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TRIAL LABOUR AS AN OBSTETRIC PROCEDURE TODAY

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The aim of this paper is to assess the value of trial labour in present-day conditions. The obstetric atmosphere has changed considerably since trial labour first became recognized as an entity. Anaesthesia is a highly developed adjunct in the hands of the skilful. Intravenous therapy and electrolytic balance have an important place in the maintanance of condition for operation. Antibiotic and chemotherapeutic measures are life-saving. The lower-segment Caesarean section can be rapidly and expeditiously performed. Respect and reverence for the unborn life has never been higher.

What exactly is a trial labour? It is time for us to take stock. Surely, all things equal, it shows where the obstetrician's skill ends. The greater the number of trial labours, the lower the standard of obstetric skill. Can one say that one delivery will be normal and that another should have an operative delivery before labour has started? Yes, one can, within broad limits. One hears much said of the 'fortitude' of a patient, the 'mouldability' of a head, the strength of uterine contractions, and many more factors. But are these factors not assessable by clinical acumen bred by experience and observation? This touches upon experimental clinical research. To illustrate the point, I have often wondered if obstinate constipation or pyelitis in pregnancy is not a pointer to a probable hypotonic uterus during labour, contributing to failure in a trial labour. The tokometer has been a useful adjunct. Further, does the woman who gives a history of primary spastic dysmenorrhoea develop the spastic, hypertonic type of uterine contraction, leading to distress? Is it not logical to interfere earlier in cases of post-maturity because of rigidity of the foetal skull and placental senility? So, also, should not a history of threatened miscarriage preclude a trial labour because of probable placental insufficiency? Is not fortitude in a patient influenced by mental instability (material or spiritual), or anxiety about the outcome? The tendency should be away from the mechanistic approach to trial labour and towards the functional approach.

Once it has been decided to conduct a trial labour in a 'border-line' case, the recognition of the point for surgical interference becomes top priority. Any layman could be taught to assess foetal distress by heart rate and meconium, or maternal distress by pulse rate, blood pressure, respiration, temperature and dehydration. Not every obstetrician can forecast these events. The unenlightened say that those who interfere until after a full trial labour (2 hours with full dilatation of the cervix) or before maternal or foetal distress supervenes may never have needed to interfere. To them I will say that I would consent to a full trial labour provided it is admitted that a decision is persistently in the balance. We know the toll taken by slowly progressing labours of more than 48 hours. The stage of foetal and maternal distress, due to mechanical and functional causes, should never be reached, for we have warning of impending danger; but once it is reached, the trial labour should be ended. There are, of course, exceptional causes of distress occurring rapidly, such as a prolapsed cord with immediate cessation of pulsation, a rupture of the marginal sinus of the placenta, or a rapid fulminating hypertension.

This brings me to my next point—the evaluation of progress in trial labour, on this I may be subjected to criticism; it is not, however, a revolutionary idea that has prompted me to say what follows, but what I feel to be clear logic. Tradition has it that only rectal examinations are to be made until the membranes have ruptured, and then a vaginal examination is carried out to discover (among other points, e.g. station of vertex, moulding, and dilatation and application of cervix) whether the cord has prolapsed. In this latter event, the child may be dead before interference is instituted. If a vaginal examination is made while the membranes are still intact, a presenting cord may

be felt pulsating, which, in the possible presence of disproportion, may be the indication for a life-saving Caesarean section. Even the most skilful will admit how difficult it is to diagnose a cord *per rectum*. Pulsations may not be felt if the matrix of the cord is against the examining finger through vaginal and rectal wall. Any irregularity felt through the os may be taken to be 'scalp folding'. The pelvic dimensions are best assessed in labour, with its associated softening of the soft parts. This factor may have an important bearing on the length of trial labour allowed. Finally, may not a casual repetitive rectal examination, often unsterile, be a greater source of danger than a sterile thought-out vaginal examination? Is it not more desirable to have a sterile gloved finger against the os than the vaginal wall pushed into the os? If vaginal examinations are only to be made after the membranes rupture, then paradoxically it is better for them to rupture early. If sterility is mistrusted, let penicillin be started before rupture of the membranes instead of after. If penicillin reactions are feared, let one dose of sedative or analgesic be replaced by an anti-histamine.

I am not advising frequent and random vaginal examinations. Each case should be conducted on its own merits. I suggest that a vaginal examination should be made when labour, as assessed on clinical grounds, is established. This will allow of pelvic revaluation, and the diagnosis of cord presentation. At this stage an intramuscular injection is given of 10 mg. of vitamin K, and ½ million units of penicillin. The penicillin is repeated twice daily for 5 days. If the systole of the contraction is well maintained and the contractions are 1 in 10 minutes, another vaginal examination should be made in 10 hours' time, if necessary; but if the contractions are 1 in 6 minutes, the vaginal examination should be made in 6 hours' time instead, unless there is clinical reason to examine earlier, or the membranes rupture. A cord may present or prolapse between internal examinations. Let me here make a plea for listening to the foetal heart-sounds during and just after a contraction, as well as between contractions. In my experience, once a three-finger dilated os is present, either delivery will be imminent within 12 hours or the prognosis for normal delivery is negative.

An intravenous drip in the latter stages of a trial labour may alter the prognosis and so might prophylactic forceps delivery. In a prolonged successful trial-labour the weight of the infant should be noted. There is an indication for premature induction of labour in the next pregnancy. If induction is carried out, it must be remembered (to coin a maxim) *Once a trial labour, always a trial labour.* The probably improved uterine action and prepared birth canal may be offset by a larger baby and diminished watchfulness on the part of the doctor.

Perinatal statistics are important. There is no second chance for a failed-trial-labour patient (e.g. where trial labour has terminated with perinatal foetal mortality or injury, or in Caesarean section). An elective section is performed in a subsequent pregnancy. In a trial labour, full reassessment must be made after 48 hours of established labour, for foetal and maternal morbidity and mortality are greatly increased after that time. In primigravid patients over 35 years old, and those with 5 years or more of infertile union, half this time is taken as the limit for reassessment.

CASE REPORT

A Bantu female aged 28, married for 11 years and treated for infertility, attended the antenatal clinic. At clinical assessment the promontory of the sacrum was tipped easily. X-rayed pelvimetry revealed the true conjugate to be 9·5 cm. Other pelvic measurements and shape being within normal limits, and the vertex being unengaged at term, a trial labour was determined on. Labour commenced at or about term. The contractions were hypertonic and spastic. Numerous rectal examinations showed slow dilatation of the cervix, and descent of the vertex. After 42 hours, rectal examination revealed full dilatation. At that stage, the previously normal foetal heart-sounds ceased. Vaginal examination showed a cord presentation with the vertex at the level of the ischial spines. The cord was not pulsating; and the membranes were ruptured and a fresh stillborn child delivered.

Comment

1. There was infertile union for 11 years, and after 24 hours of labour the os was 3-fingers dilated. The delivery was not imminent after a further 12 hours. Should the labour have been allowed to continue?
2. Rectal examination 'missed' the cord. Vaginal examination earlier might have altered the prognosis.
3. Abnormal spastic uterine action may have been due to associated anxiety regarding outcome.
4. No further trial labour for this patient. She should have an elective Caesarian section at subsequent pregnancy.

SUMMARY AND CONCLUSION

1. All things being equal, too high a percentage of trial labours denotes diminished obstetric skill at assessing 'border-line' cases. A large number of successful trial labours may prove the fallacy of statistics.

2. The tendency should be to stress the functional as well as the mechanical aspect of trial labour. Clinical research will lead to the predicting of entities previously thought unpredictable.

3. If surgical interference is necessary, it should often be made before the os has been fully dilated for 2 hours, and before maternal or foetal distress, with their associated maternal and foetal mortality and morbidity.

4. A break with tradition regarding vaginal examination is suggested, with a method of systematizing examinations. The disadvantages of rectal examinations are discussed.

5. Adjuncts for a successful outcome of trial labour are listed.

6. In subsequent pregnancies, this maxim should be remembered—'Once a trial labour, always a trial labour'.

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