

EP08.89. Routine fetal heart screening before 11 weeks of gestation.

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Introduction

Our objective was to perform routine fetal heart screening before 11 weeks of gestation.

Methods

A fetal heart assessment was routinely performed on low-risk pregnant women under 11 weeks of gestation, using a 6-12 MHz transvaginal transducer with fetal cardiac function settings, B-mode, high-definition power Doppler, M-mode, color M-mode, and in some cases STIC technology was also applied. Heart rate, visualization of the heart position into the thorax, ventricular chamber's view, aortic (Ao) and pulmonary artery (PA) outflow tracts, and three-vessel (V-shaped) features were recorded

Results

Seventy-nine pregnant women under 11 weeks of gestation were studied. In 20/23 pregnancies between 10 weeks + 0 days and 10 weeks + 6 days, in 13/19 pregnancies between 9 weeks + 0 days and 9 weeks + 6

Days, and in 7/18 pregnancies between 8 weeks + 0 days and 8 weeks + 6 days, all aspects under consideration were observed. In 19 pregnancies under 8 weeks, the images were not clear enough to confirm the described characteristics; it was only possible to evaluate heart rate, position, and in some cases, ventricular images using color Doppler or M-mode

Conclusion

Our results show that detailed fetal heart screening is possible before 11 weeks, and reliably between 9 and 10 weeks. As ultrasound technology improves, it will be possible to have greater confidence in cardiac assessment and detect cardiac abnormalities earlier

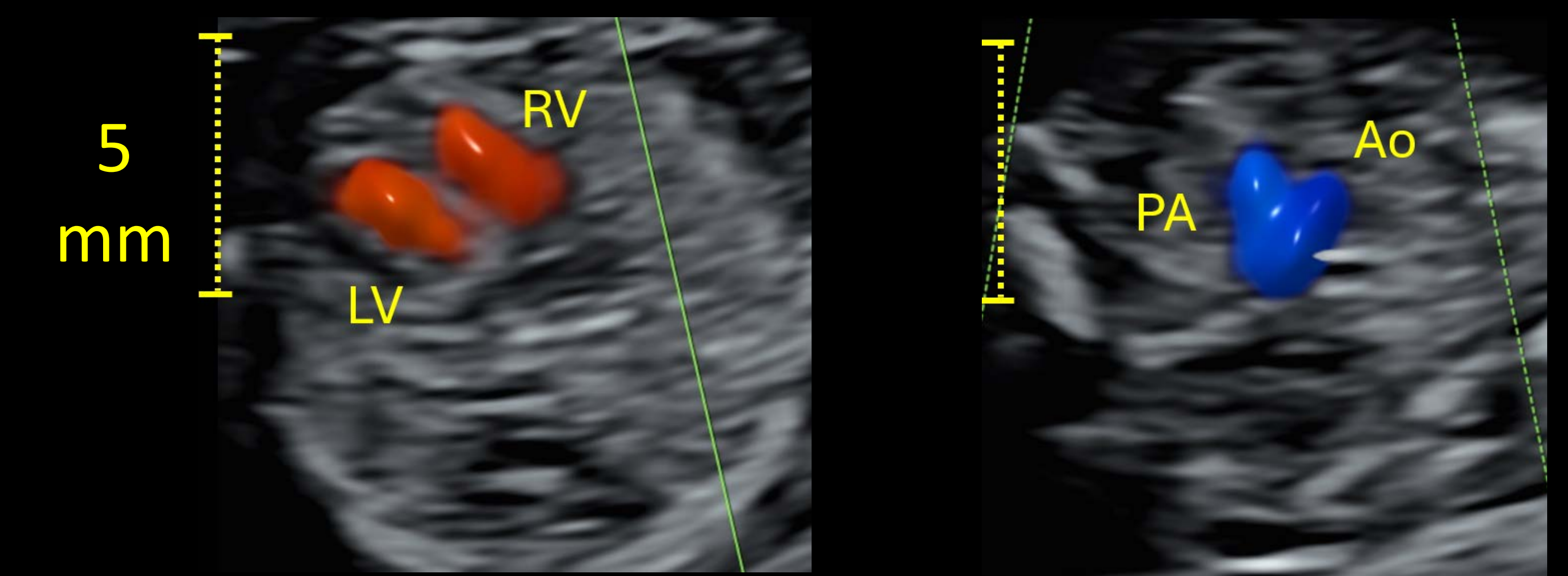


Fig 1: 10w1d. Ventricular filling: Left ventricle (LV), right ventricle (RV), and 3V-shaped view (Ao: aorta, PA; pulmonary artery)

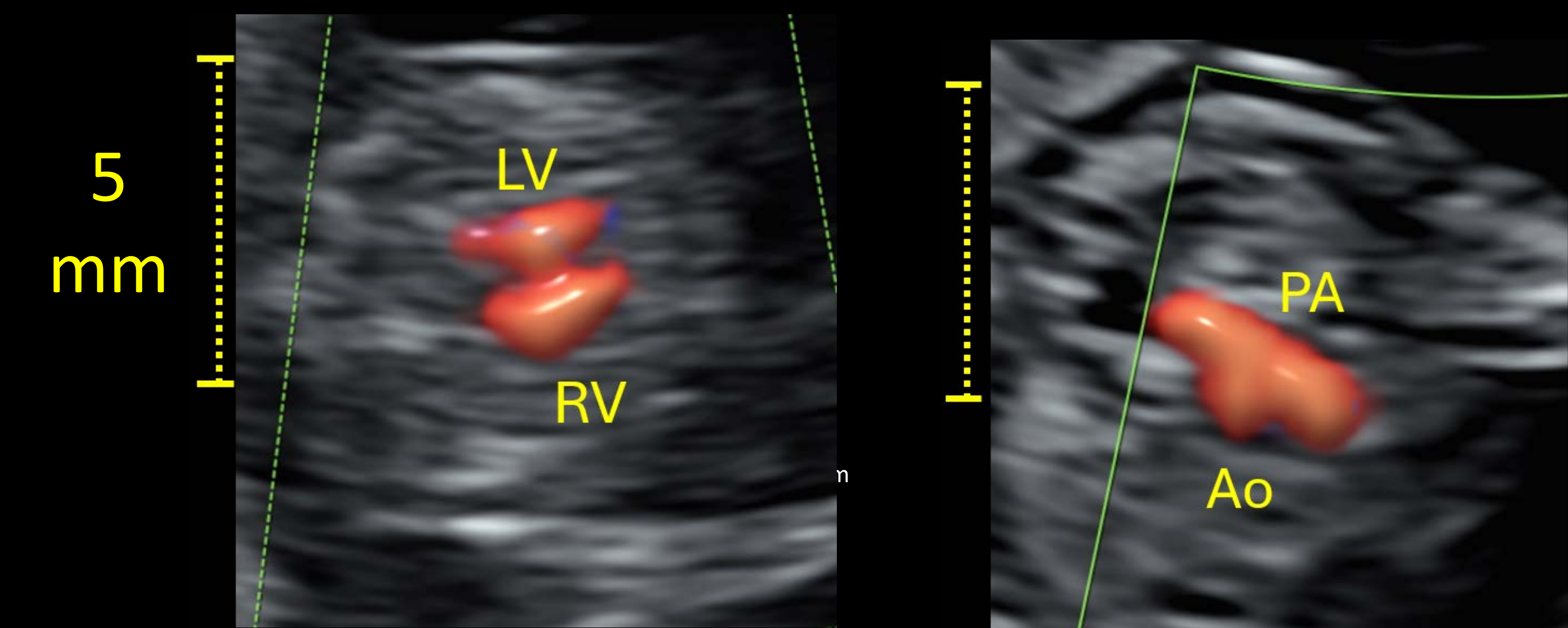


Fig 2: 9w3d, Ventricular filling: Left ventricle (LV), right ventricle (RV), and 3V-shaped view (Ao: aorta, PA; pulmonary artery)

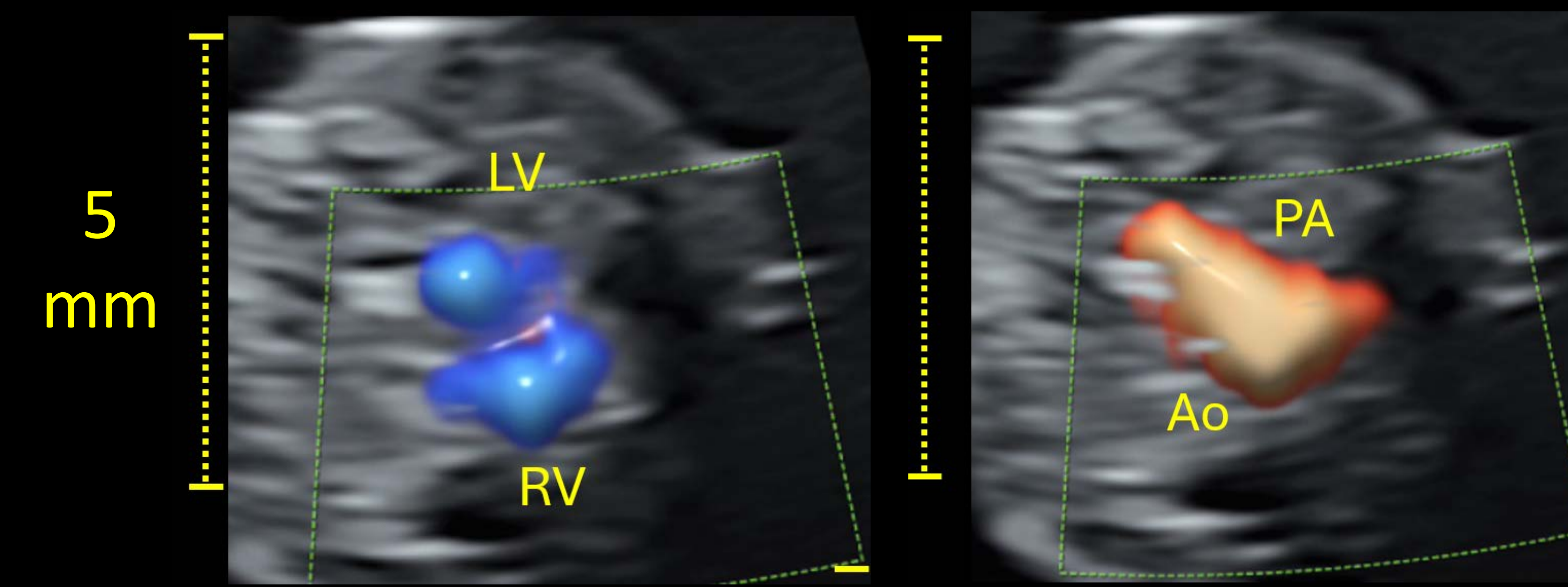


Fig 3: 8w3d, Ventricular filling: Left ventricle (LV), right ventricle (RV), and 3V-shaped view (Ao: aorta, PA; pulmonary artery)