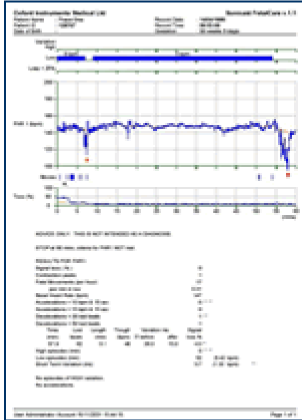
HUNTLEIGH

Case History - Trace 1



FetalCare reported that the 'criteria for normality' had not been met due to; No episodes of HIGH variation and NO accelerations.

Gestation 33 weeks. Gravida 3 para 2.

The mother was admitted with severe pre-eclampsia. The baby was delivered by Caesarean Section (CS) the following day without labour. No resuscitation was needed. The baby was female and weighed 1959g. (This is between the 10th and 50th centile for gestational age.)

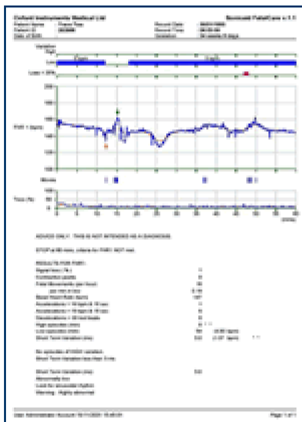
Apgar scores were 7 at one minute and 10 at five minutes.

Arterial pH 7.22 Base deficit 5.2Venous pH 7.25 Base deficit 5.6

The baby went to SCBU for observation due to its prematurity and left after 6 days, category "fit for discharge home."

This example illustrates the tendency for low STV to be associated with fetal acidaemia.

Case History - Trace 2



FetalCare reported that the 'criteria for normality' had not been met due to; Short Term Variation (ms) 3.0, Abnormally Low and Look for sinusoidal rhythm, Warning: Highly abnormal

Gestation 34 weeks, Gravida 2 para 1.

Fetal distress was diagnosed. The baby was delivered by CS without labour the day after this trace. Resuscitation was given using intermittent positive pressure ventilation (IPPV) by face mask. The baby was female and weighed 2010 g. (This is between the 10th and 50th centile for gestational age.)

Apgar scores were 8 at one minute and 10 at five minutes.

Arterial pH 6.99 Base deficit 13.3
Venous pH 7.01 Base deficit 11.4

The baby went to SCBU for observation due to prematurity, and left 12 days later "fit for discharge home."

This example illustrates the tendency for STV <3ms to be associated with fetal acidaemia.

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Case History - Trace 3

FetalCare reported that the 'criteria for normality' had not been met due to; No episodes of HIGH variation, No moves and less than 3 accelerations, High frequency sinusoidal rhythm and, No accelerations.

Gestation 38 weeks.

This baby was delivered at 14:43 the following day by CS without labour. The baby was male and weighed 3,252g. Thick meconium was noted, and the baby was described as very pale. Fetomaternal haemorrhage was suspected.

Apgar scores were 1 at one minute, 8 at five minutes & 9 at ten mins.

Arterial pH was 7.19, Base deficit 7.0

The baby went to SCBU where it received a blood transfusion, leaving SCBU three days after the delivery, and finally going home after 6 days.

This example illustrates a fast sinusoidal ("sawtooth") pattern, associated with fetal anaemia.

Case History - Trace 4

FetalCare reported that the 'criteria for normality' had not been met due to; Short Term Variation (ms) 2.1, Much below predicted value, Look for sinusoidal rhythm and Warning: Pre terminal (<2.6ms)

Gestation 28 weeks.

This is the trace referred to in reference 1 of the Sonicaid FetalCare Clinical Application Guide. The authors of this paper write that when first analysed using the Sonicaid System8002 "an episode of high variation (usually a reliable indicator of normality) was identified between 6 to 11 minutes (amplitude, 36ms), and two episodes of low variation (16 and 14 ms).

The ominous significance of the record was appreciated at the time, but it was decided not to deliver the fetus because it was small (<500 gm) and immature; it died in utero during the next 24 hours. This demonstrated an episode of high long-term FHR variation could occur in an otherwise terminal trace, but the variation was of a distinctive type not normally seen in normal records.

This stimulated a reconsideration of long-term variation as the only measure of FHR variation, so that identification of terminal traces could be made more precise." FetalCare, the new improved version of the program does not identify an episode of high variation.

This example illustrates slow sinusoidal rhythm with very low STV, normally associated with impending intrauterine death.

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Case History - Trace 5

FetalCare reported that the 'criteria for normality' had not been met due to;
Short Term Variation (ms) 2.6 Abnormally low, Look for sinusoidal rhythm.
Warning: Pre terminal (<2.6ms)

Gestation 34 weeks. Gravida 1 Para 0.

Patient was admitted at 11:20 on 15th August with fetal tachycardia. No previous complications. Fetal supraventricular tachycardia diagnosed. Commenced treating mother with digoxin. CTG's were taken several times daily over the next 48 hours. Traces uniformly flat with FHR about 200 bpm and low STV, but good fetal movements.

This trace started 14:02 on 17/08/90, running for 60 minutes. Baseline was refitted to follow change in rate. At 14:51, while the last listed trace was running, the FHR dropped abruptly to 140 bpm. It then stabilised as a reactive trace around 150 bpm. At 1502, the computer automatically finished and printed the trace. Another computer trace was immediately started, at 1505, and continued for 20 minutes. This was a normal reactive trace with basal heart rate of 134, and 6 accelerations. The pregnancy continued normally, with no return of the tachycardia. Baby was baby delivered by elective CS on 21/09/90 due to breech presentation (39 wks gestation weighing 3840g).

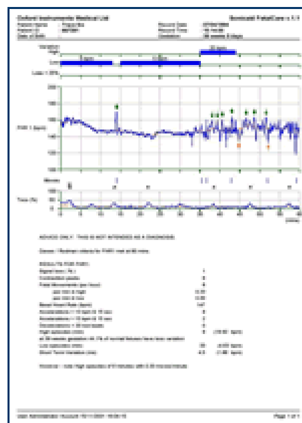
Apgar score 10 at ten minutes

Arterial pH 7.28 Base deficit 0.2
Venous pH 7.36 Base deficit 2.1

Baby continued on digoxin for a further 9 months.

This example illustrates change from tachycardia at 200 bpm to normal reactive trace at 150 bpm.

Case History - Trace 6



FetalCare reported that the 'criteria for normality' had been met.

This patient had reported reduced fetal movements. She was induced the day after the trace and delivered spontaneously at 11:44, a boy of 3,201gm.

Apgar scores were 9 at one minute and 10 at ten minutes, with normal blood gases.

This example illustrates a long period of quiet sleep (indistinguishable from a trace of a compromised fetus), low variation from 0-33 minutes followed by an episode of high variation (active sleep) from 33-60 minutes. See section on "How long should we monitor for" in the Sonicaid FetalCare Application Guide.

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