

Intrapartum Fetal Arrhythmia Mimicking Fetal Distress

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Electronic fetal monitoring using cardiotocography (CTG) is the mainstay of intrapartum monitoring in current obstetric practice. Clinical parameters like meconium staining of liquor may contribute to the diagnosis of fetal distress, but in the absence of fetal heart abnormalities rarely justify operative interference. In case of abnormal CTG, fetal scalp pH is widely used as an adjunct, to confirm fetal acidosis. However, in the face of grossly abnormal CTG, caesarean section is often performed without resorting to fetal blood sampling for pH estimation.

Case Report

A 22 year old Somalian patient, gravida 2 with previous one spontaneous abortion, was admitted in early labour one day before her EDD. The antenatal period was uneventful, and there were no risk factors. On admission, the cervix was 2 cm dilated and the patient had mild uterine contractions. The CTG was reactive with a baseline of 150 beats/minute, good beat to beat variability and accelerations. After four hours of observation, the fetal heart recording became irregular. On auscultation, the fetal heart was found to be irregular. A vaginal examination revealed the cervix to be 5 cm dilated. On amniotomy, thick meconium was found. A fetal scalp electrode was placed for fetal heart monitoring, which recorded a fetal heart rate of 75 beats / minute with minimal variability (Fig. 1). An emergency caesarean section was performed and a live female baby weighing 3332 grams was delivered with an Apgar score of 8 and 9 at 1 and 5 minutes respectively and no signs of asphyxia. The baby cried soon after birth, and did not require any resuscitation. On auscultation, the heart rate was 140/minute and irregular. There was a marked discrepancy between the heart rate recorded on the cardiac monitor (70-80/min) and the saturation monitor (140-150/min). All investigations, including a full blood count, electrolytes, arterial blood gas analysis, and a chest X-

ray, were normal. Premature ventricular contractions (PVC) in bigemini were evident on the electrocardiogram (Fig.2), but echocardiography revealed no structural abnormality. At follow up after two weeks. ECG showed persistent PVCs in trigemini but the baby was otherwise completely normal.

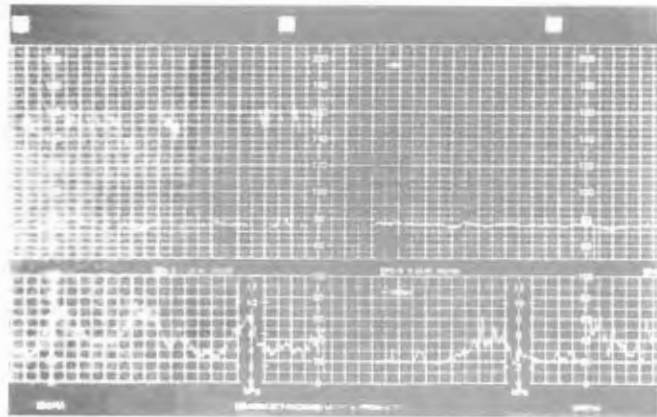


Figure 1 – CTG showing Fetal heart with two baselines (external transducer) followed by recording with fetal scalp electrode

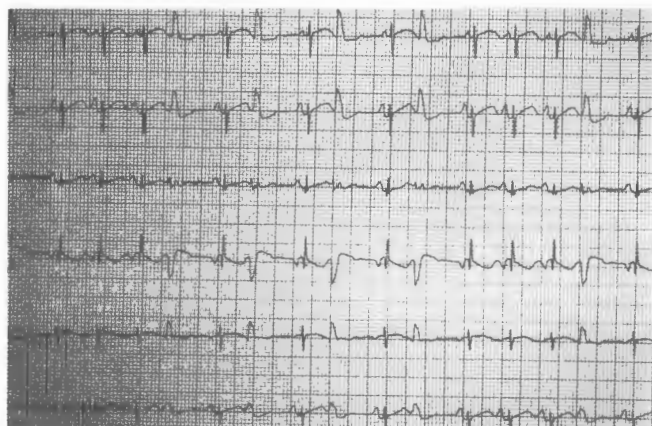


Figure 2 – ECG of the newborn showing premature ventricular contractions in bigemini