

INTRODUCTION

Fetal Arrhythmias are seen 1-3% of all pregnancies during routine antenatal visits. Fetal arrhythmia refers to any abnormal heart rhythm in a fetus. These can range from benign conditions that resolve on their own to more serious issues requiring intervention. Types of Fetal Arrhythmia

1. Premature Atrial Contractions (PACs) Early heartbeats originating from the atria. Often benign and usually resolve spontaneously.
2. Premature Ventricular Contractions (PVCs) - Early heartbeats originating from the ventricles. Less common than PACs and can be benign or indicate underlying issues.
3. Supraventricular Tachycardia (SVT) Rapid heart rate originating above the ventricles. Most common sustained arrhythmia in fetuses. It can lead to heart failure if not treated.
4. Atrial Flutter- Rapid, regular heartbeats originating from the atria. Can be serious and may require treatment to avoid heart failure.
5. Complete Heart Block (CHB)- Electrical signals are blocked from reaching the ventricles. Serious condition that can lead to a slow heart rate and heart failure.

CASE REPORT

A 31 yr old primi with 37 weeks 6d pog came for safe confinement. Booked case. Took regular antenatal checkups. H/o nausea and vomitings in 1st trimester used medication. 1st trimester scan done excellent dates. Patient diagnosed hypothyroidism in 1st trimester for which is taking Tab. Eltroxin 50mcg before breakfast daily. Took iron, folic acid and calcium supplements regularly. Tiffa scan done normal study. On per abdomen examination ut ~term gestation, relaxed, cephalic ppt. On routine NST FHR was not detectable. On obstetrics scan abnormal heart rate of 336 bpm noticed. Fetal heart rate rhythm persisted despite of positioning Left lateral position. Transabdominal usg showed normal fetal parameters corresponding to gestational age. Otherwise mother did not have any signs of infection or hyperthyroidism. On neonatal and cardiologist consultation advised immediate emergency LSCS. A female baby of bwt 3.45kg delivered in vertex ppt with APGAR 9/10. Neonate shift to Nicu for further evaluation.

DISCUSSION

Fetal Arrhythmias is associated with congenital Heart disease, Fetal cardiomyopathy, Fetal tumors, Fetal AF or Fetal Heart Block. Fetal Arrhythmia can be sustained bradycardia (<100 bpm) or sustained tachycardia (>180 bpm) or combination of Abnormal rhythm & Abnormal Heart rate were clinically significant & could lead to mortality issues. Ultrasound is the primary modality for the diagnosis of Fetal arrhythmia & Fetal ECG using m-mode or pulsed Doppler is the mainstay in FHR assessment

CONCLUSION

Persistent fetal tachycardia, although rare, requires prompt recognition and intervention to prevent adverse outcomes. This case highlights the importance of immediate multidisciplinary collaboration and swift action in managing severe fetal arrhythmias.

REFERENCES

Andelfinger G., Fouron J.C., Sonesson S.E. Reference values for time intervals between atrial & ventricular contractions of the fetal heart measured by 2 Doppler techniques

RESULTS

On multidisciplinary approaches with obstetrics, neonatologist and cardiologist baby shifted to nicu resuscitation was done. Baby maintained her oxygen levels on room air. ECG and 2d echo was done. Neonate had 2 episodes of arrhythmia for which Inj. Adenosine was given. Neonatal cardiologist advised tab. propranolol 10mg in 10ml of water. In this 1.5ml should be twice daily.

