

ACTIVE MANAGEMENT OF LABOUR

By

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SUMMARY

The actual procedure of acceleration of labour is both simple and safe and is directed primarily at curtailing the duration of labour. Two hundred patients in labour were studied for the purpose of active management, of the 200 patients 150 were primigravidae and 50 multigravidae. Most of the patients belonged to the low socio-economic group. Labour was augmented by oxytocin drip after confirming the diagnosis of true labour. Artificial rupture of forewaters was done when the cervical dilatation was 4 cms. The overall duration of labour was closely observed and compared to the 100 cases in the control group.

Introduction

In the present age, the obstetrician as well as the woman in labour would prefer the delivery to be accomplished in the shortest possible time compatible with the safety of the mother and the fetus.

Prolongation of labour presents a picture of mental anguish, physical morbidity and may lead to surgical interference. It also constitutes a danger to the survival and subsequent neurological damage to the child.

The concept of acceleration of labour represents a complete break against the traditional attitude of "watchful expectancy". Many institutions have adopted the policy of active management of labour without increasing the maternal and perinatal mortality and morbidity. The complications related to prolonged

labour viz; dehydration and ketosis are reduced, it also reduces the work load of the ancillary staff and thereby improving the management.

Material and Methods

Today we accept that the safest and most effective method of giving Oxytocin to induce or accelerate labour is by controlled monitored intravenous infusion.

The present study was undertaken to observe the action of oxytocin for acceleration of labour on patients who were admitted to the Department of Obstetrics and Gynaecology from April 1982 to May 1983. Two hundred patients were subjected to the study and hundred who were matched for parity and age served as a control group.

The patients selected had to fulfill certain criteria. Age of the patients ranged between 18-30 years. Majority of the patients were primigravida but few patients were upto gravida three. Pati-

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Accepted for publication on 28-6-87.

ents with cephalopelvic disproportion, placenta praevia, previous operation scar, malpresentations and patients with long period of infertility were excluded from the series.

Cases with Cervical effacement of 50 per cent and dilatation of at least 2-4 cms. were taken for the study. It was essential that the diagnosis of labour be correct because the patient could be subjected to prolonged stress by mistaken attempt to accelerate labour before it even started.

A careful history was taken to rule out any medicinal or obstetrical complications during the antenatal period. A careful general and systemic examination was done. A very careful record of pulse, blood pressure, temperature, frequency duration and intensity of uterine contractions and the rate and rhythm of the fetal heart were observed. In this series an intravenous infusion of 2.5 units of Pitocin in 5% of 540 ml. of dextrose was started. The initial rate of the drip was 12 drops/minute. Half an hour later all being well the rate of the drip was stepped up by 8 drops/minute every 15 minutes till moderate uterine activity was achieved.

Sedation used was 50 mg Pethidine intramuscularly. Some patients needed an additional dose of 10 mg of diazepam intramuscularly.

Anniotomy was performed at 4 cms

dilatation of cervix. The progress of labour was recorded in a partogram. In presence of unsatisfactory progress careful reassessment of the patient was done and to decide upon the further line of management.

The drip was continued for 30 minutes after the third stage of labour. Apgar Score at one minute was recorded in both the study and control group.

Observations

In the present series of 200 cases most of the patients were primigravidas as shown in Table I.

TABLE I
Shows the Parity of the Patients in the Accelerated and Control Group

Parity	No. of patients	
	Accelerated group	Control group
Primigravida	150	75
Multigravida	50	25
Total	200	100

Majority of the patients were in the age group of 18-21.

Oxytocin infusion was started at different times in labour in primigravida and multigravida as in Table II. In few cases oxytocin infusion was started early in the second stage of labour for delayed progress of labour.

TABLE II
Shows the Distribution of Patients in the Augmented Group Where Drip was Started at Different Stages of Labour

Indications	Primigravida	Multigravida	Total
Early first stage of labour (Cervical dilatation 2-6 cm)	110	30	140
Late first stage of labour (Cervical dilatation 7-10 cms.)	34	20	54
Early second stage of labour	6	—	6
Total	150	50	200

Most of the primigravida and multi-gravida delivered within 12 hours. Only 9.5 per cent of the primigravida had a duration of labour of more than 12 hours.

The introduction of the policy of active management of labour has increased the number of normal deliveries compared to the control group as shown in Table III.

TABLE III

Shows Percentage of Mode of Delivery in Both the Groups

Mode of delivery	Accelerated group	Control group
Normal delivery	77%	69%
Forceps delivery	18%	23%
Caesarean Section	4%	8%

The duration of third stage of labour in the accelerated group was nearly half as compared to the control group. This is shown in Table IV.

TABLE IV

Shows the Duration of the Third Stage of Labour in Both the Groups

Series	Total cases	Duration of third stage of labour		
		Minimum time in minutes	Maximum time in minutes	Average time in minutes
Accelerated group	200	2	14	4.80
Control group	100	5	30	9.38

It was observed that the main indication for caesarean section in the accelerated group was foetal distress.

The graphic description of progress of labour (partogram) has a considerable educational value for the staff. This visual approach detects abnormal labour and determines the cause with greater accuracy. This graphic record helps in preventing prolonged labour because it can no longer be camouflaged by pages of written notes and hence it was used in this series.

Discussion

Any procedure that would hasten delivery without adding to the maternal and perinatal morbidity and mortality are most welcome. Friedman (1967), Philpott and Castle (1972), and O'Driscoll and Strong (1975) are of the opinion that in a primigravida the labour should be completed within 12 hours and hence the best way of achieving this is by oxytocin infusion and amniotomy.

Success of this procedure is derived mainly from a clear enunciation of several parameters of labour which previously had been neglected. The most fundamental of these is that the induction must not be confused with acceleration of labour. When compared with acceleration, induction of labour is much less effective and potentially dangerous because amniotomy is associated with risk of infection and this possibility leads

to many unnecessary caesarean sections.

After comparing the results the mean duration of labour is very much reduced in this study. The mean duration in a primigravida was 7 hours and 23 minutes as compared to 15 hours and 40 minutes in the control group. In the present series only 9.5% of patients took more than 12 hours to deliver.

Turnbull and Anderson (1968) considered the ideal regime for oxytocin administration would be to start with low dose and increase the amount gradual-

ly even to 5 units per 540 ml. But in the present series we maintained a standard dose of 2.5 units as it was observed that when dose was increased the patients became very uncomfortable. We observed in our series that occasionally the uterus which acted efficiently during the first stage of labour became inefficient during the second stage and the head remained high and unrotated. Administration of oxytocin in the second stage of labour to restore adequate uterine activity was preferred to difficult rotation and forceps application. Six cases in the study group had their labour thus augmented. The most important result of such a policy of active management is the elimination of trauma because delivery by propulsion is much safer than delivery by traction.

Several reports have recently appeared in the literature expressing concern over the high incidence of neonatal jaundice after oxytocin infusion for which there is no cause. Beazley and Alderman (1974) carried out their study on 1353 consecutive patients and they came to the conclusion that hyperbilirubinemia occurred in neonates when the total dose of oxytocin was increased that is when it roughly exceeded 20 units.

Conclusions

Two hundred patients in labour were studied for the purpose of active management.

The procedure of acceleration of labour

is both simple and safe and the results encouraging. It also gives mental satisfaction to the patient that she is being constantly attended by the doctor. This process appreciably hastens labour both in the primigravida and multigravida without any additional hazards to the mother and baby. The reduction in the number of instrumental delivery in the group of active management as compared to the control group is highly significant.

Acknowledgement

We are thankful to Dr. M. K. Jagtap, Dean, Indira Gandhi Medical College, Nagpur for allowing us to use the hospital records.

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