

ACTIVE MANAGEMENT OF THIRD STAGE OF LABOUR

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This is indeed the unforgiving stage of labour and in it there lurks more unheralded treachery than in both the other stages of labour combined. The normal case can, within a minute become abnormal and successful delivery can turn swiftly to disaster. The obstetrician's judgement must be sure and swift, the errors of commission carry with them penalties as great or greater than those of omission. Increasing experience serves only to sharpen alertness during this stage, and there is no room for complacency in any case, however, normal until the placenta has been delivered for at least half an hour, with the uterus well retracted and with minimal bleeding. For more than a century there has been search for improvement in the management of third stage.

In 1933 Brandt explained the mechanism of separation and expulsion of the placenta in detail. Andrews (1940) working independently described a similar method of expulsion of placenta and obtained good results.

Those who have used Brandt-Andrews technique extensively have advocated for its routine use. Greenhill remarks that it is an excellent prophylactic against postpartum haemorrhage.

Spencer (1963) has modified Brandt-Andrews method by combining it with an oxytocic given intravenously at the delivery of the anterior shoulder and has replaced the term by "Controlled cord traction".

Materials and Methods

The cases studied were selected from women admitted in UISE Maternity Hospital Kanpur from January 1968 to December 1972. For the clinical evaluation of Brandt-Andrews method a total of 400 normal full term pregnant women were studied under the following groups:

A. Control Group	75
(a) Primigravida	25
(b) Multigravida	50
B. Brandt-Andrews Manoeuvre	75
(a) Primigravida	45
(b) Multigravida	30
C. Ergometrine	150
(a) Primigravida	70
(b) Multigravida	80
D. Ergometrine + Brandt-Andrews Manoeuvre	100
(a) Primigravida	45
(b) Multigravida	55

Observations

As compared to control group, with Brandt-Andrews manoeuvre as shown in

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TABLE I

Shows the Duration of Third Stage and the Mean Blood Loss in Various Groups in Primigravida and Multigravida

Group	No. of cases		Total	Blood loss		Duration of III stage of labour in minutes	
	Primi	Multi		P.	M.	Primi	Multi
A.	25	50	75	185.2 ml	176.4 ml	7 min. 22 secs	6 min. 8 secs.
B.	45	30	75	162.7 ml	160.2 ml	3 min. 55 secs.	3 min 32 secs.
C.	70	80	150	155.5 ml	141.5 ml	4 min. 53 secs.	5 min. 22 secs.
D.	45	55	100	105 ml	87 ml	2 min. 25 secs.	3 min. 7 secs.

Table I there was shortening of third stage of labour by 3 minutes 27 seconds, 2 min. and 48 seconds in primigravidae and multigravidae, respectively. The blood loss was also reduced by 22.5 ml and 16.2 ml in primigravida and multigravida, respectively.

On comparing the control with ergometrine (A & C) the blood loss was reduced by 29.7 ml and 34.9 ml in primigravida and multigravida, respectively. The third stage of labour was reduced by 2 min. 29 seconds and 0.46 second in primigravida and multigravida, respectively.

On comparing Brandt-Andrews manoeuvre and ergometrine (B & C) it was found that intramuscular ergometrine at the birth of the anterior shoulder reduces the blood loss by 7.2 ml and 18.7 ml in primigravida and multigravida, respectively, while the duration of third stage of labour was not reduced with ergometrine.

When the two types of active interventions were combined i.e. (B & C) Brandt-Andrews manoeuvre and ergometrine intravenously, there was a sudden drop of blood loss in the third stage of labour from 185.2 ml to 105 ml and 176.4 to 87 ml in primigravida and multigravida, respectively. There was also shortening of the third stage of labour from 7 minutes 22 seconds to 2 minutes 25 seconds and from 6 minutes 8 seconds to 3 minutes

7 seconds in primigravida and multigravida respectively, while comparing the groups A & D.

Discussion

To evaluate the utility of various methods, comparison has been made between group A & B, A & C, B & C also with A & D.

The average duration of the third stage of labour with Brandt-Andrews manoeuvre was 3 minutes 55 seconds, 3 minutes 32 seconds in primigravida and multigravida, respectively while Brandt 1933 in his study on 800 cases found the average duration as 8 minutes which is as high as twice as compared to the present series. This may be because of the inclusion of three cases of delayed third stage. Our results are comparable to the results reported by Rosario and Jain (1973) 4 minutes 1 second, 3 minutes 28 seconds in primigravida and multigravida, respectively.

Thus, compared to the control, the Brandt-Andrews method is significant in shortening the third stage of labour in primigravida and multigravida.

Intramuscular ergometrine reduces the blood loss in primigravida and multigravida when compared to Brandt-Andrews method, but it is no way better than Brandt-Andrews manoeuvre with regard to shortening of the third stage of labour

as noted in the present series. Spencer (1963) using modified Brandt-Andrews method found the average duration of the third stage to be 2 minutes 56 seconds, but in the present series the figures are slightly higher i.e. 3 minutes 55 seconds and 3 minutes 32 seconds in primigravida and multigravida, respectively.

Intramuscular ergometrine is beneficial in reducing the amount of blood loss, both in primigravida and multigravida. A similar observation was made by Kishore and Gupta (1960-61), Bose (1955) and Rosario and Jain (1973). In the present series there is also less of blood loss.

Ergometrine intravenously along with Brandt-Andrews method has been found more effective in primigravida than in multigravida in shortening the third stage of labour which is reduced by 2 minutes 25 seconds from 7 minutes 20 seconds and 3 minutes 7 seconds from 6 minutes 8 seconds in primigravida and multigravida, respectively.

The incidence of postpartum haemorrhage in control group of this series was 1.5% and there was no case of postpartum haemorrhage in Brandt-Andrews and ergometrine groups and also with combined group. Very high incidence of postpartum haemorrhage is reported by Rosario and Jain (1973) as 6.6% in the control group, while 4.4% with Brandt-Andrews technique. Spencer (1963), Rowe (1962) found incidence of postpartum haemorrhage 1.2% with intravenous ergometrine. No case of manual removal of the placenta was encountered in the present series,

while 2.2% reported by Rosario and Jain (1973) with controlled cord traction (intravenous ergometrine and Brandt-Andrews method). No case was reported when ergometrine was given intramuscularly.

Summary

A total of 400 cases were studied. A significant shortening of the third stage of labour has been found in both parity groups when Brandt-Andrews manoeuvre was applied.

A further shortening of the third stage of labour was found when Brandt-Andrews manoeuvre was combined with intravenous ergometrine and also the blood loss was reduced in combined manoeuvre than Brandt-Andrews used alone.

In country like India where majority of population is poor and anaemic this method is of value to minimise the blood loss.

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