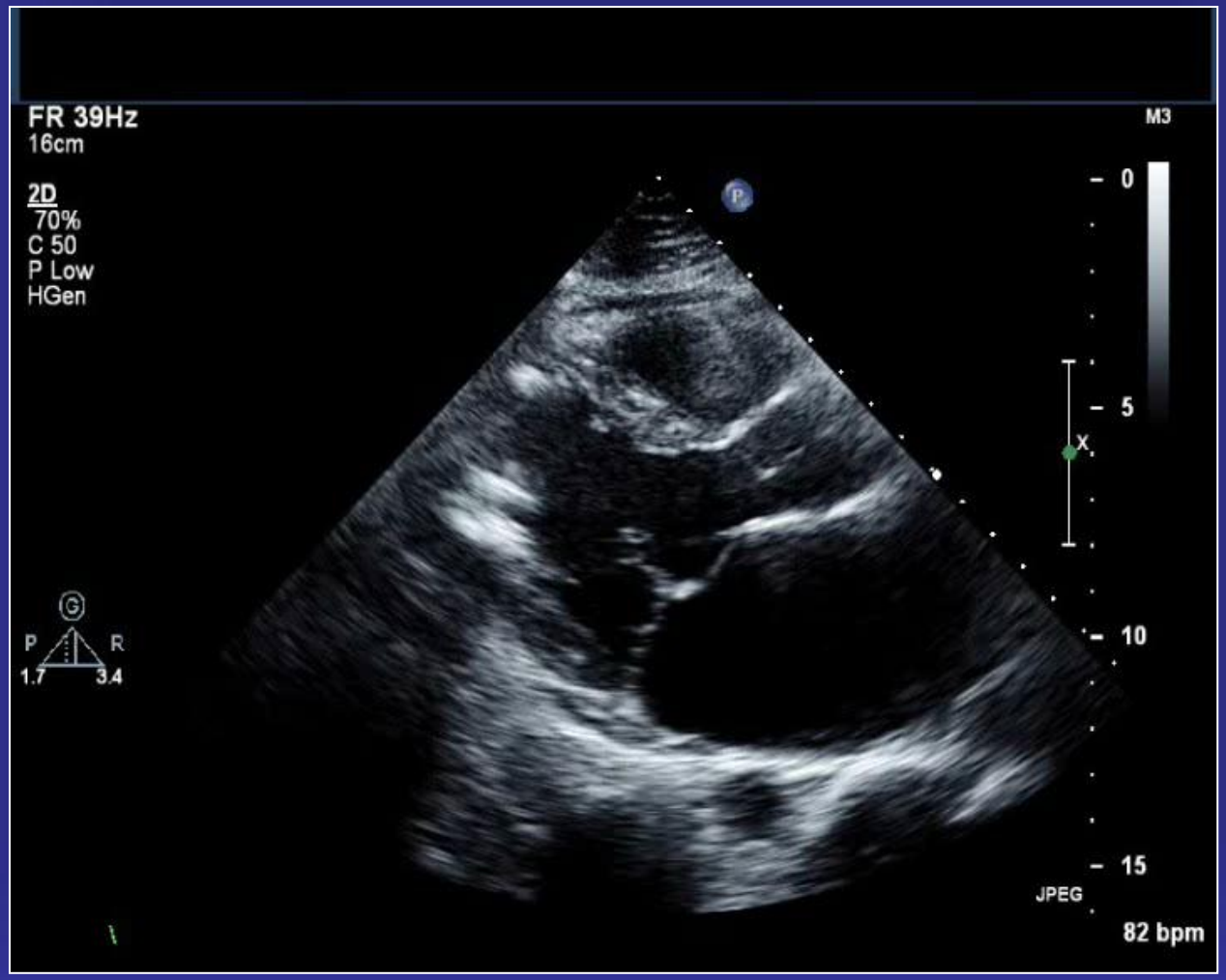
# Case Presentation

- 34 years old male
- Previous surgery for aortic coarctation at ages 3 and 8
- On clinical follow-up due to MVP with redundant anterior leaflet and MR since the childhood
- 4 years before the current admission PAF , since then on anti-arrhytmics and coumadin

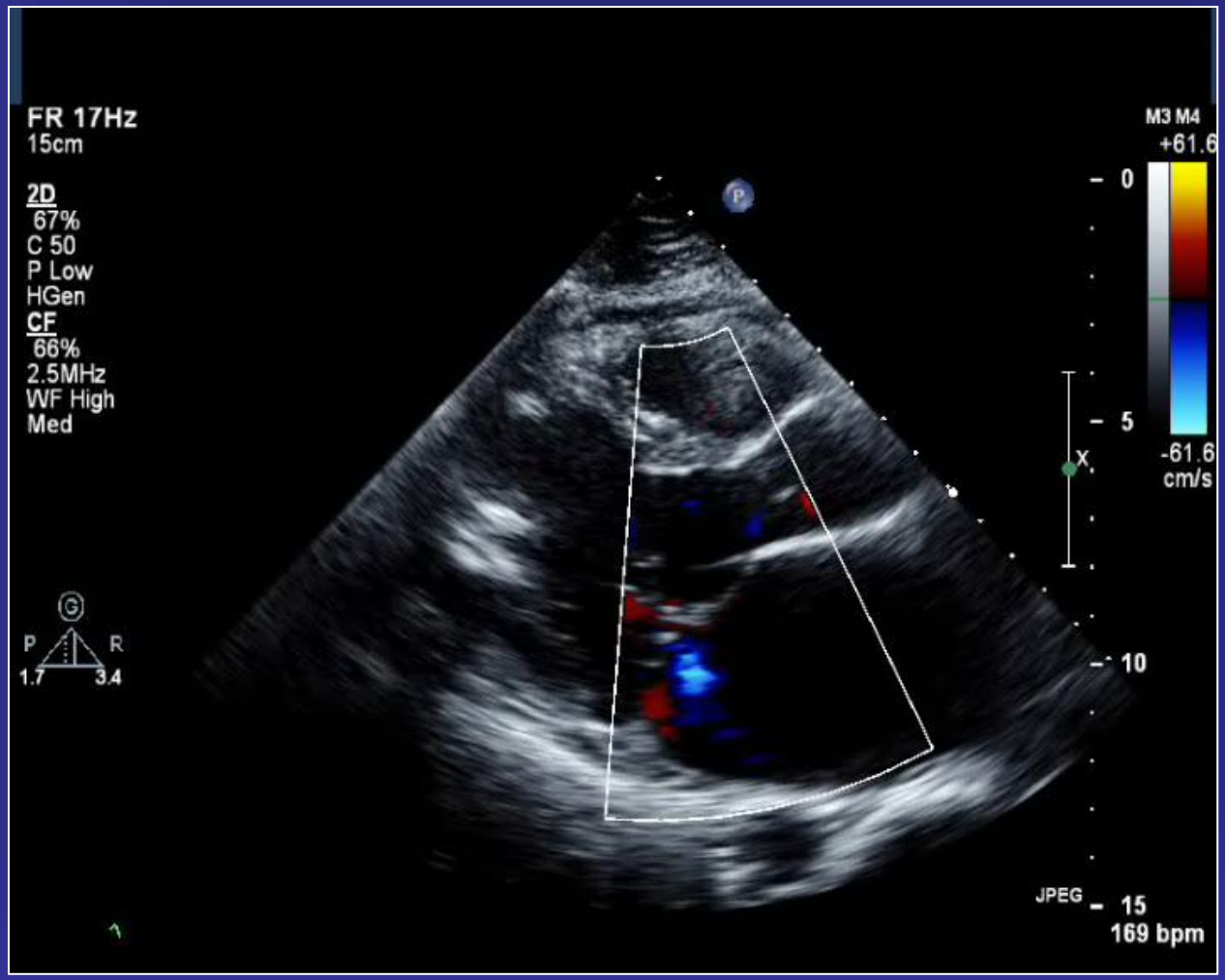
# Case Presentation

- During the last year functional deterioration, recurrent episodes of PAF and CHF
- Left ventricular dysfunction is described on echo
- First admission to our hospital: Rapid AF, NYHA-FC III. Referred for cardioversion and possible AF ablation

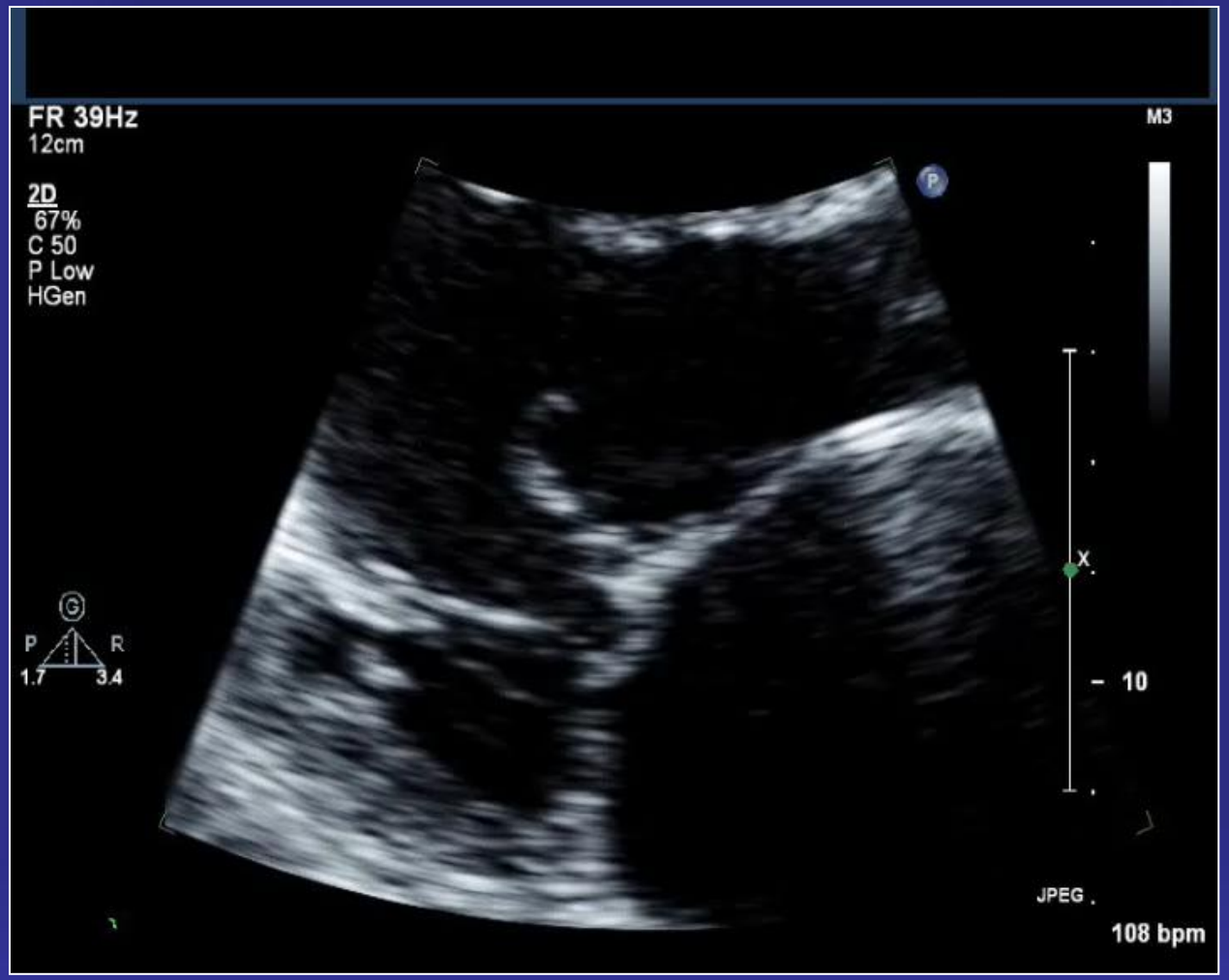
# Case Presentation



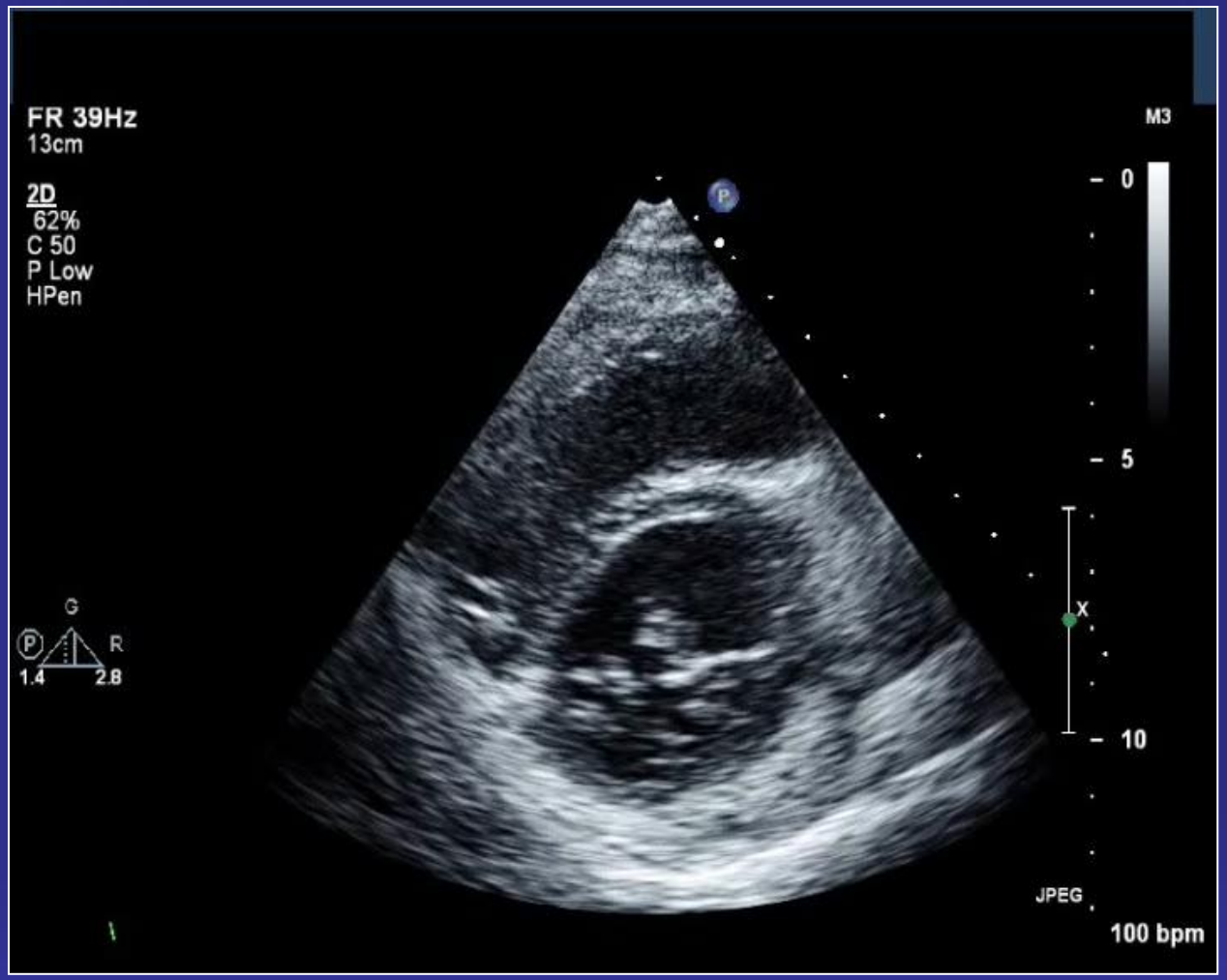
# Case Presentation



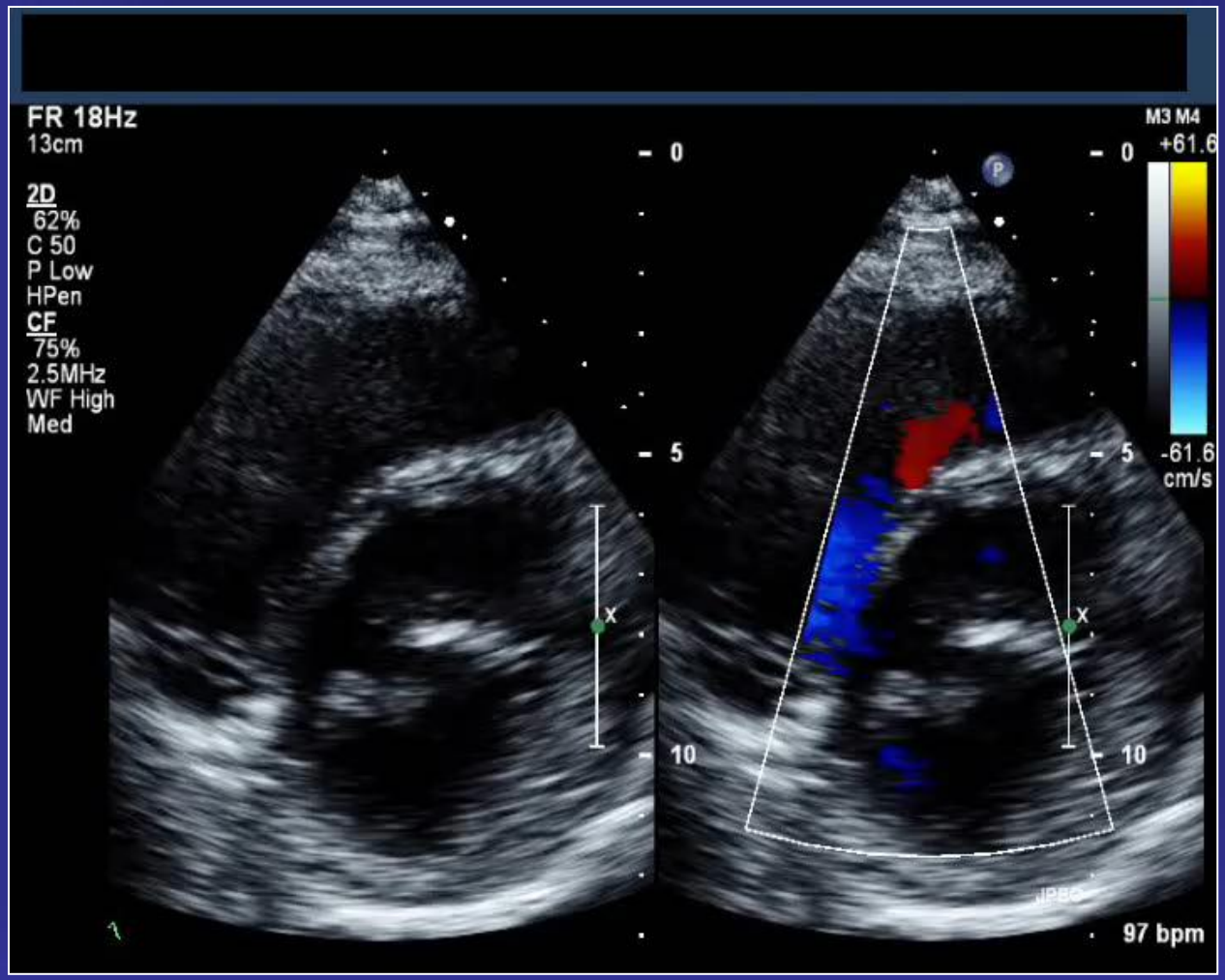
# Case Presentation



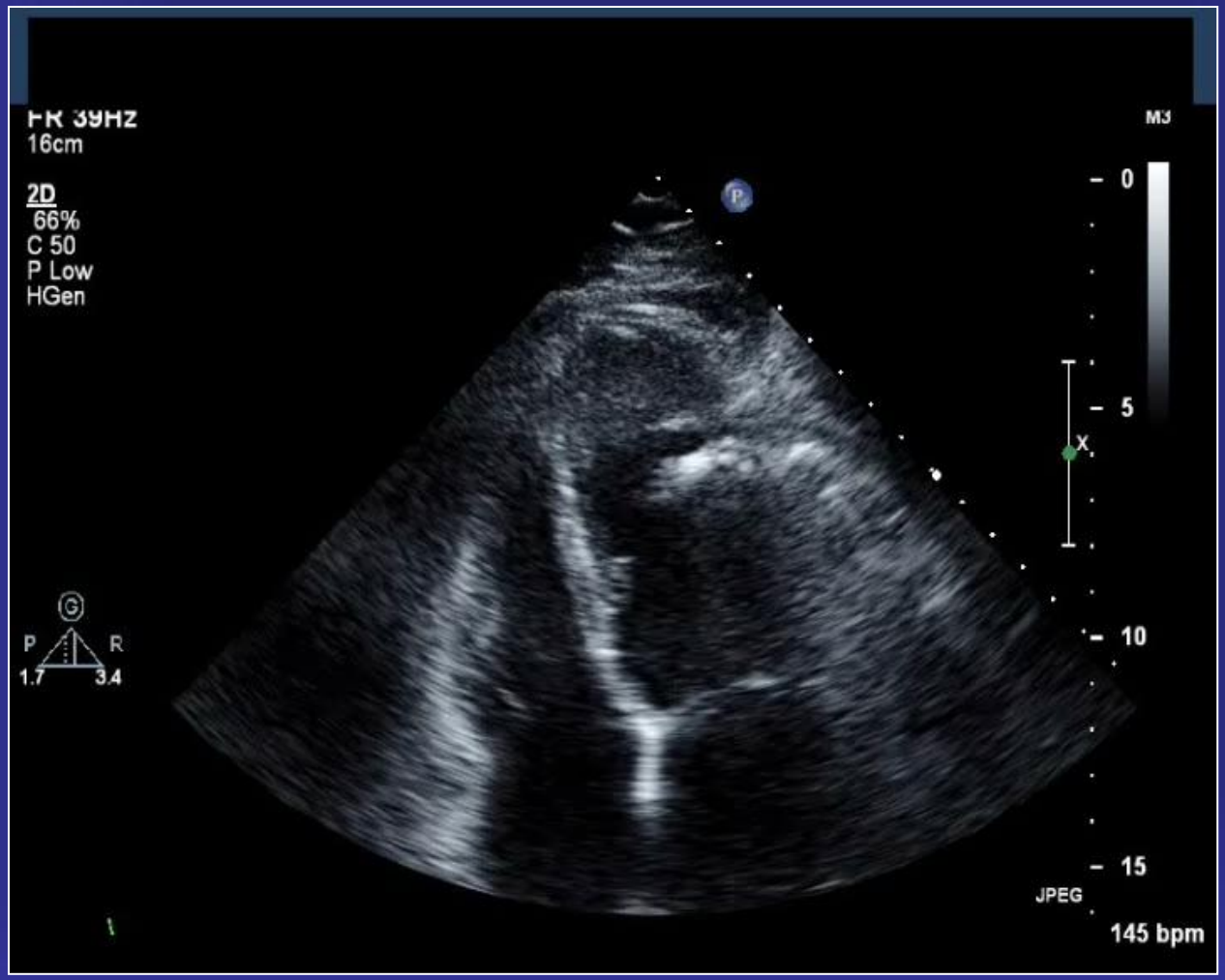
# Case Presentation



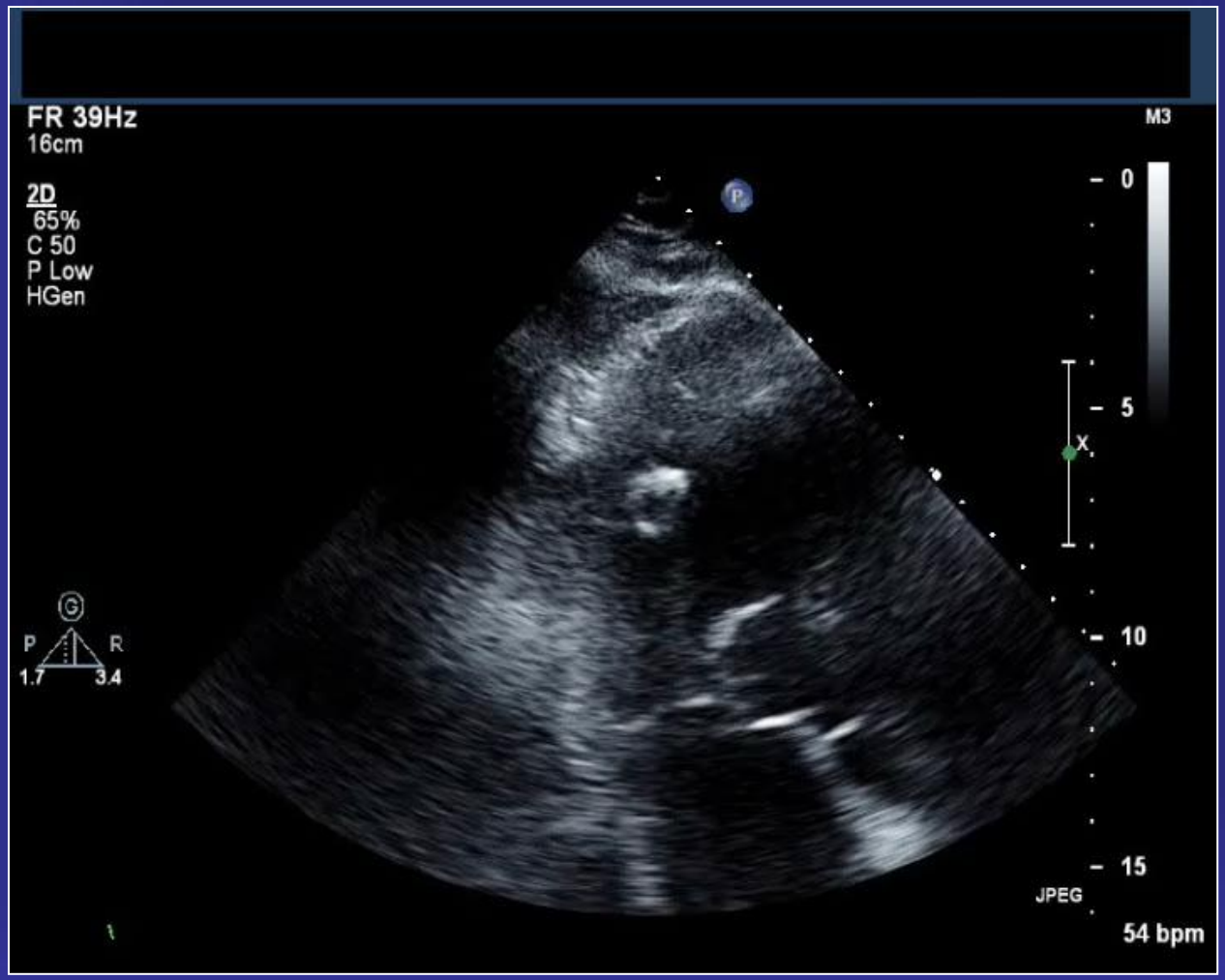
# Case Presentation



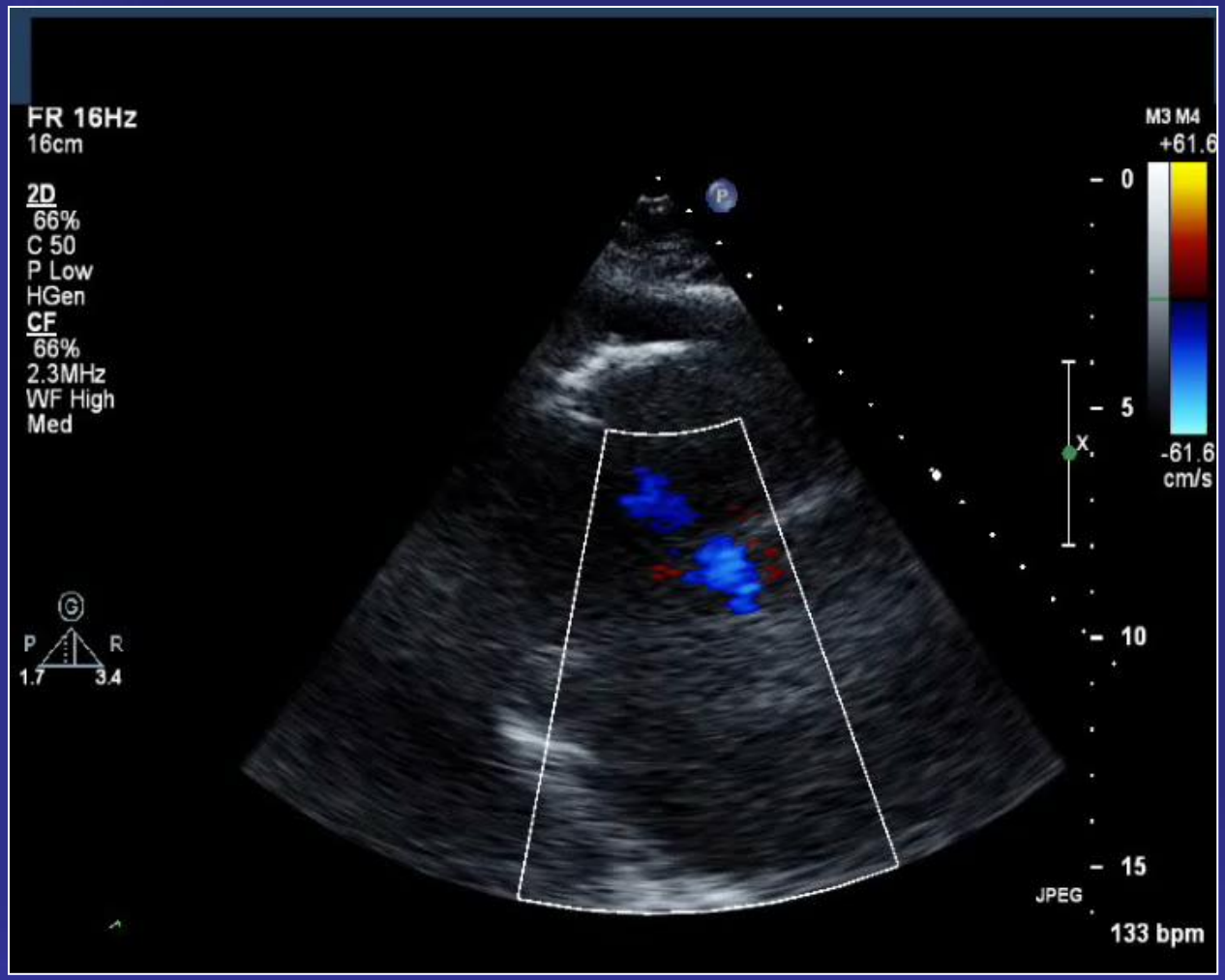
# Case Presentation



# Case Presentation



# Case Presentation

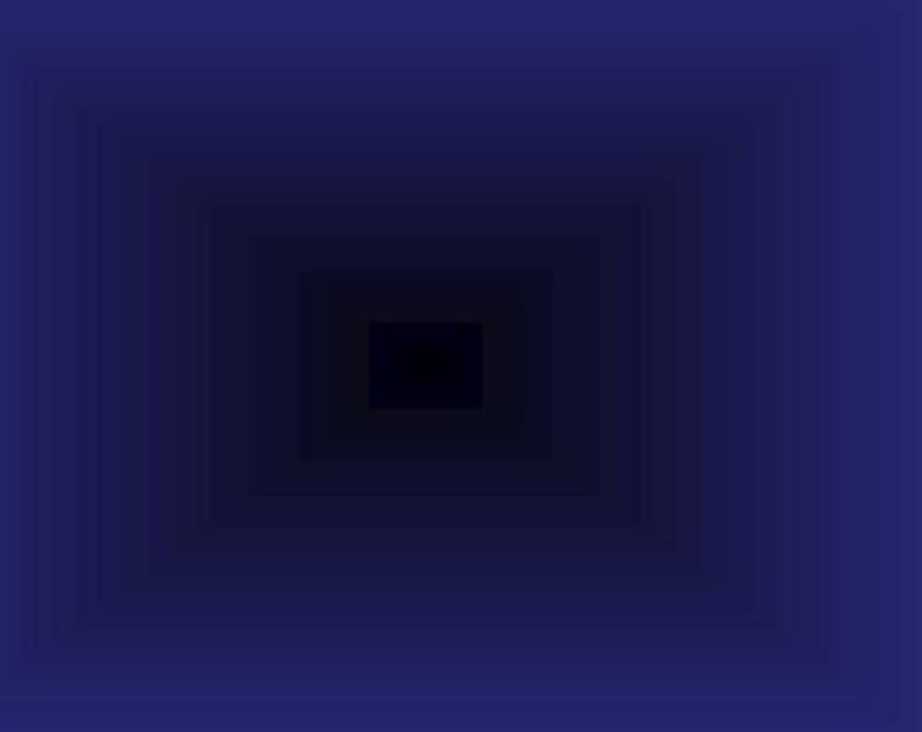


# What is your diagnosis?

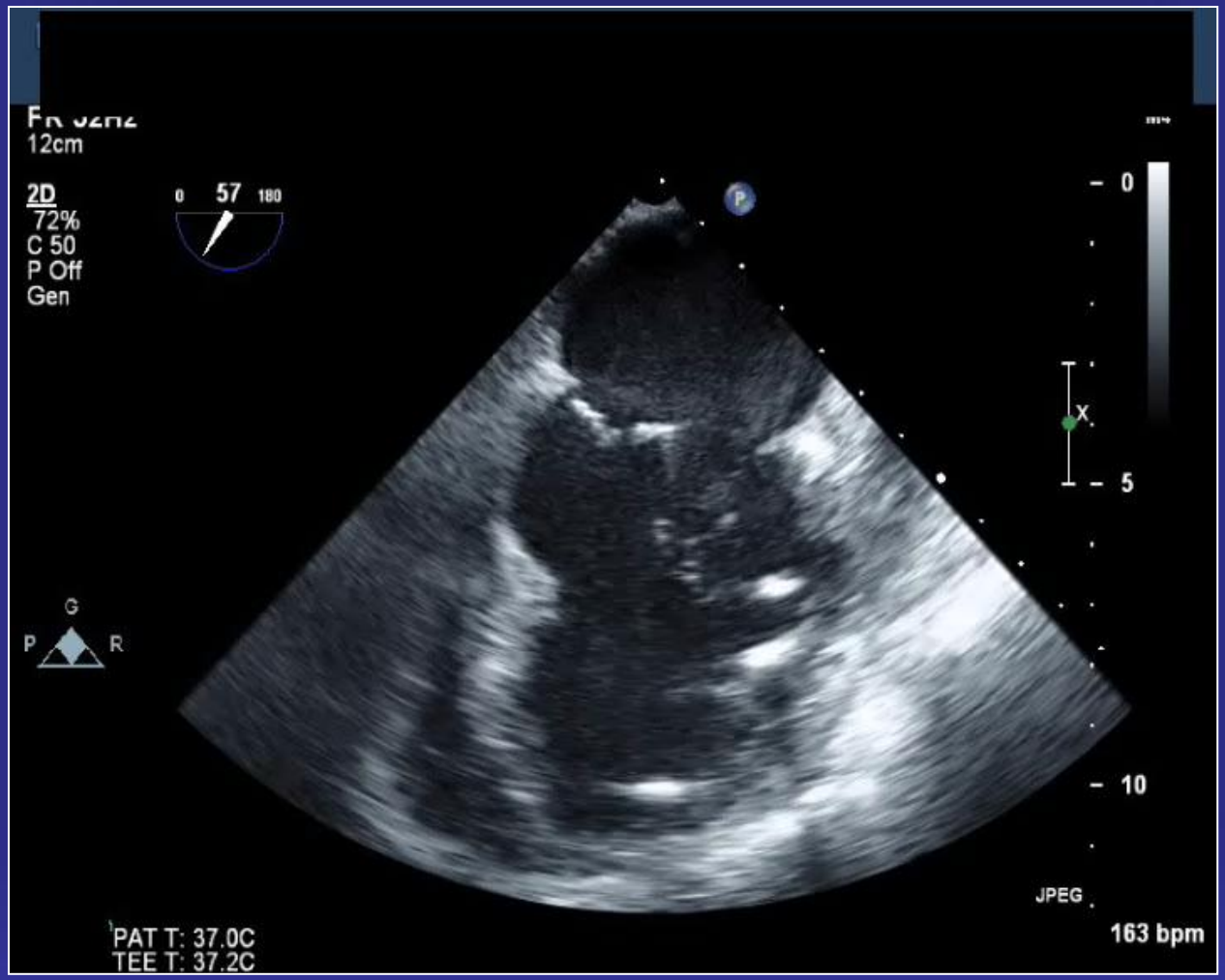
1. Mitral Valve prolapse with redundant leaflet
2. Rheumatic mitral valve
3. Cleft Mitral Valve
4. Mitral valve perforation
5. That's a though one !!!

# What is the next step?

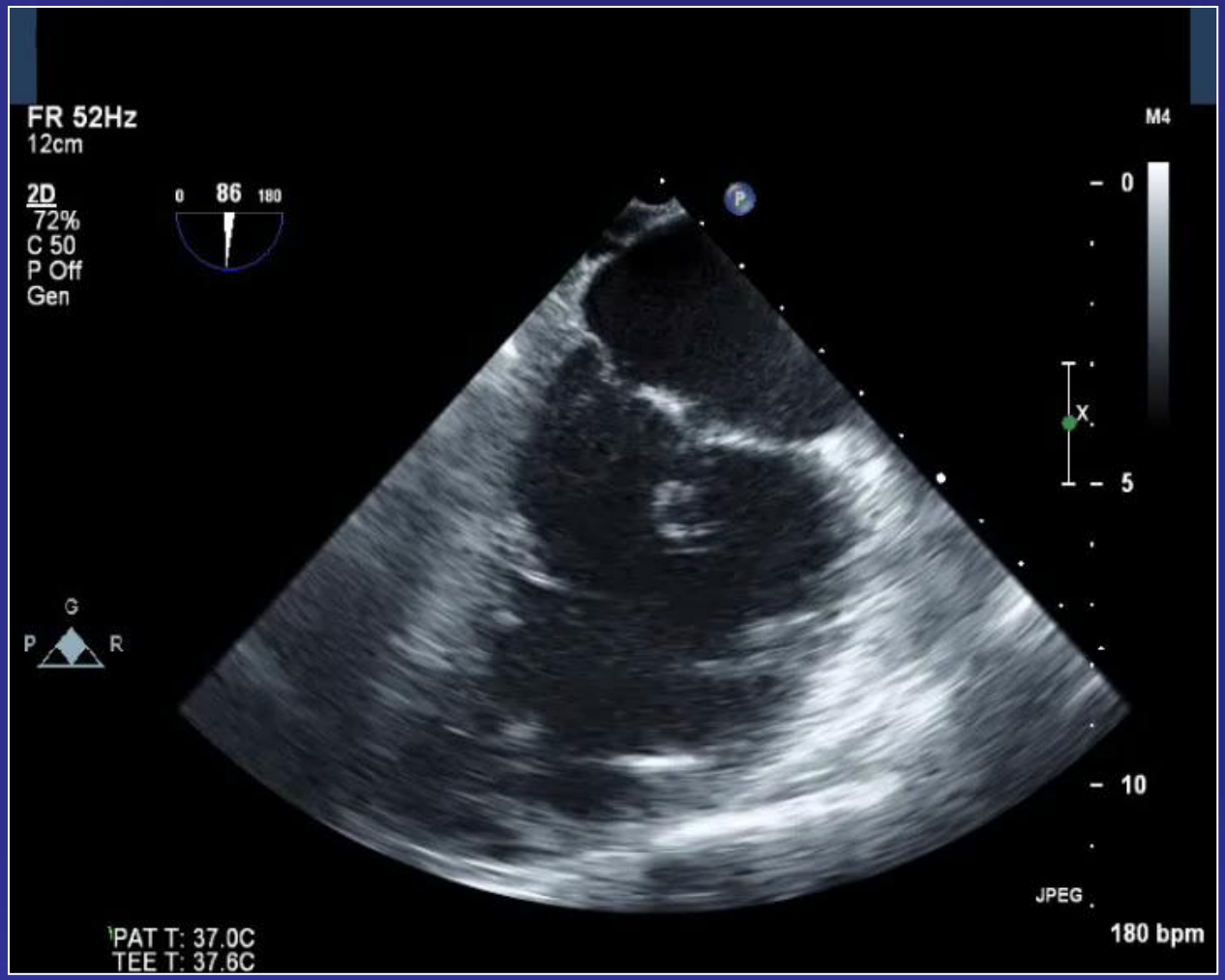
1. MRI
2. CT
3. TEE



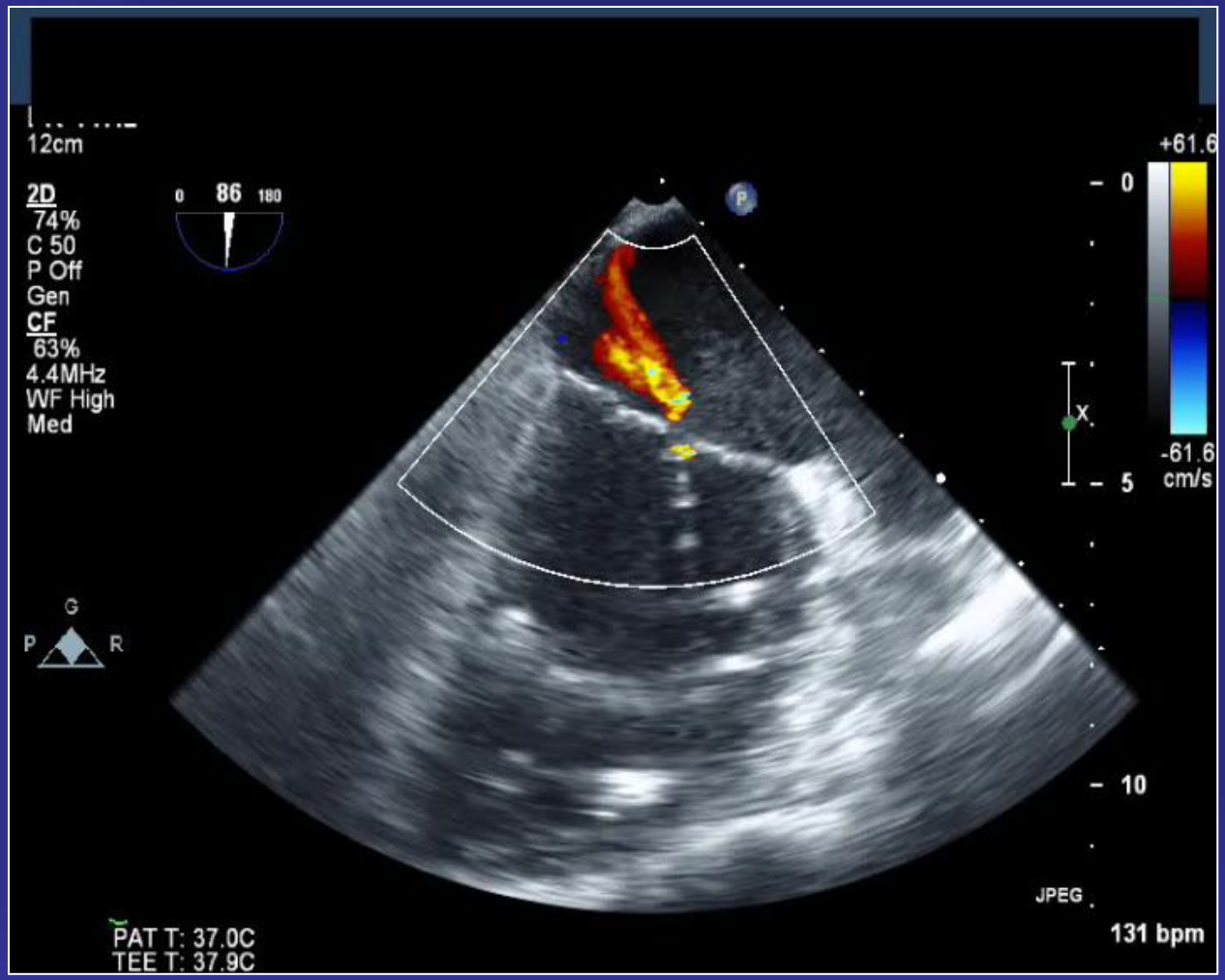
# Case Presentation



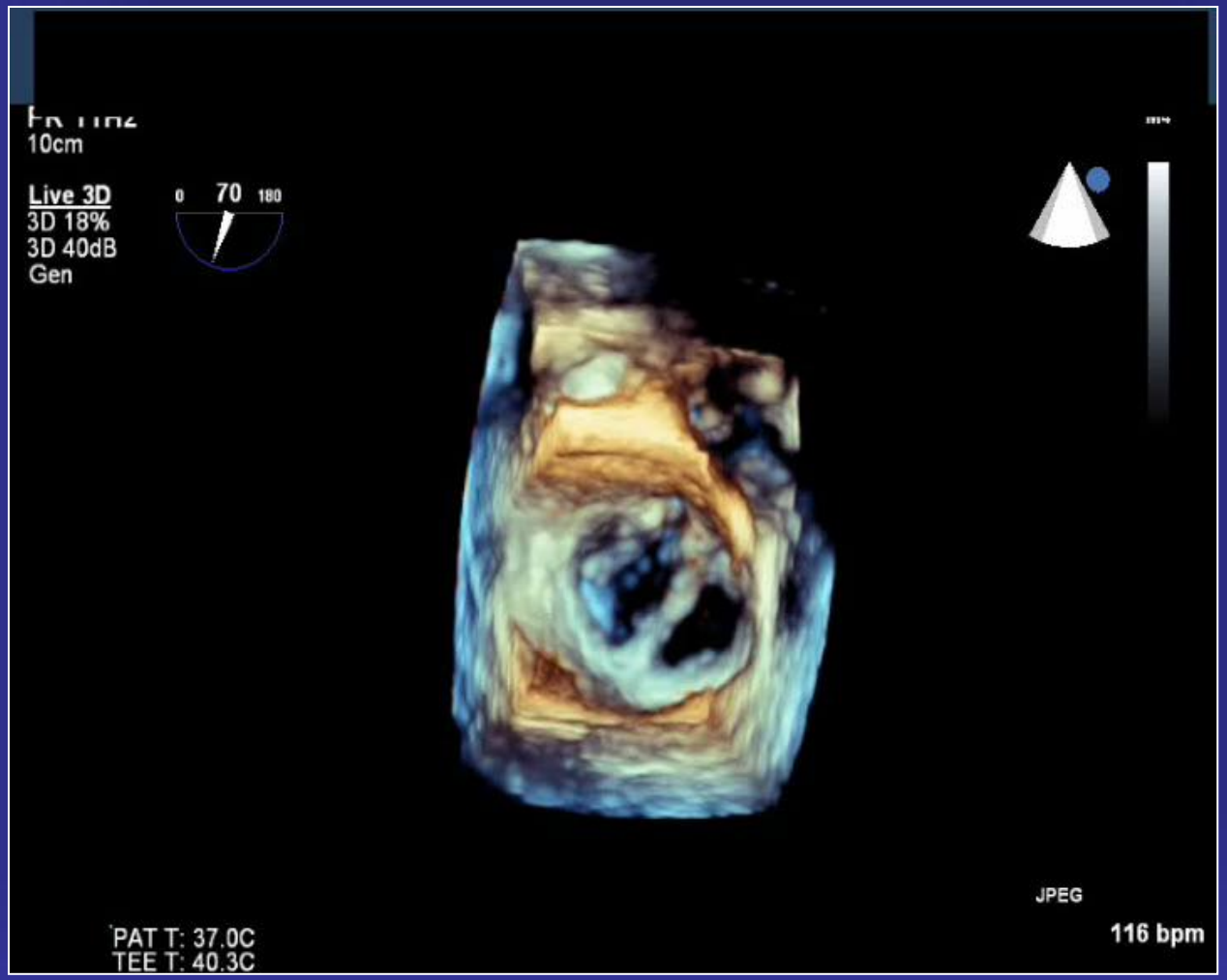
# Case Presentation



# Case Presentation



# A Diagnostic Procedure was Performed



# Double Orifice Mitral Valve

- DOMV is a rare congenital mal formation characterized by two separate valve orifices of varying sizes in association with abnormalities of the sub-valvular aparatus
- It may may have no hemodynamic significance or may cause clinically significant mitral stenosis or regurgitation

# Double Orifice Mitral Valve

- **Echocardiographic classification**
- Complete bridge type , in which a fibrous bridge in the plane of the mitral valve sails, dividing the valve opening in two parts wich may be equal or not.
- Incomplete bridge in which the connection is seen at leaflet edge and the double orifice is seen only at this level
- The hole type where the secondary orifice is localized at in the lateral commissure of the MV. It can be seen only at the mid leaflet level an disappears on scanning toward the apex or the base

# Double Orifice Mitral Valve

- Zalstein evaluated 46 children with DOMV(1980-2002)
- Age 2 days to 16 years
- 42 Diagnosed by echo, 4 at surgery
- One patient was diagnosed after 10 years of follow up

# Double Orifice Mitral Valve

- MR was present in 20 patients
- Normal flow in 17
- MS in 6 patients
- Combined MS+MR in 3

# Double Orifice Mitral Valve

- In 43 patients the anomaly was an ancillary finding in the setting of a more complex disease
- AVSD in 18(39%)
- Obstructive left sided lesions in 19(41%)
  - Isolated coarctation in 10
  - Coarctation with VSD and subaortic stenosis in 2
  - Cyanotic heart disease in 5

# Double Orifice Mitral Valve

- Das identified 18 patients with DOMV and intact atrioventricular septum( 1997-2002)
- Age from 1 month to 25 YO
- Eleven patients: Complete bridging
- Four patients: Incomplete bridging
- Three patients: Hole type

# Double Orifice Mitral Valve

- A separate tensor apparatus attached to each individual orifice was present in all patients
- Subvalvular apparatus abnormalities present in 12 patients
- Abnormal papillary muscles in 10
- Only 2 patients had moderate MR
- Left sided obstructive lesions in 8 (5 coarctations)

# Double Orifice Mitral Valve

## Our patient

- Diagnosed after 34 years of follow-up
- Complete bridge type
- Mild to moderate mitral regurgitation
- Associated mal formation: aortic coarctation