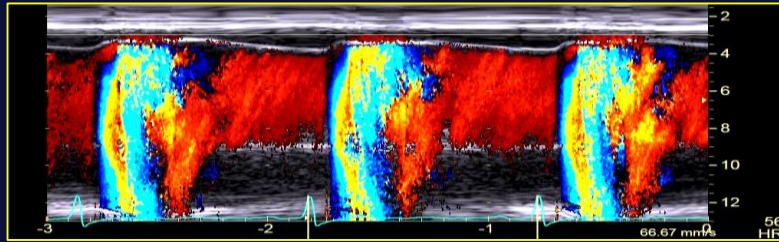
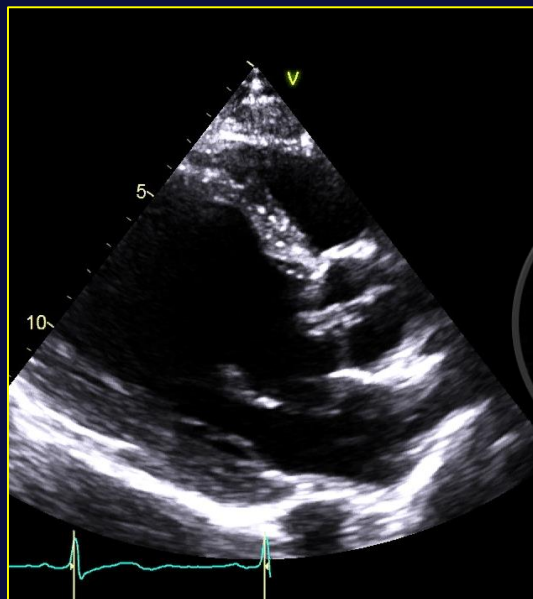


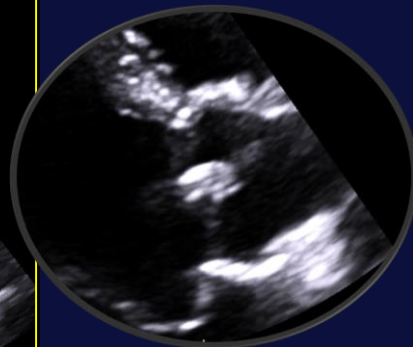
Common Errors to Avoid: Sonographers Pay Attention, Readers Watch Out

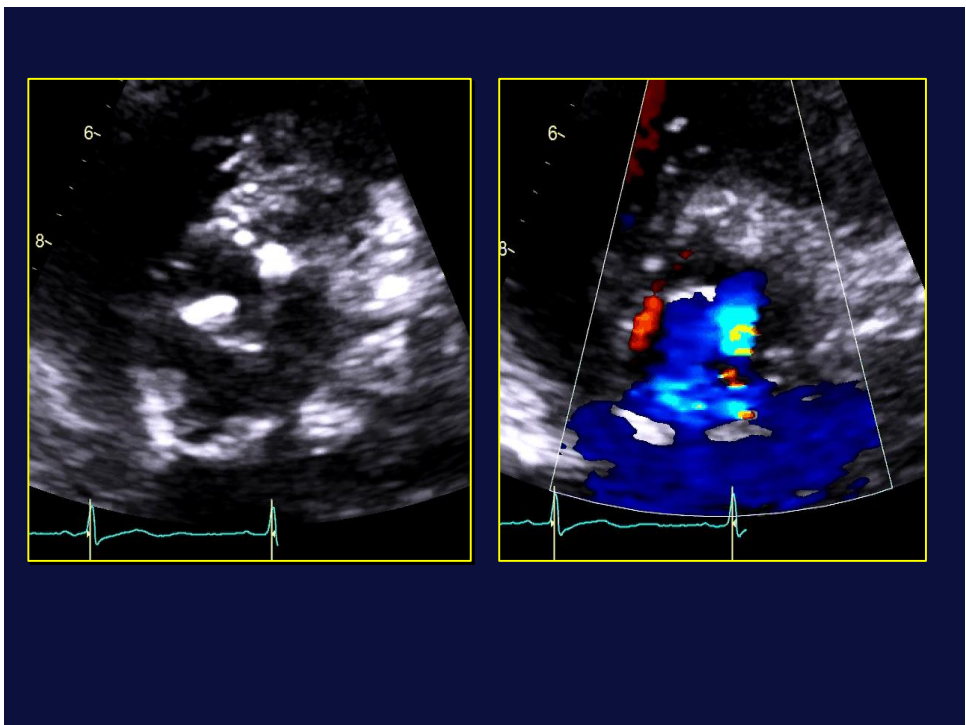
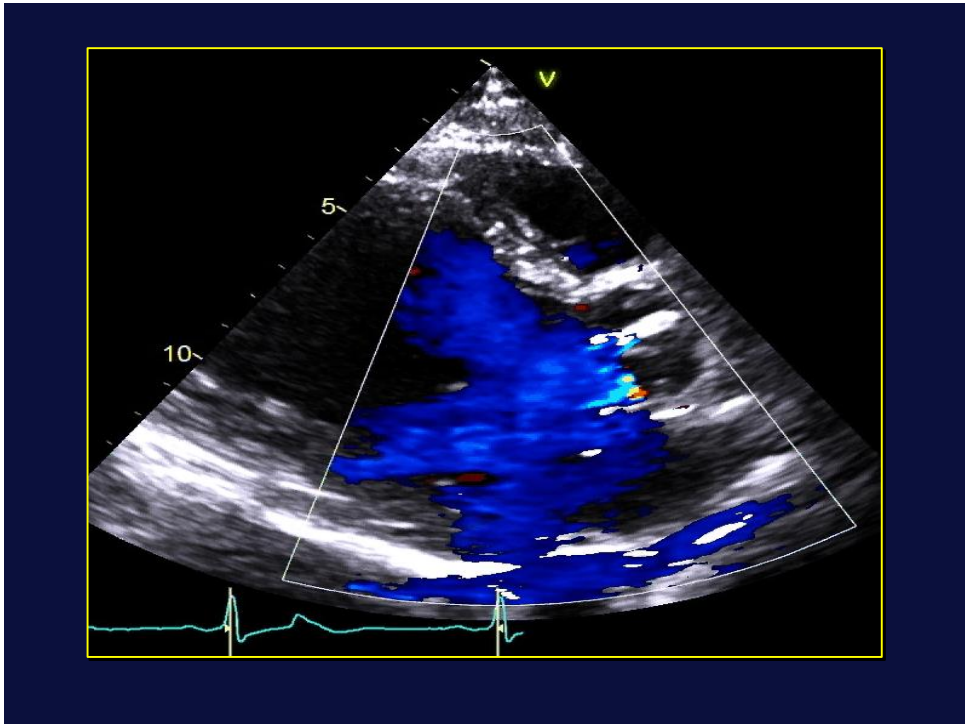


Matt Umland, ACS, RDCS, FASE
Aurora Health Care
Milwaukee, WI

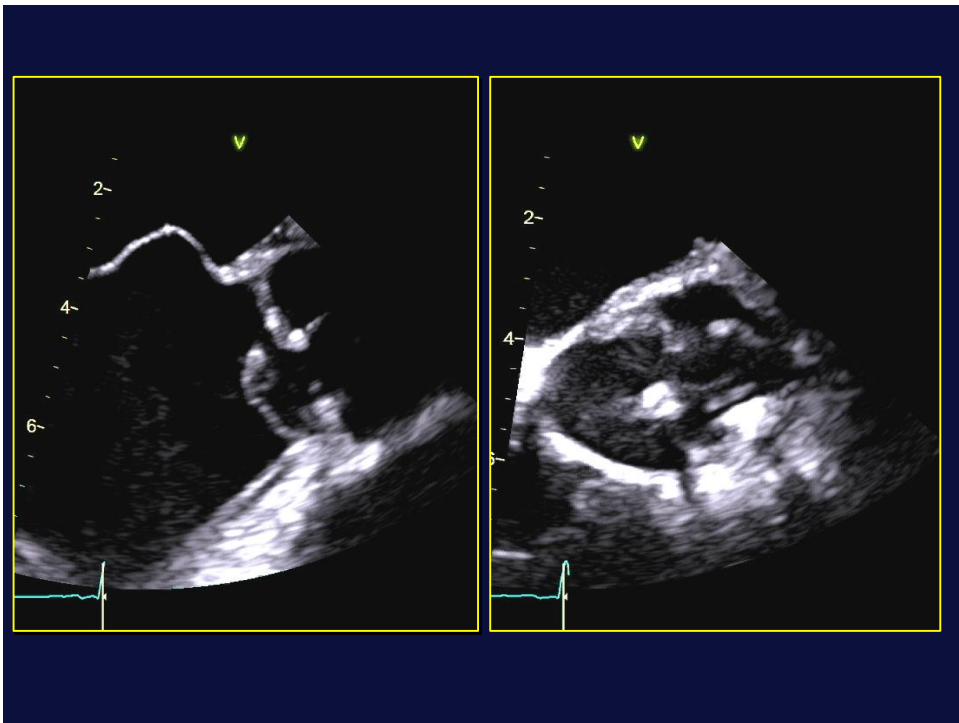
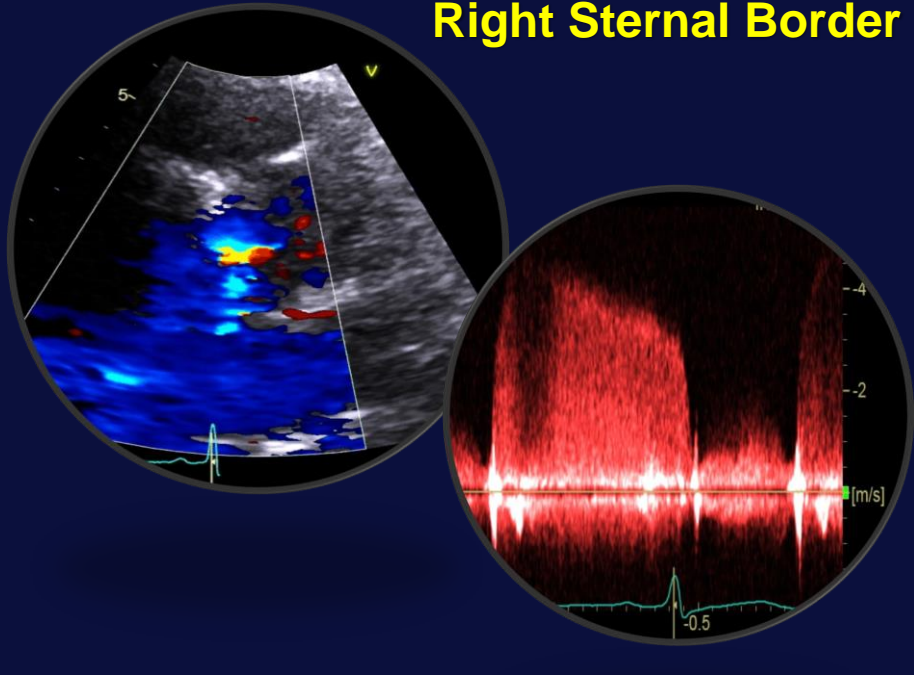


Case: Severe AR
Bicuspid AV
M/40





Right Sternal Border

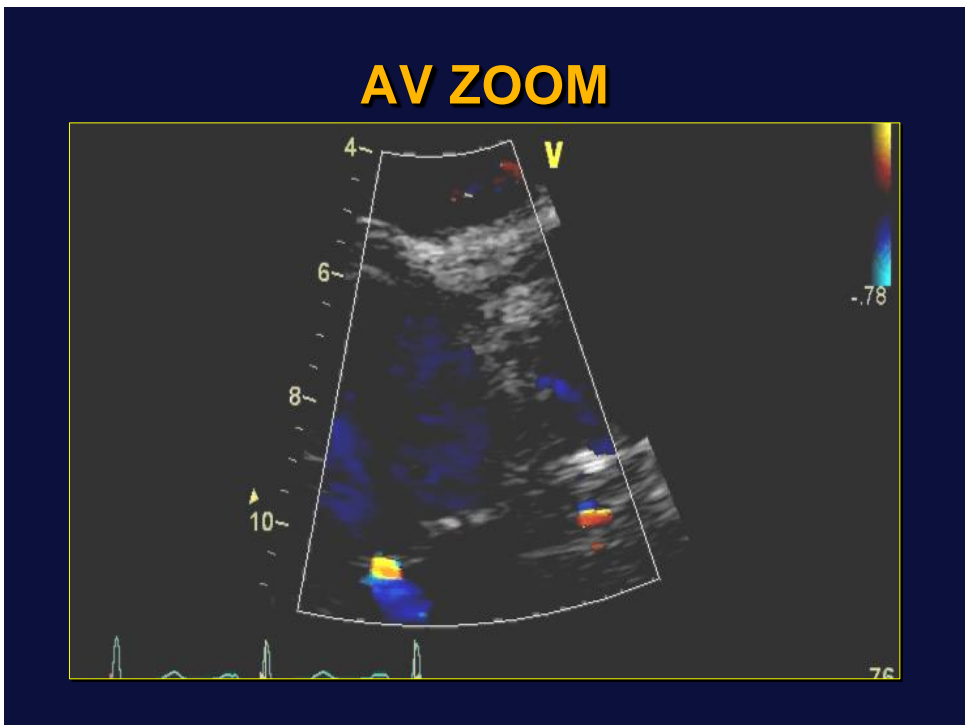
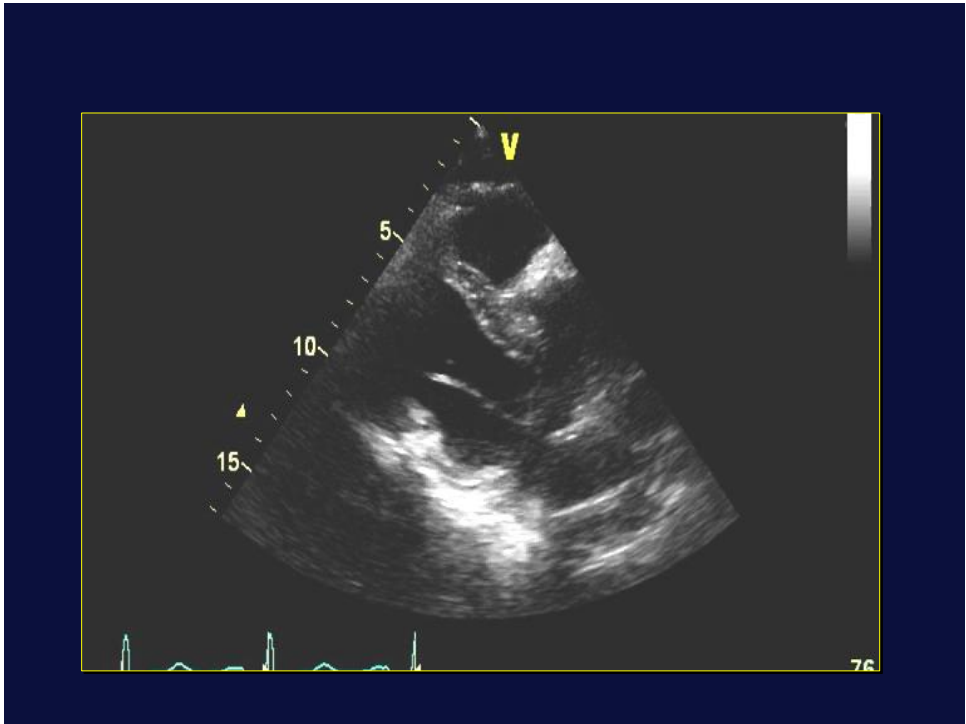


Case

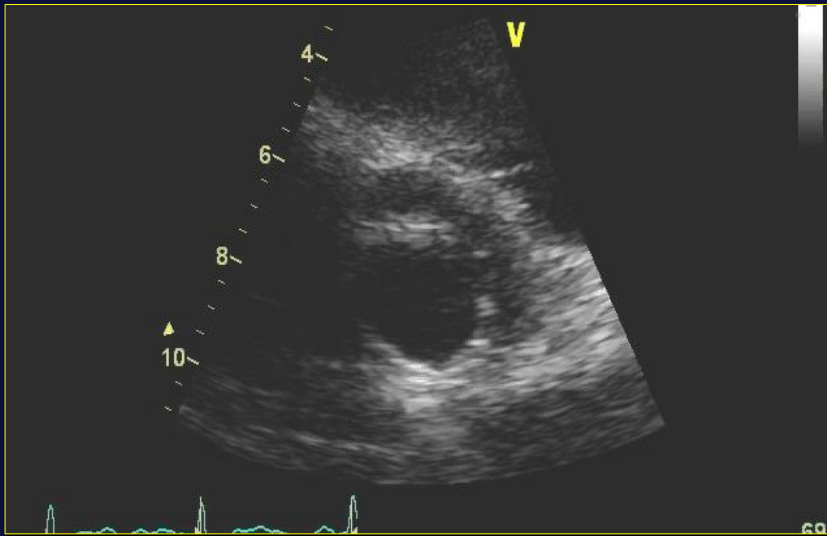
- 39 year old male
- History of congenital AV disease, underwent St. Jude Prothesis
- Last echo: Moderately Dilated AV Root, with mild Prosthetic AR
- Current symptoms dyspnea and fatigue along with dizziness

H&P

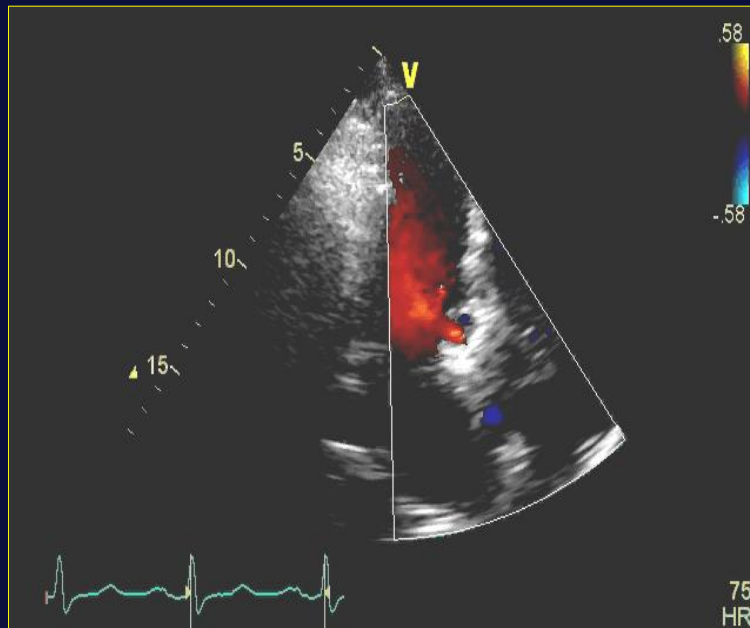
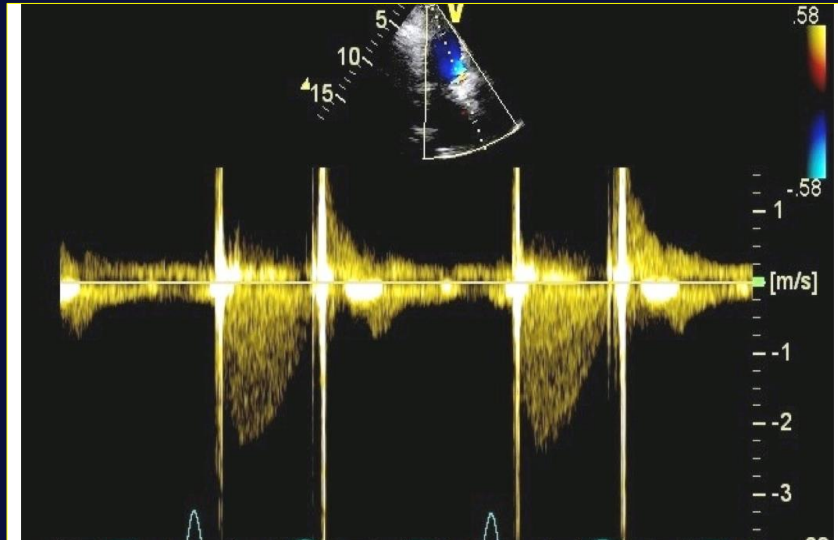
- BP 102/70
- HR 62 bpm
- Treadmill Stress was ordered and PT stopped during test due to extreme SOB
- TTE and TEE if clinically indicated

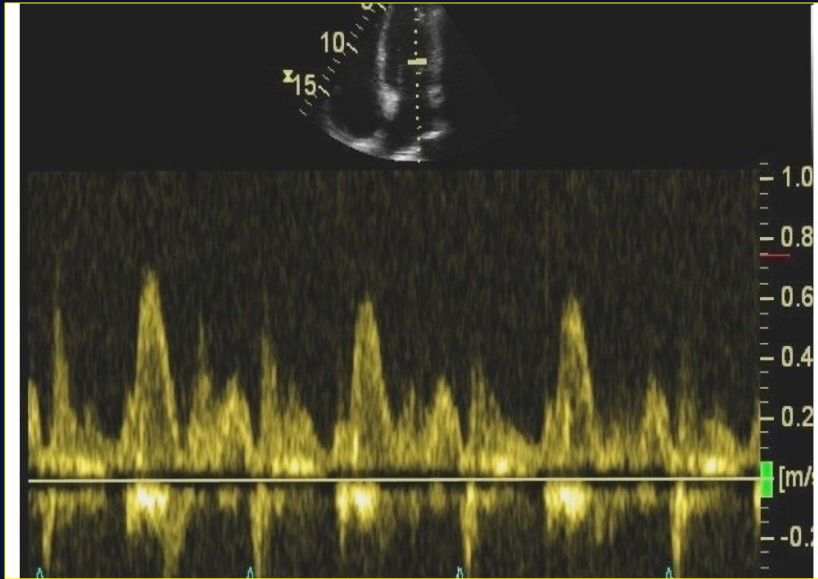


SAX-AV level

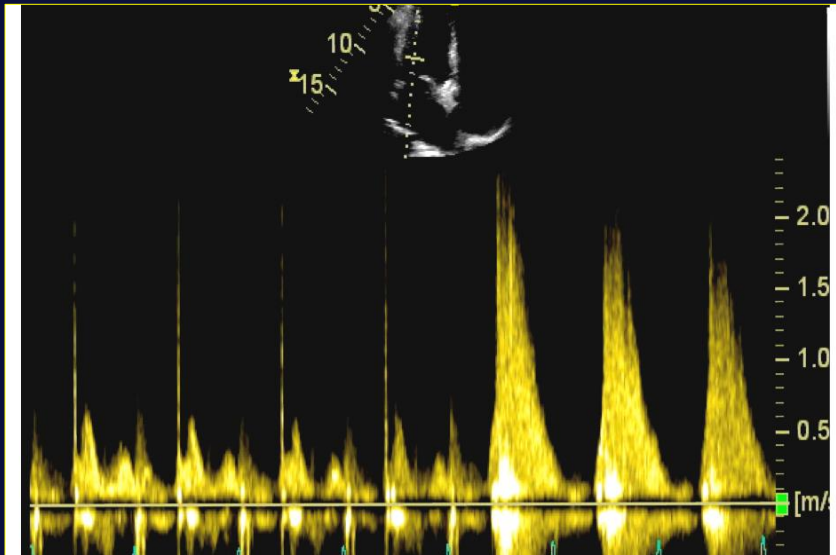


AV Doppler

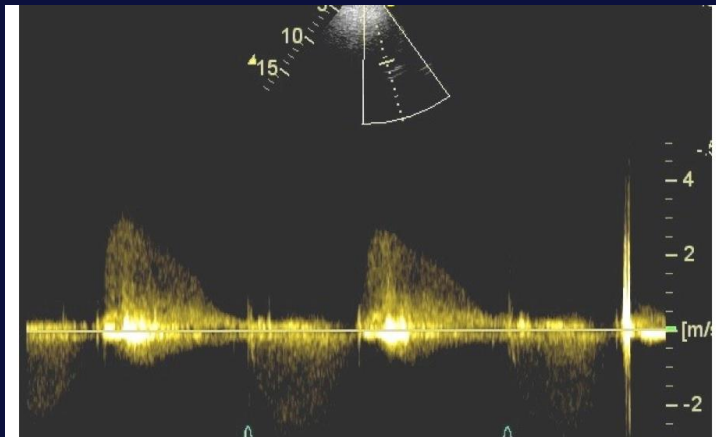




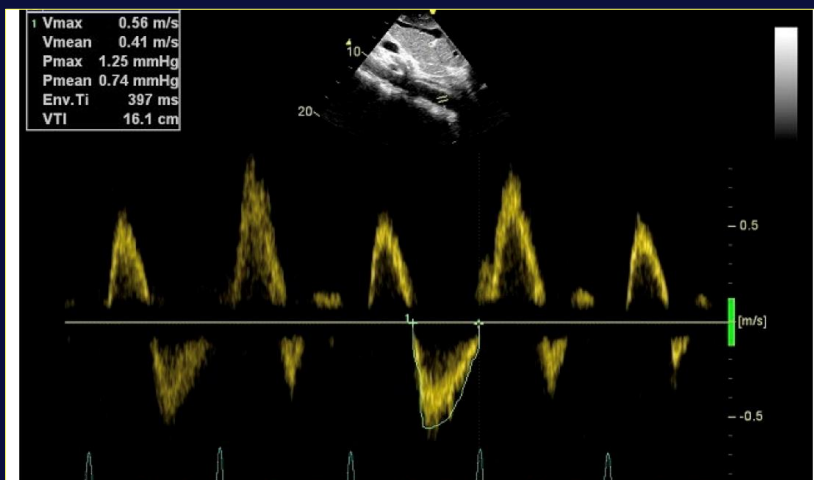
MV INFLOW

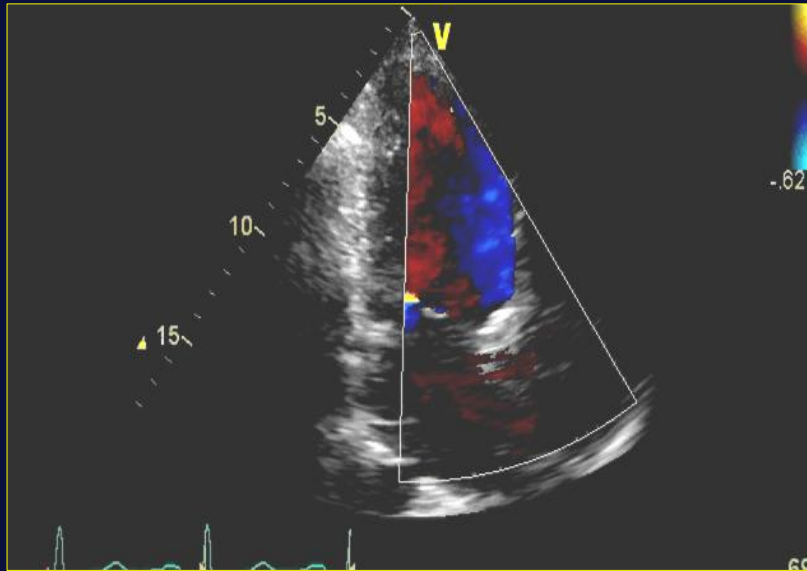


PHT 175 ms



16 cm TVI Diastolic Reversal





Report

FINAL IMPRESSIONS

25 mm St Jude mechanical prosthesis with abnormal function
Prosthetic aortic valve “sticking” in open position resulting in severe aortic regurgitation (intermittently)

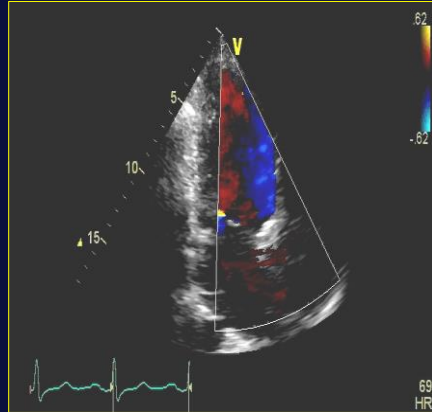
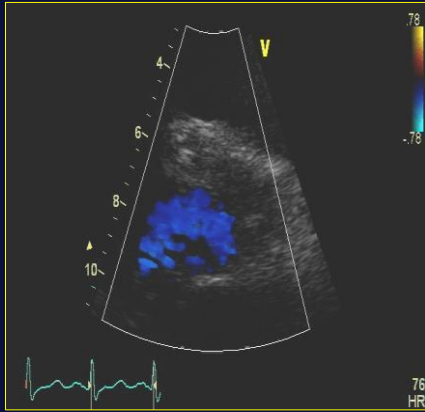
FINDINGS

Left Ventricle Normal left ventricular cavity size. Increased left ventricular wall thickness. Abnormal septal motion. Normal left ventricular systolic function. Left ventricular ejection fraction is calculated at 38%. No regional wall motion abnormalities. Increased left ventricular filling pressure. Slight respiratory variation in mitral valve inflow (14%).

Right Ventricle Normal right ventricular size. Normal right ventricular systolic function. RVSP could not be calculated due to incomplete tricuspid regurgitation velocity profile.

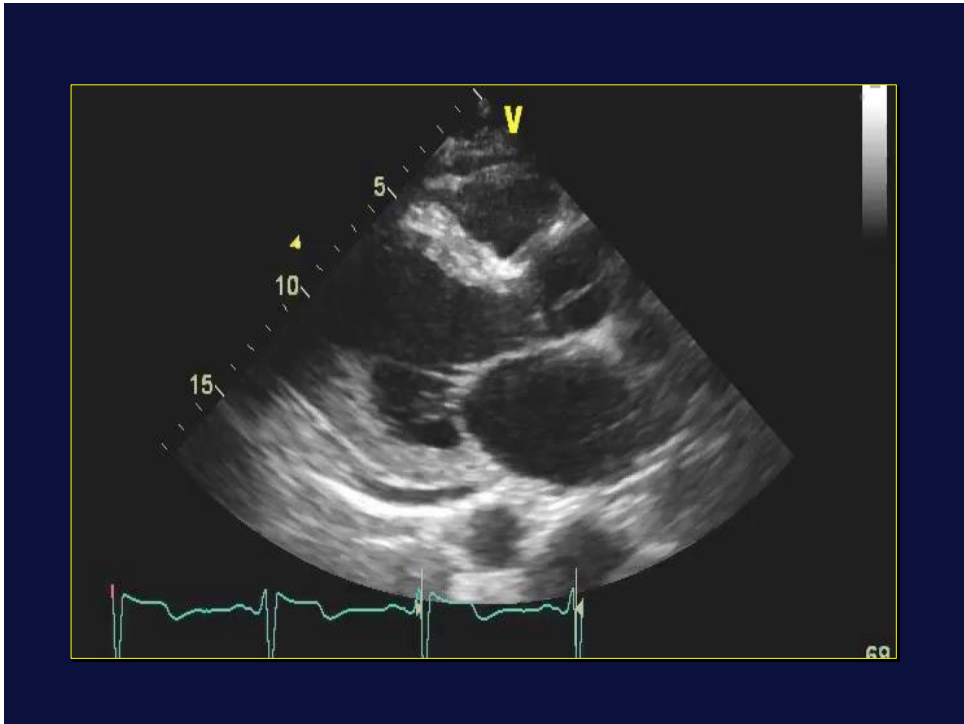
Key Point

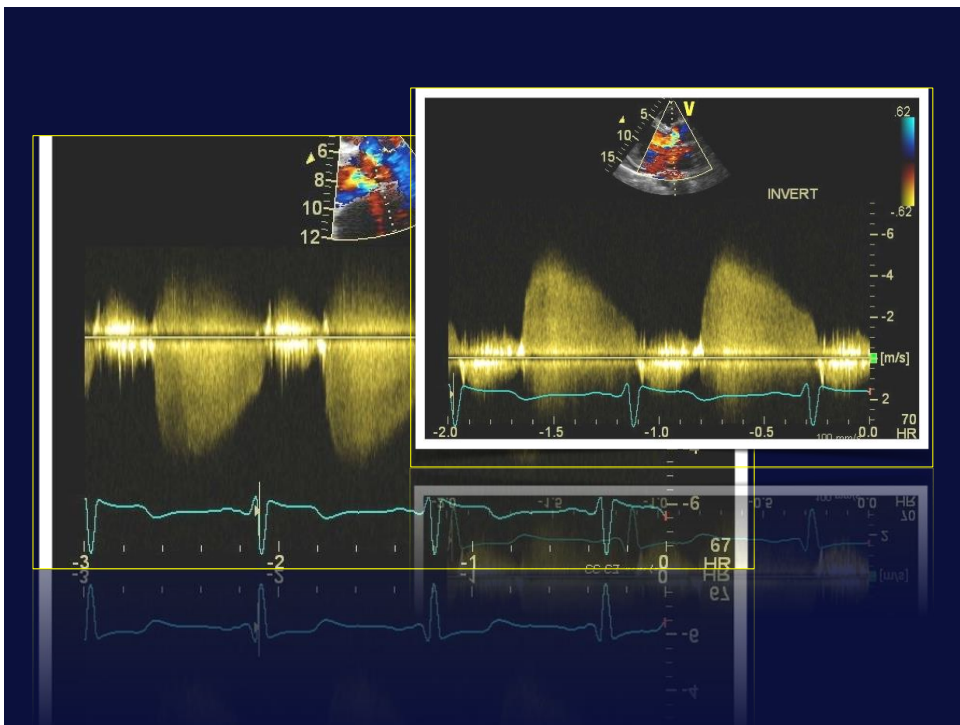
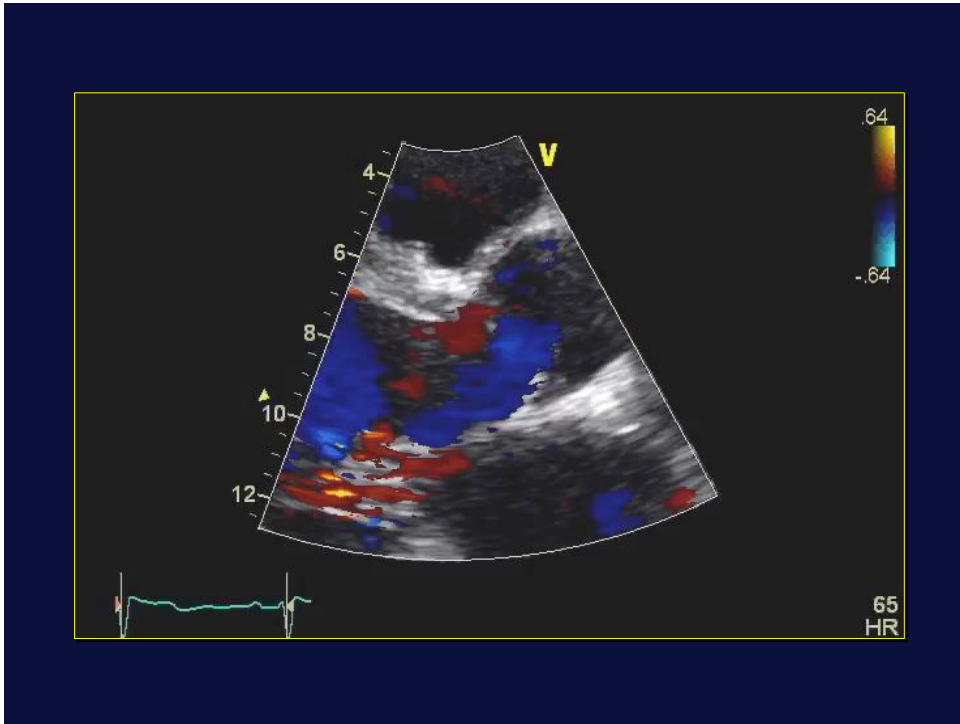
Longer acquisitions...

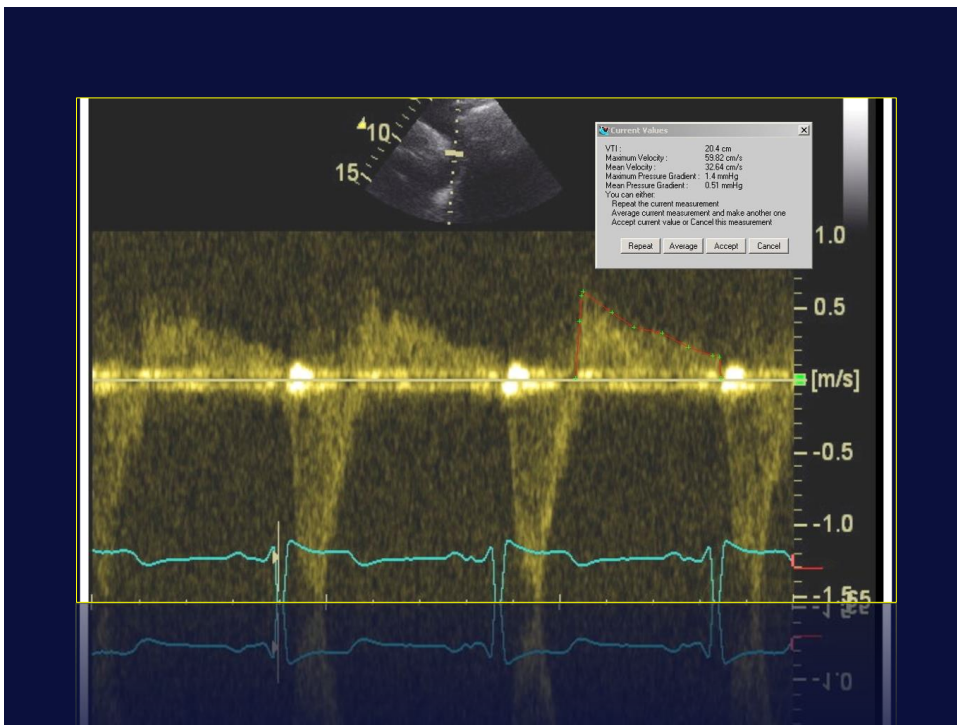
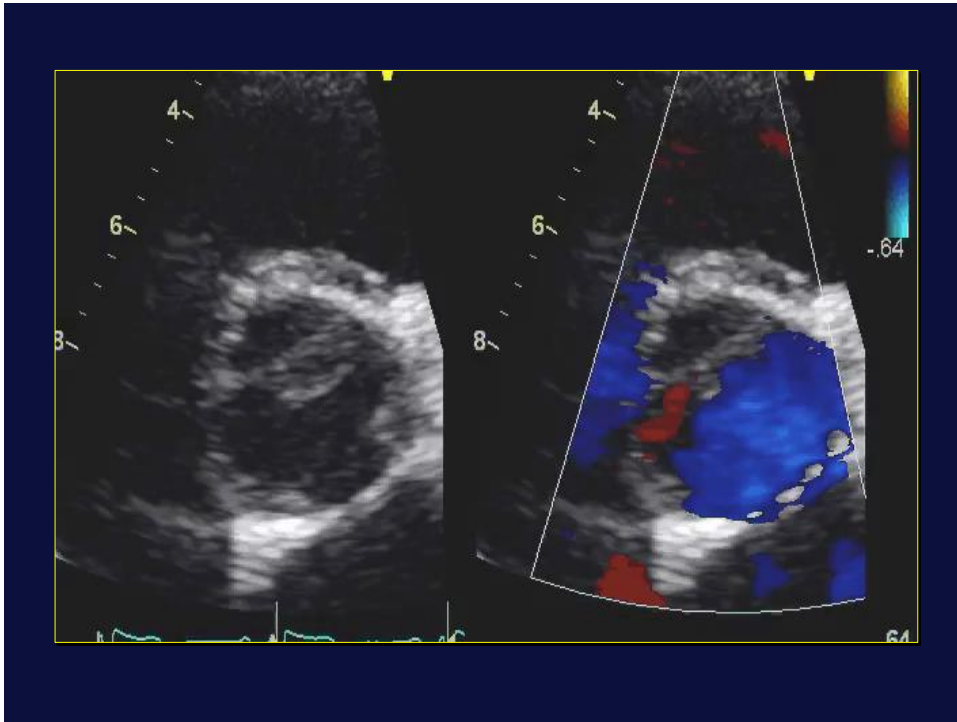


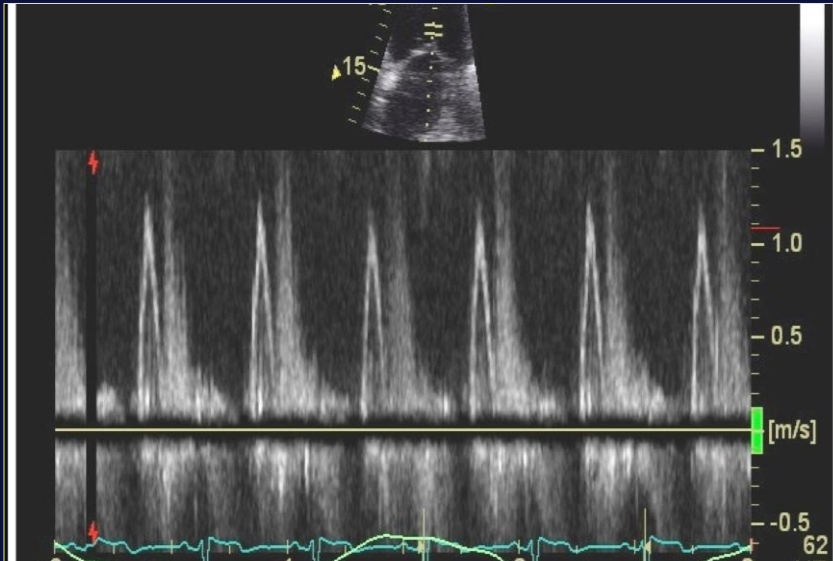
Case

- ✱ 47 yr old male
- ✱ Short diastolic murmur
- ✱ Fevers over the past three months
- ✱ Unemployed: No insurance
- ✱ Positive blood cultures: Staph aureus



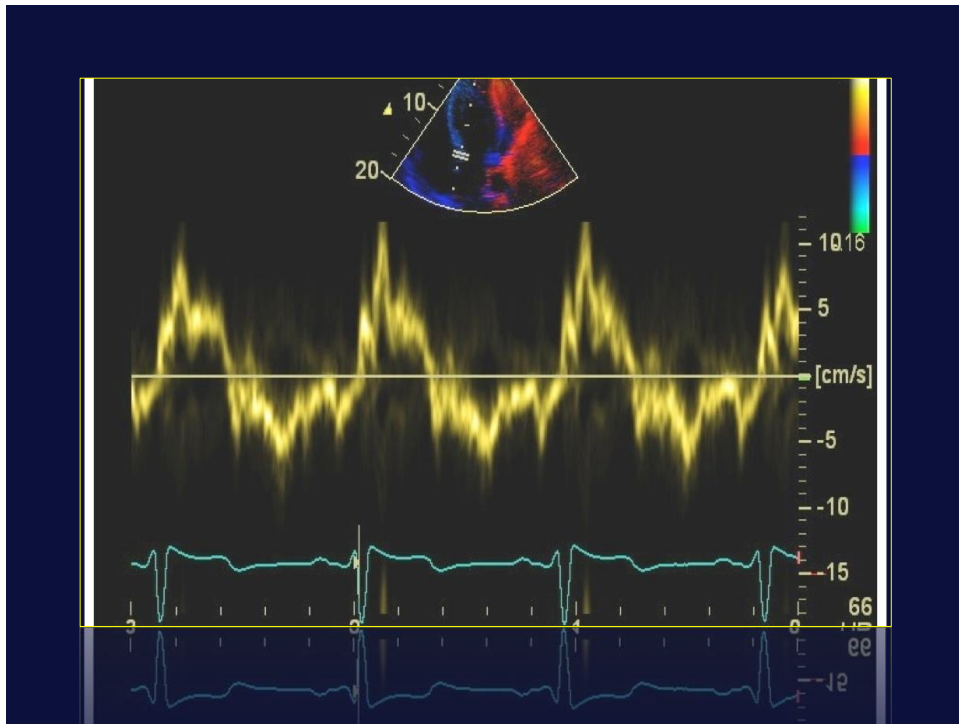




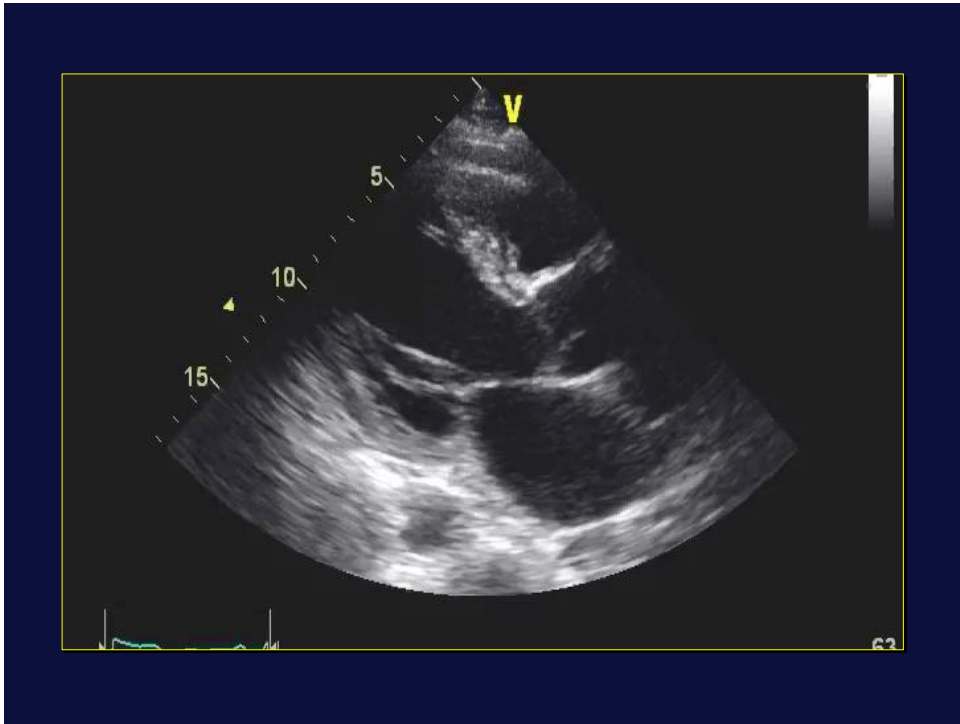


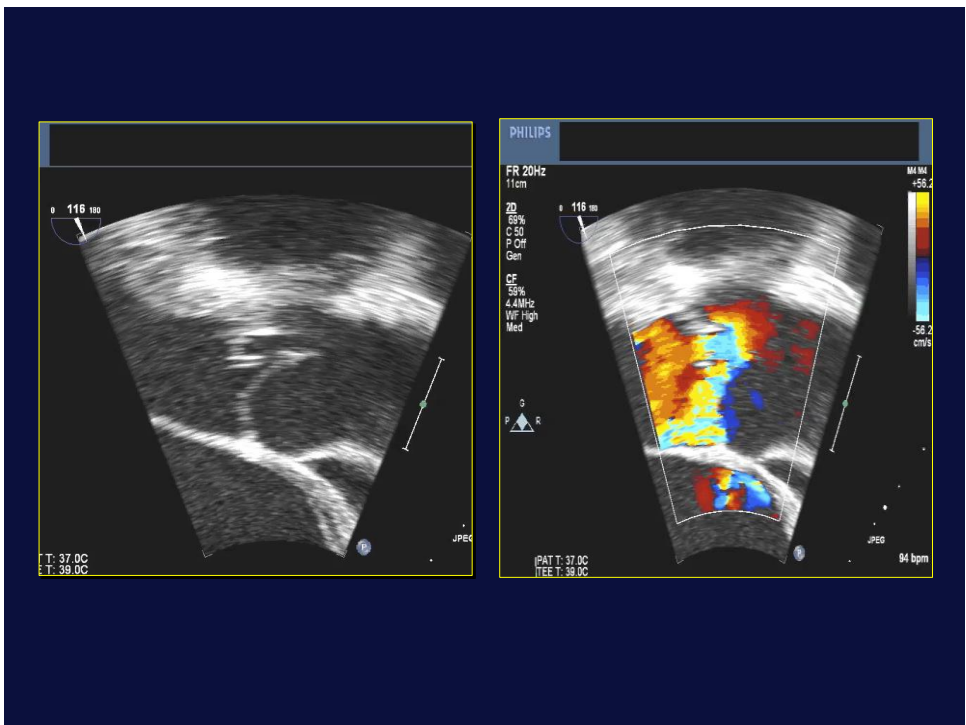
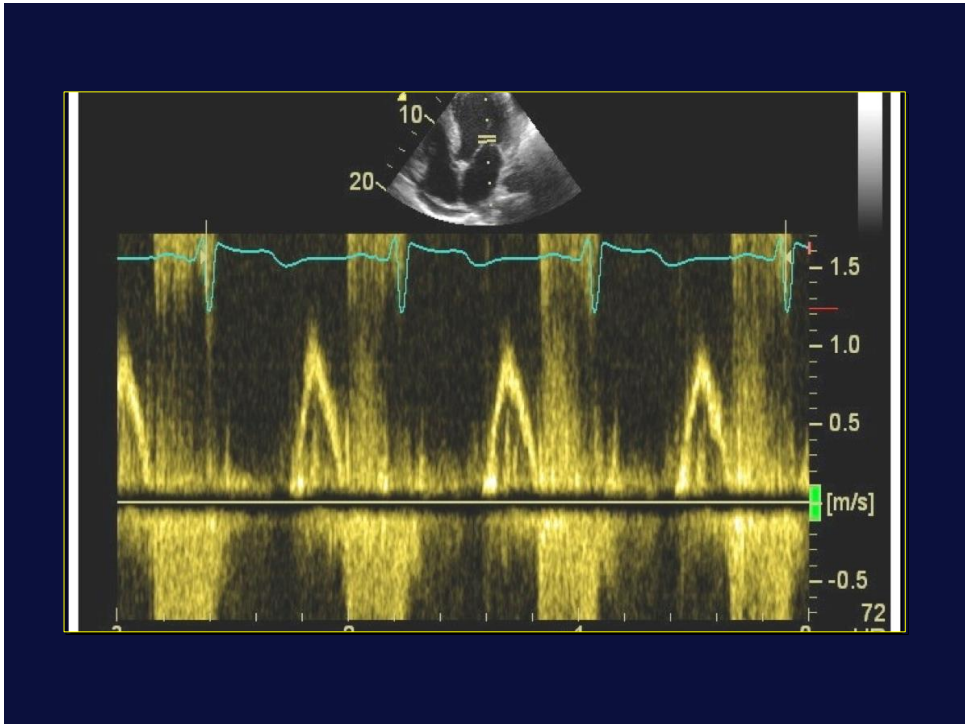
Audience Response

- A. Atrial Fibrillation**
- B. Fused E/A waves**
- C. High LVEDP resulting in abnormal filling**
- D. Can I please look at a couple more images?**



Measurements	Values
LA size	25 cc/m ²
E wave	0.7 m/s
A wave	-
E/A ratio	-
Decel Time	130 ms
e'	0.06 m/s
E/e' ratio	12





Case Summary

- ✱ Severe acute aortic regurgitation
- ✱ Perforated RCC of AV
- ✱ Mild diastolic mitral regurgitation
- ✱ High LVEDP resulting in abnormal filling
- ✱ Absence of atrial filling

Follow-up

- ✱ AVR replacement with a 23 mm CE valve
- ✱ Successful surgery
- ✱ Patient was doing well

Summary

- **Be aware of the least obvious, the answer may be hidden under the smallest stone**
- **Never let your guard down**