

Five step approach for screening and diagnosis for fetal heart defects in prenatal ultrasound

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Objective

To increase the efficacy of suspicion and detection of fetal heart abnormalities by following a simple five step approach in routine prenatal anomaly scan.

Methods

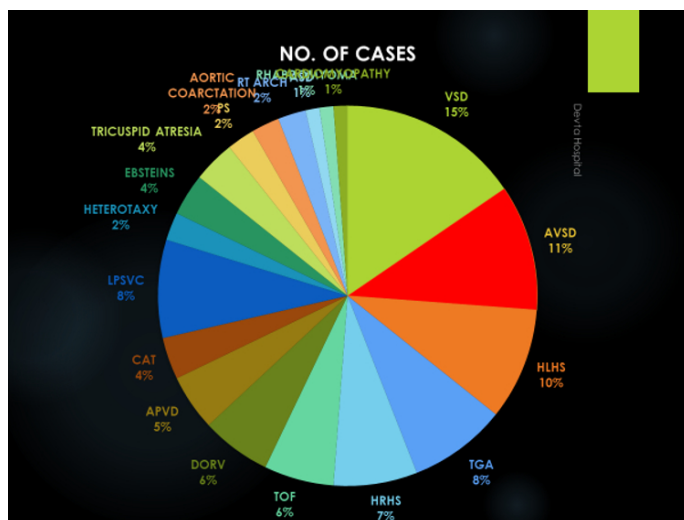
This study was carried out in Devata Hospital wherein 3517 pregnant ladies in second and third trimester were screened irrespective of their risk factors during June 2015 to June 2018. Ultrasound was performed using GE Voluson S8 and P6 machines. The five step approach as per ISUOG guidelines was followed for ultrasound of fetal heart. The five important views as abdominal situs, four chamber, left outflow tract, three vessel and three vessel trachea view were included for fetal heart scanning. Other views were added in cases of abnormal hearts.

Results

A total of sixty one Congenital Heart Defects were diagnosed. The findings were confirmed in nine cases by fetal autopsy and in ten cases by neonatal ECHO. The commonest CHD was ventricular septal defect (VSD) (13) followed by atrioventricular septal defect (AVSD) (09) and hypoplastic left heart syndrome (HLHS) (08). Two cases were missed and one had false positive diagnosis. The sensitivity of this approach was very good and only a few extra minutes were needed during routine prenatal scan.

Conclusion

The five step approach is a simple way for the fetal heart examination. It should be routinely practised by an obstetrician so as to rule out or suspect cardiac abnormalities for timely referral and management of a pregnant woman.



Results : Out of total 61 cases

View	Abnormal
Abdominal Situs	4
4 CV	52
LVOT	44
3 Vessel	58
3VT	60