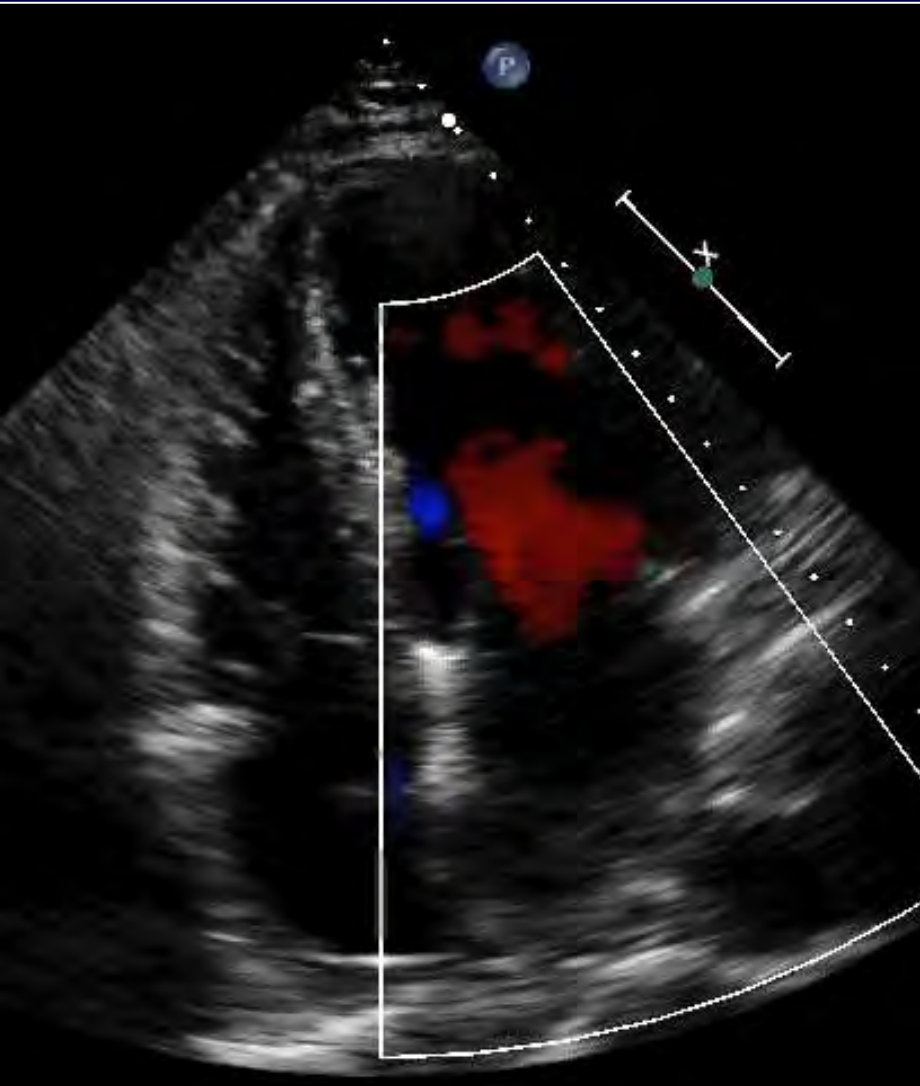
- Shortness of breath  
(NYHA class III)



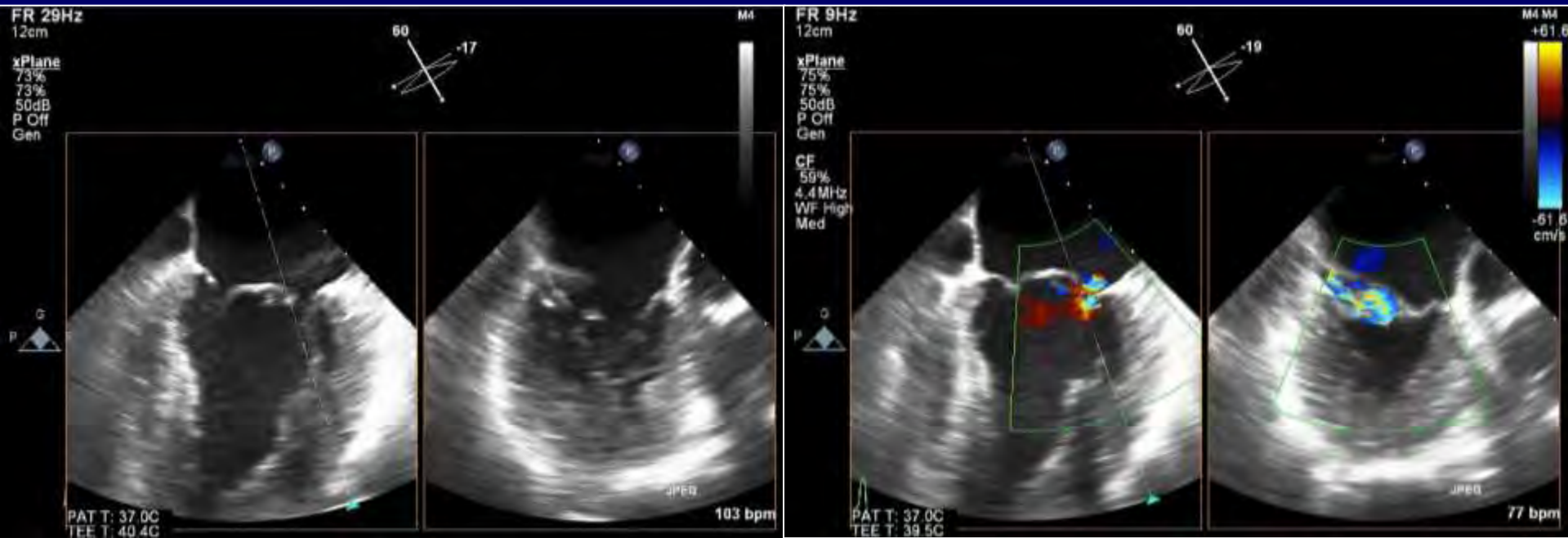
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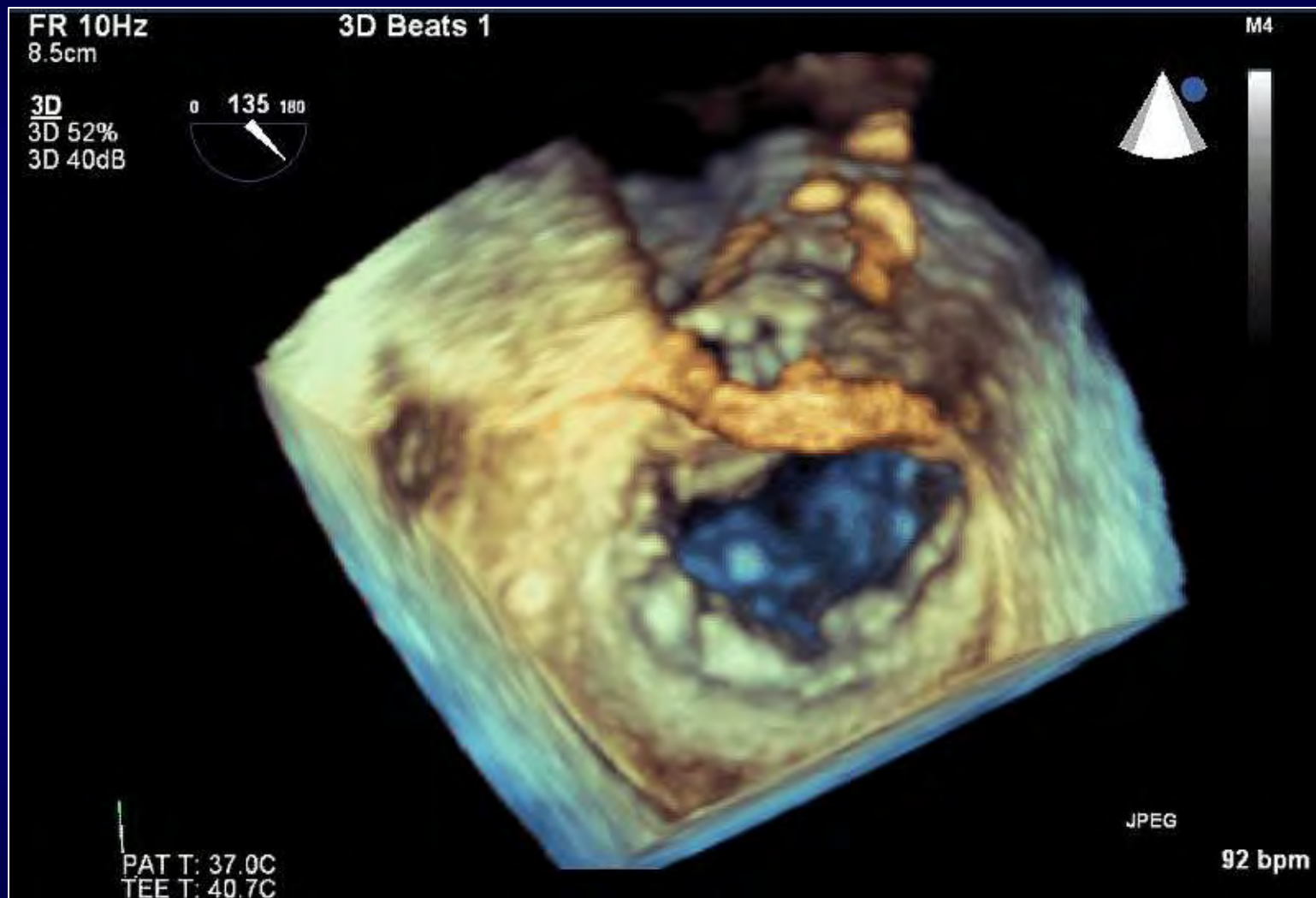
# Baseline TTE



# Baseline TEE



# Baseline TEE





# What we do

- Redo open heart surgery ( STS score for repair was around 5 to 6%)
- Consider MitraClip procedure
- Transcatheter Valve replacement





# *Case Summary*

## ***Procedural Strategy***

Percutaneous mitral valve repair with MitraClip system.

## ***Clinical Indication***

Severe DMR (A2 flail) with NYHA class III.



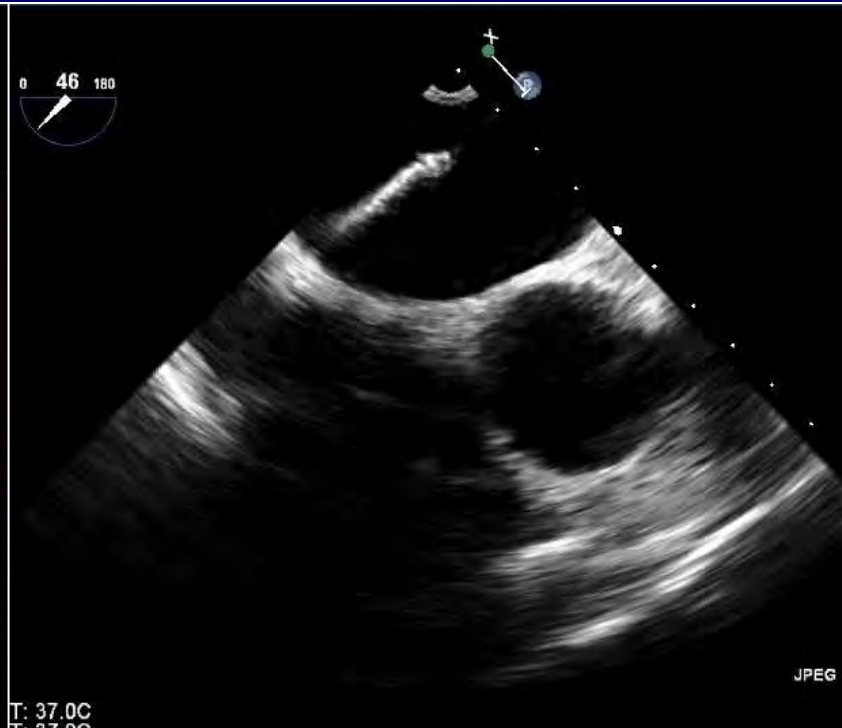
# Procedure TEE

FR 29Hz  
9.0cm

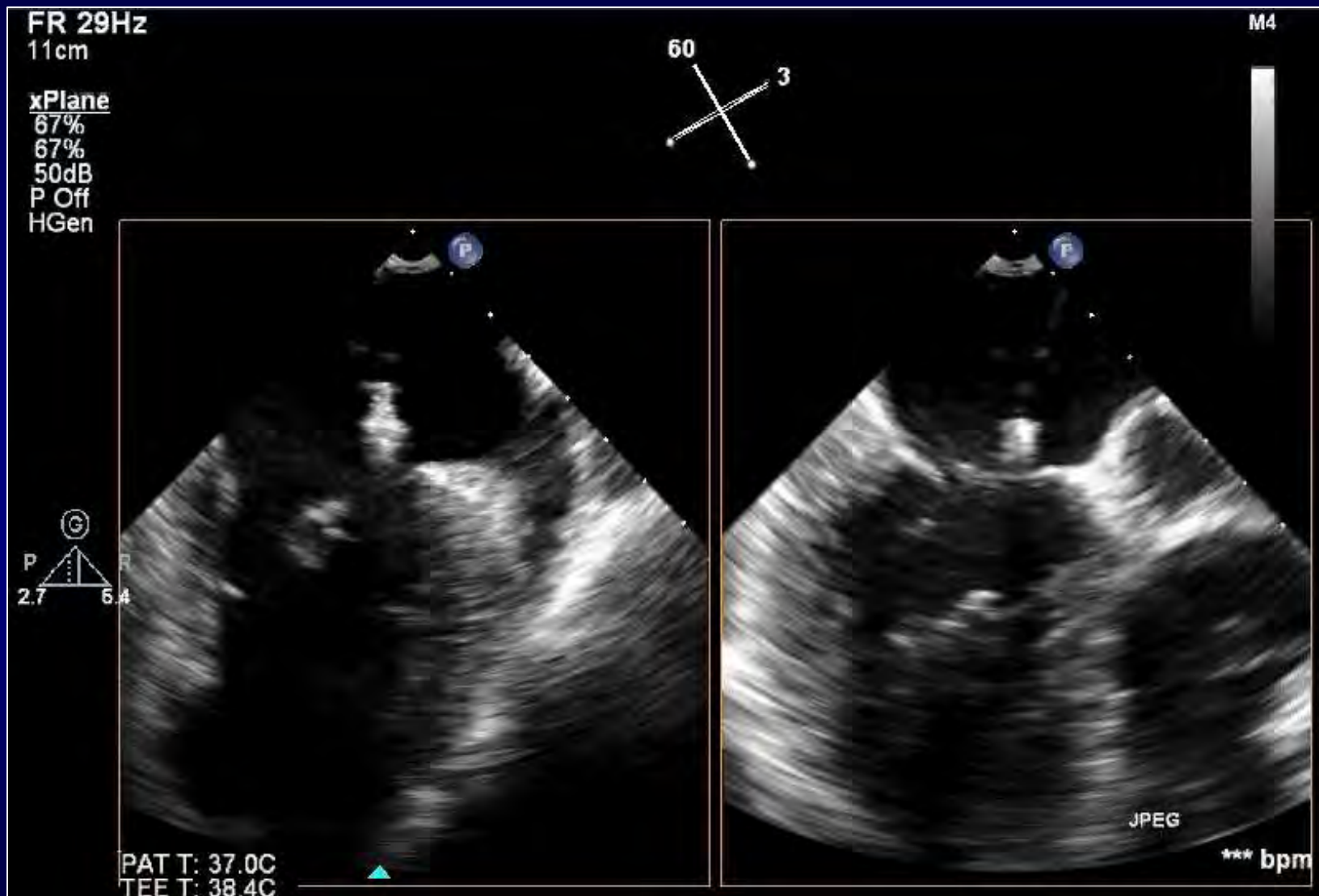
xPlane  
67%  
67%  
50dB  
P Off  
Pen



M4



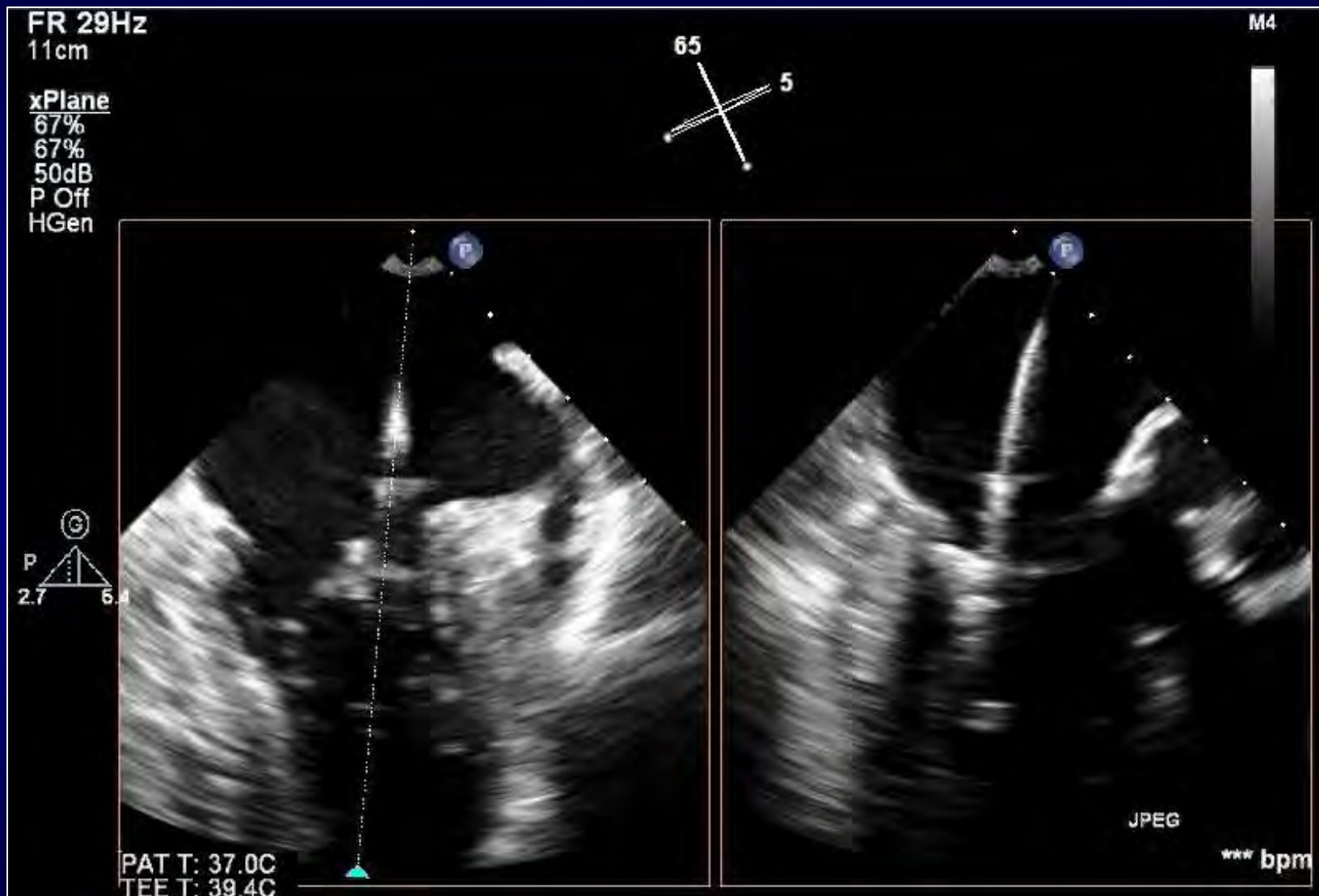
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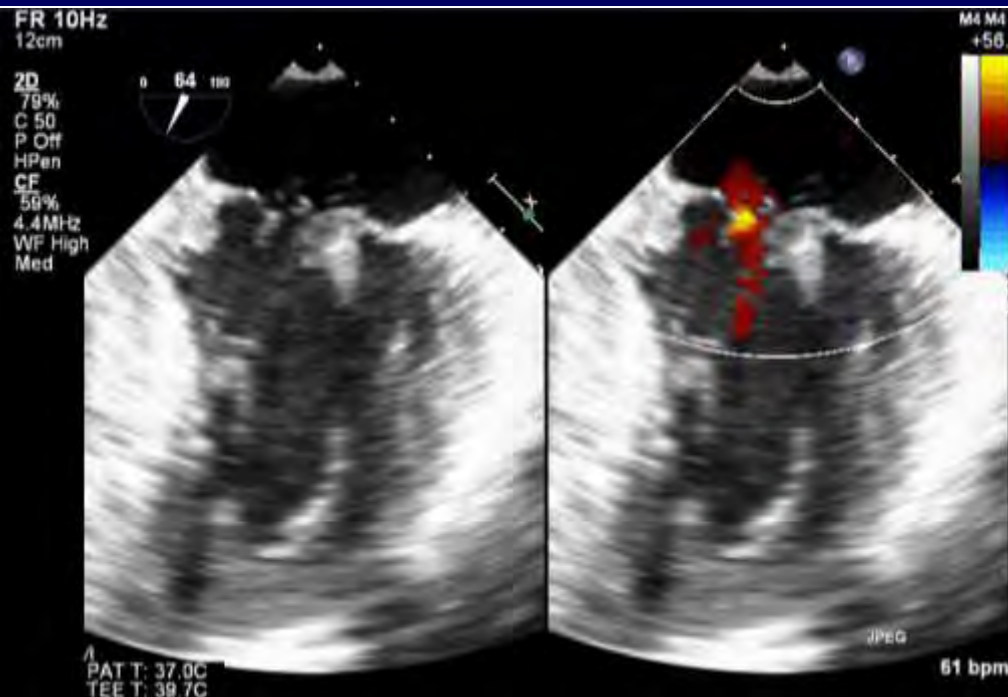
# Procedure TEE



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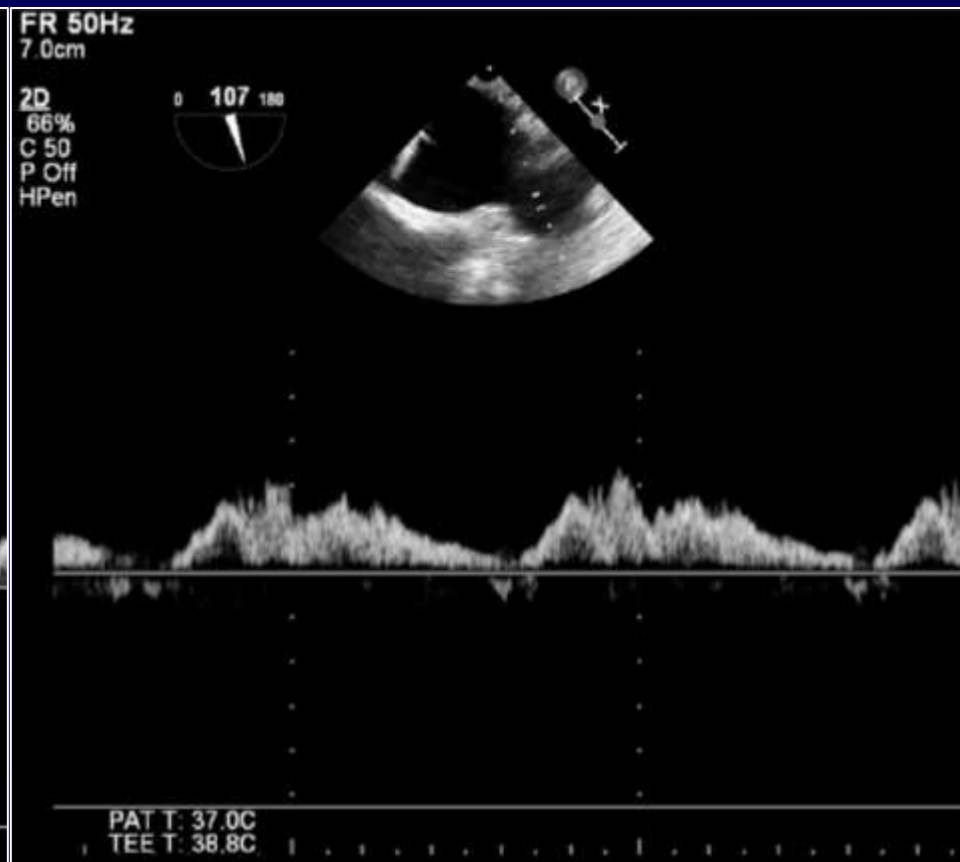
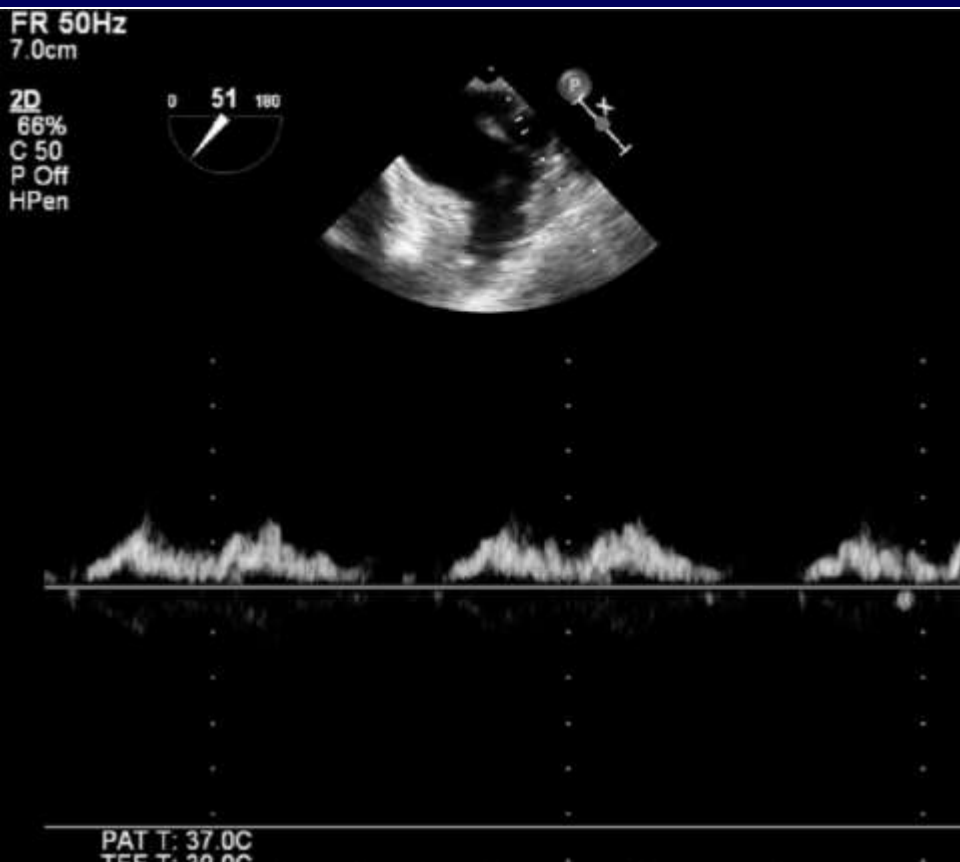


# Procedure TEE



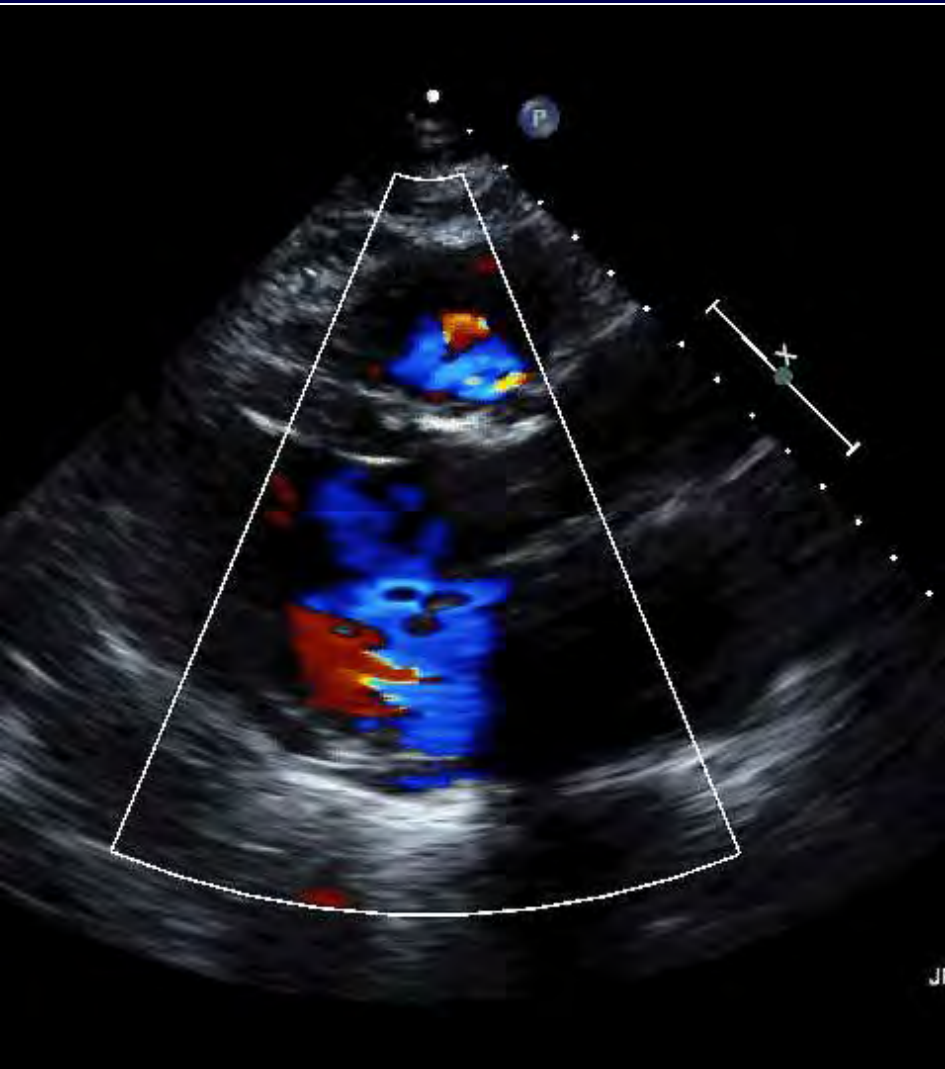


# Procedure TEE

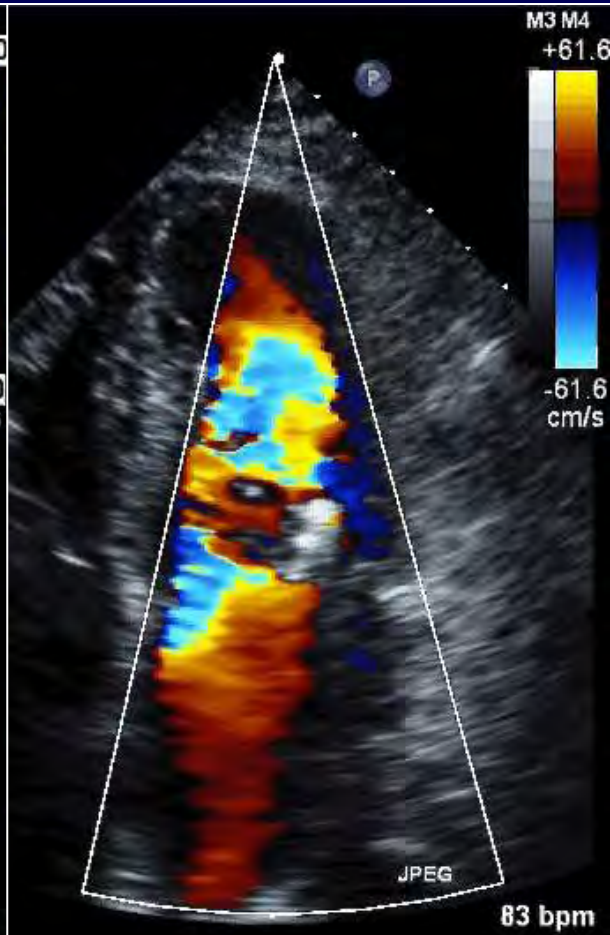
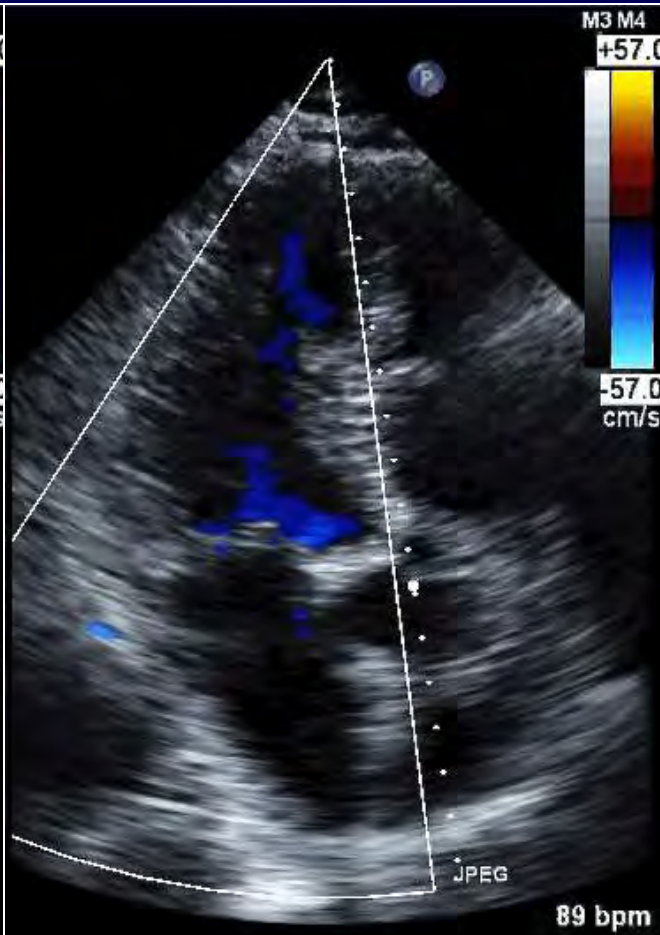




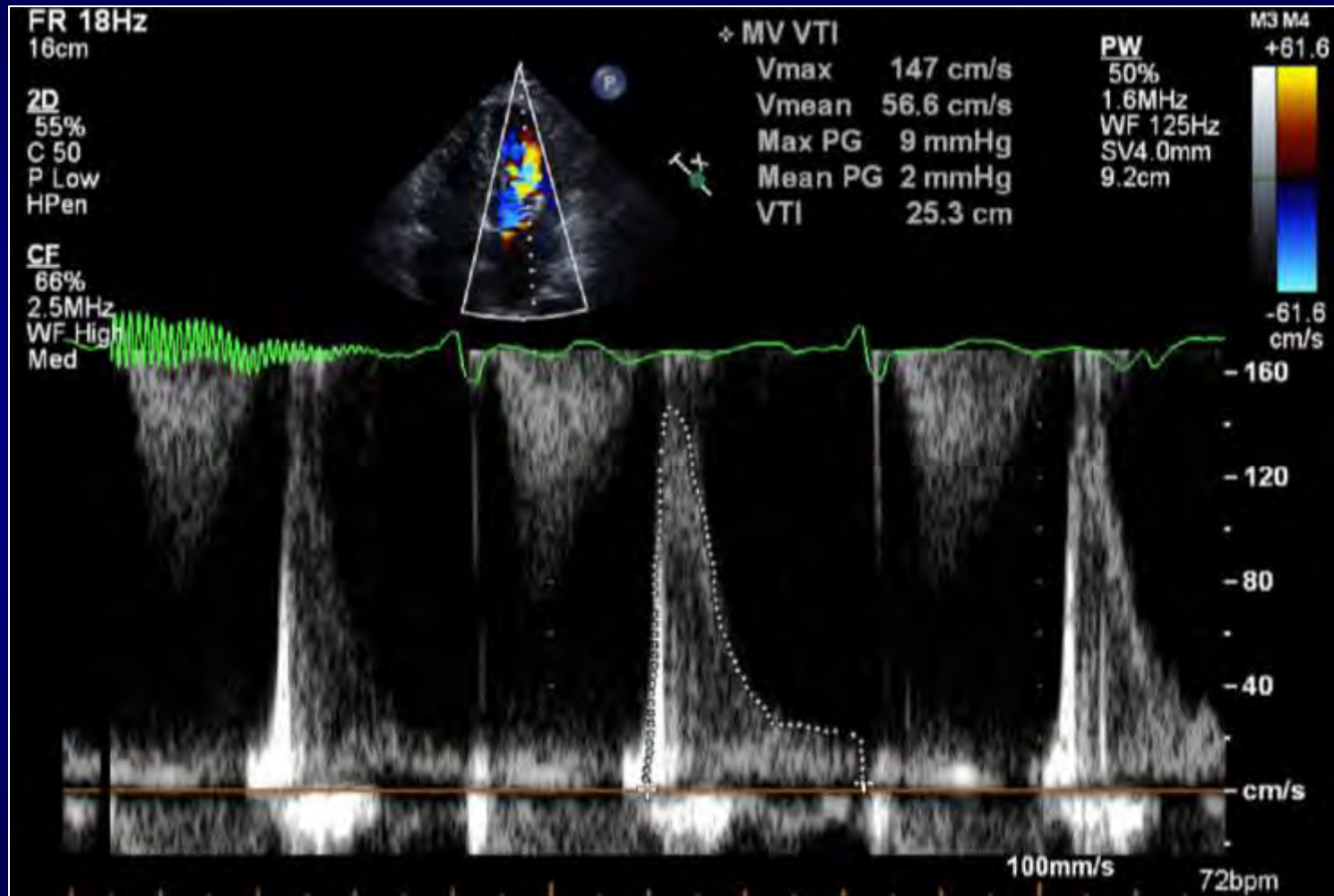
# 4 month follow-up TTE



# 4 month follow-up TTE

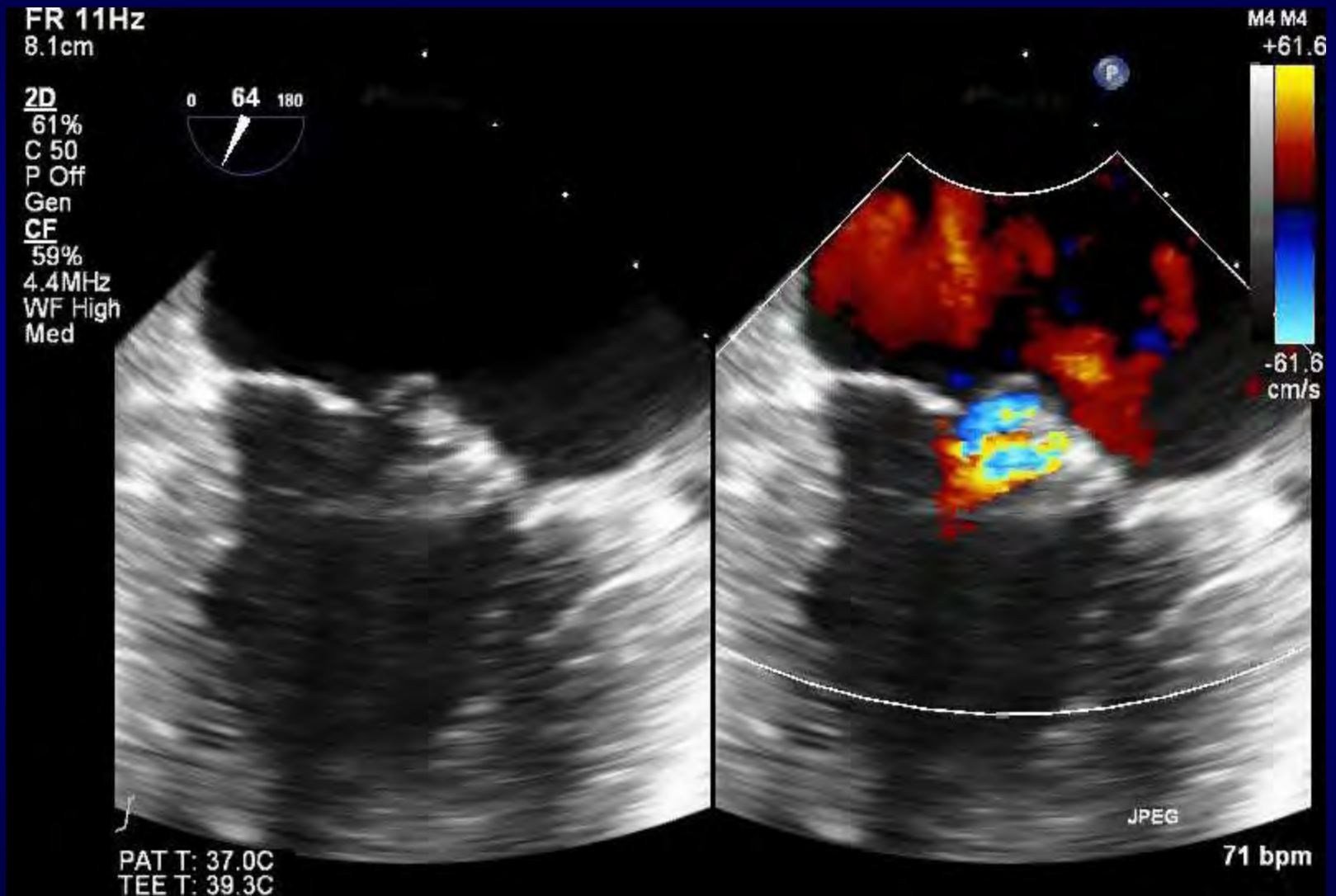


# 4 month follow-up TTE

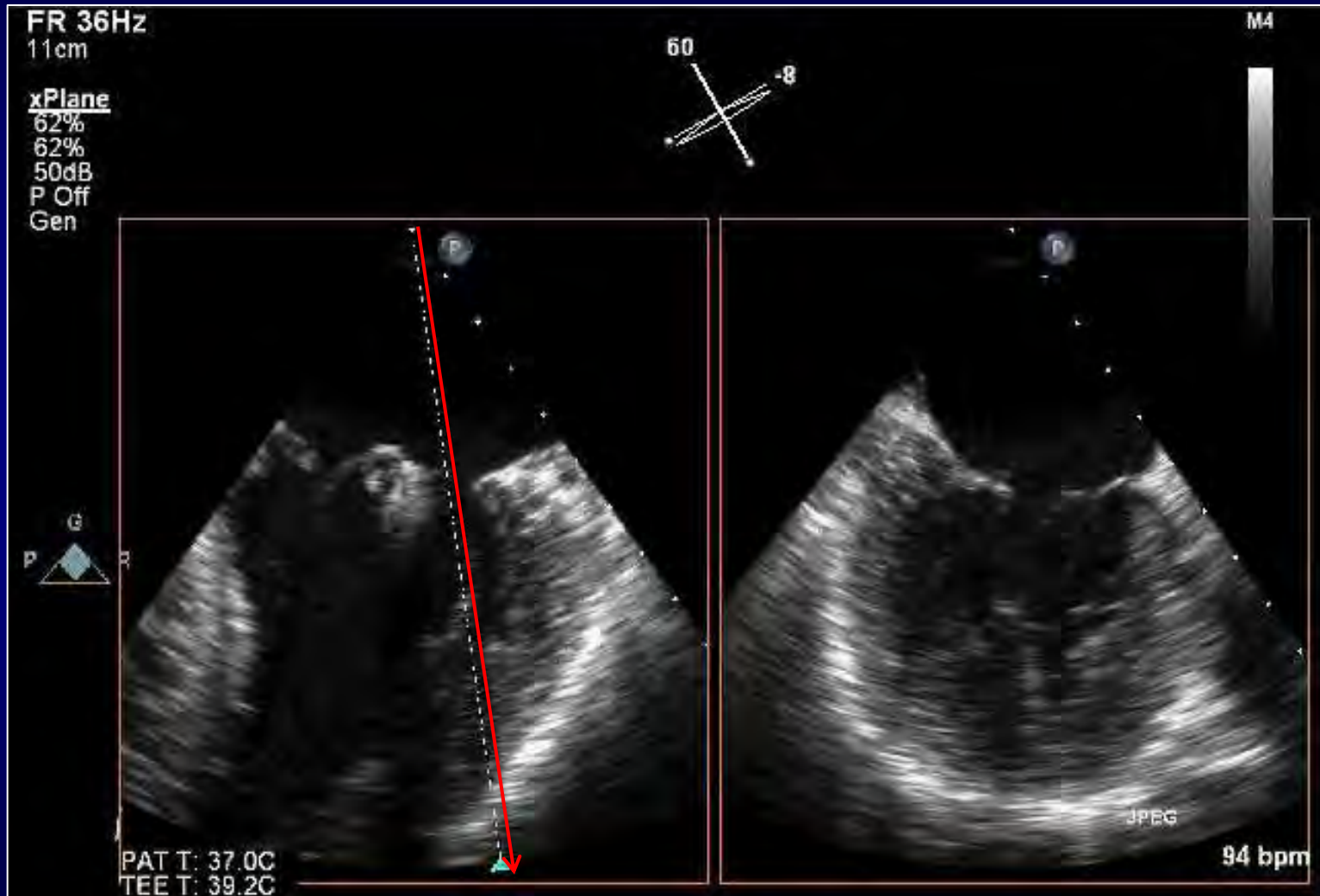




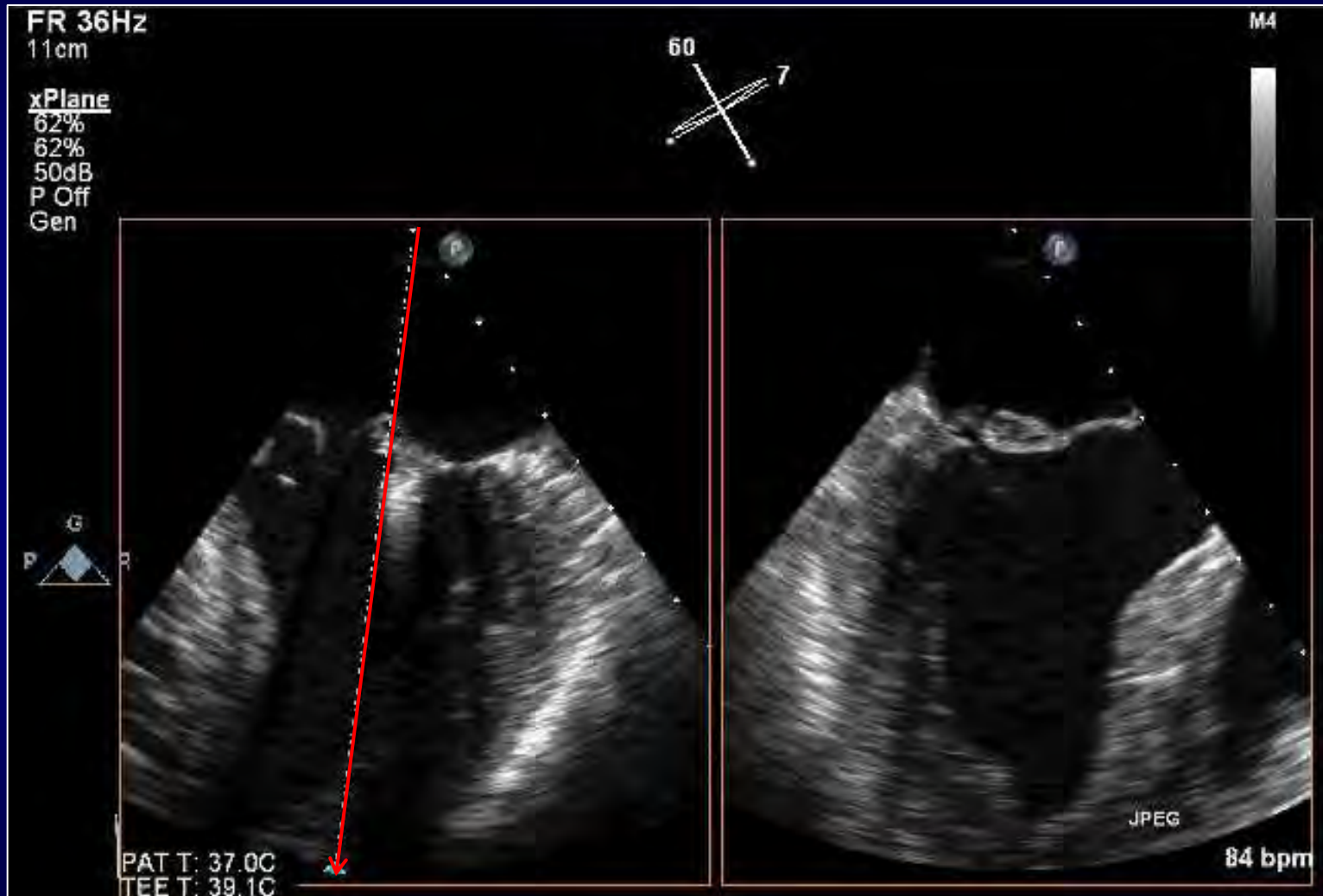
# 4 month follow-up TEE



# 4 month follow-up TEE



# 4 month follow-up TEE



# *Case Summary*

## ***Procedural Strategy***

Percutaneous mitral valve repair with MitraClip system.

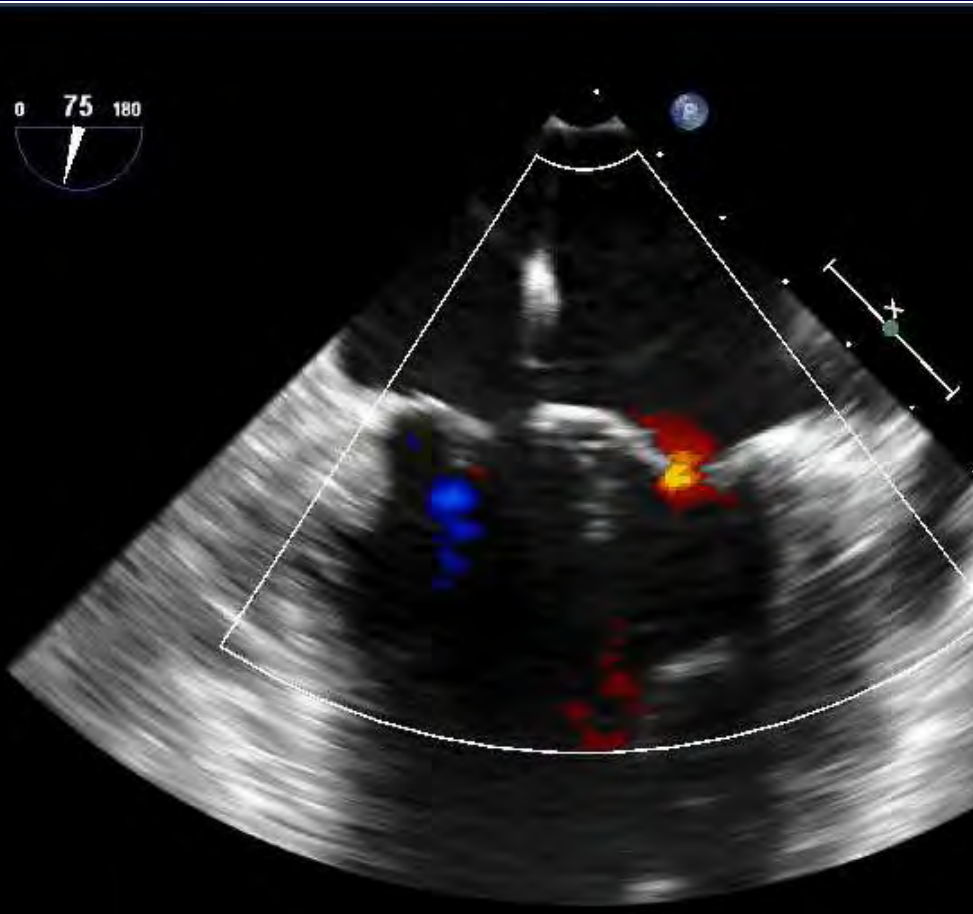
## ***Clinical Indication***

Mitral valve dysfunction post MitraClip with NYHA class III.

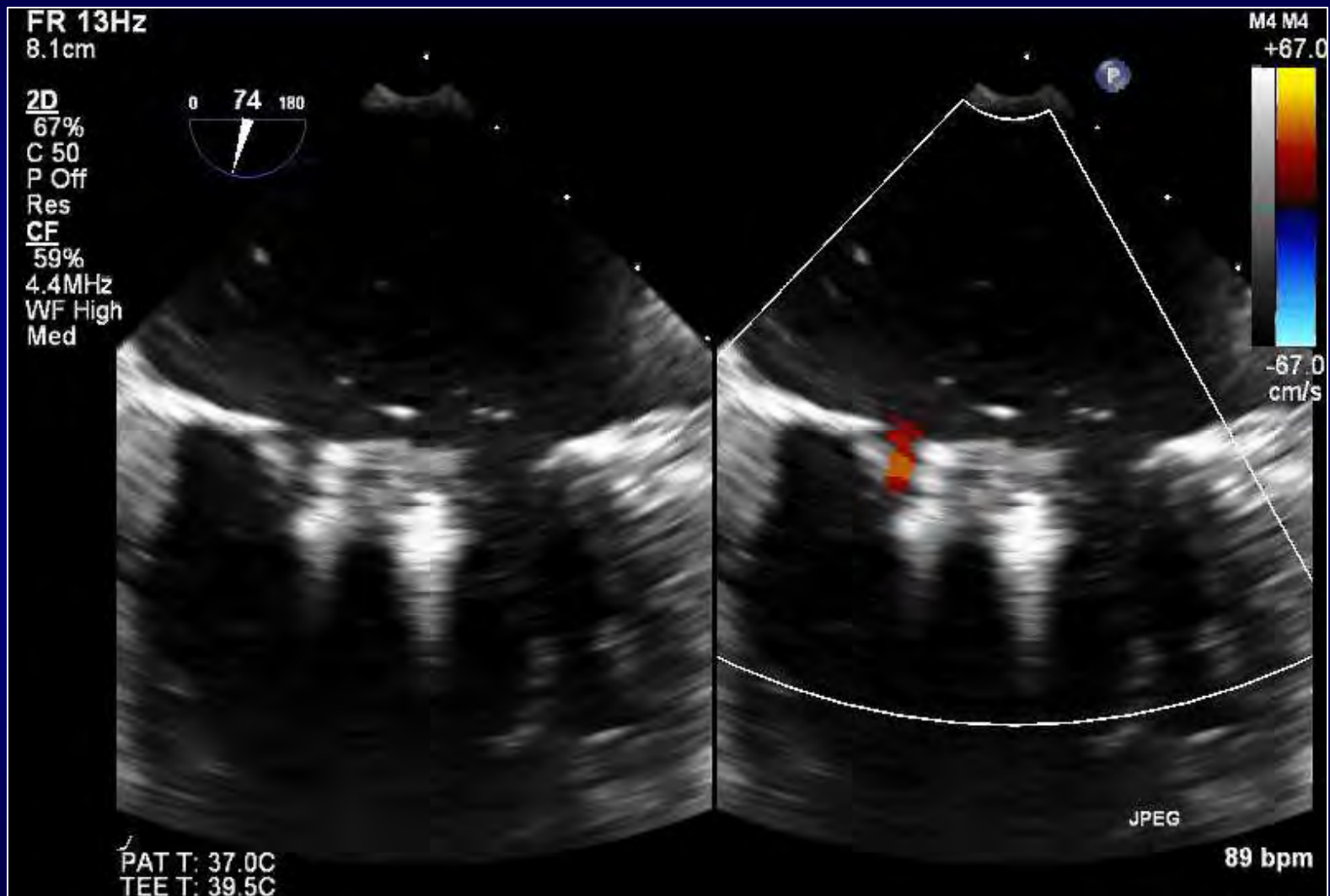




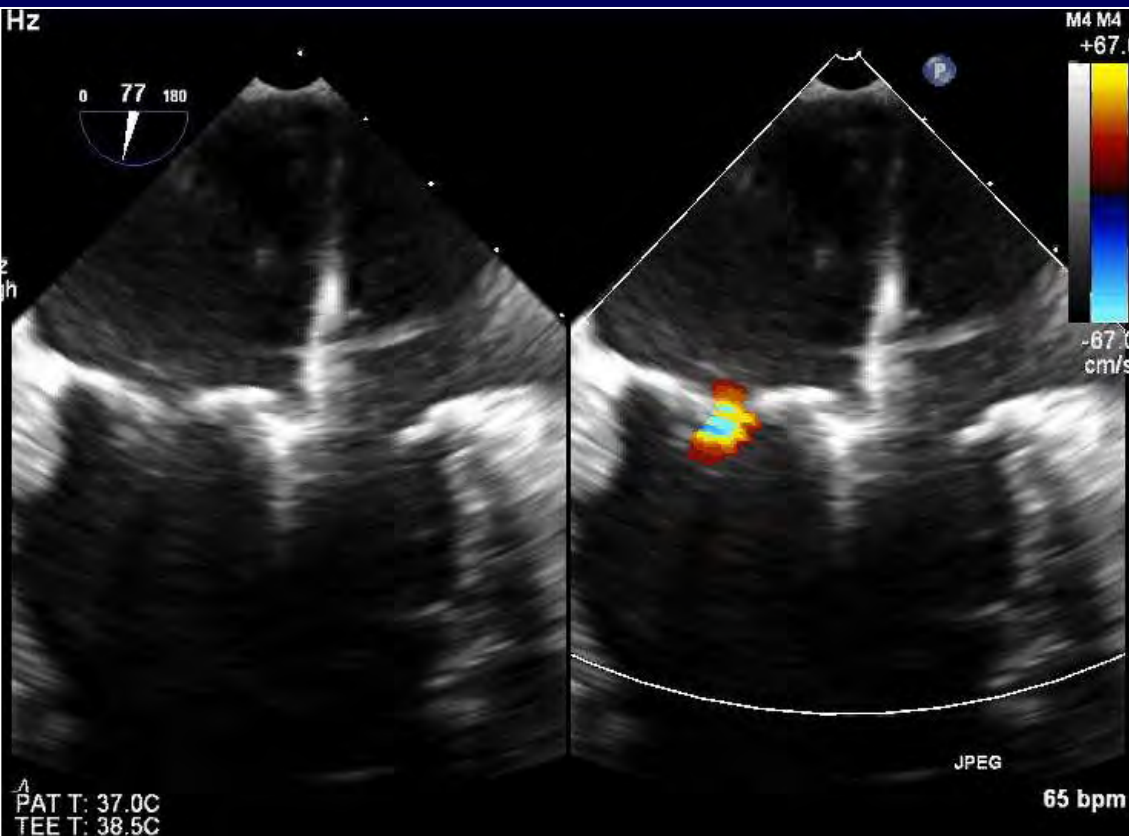
# 2nd MitraClip procedure



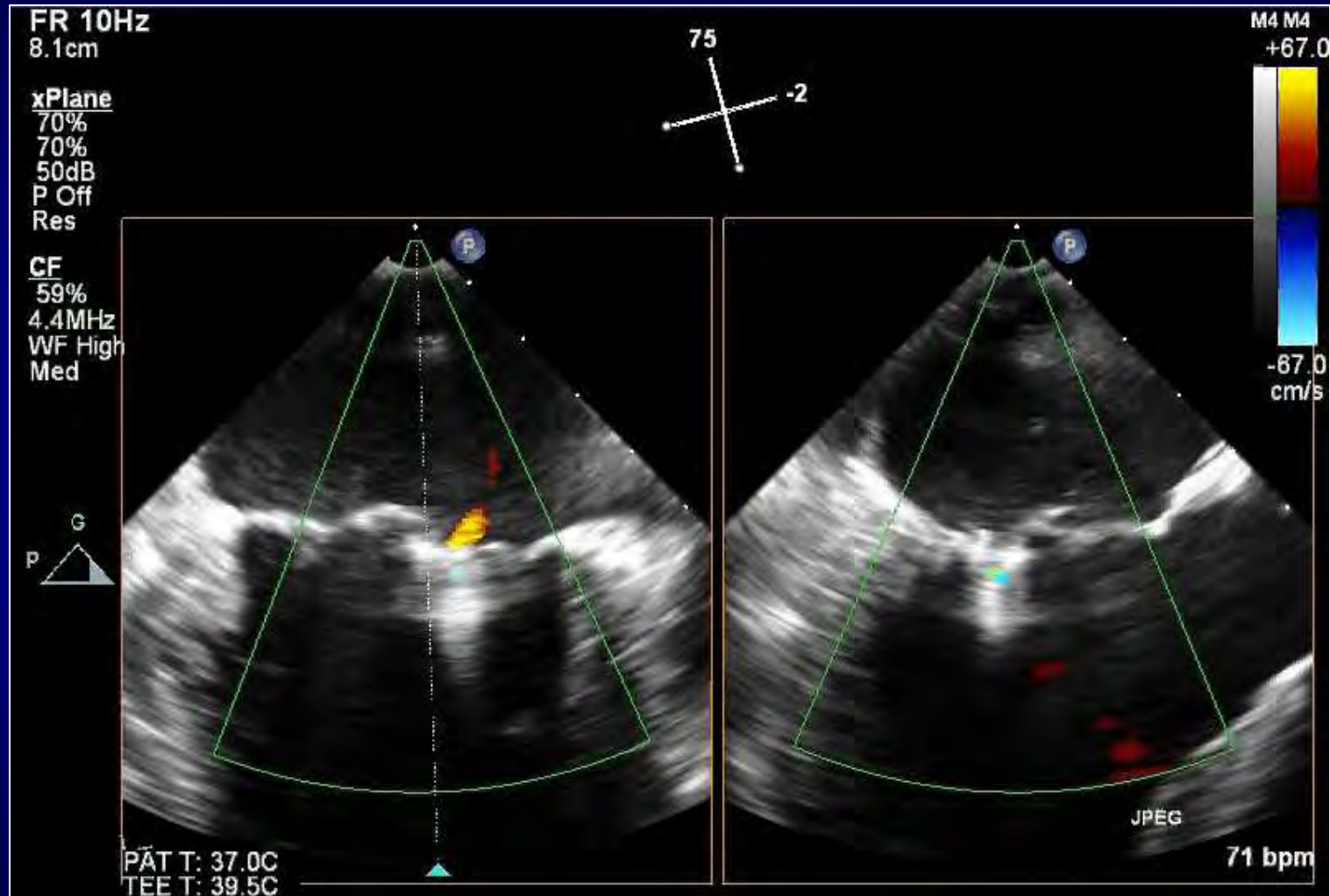
# 2nd MitraClip procedure



# 2nd MitraClip procedure



# 2nd MitraClip procedure



# Case 2:

Clip or Transplant



# *Case summary*

Patient: 45-year-old man

Clinical Presentation:

Shortness of breath (NYHA III) for 3 months

Past history

Non ischemic dilated cardiomyopathy for 12 years

On optimal medical treatment (ACE, betablockers

Diuretics, inspira.

✓ CRT-D implantation [2012]

✓ No admission of heart failure in last one year

✓ NPA level 481



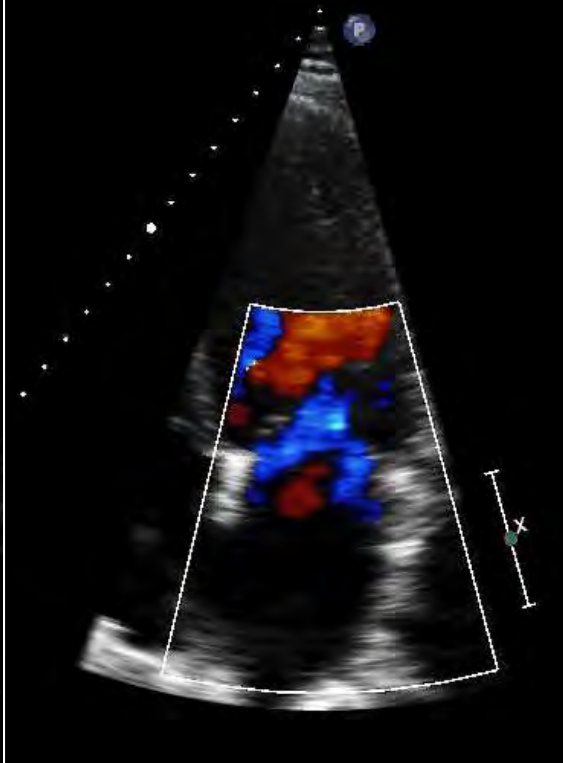


# Baseline TTE

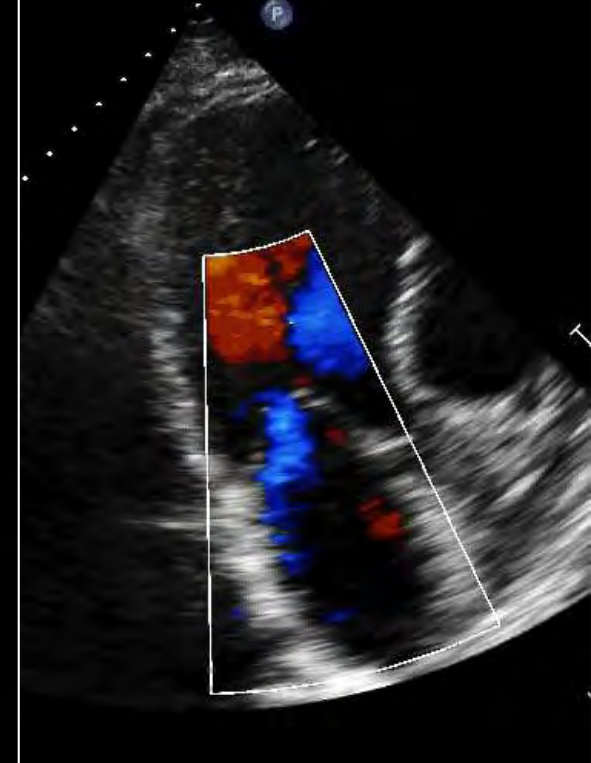
"Parasternal short axis view"



"4ch view"



"3ch view"



*Severe functional MR with LV dysfunction*

✓  $EROA = 0.46 \text{ cm}^2$

✓  $LVEF = 23\%$ ,  $LVID \text{ d/s} = 63/59 \text{ mm}$



# Options

- Evaluation for heart transplantation
- Surgery for functional MR, since patient is very young
- Consider enrolling patient in COAPT trial
- Continue medical Rx and consider hospice

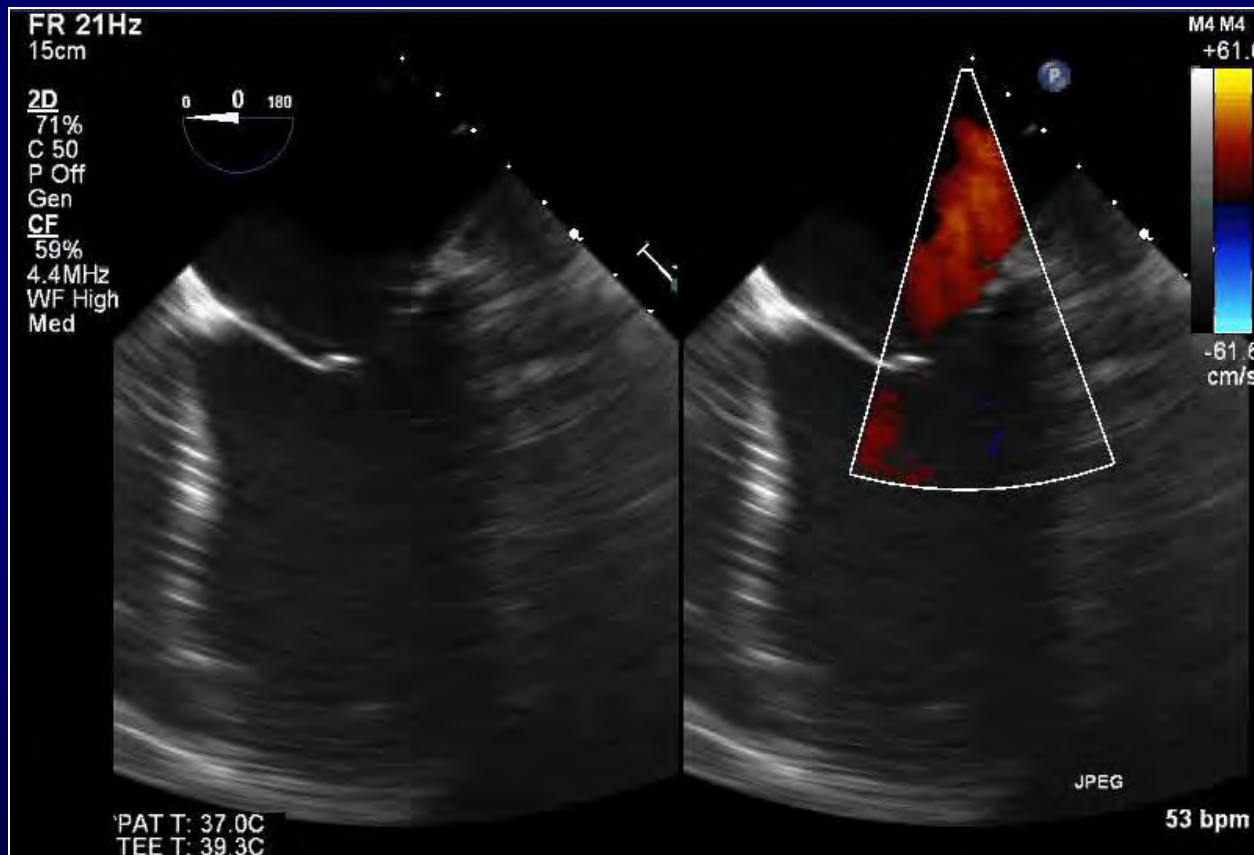
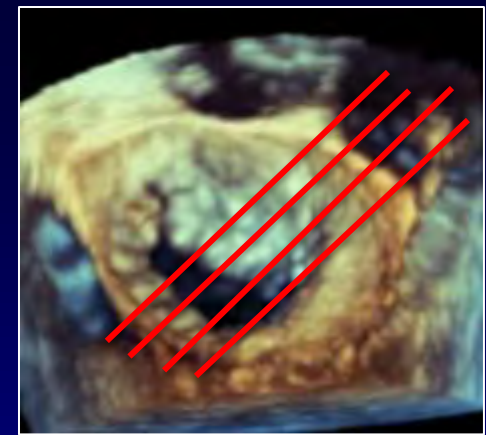


# Follow up

- Patient decompensated and was admitted with hypotension and acute left heart failure.
- Started on Milrinone and dobutamine
- Transferred to Cedars for Heart transplantation (status IA), and LV assist device

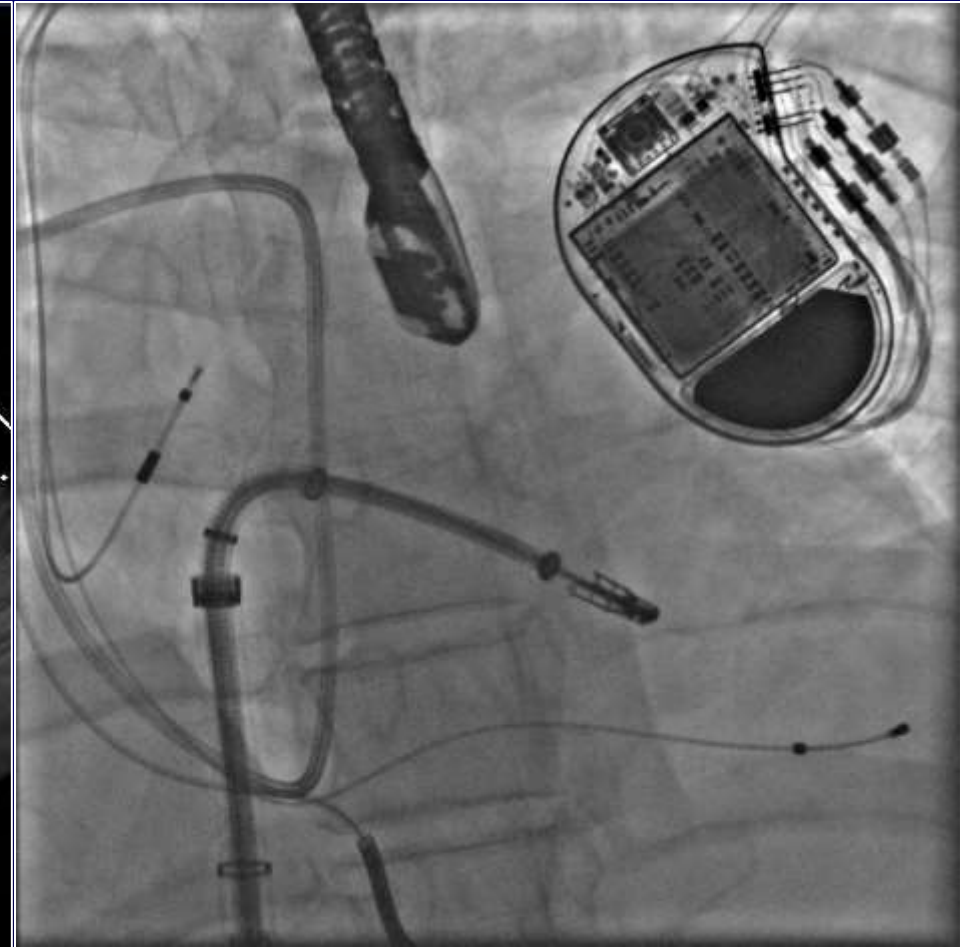
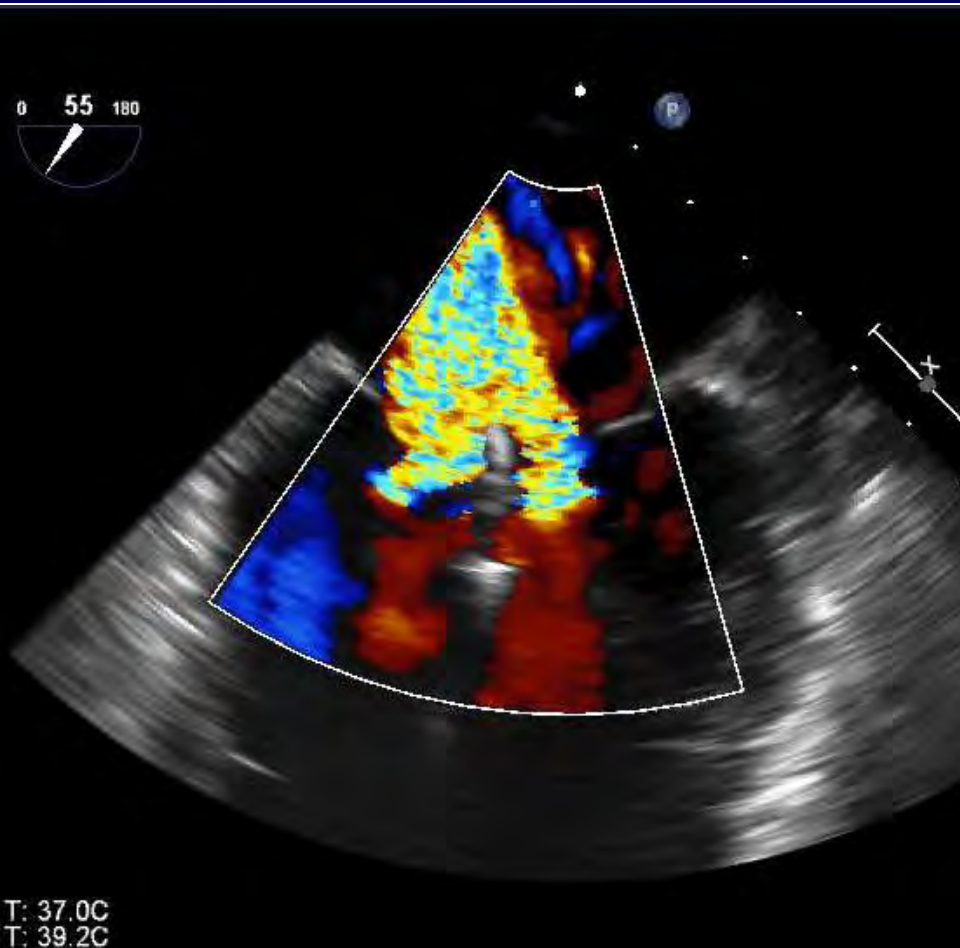


# Baseline TEE



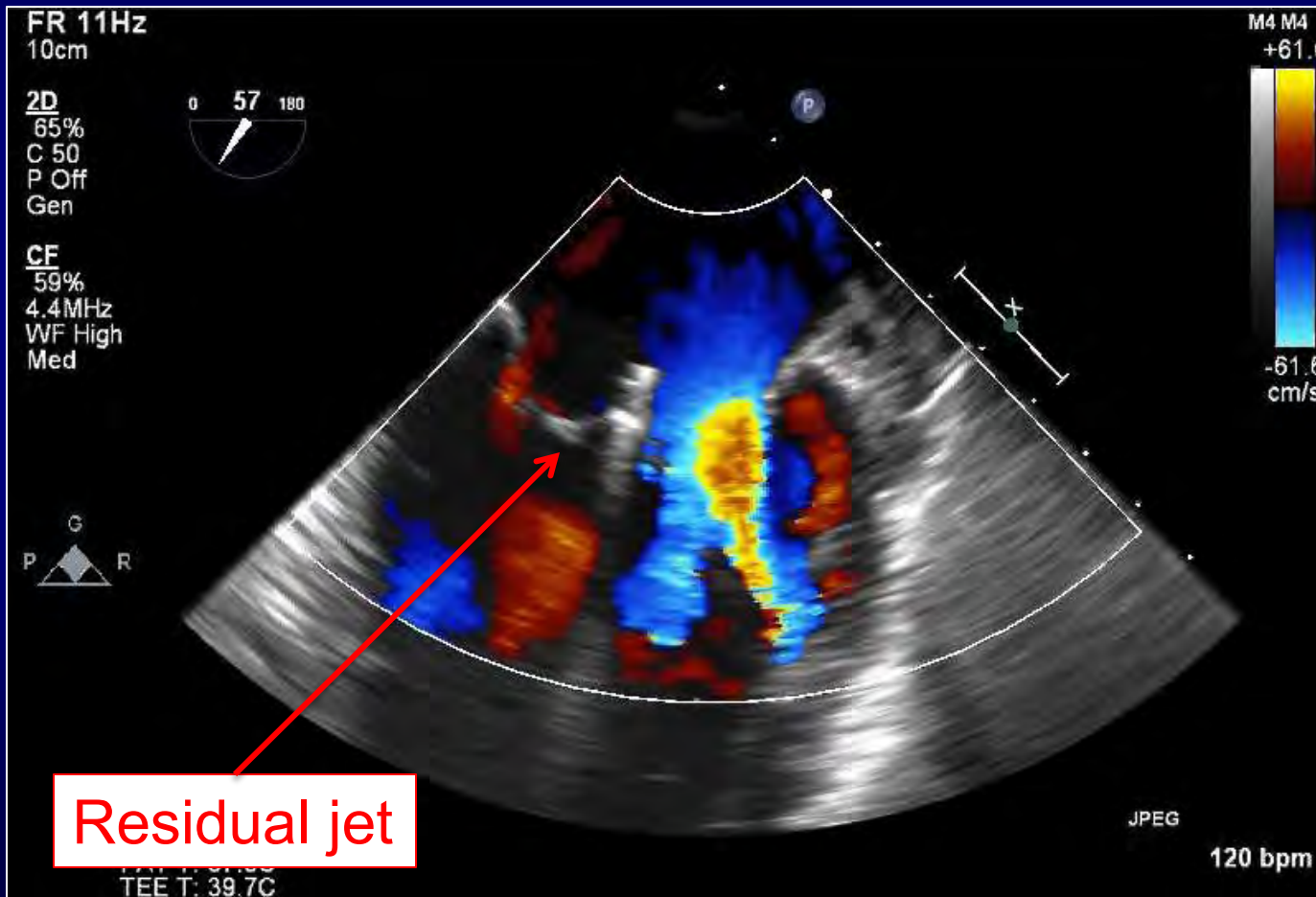
# MitraClip procedure

“1st clip deployment”



# MitraClip procedure

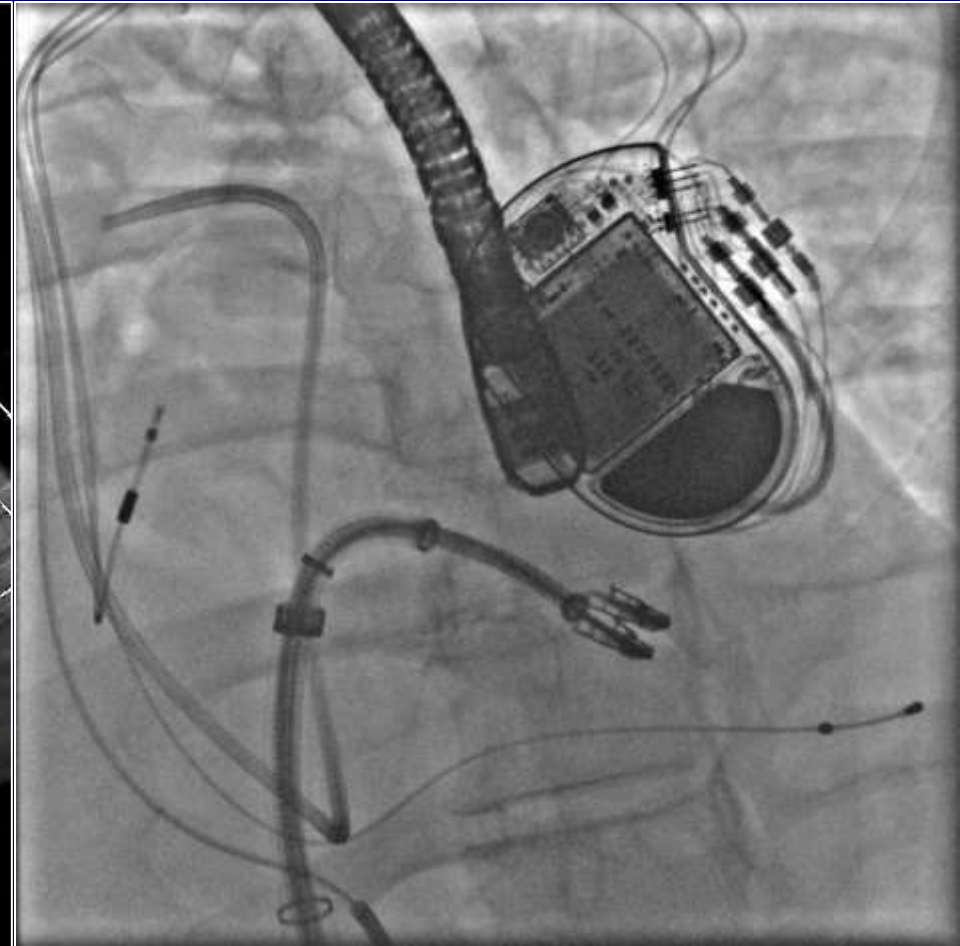
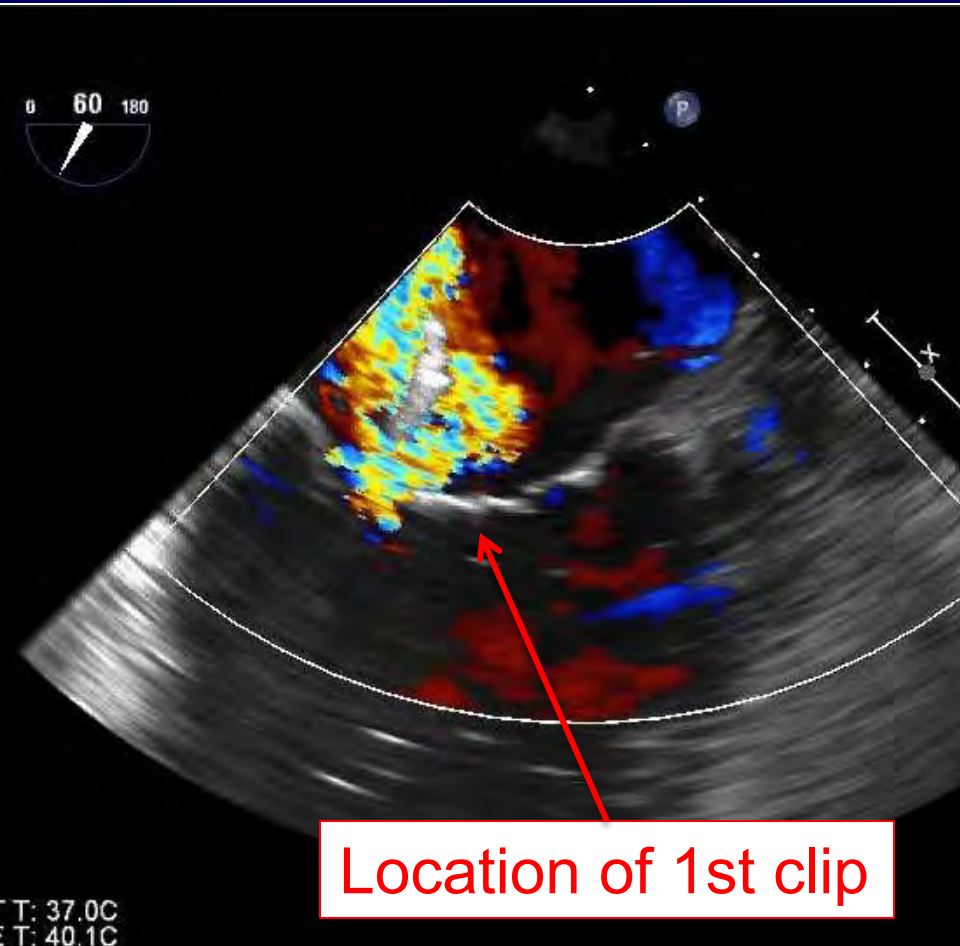
“Post 1st clip deployment”





# MitraClip procedure

“2nd clip deployment”

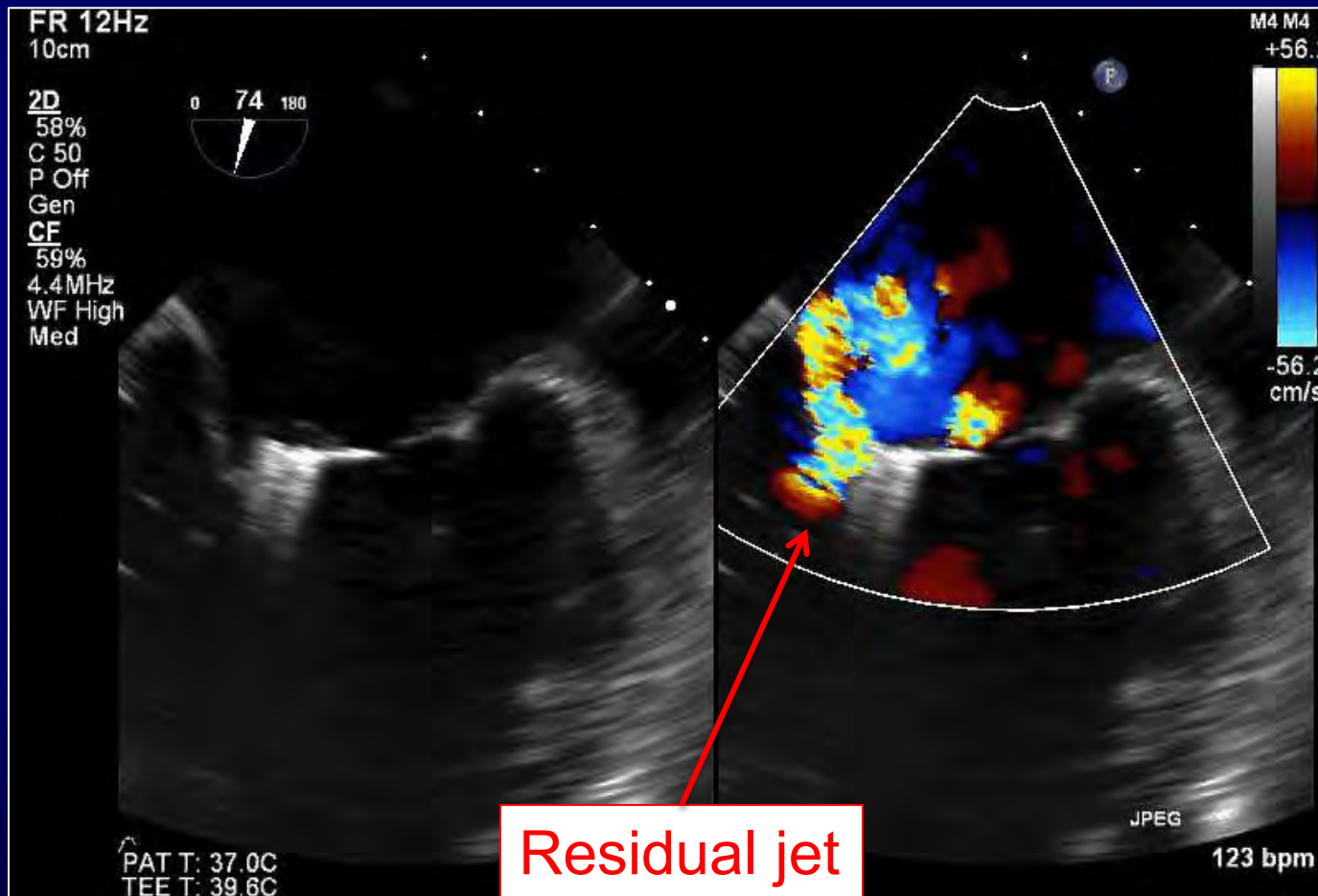


Location of 1st clip



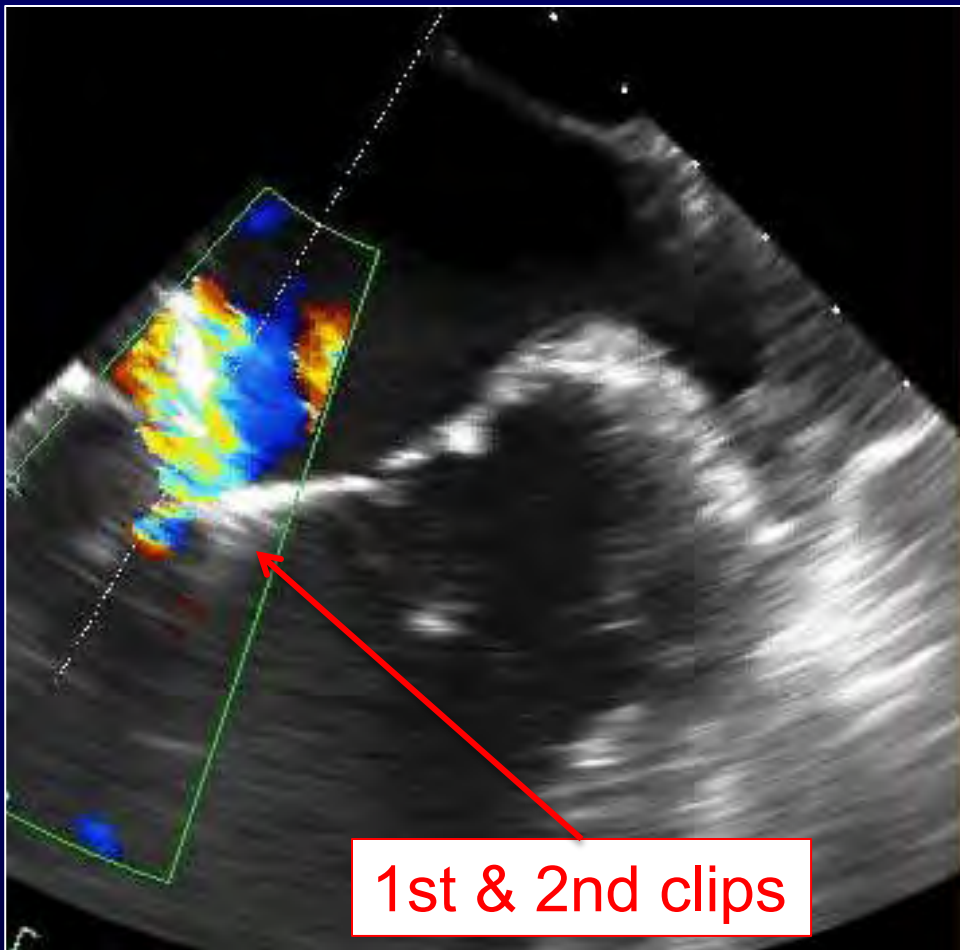
# MitraClip procedure

“Post 2nd clip deployment”



# MitraClip procedure

“3rd clip deployment”



1st & 2nd clips



# MitraClip procedure

## “Post 3rd clip deployment”



“Cardiac output increased from 2.9 to 3.7 L/min”

# 6 months later

- NYHA I to II
- Off the transplant list
- Back on most of his guideline directed medical therapy



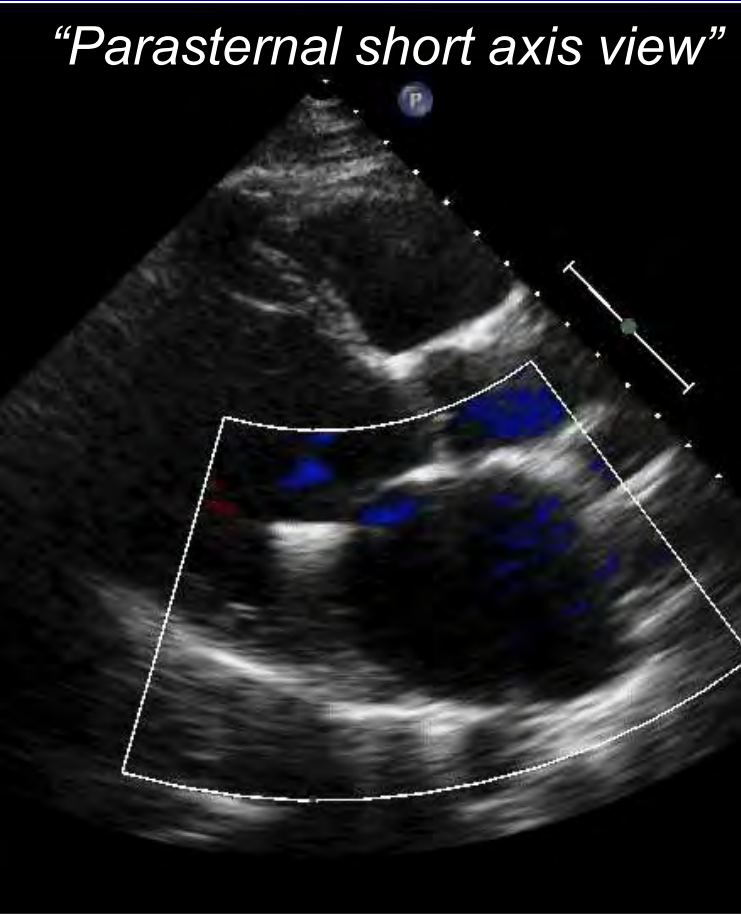
# Take home message

- MitraClip is safe and effective treatment of functional MR in end stage heart failure
- Do we really need the COAPT study

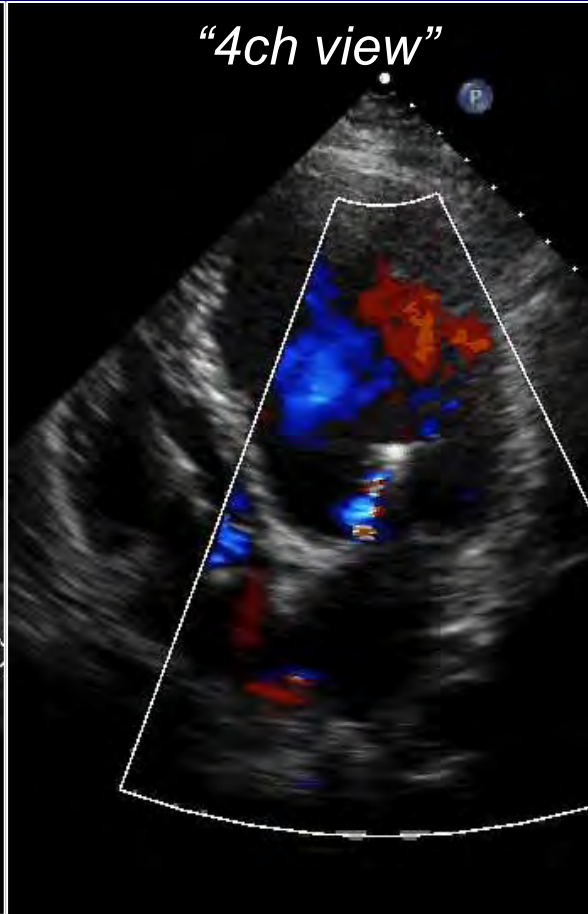


# 1 Month Follow-up

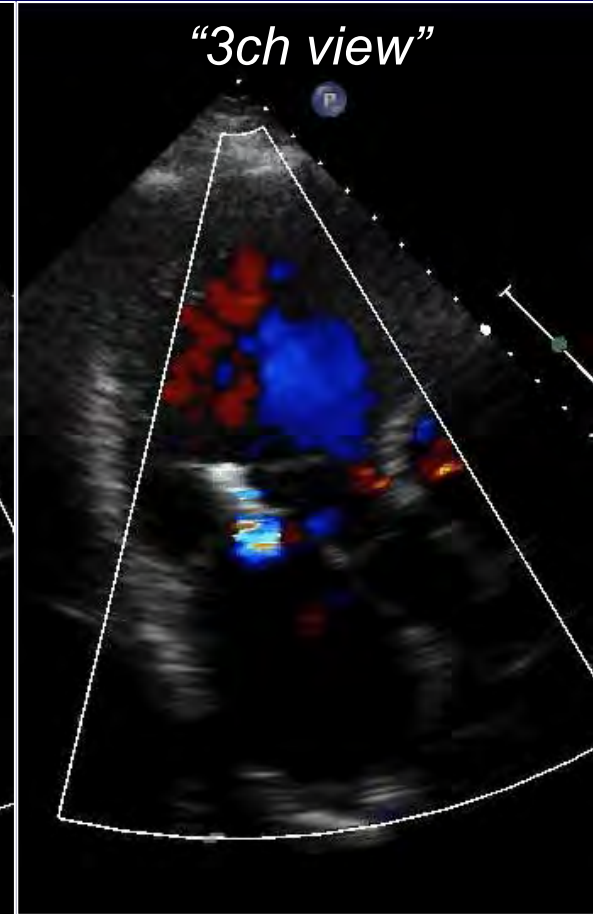
*"Parasternal short axis view"*



*"4ch view"*



*"3ch view"*





# Conclusions

- MitraClip is a safe and effective transcatheter treatment options for selected patients with both degenerative and functional mitral regurgitation

