Fetal Atrial Flutter in a Term Antenate

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BACKGROUND
Fetal tachyarrhythmias occur in 1-2% of all pregnancies. Atrial flutter is the second most common fetal tachyarrhythmia.1 Fetal atrial flutter can cause cardiac failure, neurological sequelae, and death if undetected in utero.2

M-mode & Doppler echocardiography are the cornerstones of early diagnosis, can assess for signs of cardiac failure, and monitor the efficacy of anti-arrhythmic therapy.3 M-Mode assesses the mechanical motion of the atrial and ventricular walls (figure one); while Doppler assesses the flow patterns at the superior vena cava and the ascending aorta.4 Treatment is aimed at rate control or conversion to sinus rhythm, and can be instituted either in utero or during the neonatal period.3

CASE
A 40 year old G1P0 at 39+3 presented for planned induction of labour for advanced maternal age. She was rhesus positive, BMI 20, and a gestational diabetic well controlled with dietary modification. EFW was 40% at 37 weeks.

A CTG was commenced at 1640 and showed baseline fetal heart rate of 195BPM, absent variability, and nil accelerations (figure two). Maternal observations were normal. Despite intravenous fluid boluses, & maternal position changes the CTG remained persistently abnormal

A decision was made for category two emergency LSCS at 1715 and a live baby male was delivered at 1809 with APGARs of 9 and 9, and normal cord gases.

The neonate was treated with antibiotics to cover sepsis and transferred to a tertiary centre where the diagnosis of atrial flutter was confirmed on echocardiogram and a successful cardioversion performed.

DISCUSSION
Fetal atrial flutter can be recognised as fetal tachycardia on a CTG. Fetal tachycardia has a broad differential (figure three)6 and can easily be misinterpreted as fetal distress as occurred in this case.7

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REFERENCES