INTRAUMBILICAL OXYTOCIN IN THIRD STAGE OF LABOUR

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SUMMARY

Post Partum haemorrhage is a very important cause of maternal mortality. All efforts should be made to prevent it. Present study was done in 130 patients to find out the efficacy of intraumbilical oxytocin solution as a method of reducing third stage duration and prevention of post partum hoemorrhage in primi as well as multigravidas. The results seem quite satisfactory 83.85% of women expelled placenta within 2 minutes and 99.23% within 5 minutes. Only 3 (2.3%) patients needed additional methorgin because of atonic excessive hoemorrhage.

The medical science has always stressed on prevention. Post Partum haemorrhage is a very important cause of maternal mortality. All efforts should be made to prevent it. Injection of intravenous methergin at the time of delivery of anterior shoulder is advocated in routine obstetric practice. But this needs precise timing by doctor or well trained nurse. If this is not done there are chances of entrapment of placenta. In addition this sometimes causes sudden rise of blood pressure and is also dangerous in cardiac patients. In the present study intraumbilical oxytocin solution was given to facilitate the third stage of labour in place of methergin.

Material and Methods

Present study was done in the department of obstetrics and Gynaecology of Mahatma Gandhi Institute of Medical Sciences, Sevagram Eastern Maharashtra. In 130 cases intraumbilical oxytocin solution was given. Oxytocin 10 units dissolved in 10 cc of sterile water was injected into umbilical vein after the baby was separated. The cases were taken at random, women included were primigravidae as well as multigravidae, mostly between the age group of 20 to 30 years (Table I). None had prolonged labour. In most of them duration of labour was within 12 hours (44.61%). But in some primigravidas (34.09%) and 45.78% multigravidas duration was not known.

Observations

None of these 130 patients had entrapment of placenta. All of them completed third stage within 15 minutes (Table I). However one primigravida who had excessive haemorrhage (which was later found to be because of cervical tear) was

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Accepted for publication on 29-5-89.

TABLE I
Age and Parity of Patients

	Age in years			Parity			
	<20	20-30	30	81	G2-G3	64-65	>45
No.	11	115	4	47	34	38	11
%	8.46	88.46	3.07	36.15	26.15	29.23	8.46

given oxytocin drip and injection methergin also. There were three patients in the group of multigravidas who were given methergin after expulsion of placenta as bleeding was little more than average (Table III).

TABLE II
Duration Third Stage

	⩽ 2 Minutes		2 to 5 Minutes		5 to 10 Minutes	
	No.	%	No.	%	No.	%
Primi 47	38	80.85	9	19.14	—	—
Multi 83	71	85.54	11	13.25	1	1.20
Total: 130	109	83.85	129	99.23	1	0.76

(Gilbert *et al*, 1987). But in a busy labour room it may not be possible to be very meticulous in all the patients. In addition there may be patients where intravenous methergin is not desired.

Oxytocin solution can be kept ready with the person conducting delivery and can be given easily without the need of another attendant for timely intravenous injection. There is no risk of entrapment of placenta. Oxytocin reaches the placental bed in a higher concentration which stimulates uterine contractions as a result of which placenta separates and is delivered (Golan *et al*, 1983).

TABLE III
Oxytocin With or Without Other Drugs

		Intraumbilical Oxytocin (IUO)	100+Methergin	IUO+Mehergin + Oxytocin drip
Primi 47	No.	46	—	1
(36.15%)	%	97.87		2.12
Multi 83	No.	80	3 (x)	—
(63.85%)	%	96.38	3.61%	—

* Case of cervical tear.
(x) One was a case of accidental hoemorrhage.

Discussion

Traditionally we have been aiming at prevention of post partum haemorrhage. Because grandmultiparas are recognised as high risk cases, precautions are taken and careful watch is kept. Timely methergin is given in them. Probably as a result of this the risk of post partum haemorrhage is reverted to primipara

Golan *et al* (1983) studied this in 10 patients with retained placenta of 30 minutes duration and found 100% results. Additional methergin if desired can always be given at a later stage without any danger. In our patients we found that intraumbilical oxytocin gave quite satisfactory results with no complications. We found that in most of the patients (80.85% primi. and 85.54% multis)

placenta was delivered within 2 minutes. Except for one multigravida in all women placenta was expelled within 10 minutes. One primi had excessive bleeding but the cause was cervical tear. This patient was given intravenous oxytocin drip and injection methergin while being explored and sutured. However 3 multigravida (3.61% of Multi and 2.3% of all) were given methergin also because of excessive bleeding (one of them was a case of accidental haemorrhage). When we studied the relationship between age of the patients their gravidity and duration of labour with third stage duration separately there was no statistically significant difference. However when the weight of the baby and the third stage duration were compared it was found that in cases of babies weighing less than 3 Kg the duration of third stage was shorter than biggar babies. It was statistically highly significant (P valve < .01).

Summary and Conclusions

Intraumbilical oxytocin solution was tried in place of intravenous methergin to cut short the third stage of labour and prevent post partum haemorrhage in 47 primigravidas and 83 multigravida. It met with the expectations in a satisfactory way. It is recommended for routine use in any busy labour room.

References

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