THE MANAGEMENT OF THE THIRD STAGE OF LABOUR

by

SITA SEN, M.R.C.O.G.,

New Delhi

Donald has said that "the third stage of labour is always a time of anxiety which no obstetrician ever wholly outlives". Since the time of Aristotle the third stage of labour has been recognised as being the stage which is most dangerous to the mother. The management of the third stage has passed through many phases and there is still no general agreement as to how this stage should be conducted. Until little more than 100 years ago, cord traction was a recognised method of delivering the placenta. This, however, fell into disrepute as midwifery was then mainly in the hands of midwives who were either trained or untrained and many fatalities occurred. Crede then evolved his method of expressing the placenta which in its turn fell into disrepute. Then followed a period when the dictum was "hands off the uterus" and more lately efforts have been made to control post-partum bleeding by means of the oxytocic drugs and early manual removal of the placenta. Today most obstetric text books advocate the expulsion of the placenta by pressure of the fundus using the uterus as a piston. Cord traction is hardly mentioned in any text books except to condemn it.

The Brandt Andrews technique of delivering the placenta has recently been advocated by several authors such as Kimbell, Picton and Savage.

In spite of the great improvement in obstetrics both in the standard of antenatal care and in the management of labour and the marked fall in maternal mortality figures, deaths still occur in the third stage of labour due to post-partum haemorrhage, particularly in domiciliary practice. It is therefore mandatory to find a method of managing the third stage which will reduce or eliminate these deaths and which will be universally acceptable. Such a method necessitates the rapid expulsion of the placenta and good contraction of the uterus.

A report on the Edinburgh Flying Squad has recently been published by Adamson et al. in which they have shown that 79% of the calls made to the squad were for third stage complications. They report that out of 403 calls there were 5 maternal deaths all due to post-partum haemorrhage out of which 3 patients were dead on arrival of the squad. Walker et al. investigated 113 deaths due to post-partum haemorrhage occurring between 1952 and 1954 in England. These deaths represented 10.3% of the total number of maternal deaths and it was estimated that 7% were avoidable.

Martin and Dumovlin estimated that 1 in 5.000 cases die of post-partum haemorrhage.

Caccearelli analysed 9 series of cases and found the incidence of

manual removal of the placenta to be from 0.25% to 1.4% with a maternal mortality of 0.8%. Other estimates of the incidence of manual removal of the placenta vary from 1% (Macafee) to 4.8% (Fletcher Shaw).

There are many conditions which predispose the patient to post-partum haemorrhage but there are many cases in which the occurrence of this condition cannot be foreseen.

The predisposing causes are as follows:—

1. Uterine inertia.
2. Grand multiparity.
3. Overdistension of the uterus as in multiple pregnancy or when there is hydramnios or a very large foetus.
4. Precipitate labour.
5. Uterine fibroids.
6. General anaesthesia.
7. Anaemia.
8. Placenta praevia.
9. A full bladder.

The fear of causing inversion of the uterus has prevented many from trying the management of the third stage of labour by cord traction but Picton has clearly shown that if the principles of the Brandt Andrews technique are strictly adhered to this is probably the only method by which inversion will not occur.

For the last 11 years, I have used the Brandt Andrews technique for delivering the placenta in all my private cases and though it has not been possible to collect a control series of cases, I have been able to analyse the last 1.640 cases all personally conducted.

Technique of management of the third stage labour:

1. All normal vertex deliveries are conducted with the patient in the dorsal position standing on the patient's right side.
2. All patients are given 2 tablets of Methergen orally as soon as the second stage is completed.
3. The patients who exhibit any of the predisposing cause of post-partum haemorrhage are given Methergen either intravenously or intramuscularly with the delivery of the anterior shoulder.
4. After separation of the baby the cord is clamped so as to form a loop at the vulval orifice.
5. With the left palm the uterus is pushed upwards as far as possible and when the fundus is felt to be contracted, slight traction is made with the right hand downwards and posteriorly on the artery forceps which is clamping the cord. When traction is made the placenta can usually be felt to slip downwards by the left hand and it soon appears at the vulva when traction is then made upwards and the placenta delivered.
6. If the cord does not descend when traction is applied the slight tension is released and traction is made with the ensuing uterine contraction while the uterus is kept well up in the abdomen by the left hand.
7. Local infiltration is used for episiotomy repairs which are undertaken after completion of the third stage.

8. During this period, forceps deliveries have been mainly undertaken after Pudendal blocks. For mid-cavity forceps extractions spinal anaesthesia has been used.

Results

In this series there were 1,640 cases where the baby was viable out of which 69 cases were delivered abdominally. This leaves 1,571 cases of vaginal delivery. Out of these cases 1,522 (97.1%), including 21 sets of twins, were spontaneous deliveries. There were 49 (2.9%) forceps deliveries.

There were no cases of manual removal of the placenta.

14 cases were estimated to have sustained a blood loss of 500 c.c. or more.

The incidence of post-partum haemorrhage was 0.9%.

98% of these cases were booked cases. There were no maternal deaths and no cases of puerperal sepsis. The average time between completion of the second stage and delivery of the placenta was 4 minutes. There has been no case in which Crede's expressure has been used.

Discussion

Any obstetrician who has used the Brandt Andrews technique along with cord traction for the delivery of the placenta will find it difficult to return to the more generally accepted methods of management of the third stage of labour.

I personally have never used any other method since I first started using it 11 years ago.

Even the advocates of this method, however, are not agreed on the question of whether this method should be taught to medical students and midwives. Even in the standard methods of dealing with the third stage, strict adherence to the principles is necessary in order to avoid disaster. It should therefore not be difficult to teach both students and midwives the basic principles of the Brandt Andrews technique.

I am strongly of the opinion that if this technique is more generally accepted there will be a marked reduction in the number of serious post-partum haemorrhage and of retained placentae.

Summary

1. The Brandt Andrews technique of delivery of the placenta is described.
2. The results in 1,571 personally delivered vaginal deliveries are presented.
3. A plea is made for the teaching and for the more widespread acceptance of this method of managing the third stage of labour.

References

1. Adamson T. L. et al: J. Obst. & Gyn. Brit. Emp.; 67, 243, 1960.
2. Caccearelli: Am. J. Obst. & Gyn.; 57, 351, 1949.
3. Fletcher Shaw D. A.: J. Obst. & Gyn. Brit. Emp.; 56, 833, 1949.
4. Kimbell M.: B.M.J.; 203, Jan. 1958.
5. Picton F. C. R.: J. Obst. & Gyn. Brit. Emp.; 58, 764, 1951.
6. Savage J. E.: South Med. J.; 46, 279, 1955.

(By courtesy of the Editor, Journal of the Association of Medical Women in India).