



GLENMARK CARDIAC CENTRE NEWSLETTER

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FETAL ECHOCARDIOGRAPHY

Fetal echocardiography is the primary tool for prenatal detection and diagnosis of heart diseases including arrhythmias. The ideal period for screening is between 18 – 20 weeks of gestation. It is usually performed for the following indications:

Maternal indications

- ❖ Family history of congenital heart disease
- ❖ Metabolic diseases like diabetes
- ❖ Exposure to drugs in early pregnancy like ibuprofen, indomethacin, salicylic acid, anti-epileptic drugs, lithium, warfarin, corticosteroids, antimalignancy drugs
- ❖ Rubella infection in early pregnancy
- ❖ Autoimmune diseases like systemic lupus erythematosus, Sjogren's syndrome
- ❖ Familial disorders like Marfan's syndrome, Noonan's syndrome.
- ❖ High risk pregnancy – elderly female, bad obstetric history, invitro fertilization

Fetal indications

- ❖ Increased first trimester nuchal translucency
- ❖ Fetal anomaly scan showing cardiac anomaly
- ❖ Extracardiac abnormality detected during routine obstetric ultrasonography (e.g. neural tube defects, renal abnormality)
- ❖ Chromosomal abnormality
- ❖ Abnormal fetal heart rhythm
- ❖ Presence of fetal hydrops
- ❖ Multiple gestation and suspicion of twin to twin transfusion syndrome
- ❖ Two vessel cord

Figure 1:

NORMAL FETAL HEART

Top left – 4 chamber view;
Top right – Normal right ventricular outflow tract;
Bottom left – Normal aortic arch;
Bottom right – Normal left ventricular outflow tract.

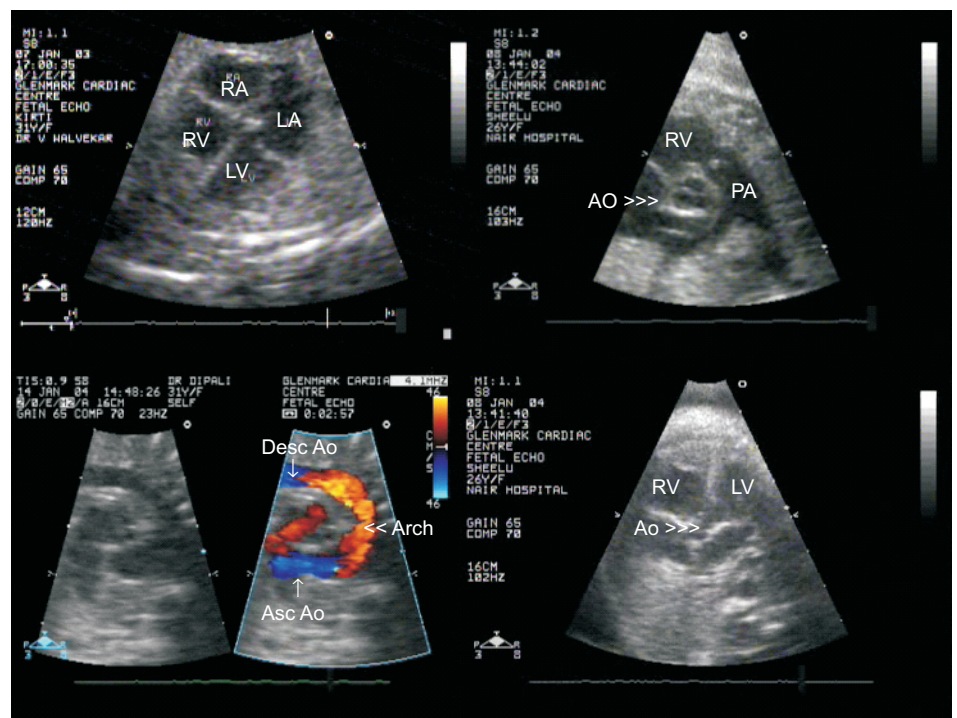


Figure 2:- This is a 4 chamber view showing a large rhabdomyoma (white arrowheads) occupying most of the right ventricular cavity.

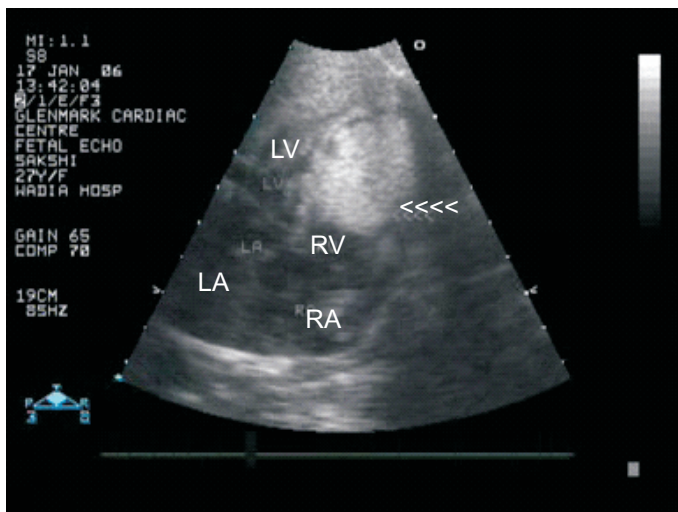


Figure 3:- This is a case of mid muscular VSD (white arrowheads) seen in 4 chamber view.

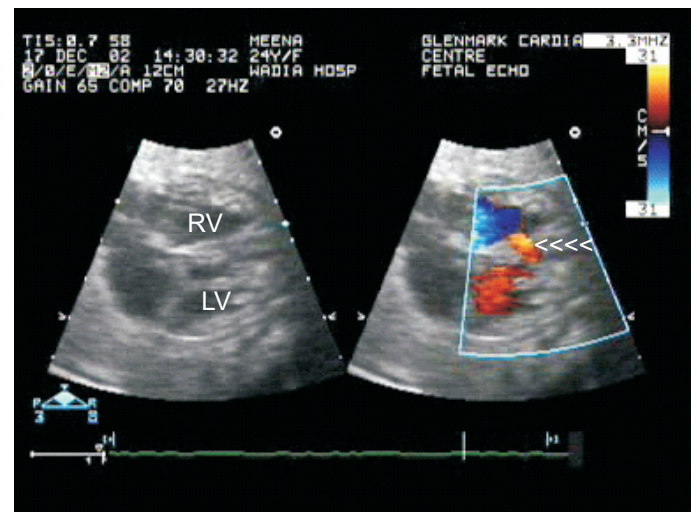


Figure 4:- Following is a case of single ventricle with transposition of great arteries. The image shows pulmonary artery and aorta arising parallel to each other from the single ventricle.

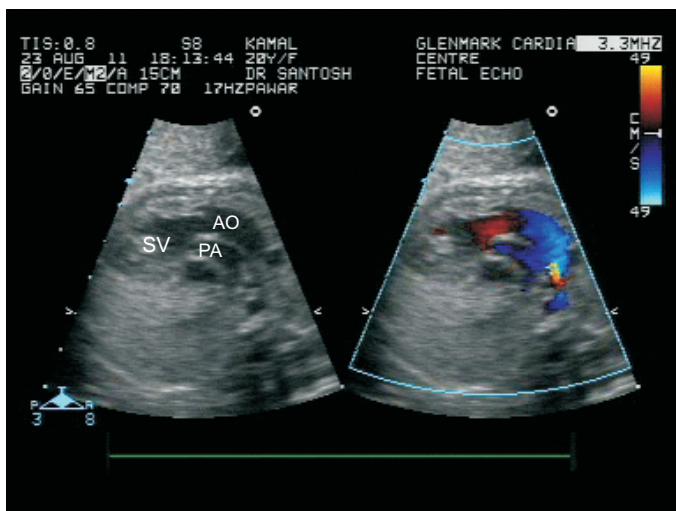
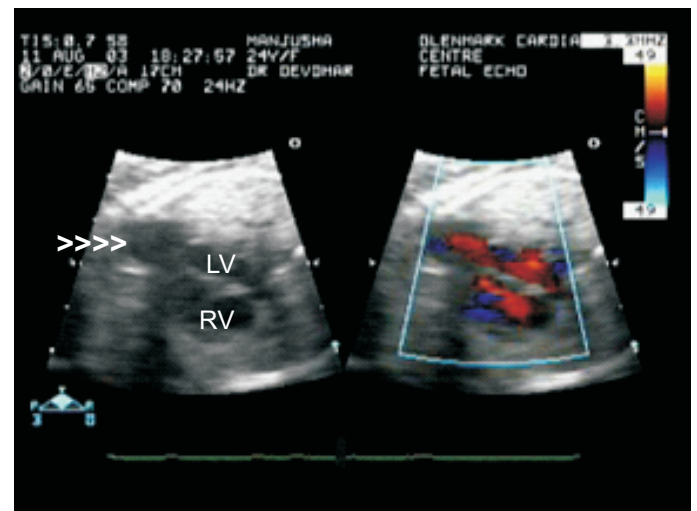


Figure 5:- This is a case of LV diverticulum (white arrowheads). The colour Doppler shows flow from LV entering the diverticulum.



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OTHER INVESTIGATIONS PROVIDED AT OUR CENTRE

- 2D Colour Doppler Echocardiography
- Pediatric Echocardiography
- Fetal Echocardiography
- Transesophageal Echocardiography
- Dobutamine Stress Echocardiography
- Tissue Doppler
- 3D Colour Doppler Echocardiography

- Head-up Tilt Test
- Peripheral Vascular Doppler
- Computerised Stress Test
- Ambulatory B.P. Monitoring
- Ambulatory Holter Monitoring
- Event Recorder
- Comprehensive Cardiac Medical Check-up

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