

IMAGES

in PAEDIATRIC CARDIOLOGY

Images Paediatr Cardiol. 2007 Jan-Mar; 9(1): 1–9.

PMCID: PMC3232574

Normal adult echocardiography - apical views

O Aquilina, H Felice, A Fenech, and V Grech

¹Cardiology Department, St. Luke's Hospital, Guardamangia, Malta

²Paediatric Department, St. Luke's Hospital, Guardamangia, Malta

Contact information: Dr. Oscar Aquilina, Department of Cardiology, St. Luke's Hospital, Guardamangia, Malta ; Email: oscar.aquilina@gov.mt

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Abstract

Children with congenital heart disease will grow into adults who may also develop adult heart disease. This article reviews the adult two and four chamber echocardiographic views, and is a continuation of our previous article which dealt with the parasternal views.

MeSH: Echocardiography, Doppler

Paper

An very brief introduction to echocardiographic techniques¹ was given in our earlier paper.²

After the parasternal examination,² the echocardiography study continues with the apical four-chamber view.

The probe is now rotated through 90 degrees and the study continues with the apical two-chamber view.

The Doppler study consists of interrogation at mitral, tricuspid and aortic valves with colour and pulse/continuous wave Doppler modalities. It should be borne in mind that red colour codes for velocities towards the probe while blue colour codes for velocities away from the probe.

Figure 1 Schematic view of ultrasound beam in the apical 4-chamber view

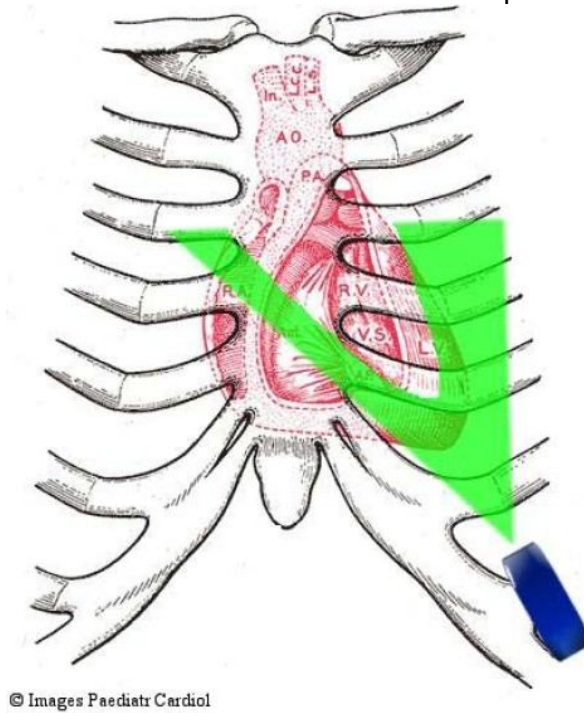


Figure 2 Apical 4-chamber (A4C) view. LV=left ventricle, RV=right ventricle, IVS=interventricular septum, LA=left atrium, MV=mitral valve, RA=right atrium, TV=tricuspid valve, IAS=interatrial septum

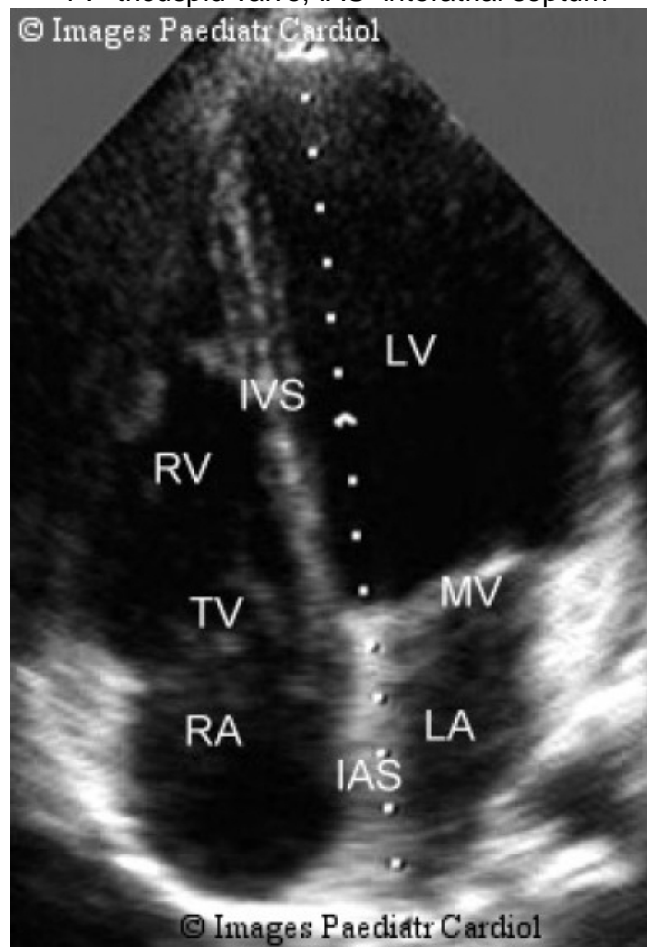


Figure 3 Apical 4-chamber (A4C) view angled posteriorly to show the coronary sinus (CS) in the posterior atrioventricular groove. LV=left ventricle, RV=right ventricle, RA=right atrium

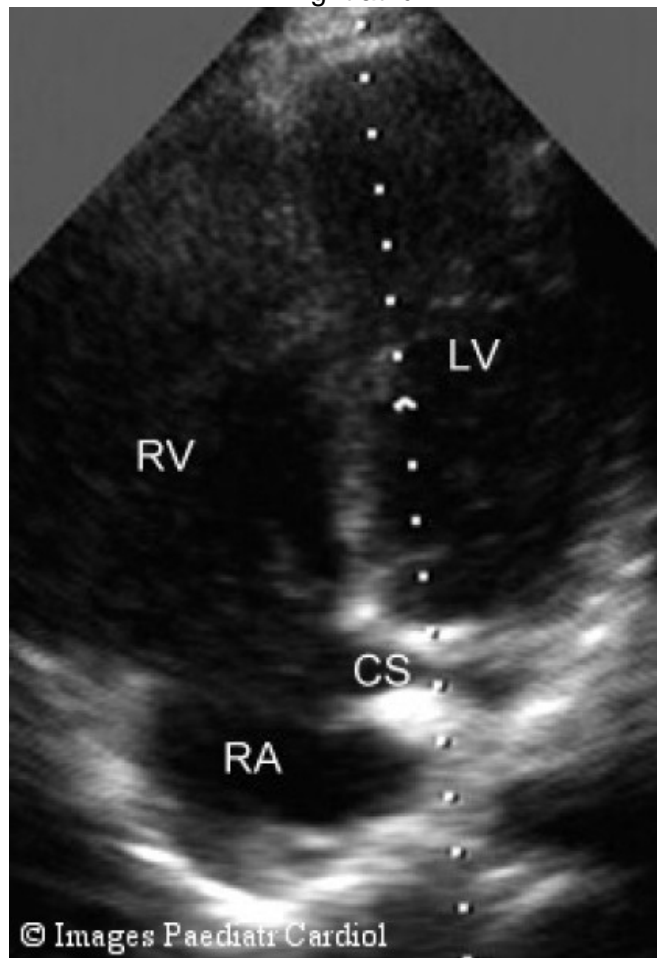


Figure 4 Video clip as per figure 2

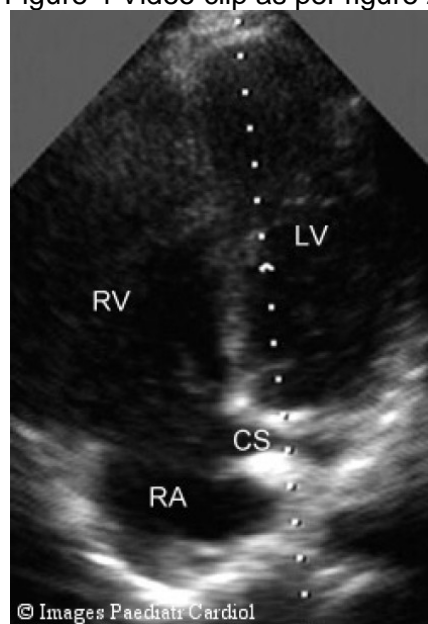


Figure 5 Schematic view of ultrasound beam in the apical 2-chamber view (A2C)

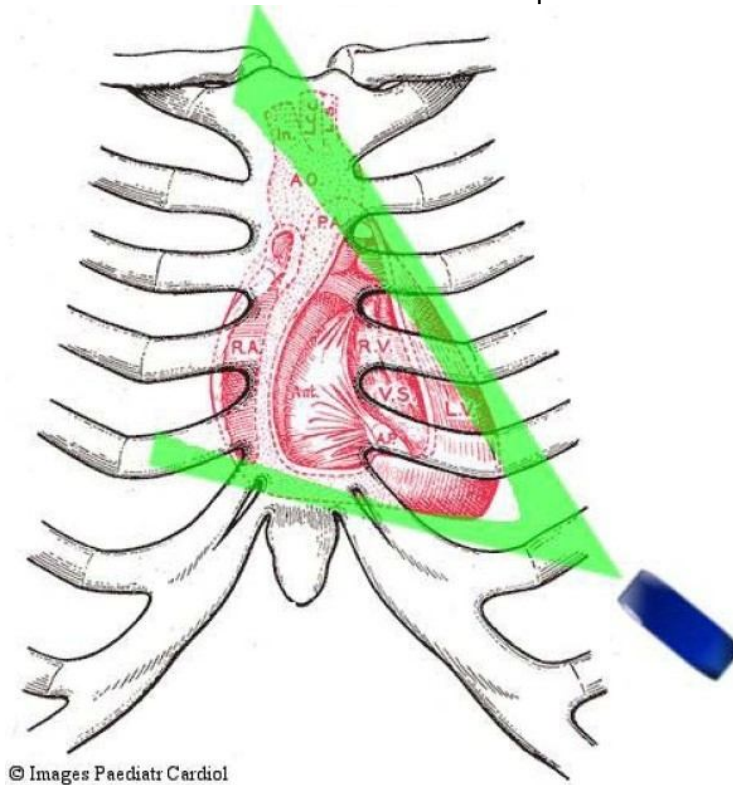


Figure 6 Apical 2-chamber (A2C) view. LV=left ventricle, LA=left atrium, MV=mitral valve

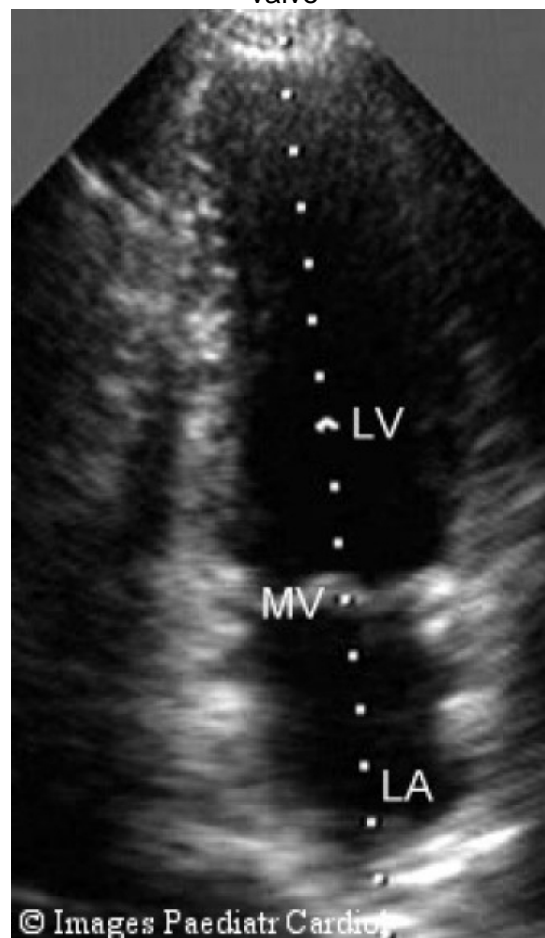


Figure 7
Video clip as per figure 6

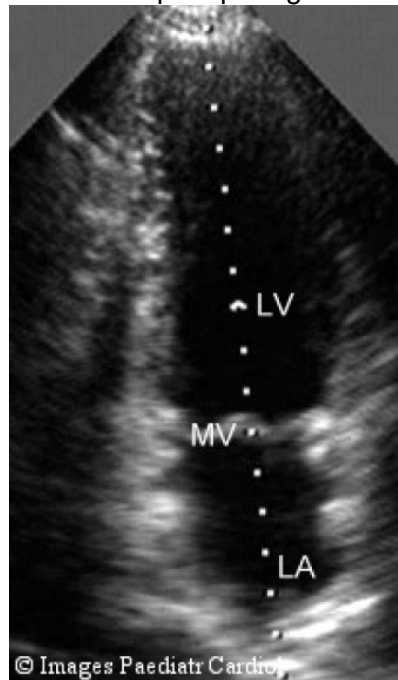


Figure 8 Colour Doppler of mitral inflow (arrow represents direction of mitral inflow)

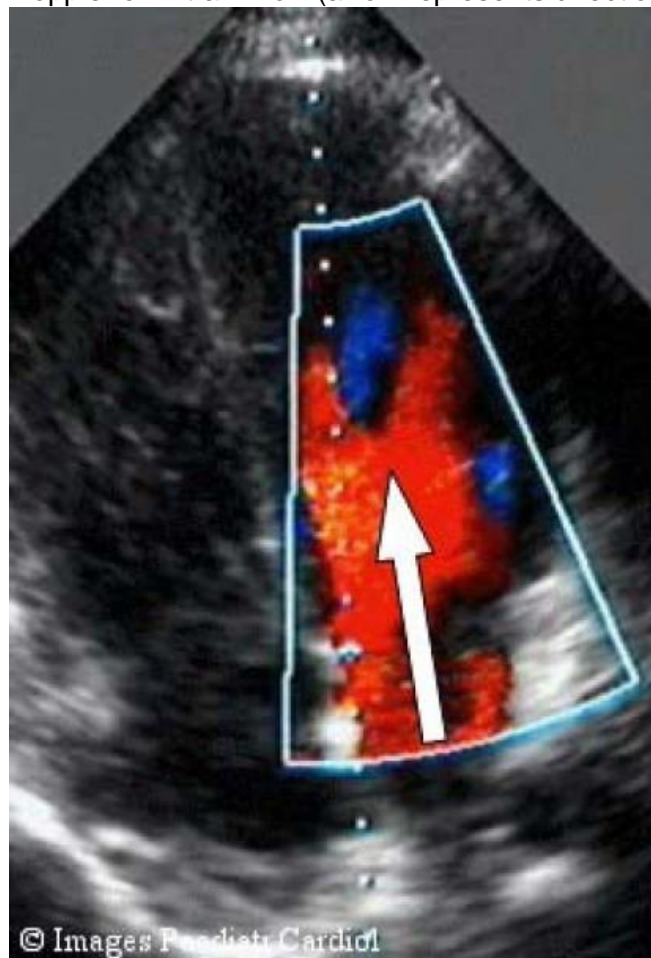


Figure 9 Left pane shows colour Doppler of mitral inflow. Right panes show pulse wave Doppler of same.

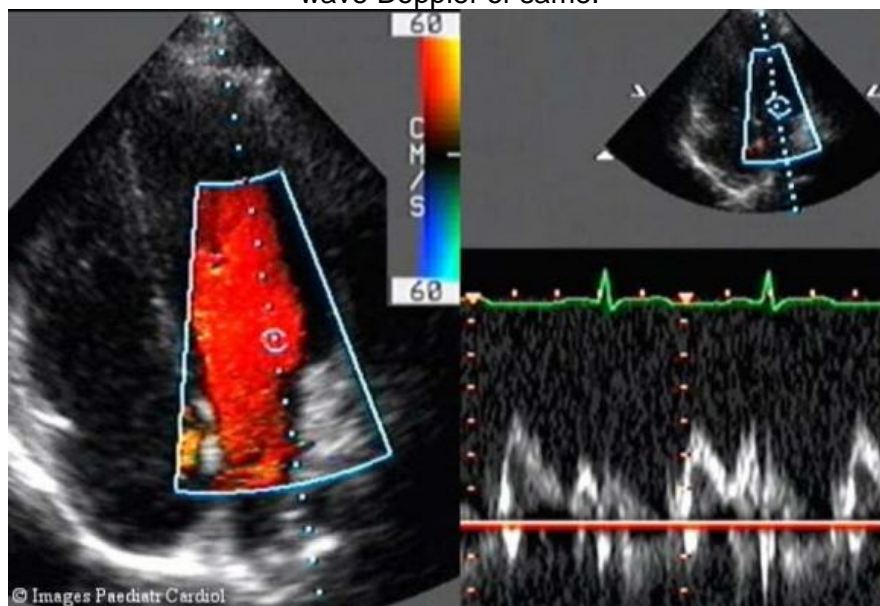


Figure 10 Colour Doppler of tricuspid inflow (arrow represents direction of tricuspid inflow)

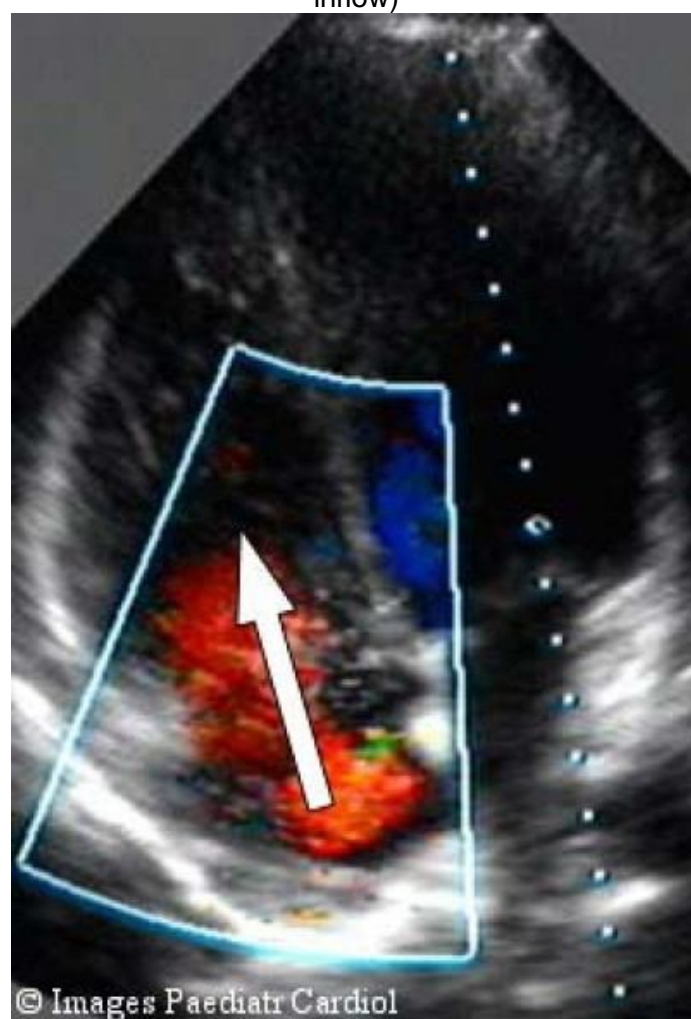


Figure 11 Video clip as per figure 8

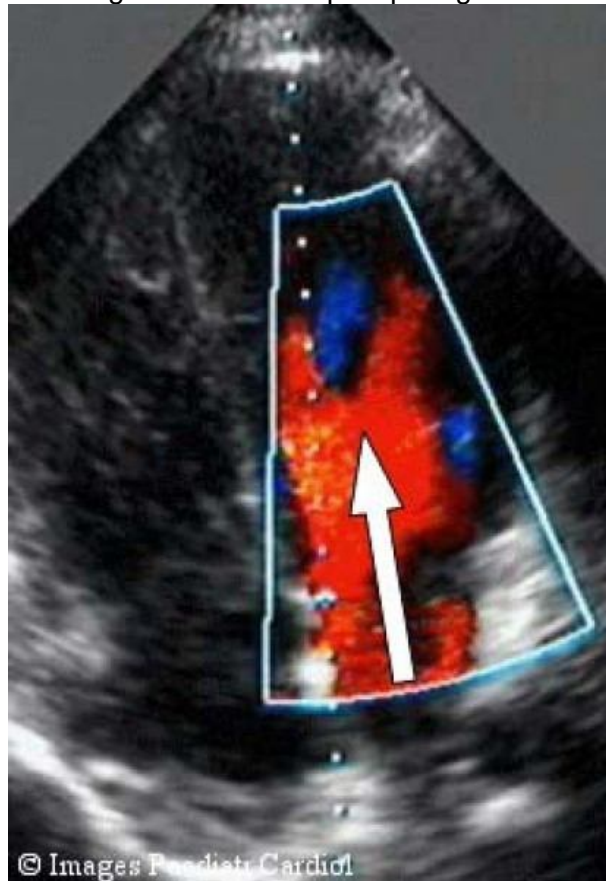


Figure 12 Apical 5-chamber (A5C) view. LV=left ventricle, RV=right ventricle, LA=left atrium, RA=right atrium, Ao=aorta, AoV=aortic valve

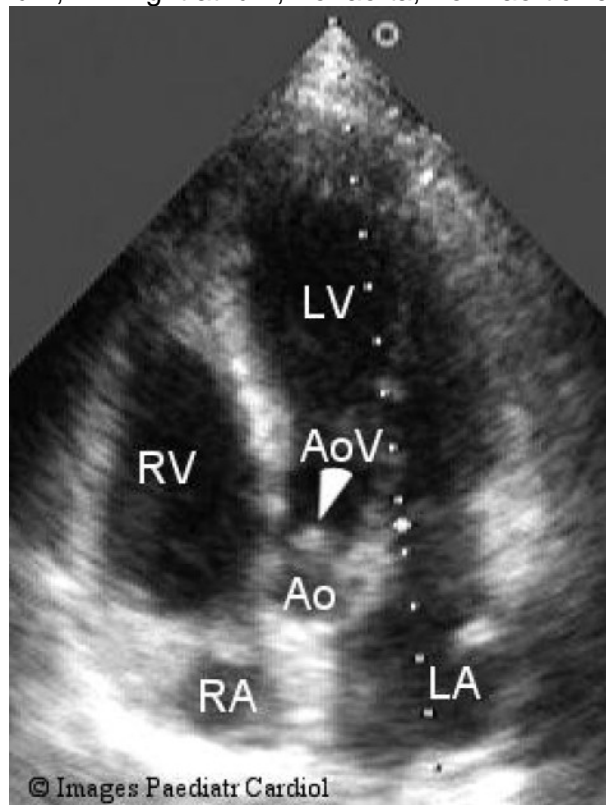


Figure 13 Video clip as per figure 12

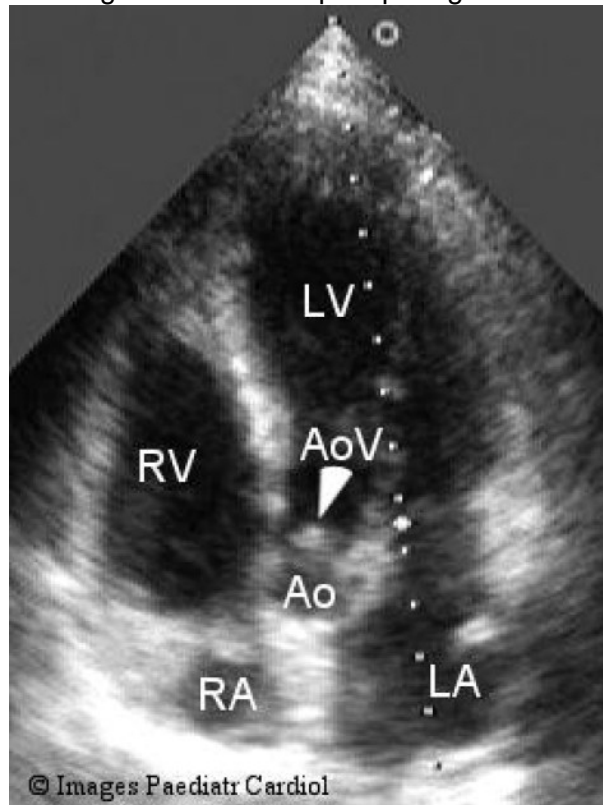


Figure 14 Colour Doppler of 5-C view

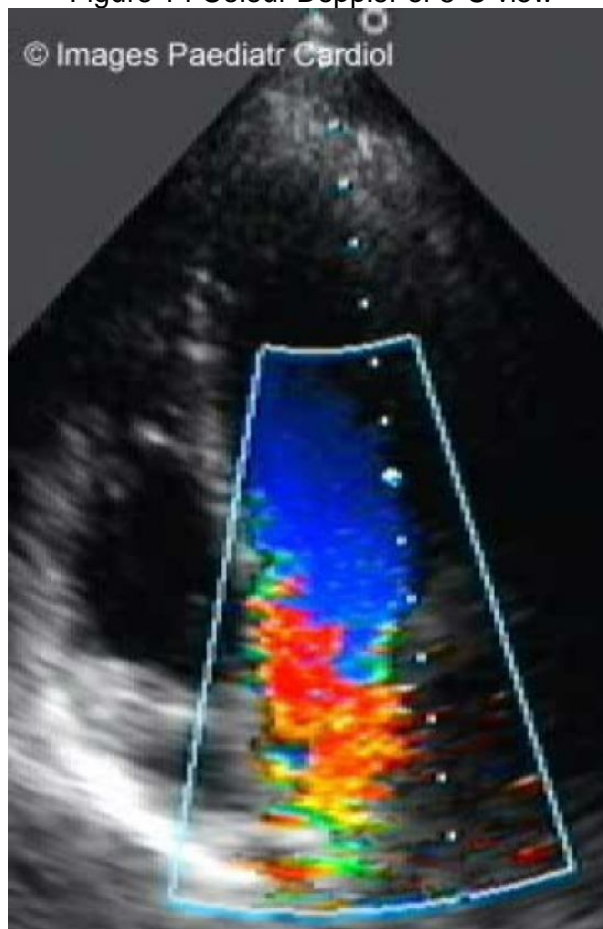
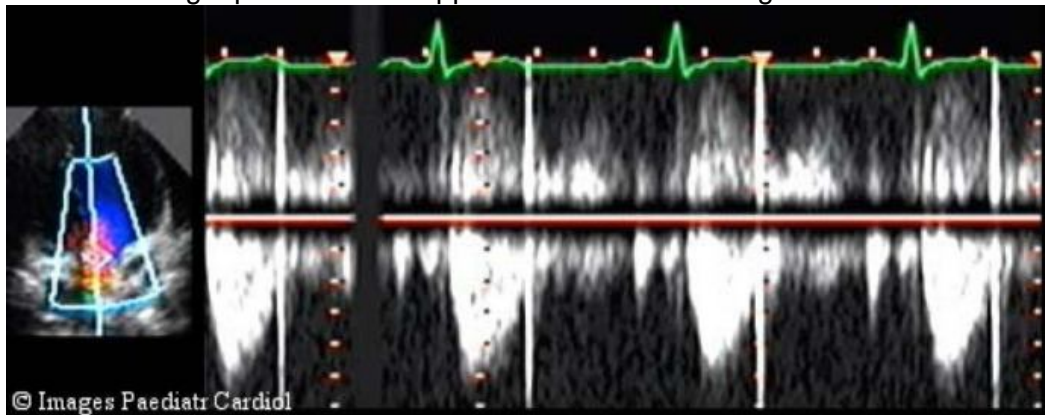


Figure 15 Aortic Doppler study. Left pane shows location of the continuous wave line while right pane shows Doppler continuous wave signal at that line.



References

1. Feigenbaum H. Echocardiography. 6th ed. Philadelphia: Lippincott Williams and Wilkins; 2004.

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