SYMPOSIUM ON BREECH PRESENTATION

(*a*) MANAGEMENT OF PREGNANCY IN BREECH PRESENTATION

By PHILLIPA M. LUDLAM, B.A., M.B., Ch.B., F.R.C.S.E., and GEORGE WINCHESTER, M.B., Ch.B., F.R.C.S.E., M.R.C.O.G.

ANTENATAL MANAGEMENT OF BREECH CASES

THE data used in the preparation of these papers was obtained from the clinical hospital records of the Simpson Maternity Pavilion for the five-year period 1945-49.

This opening paper is concerned with the gross statistics and antenatal management. The succeeding papers will deal with more detailed analysis in their various sections.

TABLE I

Breech Deliveries

	Breech Deliveries.	Total Deliveries.	Incidence per Cent.	Total Fœtal Mortality.	Fœtal Mortality Rate per Cent.
Booked primigravid . .	312	9,762	3·2	44	14·0
Non-booked primigravid .	103	1,151	9·0	32	28·0
Booked multiparous . .	155	3,508	4·4	43	27·7
Non-booked multiparous .	118	2,934	4·0	50	42·0
Total . . .	688	17,355	3·9	169	24·5
Breech delivery in multiple pregnancies	191	...	...	47	24·4

In the five-year period under consideration there were 17,355 viable births, and, of these, 688 were single breech deliveries. There were 160 multiple pregnancies in which at least one of the babies was a breech birth. The total number of breech deliveries from multiple pregnancies was 191 (Table I).

It is interesting to note that the uncorrected fœtal mortality rate was highest in the non-booked multiparous patients, that is 42 per cent. The rate for the booked multiparæ and non-booked primigravidæ was almost the same—28 per cent., while that for the booked primigravidæ was only 14 per cent. The uncorrected fœtal mortality for all babies of $2\frac{3}{4}$ lb. or more delivered in the Simpson Maternity Pavilion during the same five-year period was 8 per cent. This figure is not strictly comparable with the breech figures quoted above because the latter include all infants of 28 weeks maturity or over, irrespective of

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birth weight. All patients with a breech presentation are normally delivered by the Senior or Junior Residents under the supervision of a Registrar or occasionally by a Consultant. The fœtal mortality should, therefore, be average for breech deliveries in the larger teaching hospitals and is not strictly comparable with a series conducted by an individual Consultant.

ÆTIOLOGY

There were 359 multiple pregnancies resulting in 723 infants, and of these there were 191 breech deliveries—an incidence of 26 per cent.

TABLE II

Breech Extraction—Indications

Indications.	No. of Cases.	Stillbirths.	Neonatal.
Primary inertia . . .	19	2 died during labour 1 cerebral hæmorrhage	...
Secondary inertia . .	7	...	...
Rigid perineum . . .	4	...	...
Prolapse of cord . .	10	1 asphyxia	1 premature
Locked twins . . .	2	1 asphyxia	...
Large baby . . .	2	1 asphyxia 1 cerebral hæmorrhage	...
Hydrocephalus . . .	1	1	...
Eclampsia . . .	1	...	...
Unstated	9	1 died during labour	...
Total . . .	55	9	1

The other causes of breech presentation were investigated and we found two factors of significance :—

(*a*) Out of a total of 688 single breech deliveries there were 158 premature births (*i.e.* 5½ lb. or less)—an incidence of 21 per cent. The incidence of premature births for all patients delivered in hospital was approximately 12 per cent.

(*b*) There were 18 cases of placenta prævia, an incidence of 2 per cent. The majority of these occurred in the non-booked multiparous group. Prematurity was, of course, an accompanying factor in the cases of placenta prævia. In the remaining 77 per cent. of cases no ætiological factor was noted (Table II).

DIAGNOSIS

Early diagnosis of breech presentation is of importance so that a thorough examination of the pelvis, both clinical and radiological, can be undertaken and external version performed.

In the majority of cases a definite diagnosis can be made by abdominal palpation, the most characteristic feature being the ballottement of the fœtal head in the fundus of the uterus. The breech, situated at the pelvic inlet is indefinite in outline, softer and less globular. The Pawlik grip is often most useful in making this differentiation.

It is also worth remembering that the head may be hidden under the costal margin. As a rule the difficulty in diagnosis applies particularly to the primigravida with a tense uterus, rigid abdominal muscles, and a fœtus with extended legs. In such a case vaginal examination may be of value and its use is not sufficiently stressed in the textbooks. In all cases of doubt radiological examination is advisable and when the presence of a breech presentation is confirmed, X-ray pelvimetry is imperative. All patients, whether primigravid or parous, should be booked for hospital delivery.

It is rather disturbing to find that of the booked breech deliveries at 36 weeks gestation or over, 54 primigravidæ and 23 multiparæ were not diagnosed until the onset of labour—that is an incidence of 14 per cent. in both groups. Where a cause for the mis-diagnosis could be found, it was due to a mistaken belief that a vertex presentation was present with the head deeply engaged in the pelvis. This mistake would have been avoided in many cases if a vaginal examination had been undertaken. In large antenatal clinics there will inevitably be a certain number of undiagnosed breech presentations, but it is generally stated that this should not exceed 7 per cent. in primigravidæ and about 2 per cent. in multiparæ.

Version

In a series of 5103 consecutive unselected antenatal case records, there were 367 cases diagnosed as breech presentations. Spontaneous version occurred in 156 and external version without anæsthesia was successful in 125 cases. By the 36th week the great majority had turned by one or other method. There were, however, 24 spontaneous versions after the 36th week. Only 20 versions under anæsthesia were undertaken, and, of these, 11 were unsuccessful. The remaining 77 were breech deliveries.

We are in agreement with the general view that external version without anæsthesia should be undertaken as early as the 32nd week, in spite of the possibility of reversion. At this stage it can be easily done, as a rule, and with little danger of inducing premature labour. However, cases are encountered where version is more easily accomplished at 36 weeks or even later, because, although the fœtus is larger, manipulation may be more effective by better purchase on the fœtus. In this series premature labour occurred only on two occasions, at 33 and 36 weeks' gestation, and both infants survived. No other complications such as separation of the placenta, rupture of the membranes, or prolapse of the cord were found.

An important point in the technique of external version is the reassurance of the patient, so that she co-operates and relaxes her abdominal muscles. The adoption of the Trendelenberg position for a period prior to the attempted version may free the breech from the pelvic brim.

Regarding version under anæsthesia we maintain that it is of value only in exceptional circumstances, for example, in a primigravid or parous patient with a mild degree of contracted pelvis, confirmed radiologically, where a trial of labour is indicated. The depth of anæsthesia required for version is not without risk. These patients are often nervous and take the anæsthetic badly with respiratory difficulty, cyanosis and poor relaxation. In the case of a primigravida with a frank breech deeply engaged in the pelvis the outcome for delivery is favourable, and no attempt should be made at digital displacement.

The psychological reaction of the patient who has been deeply anæsthetised for a version which has been unsuccessful is worth

TABLE III

Version

Weeks.	Under 30.	31.	32.	33.	34.	35.	36.	37.	38.	39.	40.	41.	Total.
Successful version under anæsthesia	...	...	...	...	2	2	2	2	...	1	...	...	9
Successful version not under anæsthesia	5	6	23	7	15	14	30	15	5	2	2	1	125
Spontaneous version	22	7	29	15	15	15	29	10	9	3	4	...	156
Failed version under anæsthesia	...	...	...	1	...	...	1	3	4	1	1	...	11
Total delivered as a breech	...	...	...	...	...	...	...	...	...	...	...	...	77

considering. There is no doubt that she will be much more difficult to reassure and may well approach her labour with less confidence. Should an anæsthetic be required chloroform is recommended because it alone gives sufficient relaxation of the uterine and abdominal musculature. Pentothal, gas or cyclopropane and curare are mentioned only to be condemned (Table III).

Induction

The records of the primigravid patients were reviewed with regard to induction of labour. Thirty-five cases were induced. There were 6 medical inductions and of these 11 were for alleged " post-maturity " —it is interesting to note that of these, eight infants weighed 8 lb. or more. The remaining medical inductions were for pre-eclampsia or hypertension.

Surgical induction, by puncture of the membranes, was employed in only 10 cases, the indications being fœtal abnormality, pre-eclampsia, accidental hæmorrhage and hydramnios.

It is interesting to note that artificial rupture of the membranes was never employed for inducing an uncomplicated primigravid breech. This finding indicates the importance attached to preservation of intact membranes in these cases.

Trial of Labour

It is considered that there is a place for trial of labour in primigravid breech delivery. A trial of labour in this context means a test of the efficiency of uterine action. Cases are encountered where Cæsarean section is contemplated because of relative infertility, age, or mental attitude, combined with breech presentation. If labour is allowed to ensue spontaneously in these cases, many will have a rapid labour and uneventful delivery. If, however, labour is protracted due to incoordinate uterine contractions, then Cæsarean section can be undertaken.

Conclusions

1. Careful palpation will allow of diagnosis in most cases, but, should there be the least doubt an X-ray photograph should be taken. It ought then to be possible to exclude the breech delivery from domiciliary practice.

2. Spontaneous version occurs as a rule before the 36th week, but may occur at any time before the onset of labour.

3. We believe external version should be attempted as early as the 32nd week and repeated if necessary. Anæsthesia to allow of more forceful attempts at version is never justifiable. In all cases radiological pelvimetry must supplement careful clinical examination of the pelvis.

4. In the past the danger to the fœtus in multiparous breech delivery has been insufficiently realised, and in view of the high fœtal mortality, the importance is stressed of admitting *all* breech cases to hospital for confinement.