

Foetal blood sampling, a point of technique

A case report

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Summary: Despite a worrying cardiotocograph, the use of foetal blood sampling may confirm foetal wellbeing allowing a successful vaginal delivery.

Key words: Foetal blood sampling; Foetal wellbeing.

CASE REPORT

A thirty year old primigravida with a seven year history of unexplained infertility was admitted in early labour at term after an uncomplicated pregnancy following Gamete Intrafallopian transfer. The cervix was 2 cm dilated, her contractions settled and she was transferred to the antenatal ward. The following morning she was woken by regular contractions and a cardiotocograph commenced. The baseline heart rate was 140, with good variability but late decelerations after every contraction. The cervix was 8 cm dilated. An ARM was performed. Clear liquor drained, the vertex presented in a left occipito-lateral position at the level of the ischial spines. A foetal blood sample was taken in the left lateral position. After piercing the scalp the blade snapped and remained in the foetal scalp. This was easily retrieved using sponge holding forceps. The foetal scalp pH was

7.36 and labour was allowed to continue. Careful inspection showed the blade to be complete (Figure 1). Subsequent progress was uneventful. After thirty minutes in active second stage the vertex remained left occipito-lateral position at the level of the ischial spines, with + caput and + moulding. There was 1/5 head palpable abdominally. The CTG showed some deterioration with further late decelerations. A scalp ph was performed uneventfully before deciding on the mode of delivery. As this was normal at 7.30 she underwent a successful trial of kiellands forceps under spinal anaesthesia in theatre. The infant was in good condition and close examination of the scalp revealed no more than the usual skin lesion after FBS.

DISCUSSION

A reactive cardiotocograph reliably predicts infants with an Apgar score > 7 in 99% of cases (Schiffrin & Dame, 1972).

However even when the cardiotocograph is considered ominous only 50-65% of newborns are depressed as judged by the Apgar score (Tejani *et al.* 1976, Clark *et al.* 1984). The technique of foetal blood

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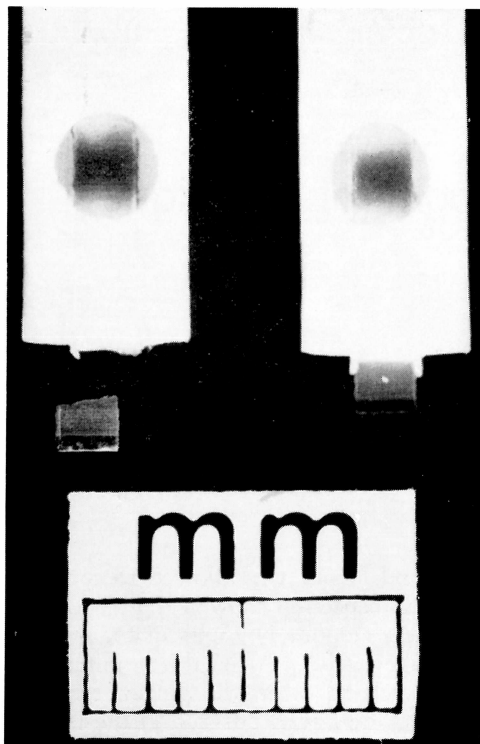


Fig. 1. — Broken and Unbroken blades.

sampling, introduced some twenty five years ago is an attempt to predict the foetus at risk more reliably.

Caesarean section is recommended if delivery is anything more than a "lift out" if hypoxia is suspected (Stewart, 1984). In the case described, despite a worrying

cardiotocograph, the use of serial FBS in confirming foetal wellbeing allowed a successful vaginal instrumental delivery.

Rocket of London supply about 100,000 blades per year and are notified of two or three breakages per annum (Todd L. Rocket of London: Personal Communication). A warning is given that lateral movement may result in blade breakages and modifications in design incorporating a small fillet of plastic to give greater strength on lateral movement and slight thickening of the blade aim to minimise breakages.

FBS is a useful technique in assessing foetal wellbeing. Unnecessary intervention may be avoided or delivery expedited by the most appropriate route. However, care must be maintained in avoiding lateral movements during the sampling procedure.

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