GE Healthcare
VividClub

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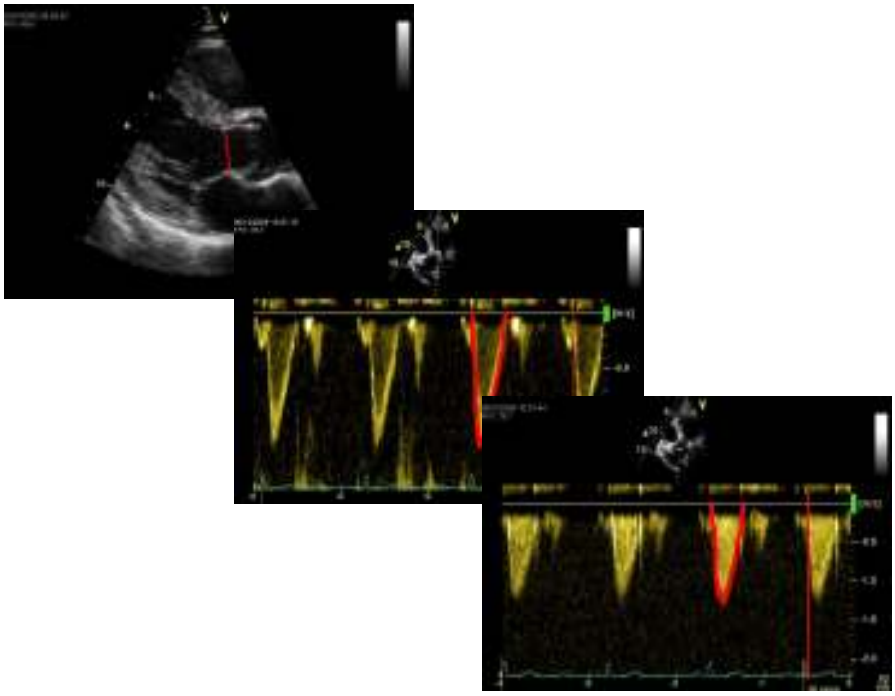
Application News

GE imagination at work

Continutiy equation for aortic valve area

Vivid 3

Vivid 4



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NOTE

This hand out is additional training material.
For more information please refer to the user manual and/or reference manual.

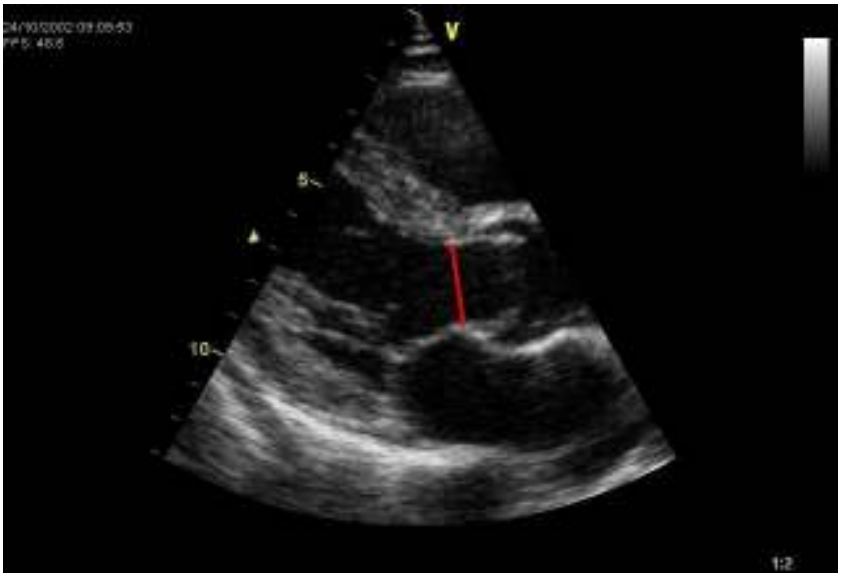
Calculation of the aortic valve area with continuity equation

Words marked in red are hard keys on the control panel.

Measuring the diameter of left ventricular outflow tract (LVOT)

Acquire a 2D image with the parasternal long axis or the apical 5-chamber view. The left ventricular outflow tract (LVOT) needs to be visualized very well. Press Freeze and scroll through the loop to find the images where the outflow tract has his maximum width.

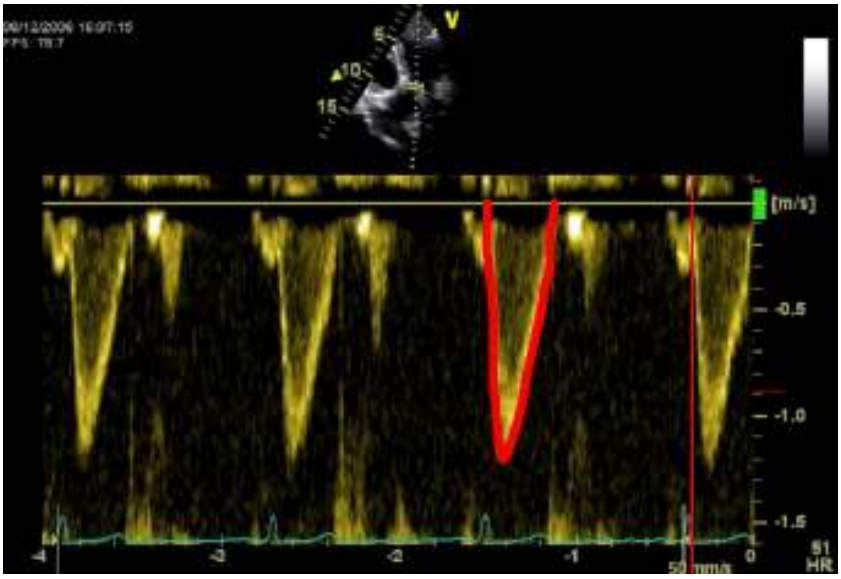
Open the Measurement package. Scroll to **AV** and open the measurement with the select button. Perform the distance measurement of the outflow tract. You will see the value displayed as **LVOT Diam** XX cm.



Measuring the flow in the LVOT

Perform an apical 5-chamber view.
Place your cursor in the middle of the LVOT. Acquire a nice PW Doppler signal of the flow in the LVOT and freeze the image.

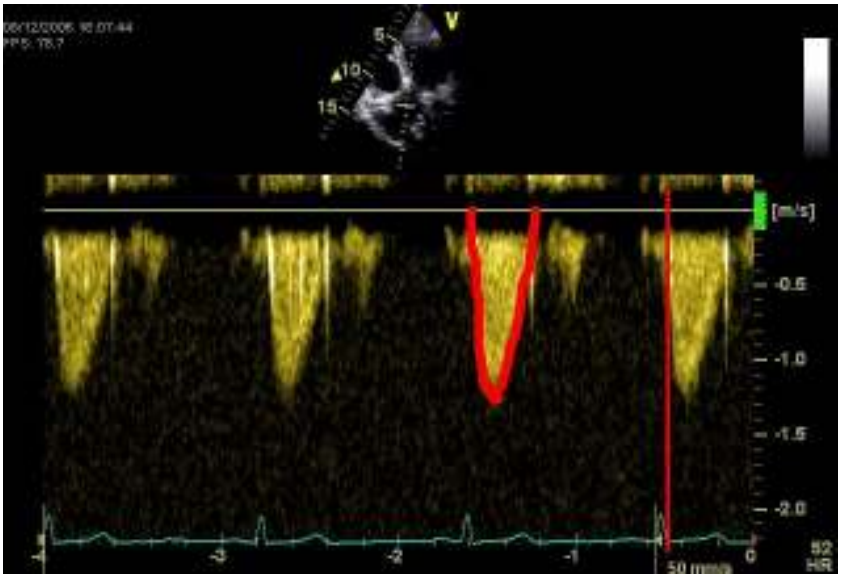
Open the measurement package – scroll down to **AV** and select it. Decide whether you want to make only the **LVOT peak** measurement or the **LVOT trace** measurement both is possible. Make your measurement according to your selection.



Measuring the flow inside the aortic valve

Perform an apical 5-chamber view.
Place your cursor in the aortic valve area. Acquire a nice PW or CW Doppler signal of the flow and freeze it.
Open the measurement package – scroll down to **AV** and select it.

Decide whether you want to make only the **AV peak** measurement or the **AV trace** measurement both is possible. Make your measurement according to your selection.



Where to find the measurement

Press Worksheet to see all your measurement.
Select the page for the Doppler measurements.
Beside the measurements done for LVOT and AV there is also the calculated:
AVA max [cm²]
AVA VTI [cm²]