
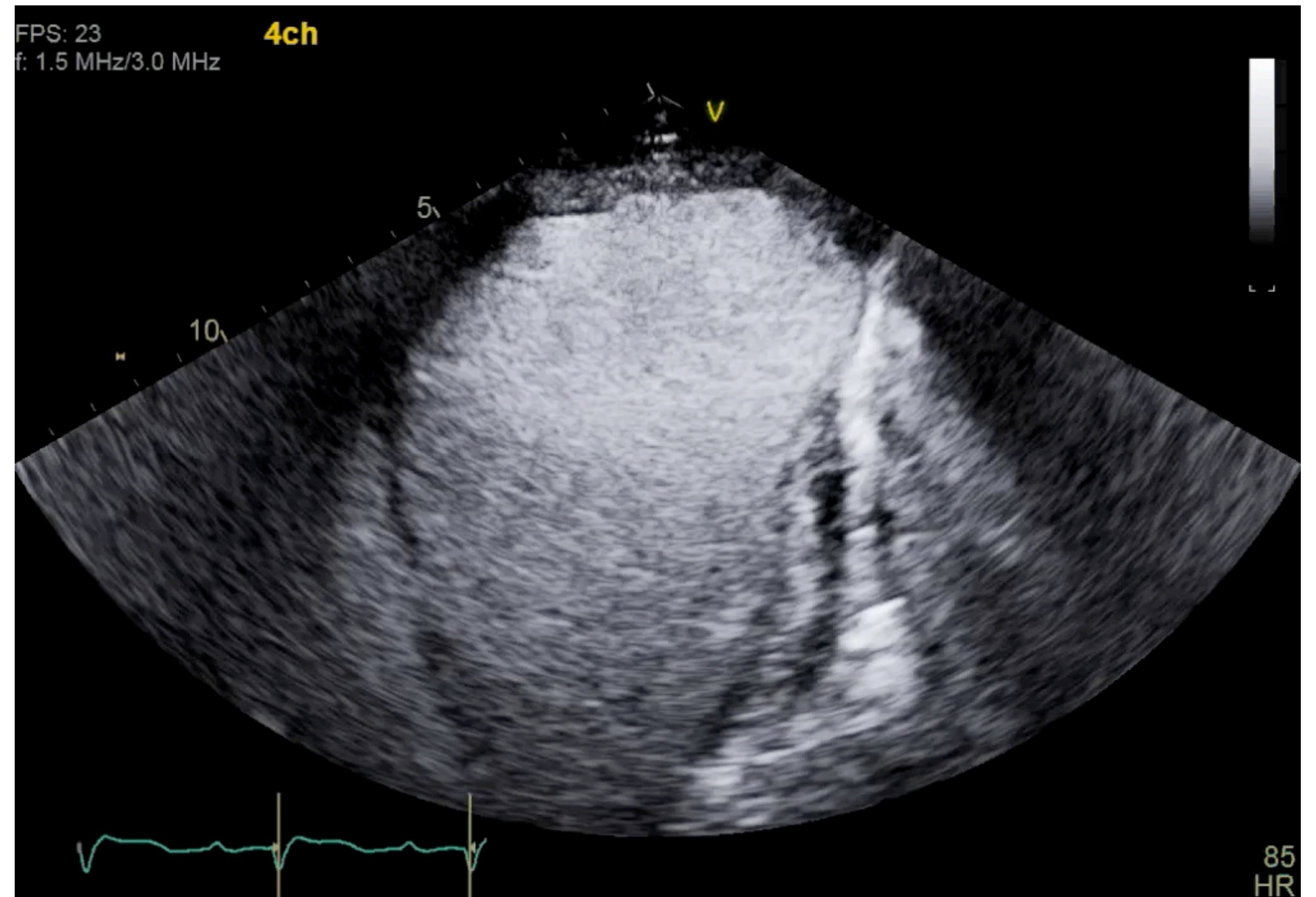


# Using Contrast for LVO

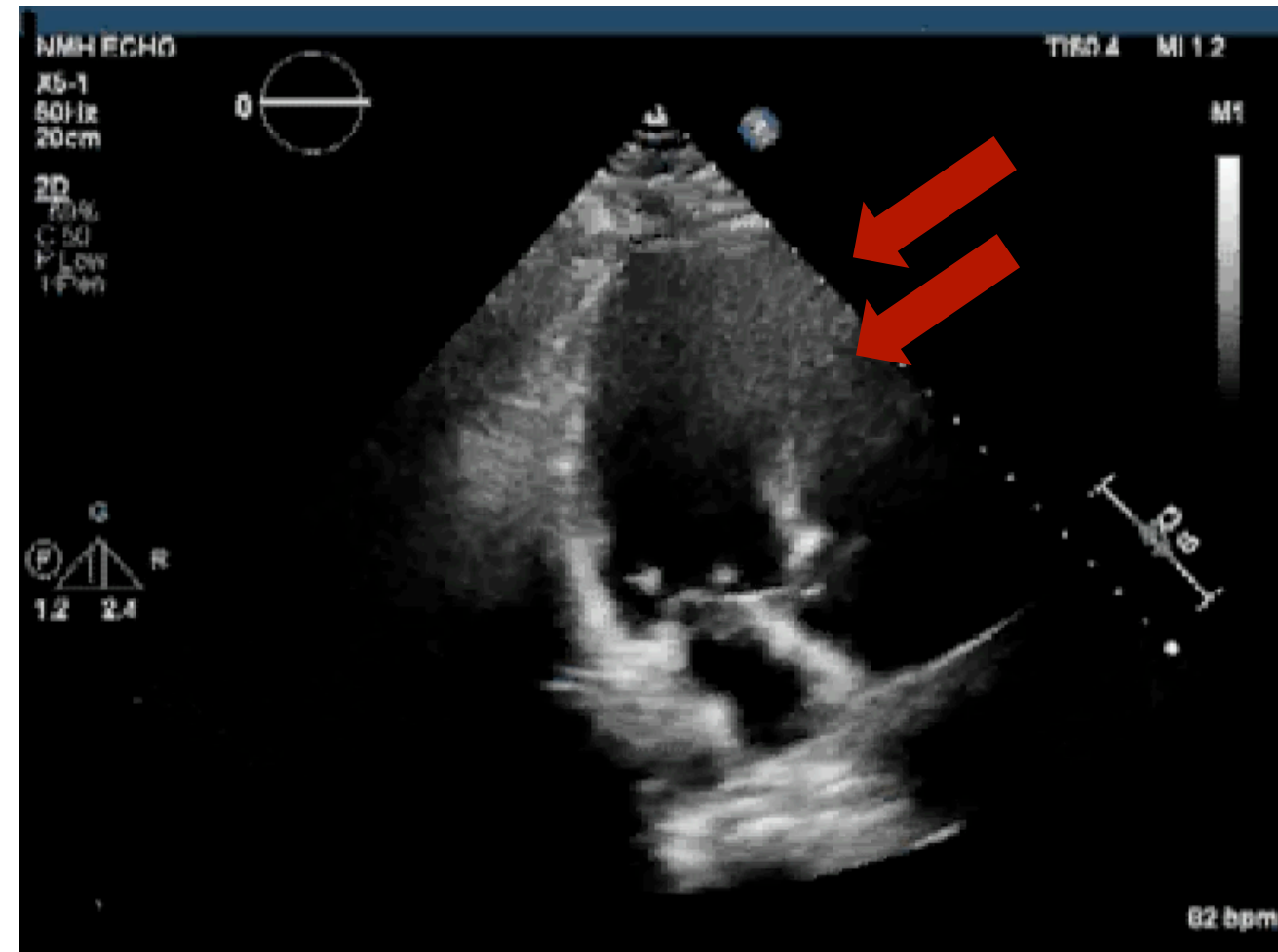
**Madeline Jankowski, ACS, RDCS, FASE**

 @maddiejane25  
#EchoHawaii

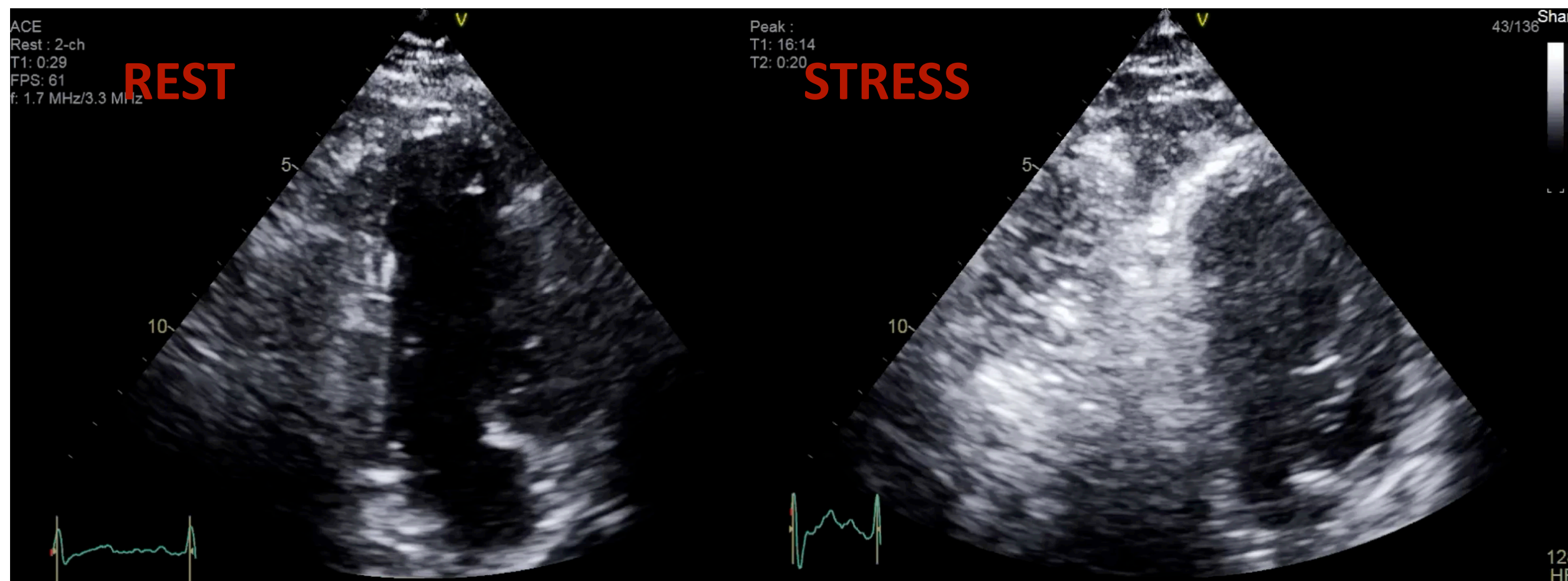




# When should I use contrast?



- Resting echo
  - ASE guidelines suggest to use contrast when unable to visualize 2 contiguous segments
  - Not *always* appropriate. Consider clinical history, reason for exam, findings of the exam. What do we do when not adding it to the study?



- Stress echo
  - If unable to acquire images within 1 minute at rest, consider contrast
  - If **1 segment** is not well visualized

# UEA considerations

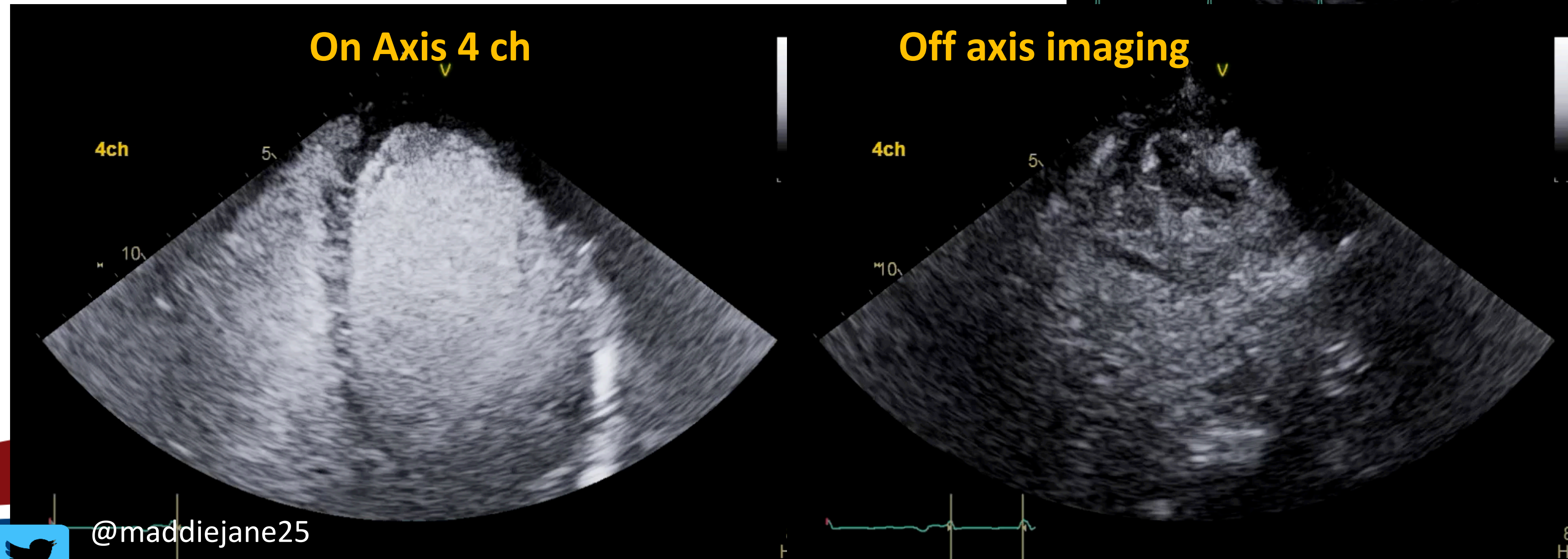
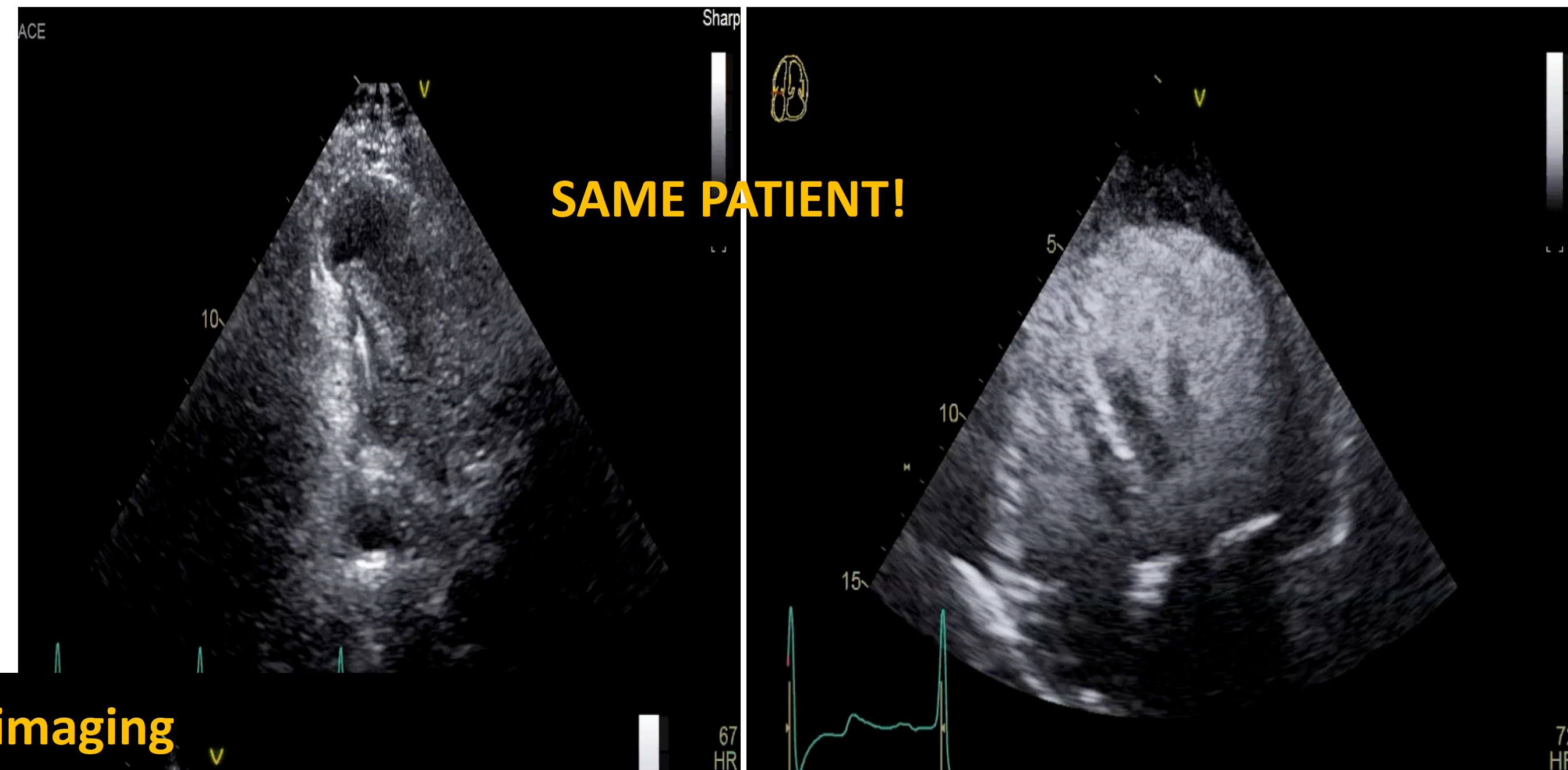
- **Order process**
  - Build a standing order in EPIC - allows sonographers to use when necessary
- **Institutional guidelines on who is able to start IVs, push UEAs**
  - ASE ContrastZone gives Recommended Laboratory Practices





# Contrast use $\neq$ technical skill

- When using contrast, continue to obtain non-foreshortened images (down a rib space, breath hold, etc.)
- Find the true apex!
- Use off axis images if necessary to show pathology





# Contrast considerations

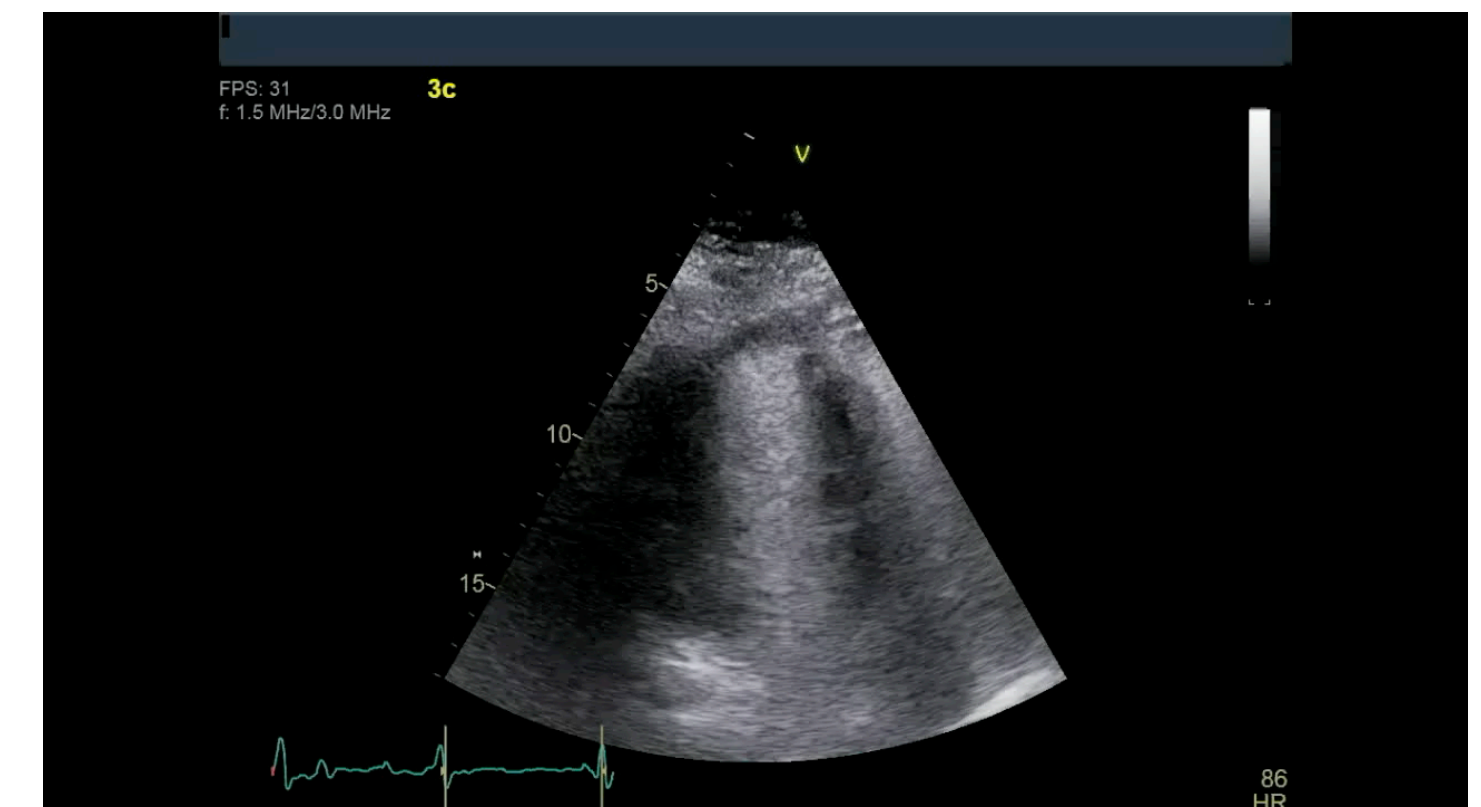
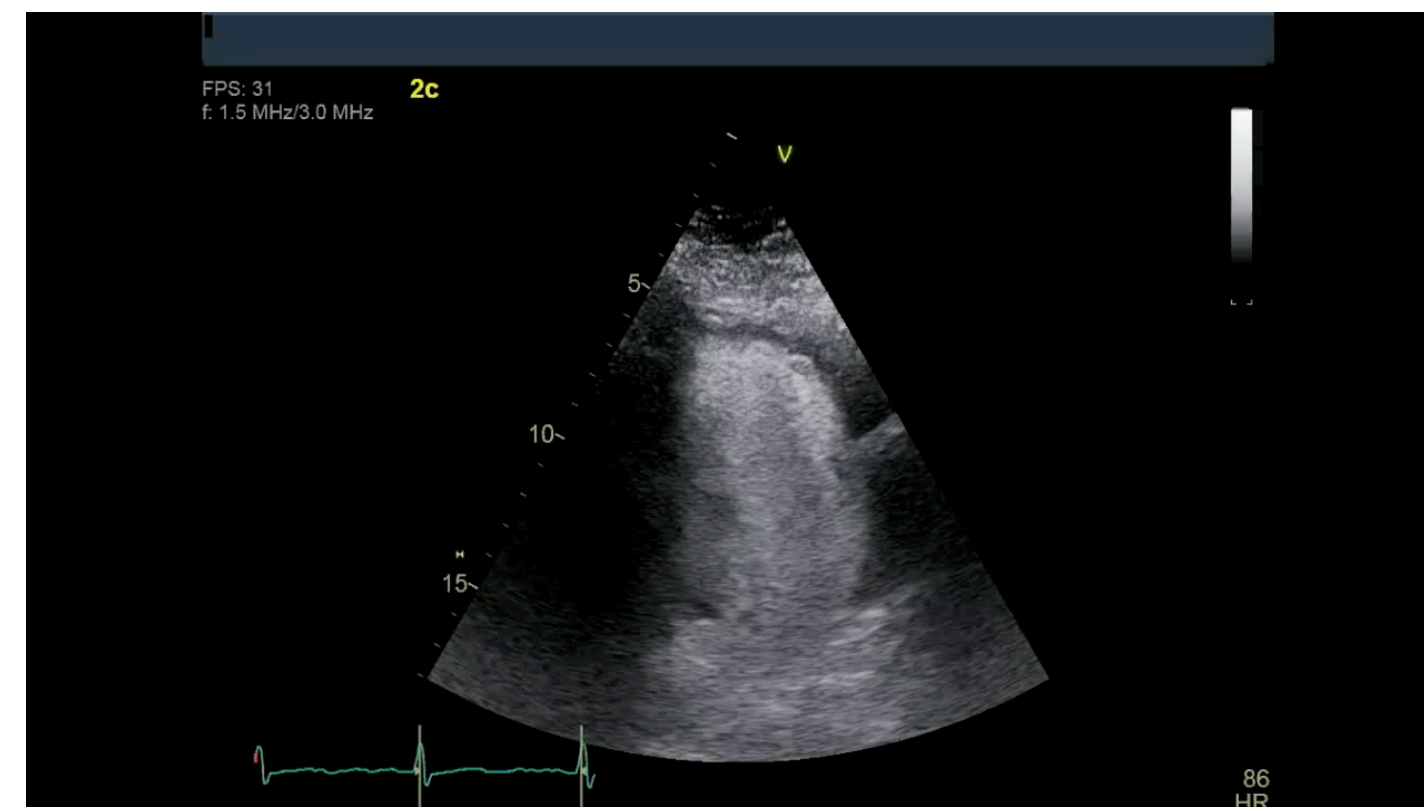
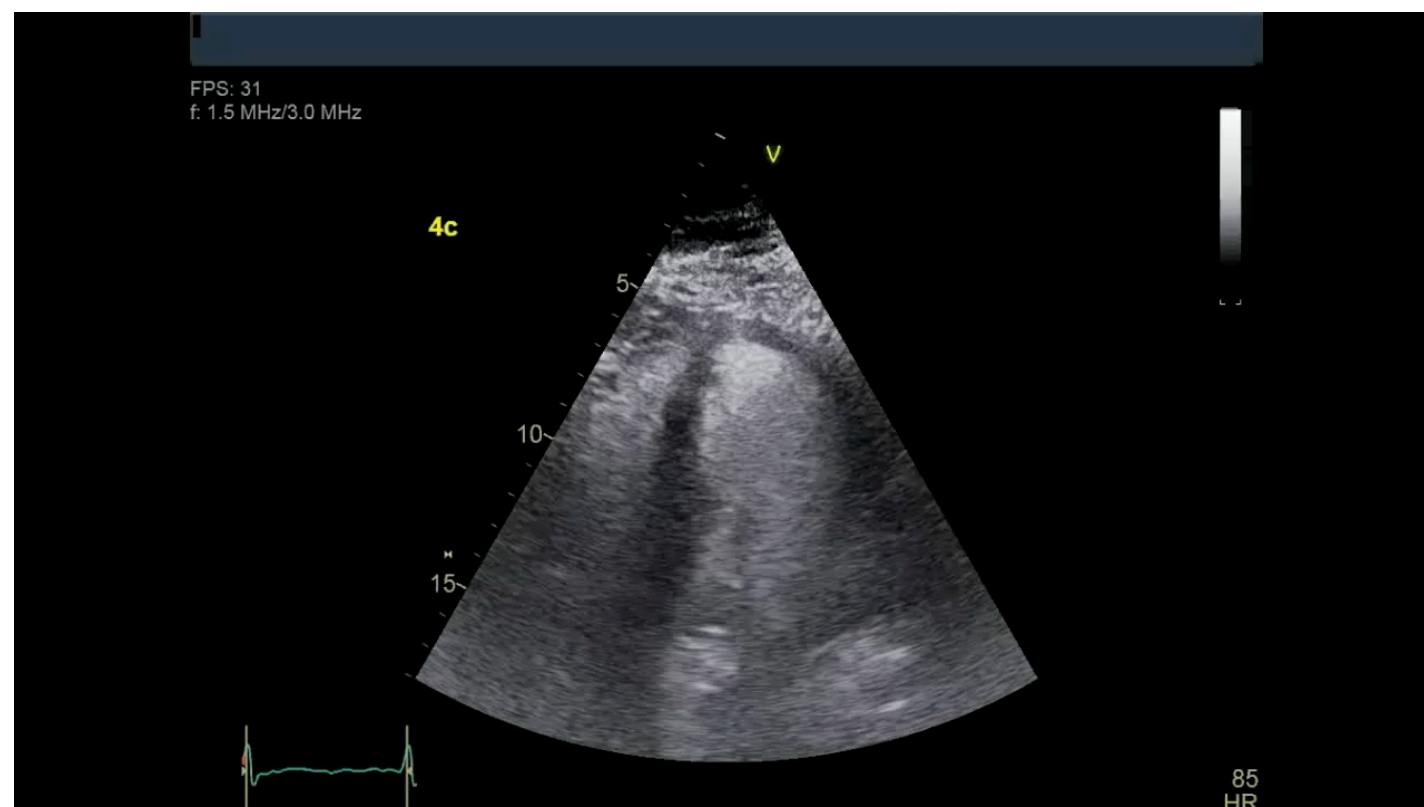
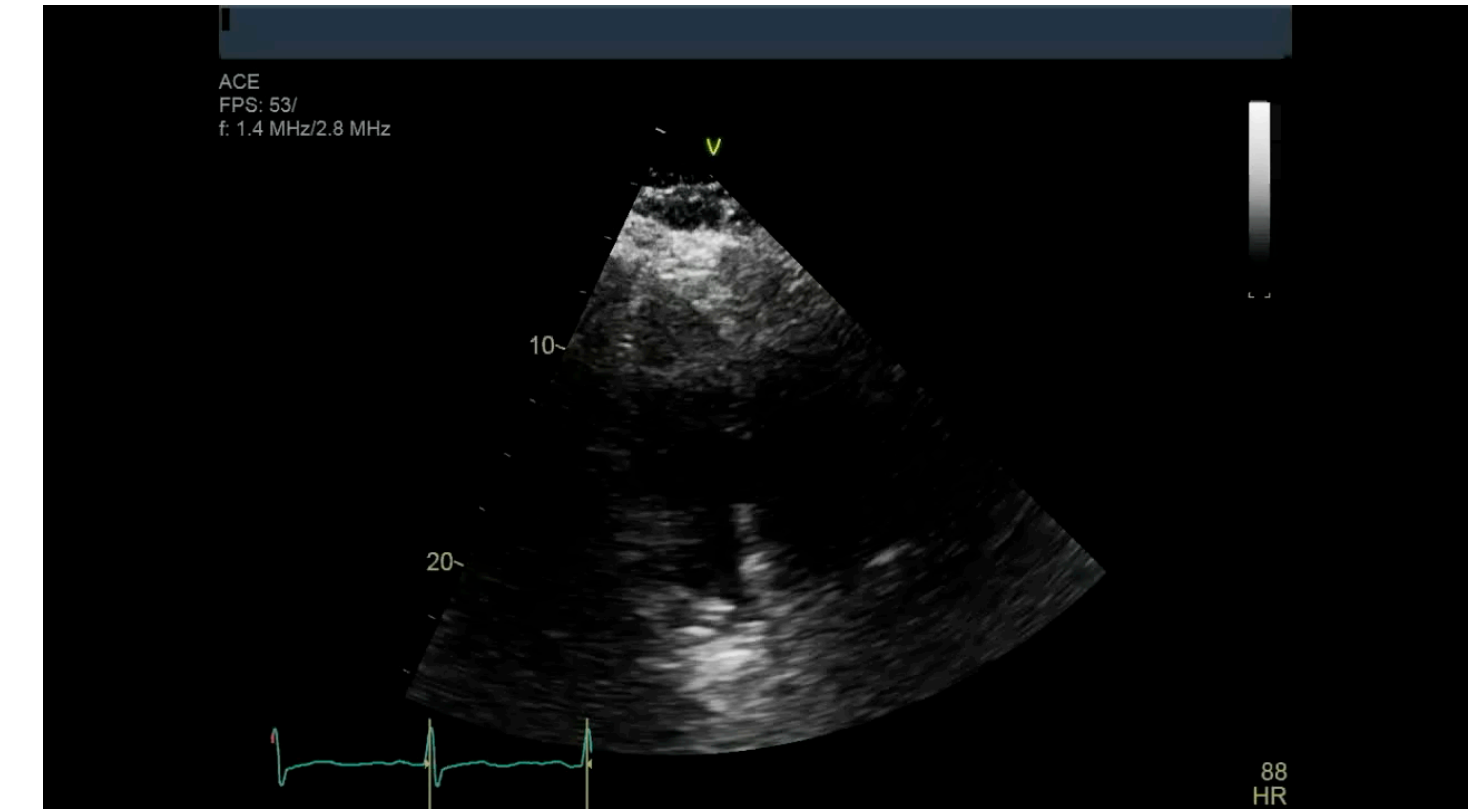
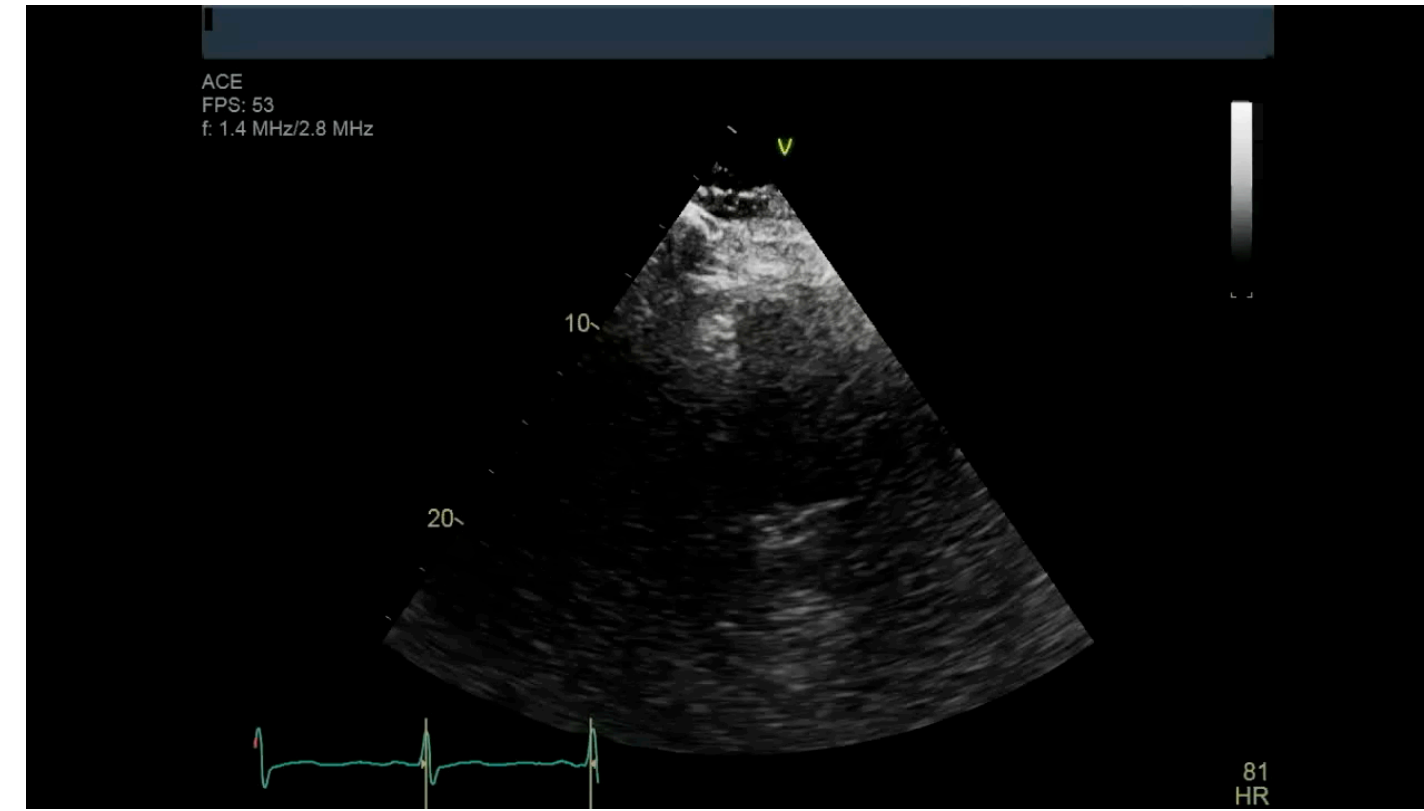
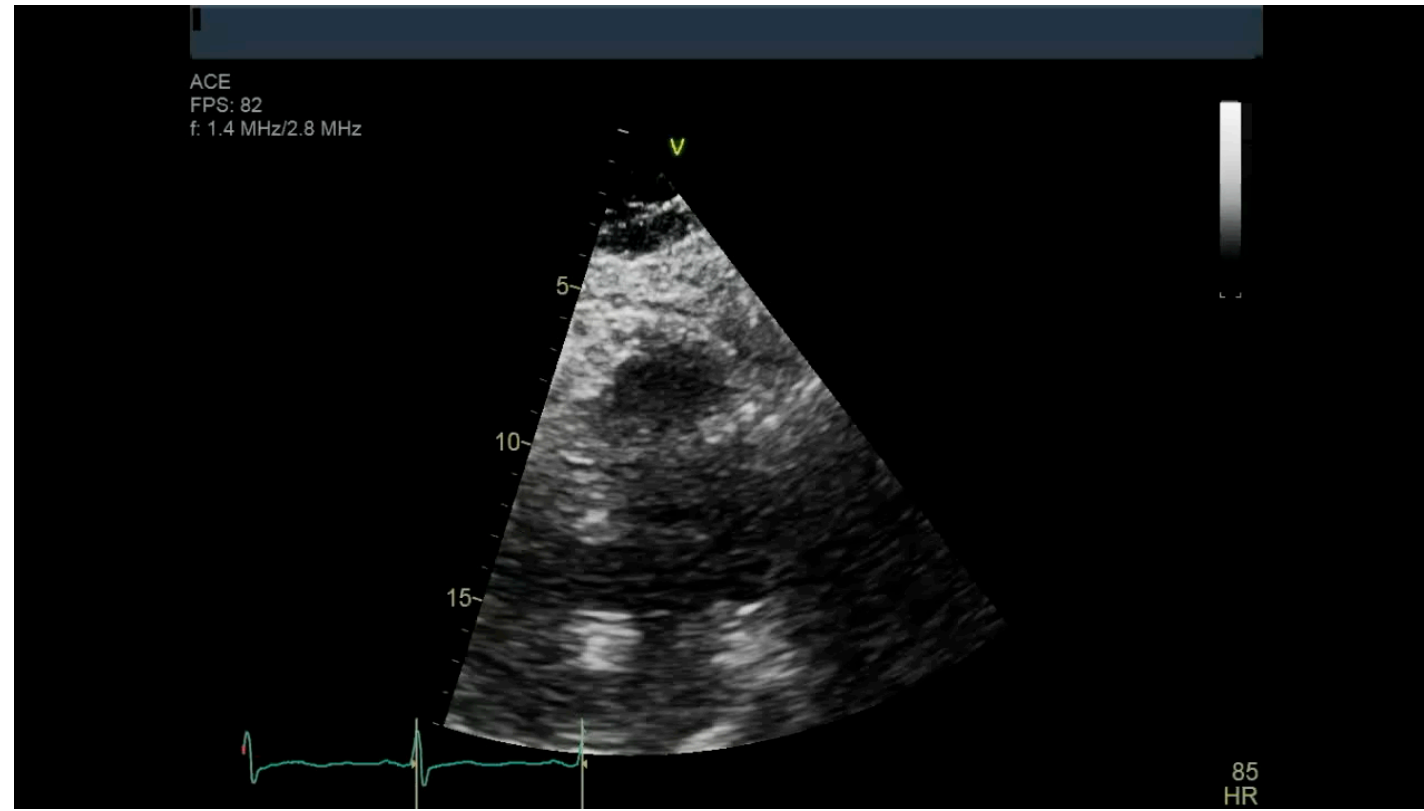
- **Going bedside? Please consider the following:**
  - Is the patient on ECMO? (need to let nurse/ ECMO specialist know)
  - Is the patient on dialysis? (need to let the nurse know – newer dialysis machines may alarm)
  - Does the patient have an LVAD? We CAN use UEA!





# Contrast use in a technically difficult patient

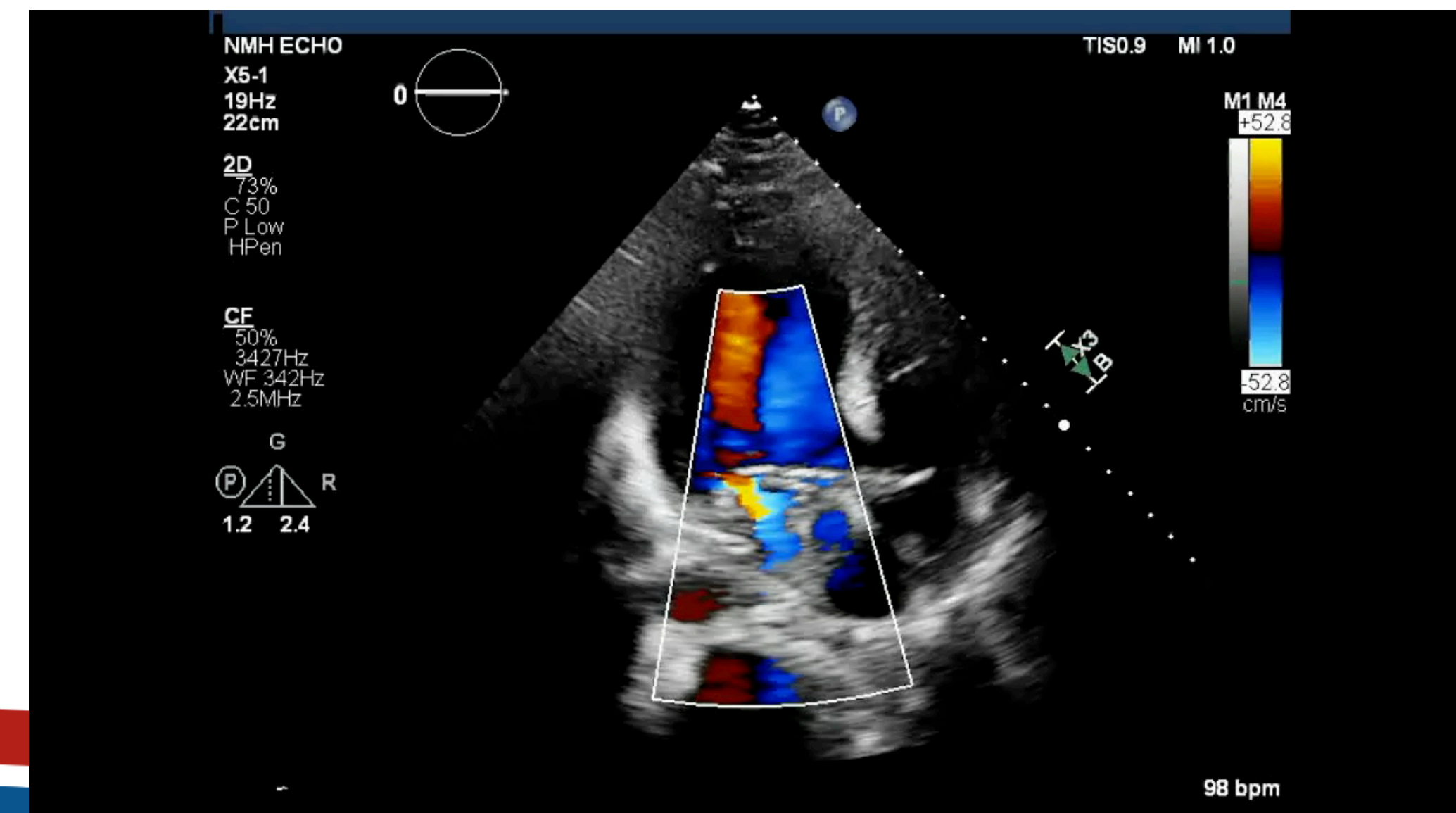
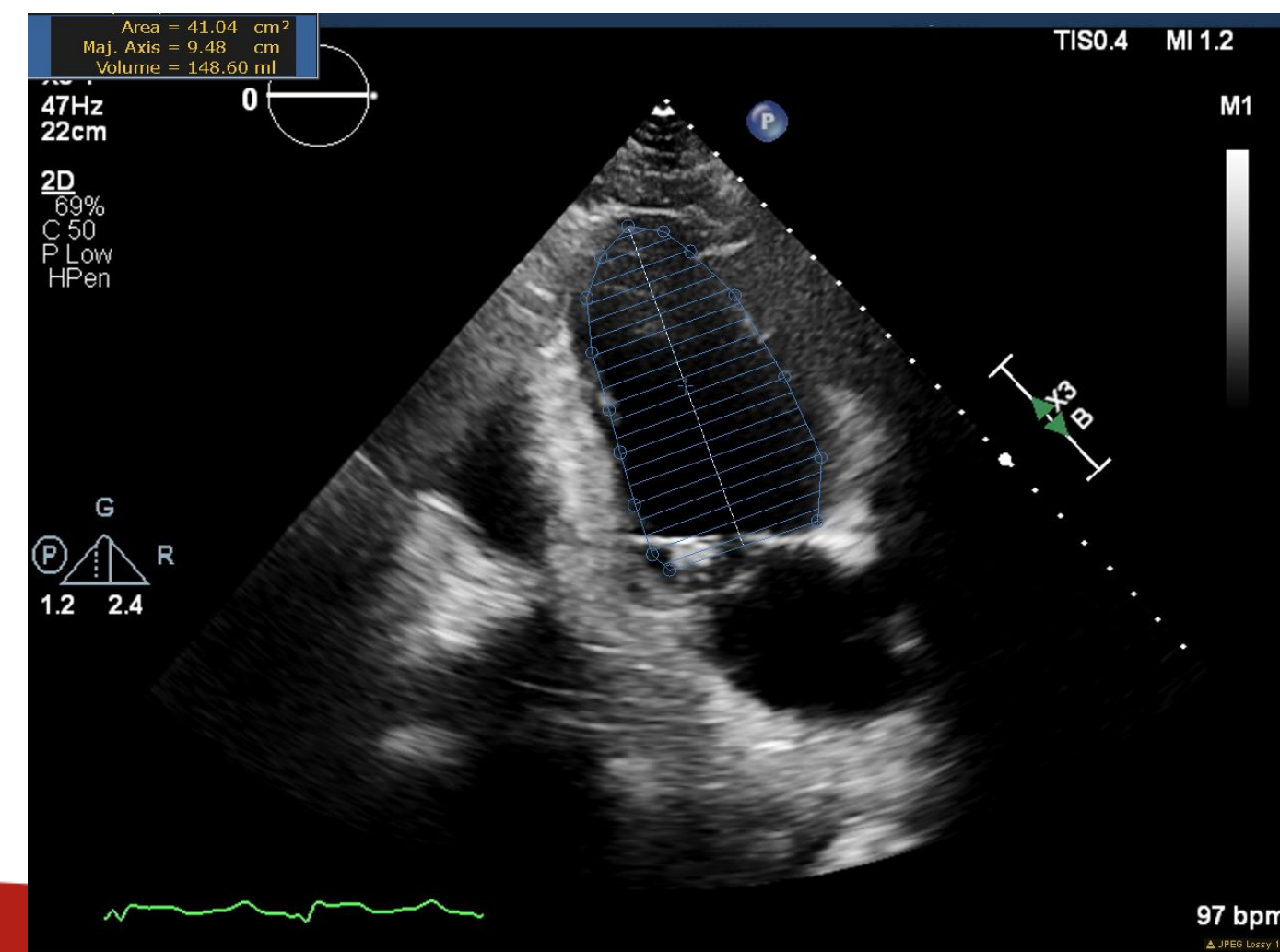
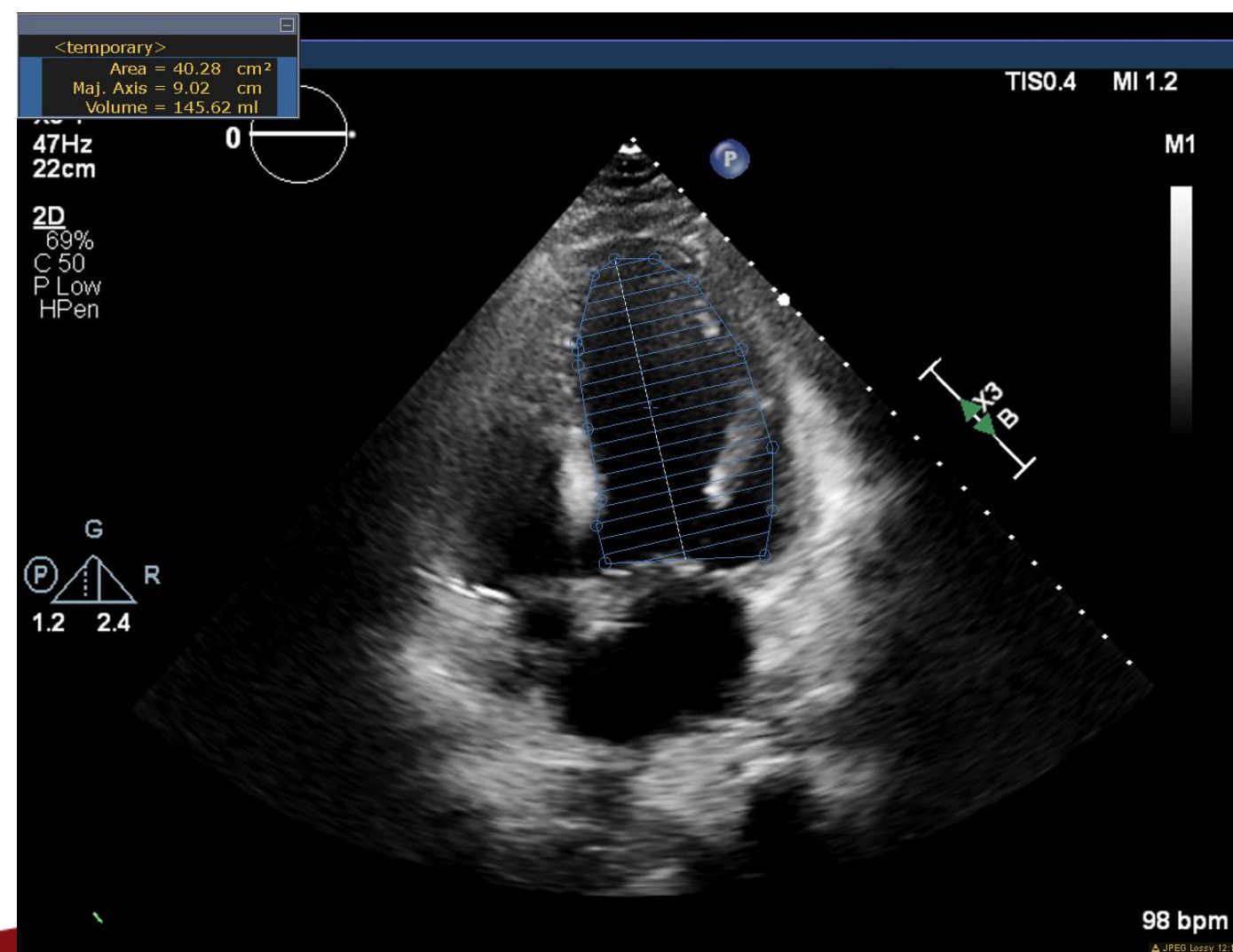
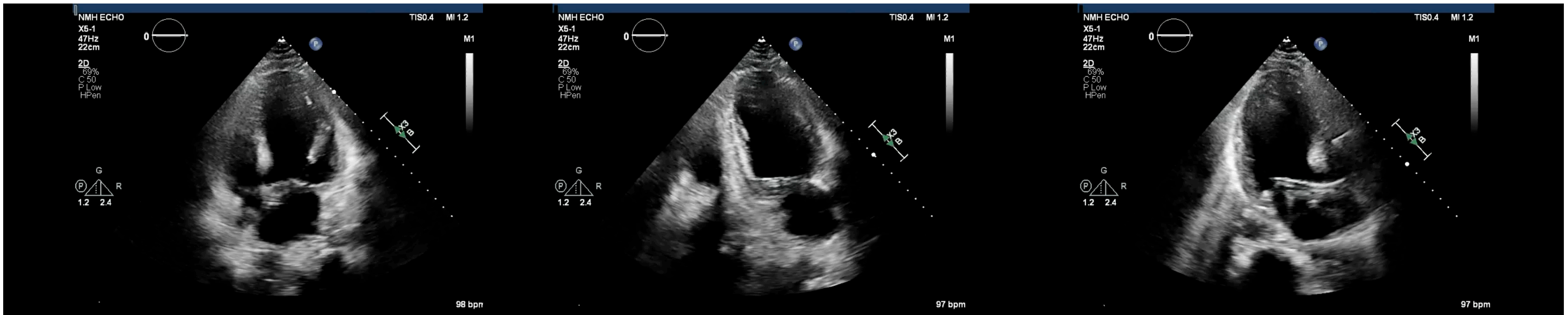
## 44 year old female with BMI of 40 with muscular dystrophy





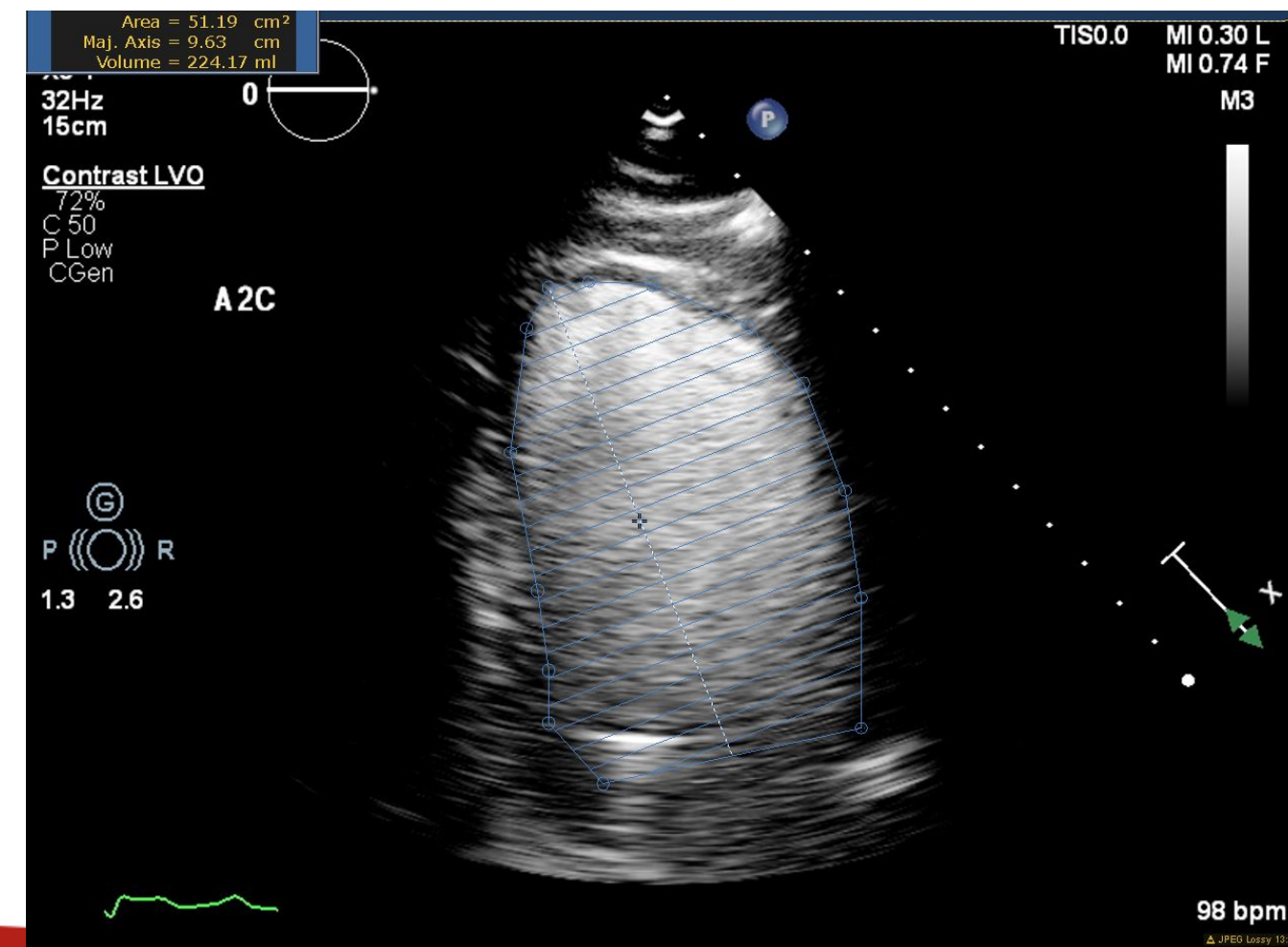
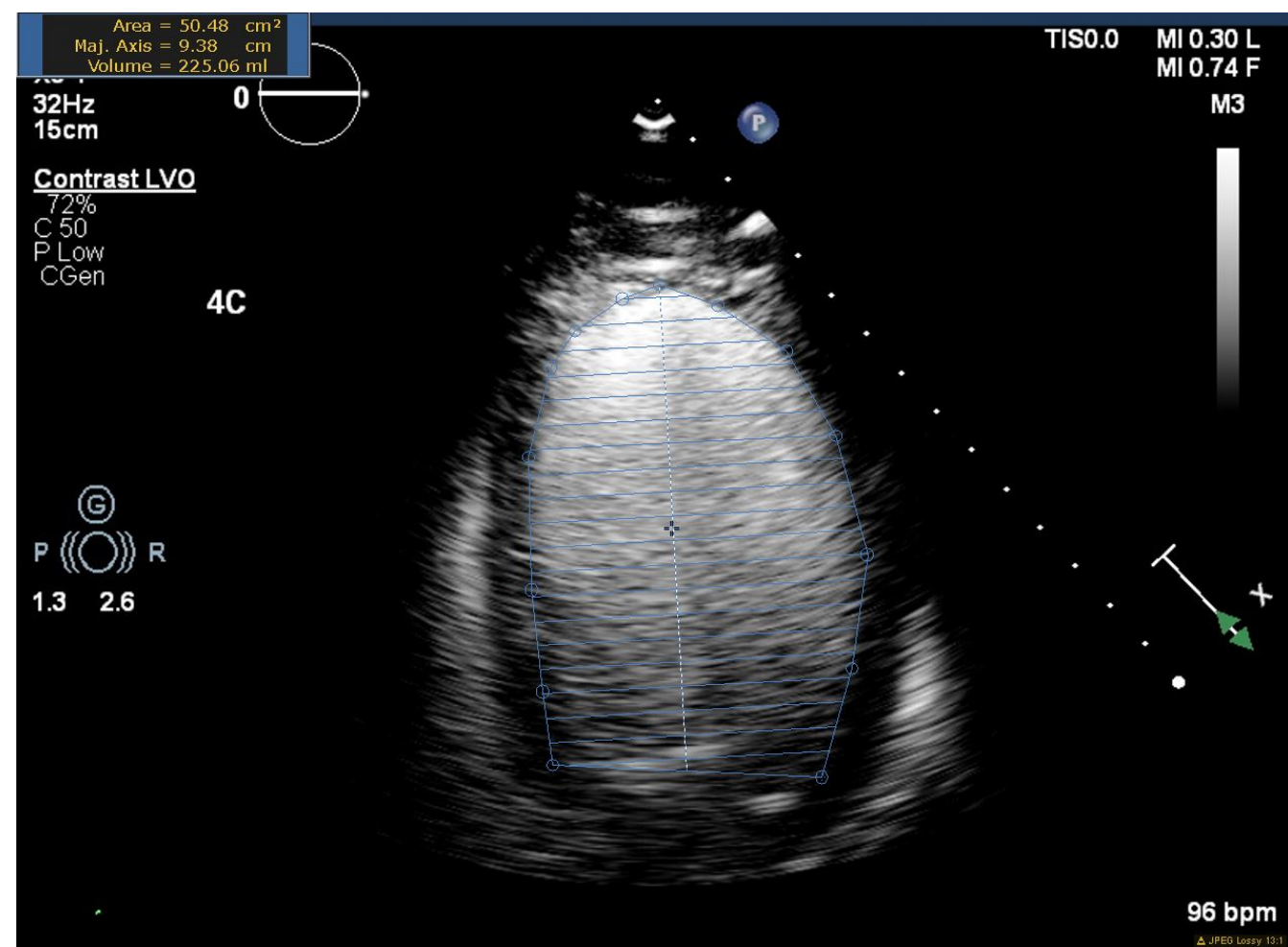
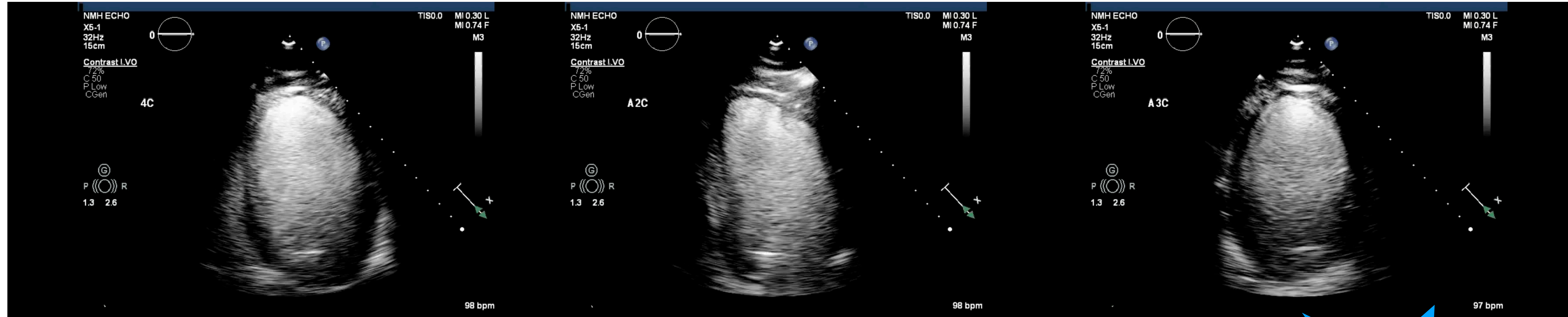
# Contrast use for accurate volumes in patients with severe valve disease

## 53 year old male with acute MR due to papillary muscle rupture - on Impella





# More accurate volumes with contrast, more comparable to MRI



**And hidden  
WMAS!**

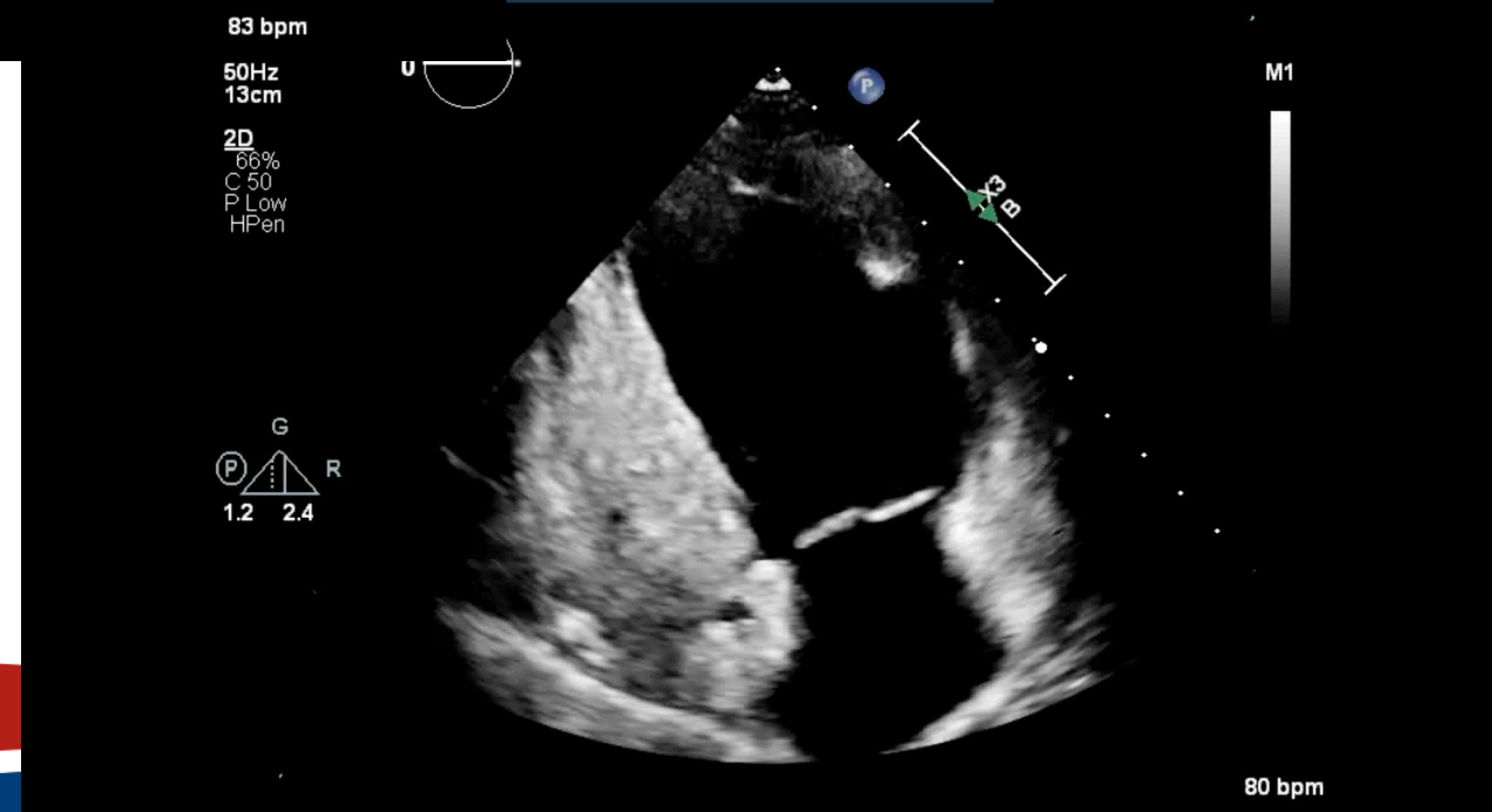
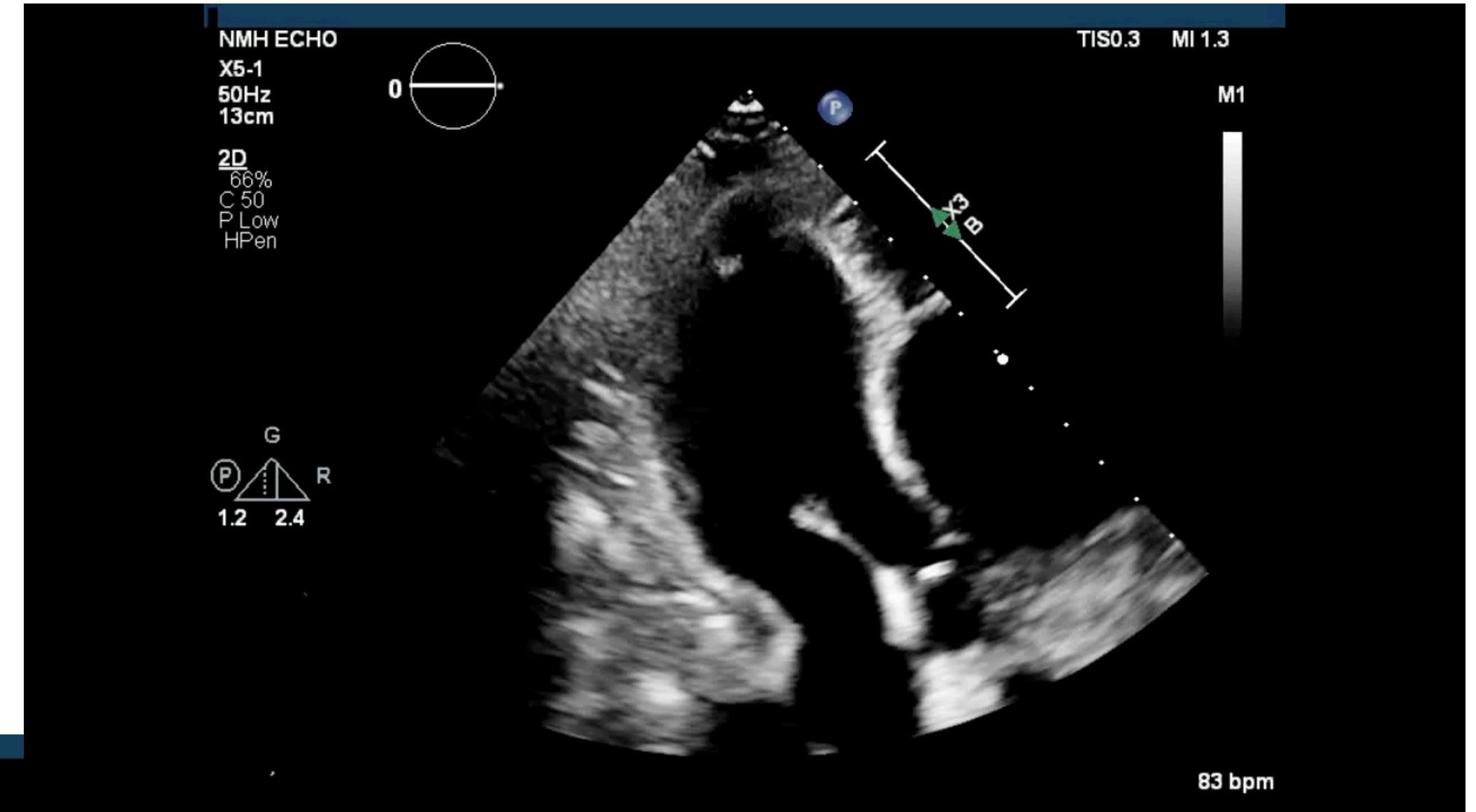
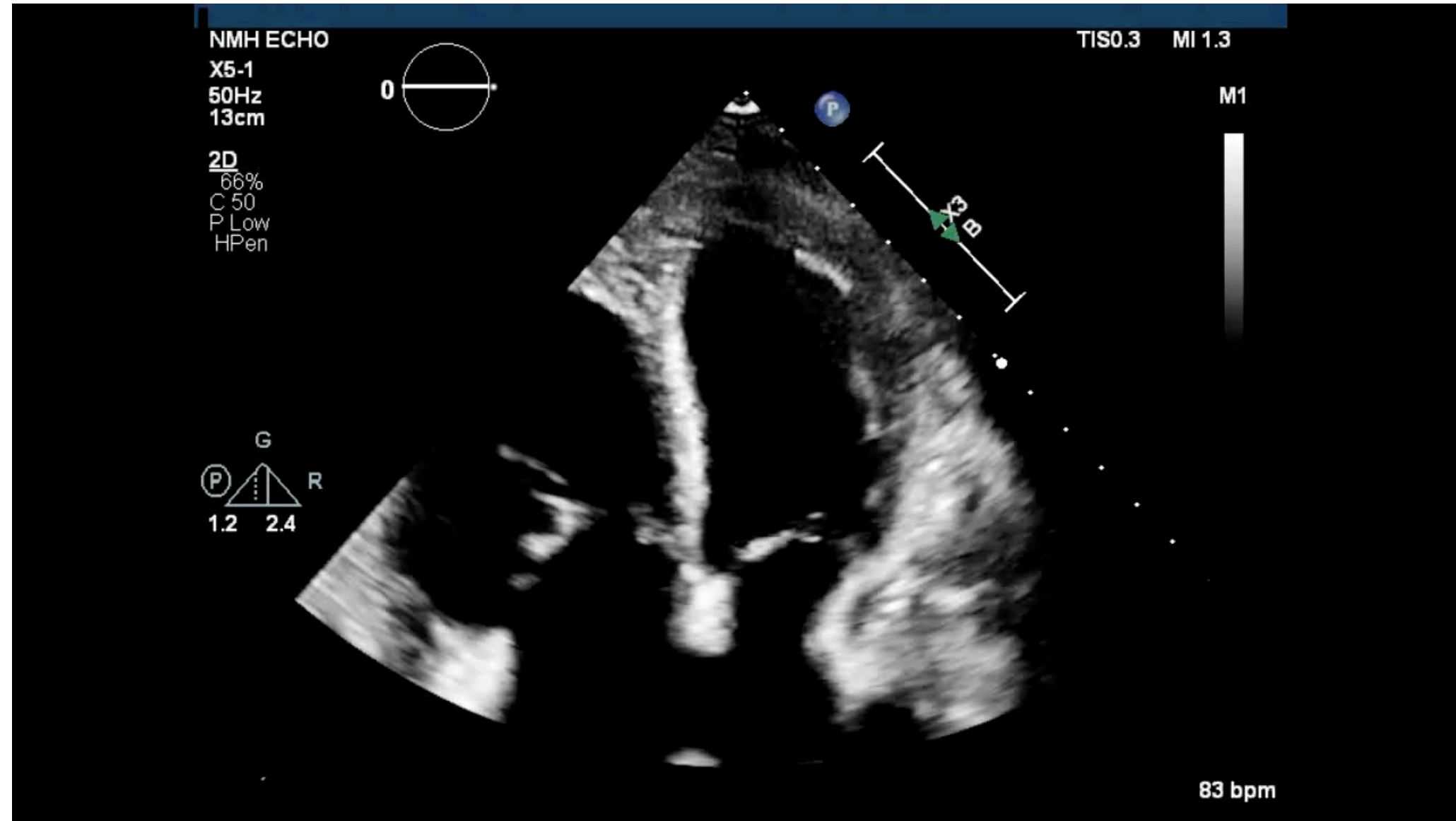


@maddiejane25

#EchoHawaii

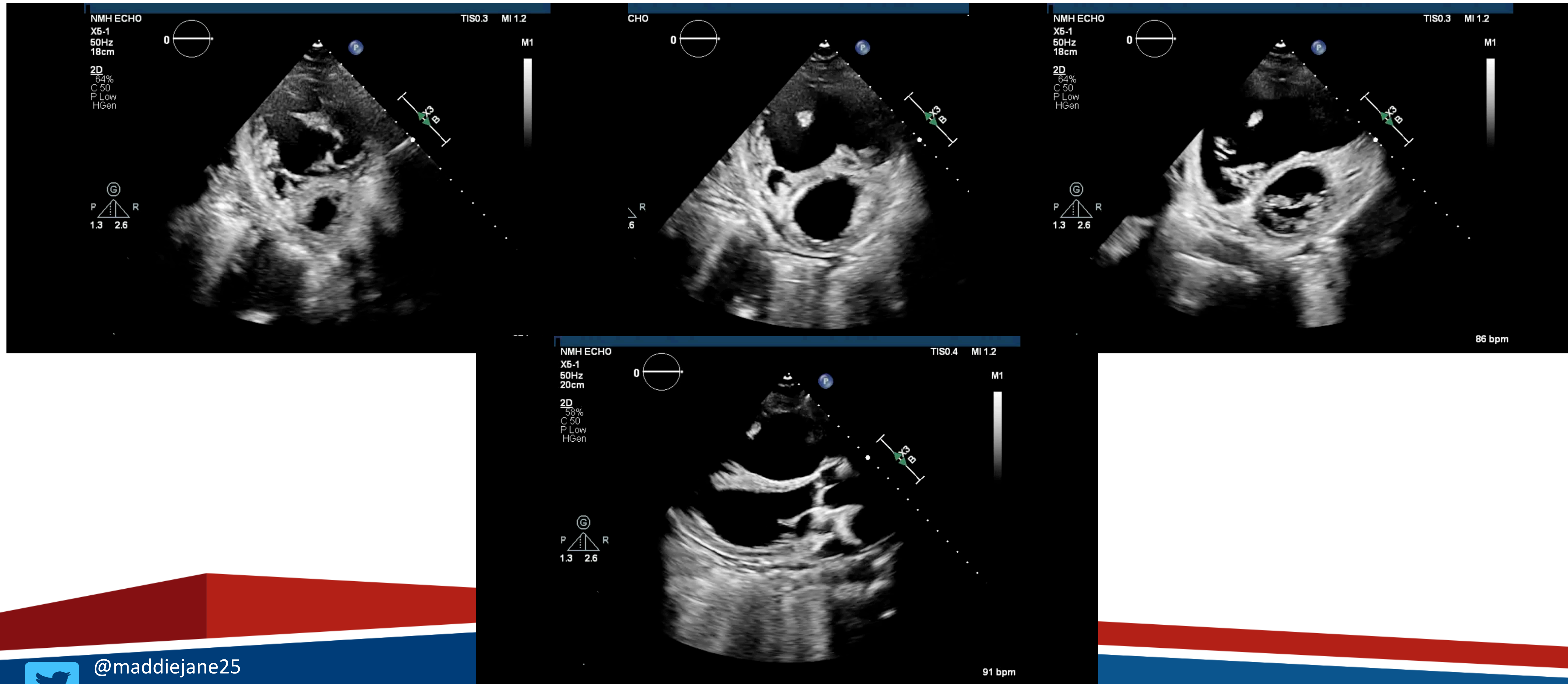


# 38 year old female with history of scleroderma, no known CAD





# No contrast given, but able to see all LV segments from short axis views





# Mahalo and use contrast!

