

ACTIVE MANAGEMENT OF LABOUR

by

DEVANTALA SINGH,* M.B., M.S. (Pat), F.R.C.O.G. (Lond)

and

MANJU GITA MISRA,** D.G.O., M.S. (Pat)

Introduction

The active management of labour ensures that every woman has efficient uterine action in labour and is delivered within 24 hours. Prolonged labour presents a picture of mental anguish and physical morbidity. It constitutes a danger to the survival and subsequent neurological development of the infant (Jeffcoate *et al*, 1952).

Polity of accelerated labour was adopted in 1975 in our unit in Hospital for Women, Patna Medical College Hospital. Routine schedule was drawn out to manage and record observation in all primigravidae and multigravidae in labour. Five hundred cases thus managed are compared with the same number managed previously under conventional methods. The duration of labour was estimated from the time of labour begun until the baby was born. On adopting an active role the first duty of obstetrician is to make sure that the woman is in true labour. This decision is made by laying emphasis on objective evidence rather than her subjective symptoms. Painful uterine contractions alone were not accepted as conclusive unless there was accompanying show, dilatation of the cervix or spontaneous rupture of

membranes. Once a diagnosis of onset of labour was made policy of active management was pursued. In all the cases, records were kept of frequency, type and intensity of uterine contractions along with the dilatation of the cervix. Oxytocin infusion was started if dilatation was too slow in the active phase, less than 1.2 cms/hour in primigravida and less than 1.5 cms/hour in multigravida. To begin with, the concentration of oxytocin used was 5 units per litre in 5% Dextrose solution with a drip rate of 20 drops/minute. The rate of concentration was increased or decreased to achieve good uterine contractions coming at the regular intervals of 3 to 5 minutes. Artificial rupture of membranes was done as a routine only after the dilatation of the cervix had reached upto 3 to 4 cms. We preferred not to rupture the membranes before oxytocin infusion was started.

The present series of 500 cases include 375 primigravidae and only 125 multigravidae (Table I). Although bulk of our series include primigravidae, we observed

TABLE I
Duration of Labour in the Present Series

No. of cases	Percentage	Hours of labour
350	70	0-12 hours
125	25	12-20 hours
25	5	20-24 hours

*Lecturer in Obstetrics & Gynaecology, Patna Medical College, Patna, Bihar.

**Registrar, Department of Obstet. & Gynaecology, Patna Medical College Hospital, Patna.

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high incidence of prolonged labour in multigravid patients also. O'Driscall *et al* (1969) excluded multigravidas from their series to avoid dilution of the result.

As it is evident from Table I, all our patients were delivered within 24 hours, whereas in control series 19 percent of patients were delivered after 24 hours (Table II) and 7 even took 72 hours for

this active management 70 per cent women were delivered within 12 hours, 25 per cent within 20 hours and only 5 per cent cases remained in labour for more than 20 hours.

At the National Maternity Hospital in Dublin (Meagher, 1970) there were only 3 amongst 2054 primigravidae whose labour lasted for more than 24 hours.

The introduction of a policy of active management of labour has reduced the incidence of forceps and vacuum from 26.6 per cent to 20 per cent (Table III). Since the first stage is shortened by Syntocinon drip patients do not require much assistance in the second stage of labour. Effective uterine contractions and good progress is maintained throughout labour.

The caesarean section rate has not increased with this policy of controlled labour, incidence remaining almost the same in both the series (Tables III & IV).

TABLE II
Duration of Labour in the Control Series

No. of cases	Percentage	Hours of labour
230	46	0-12 hours
100	20	12-20 hours
75	15	20-24 hours
50	10	24-48 hours
45	7.6	48 hours or more
7	1.4	72 hours

the completion of their deliveries. With

TABLE III
Comparison of Mode of Delivery in Two Series

Mode of delivery	Conventional method of labour	Active management of labour
Normal delivery	69.0%	76%
Forceps delivery	20.5%	15%
Vacuum extraction	6.1%	5%
Caesarean section	4.4%	4%

TABLE IV
Indications for Caesarean Section

Indications of cases	Number of cases	
	Present series	Control series
Disproportion	4	7
Foetal distress	8	4
Brow presentation	1	1
Breech presentation	1	1
Abruptio-placentae	1	Nil
Prolapse	1	1
Toxaemia	3	2
Placenta praevia	1	1
Occipito-posterior position	Nil	2
Uterine inertia	Nil	3
Total	20	22

Incidence of disproportion is much less in our series. The reason for this reduction is that the delay due to inefficient uterine contractions was not misinterpreted as the delay caused by disproportion. Diagnosis of disproportion was made only when in spite of good uterine contractions the delivery did not take place within a reasonable time limit. Stimulation of labour with Syntocinon, even in suspected cases of disproportion was done not to surmount obstruction but only to isolate cases of real disproportion from that of delayed progress due to poor uterine function. The position of the foetal head did not influence the outcome of labour in any case in this series. In our experience position of the foetal head is not a matter of consequence when effective uterine contractions are maintained.

No case of rupture uterus was seen with the use of oxytocin infusion. In the present series distinction was not made between hypotonic and hypertonic uterine activity and oxytocin proved equally effective in both the circumstances. This is completely at variance with the experience of Jeffcoate (1961) who found that oxytocin often makes matter worse when given in labour complicated by in-co-ordinate uterine activity. It is our experience that when labour is slow women often complain of intolerable discomfort and repeated sedation is required. On the contrary, if progress is stimulated early character of the uterine contractions improves and the discomfort of inertia changes into pains of fast and active labour. Pethidine and Calmpose were the only sedatives used in the present series. Only few patients received more than 200 mg. of pethidine. Friedman (1962) suggested that sedatives should be given as the primary therapy for delay in the latent stage but our results indicate the

advantage of activating labour rather than sedating it.

In our series, caesarean section was not performed for occipito-posterior or occipito-transverse position alone, long internal rotation occurred by drip in most of the cases. In no case the indication of caesarean was uterine inertia, whereas in control series, in 9.1 per cent of the cases the indication of caesarean was occipito-posterior position and in 13.6 per cent cases the indication was uterine inertia. At the Simpson Memorial Maternity Pavilion (1967) 71 caesarean sections were performed during a period of one year in cases of occipito-posterior position and in one half the indication was disordered uterine action where the labour was managed conservatively.

In all the cases ergometrine was given at the time of delivery of anterior shoulder. Blood loss in 3rd stage was minimal in this series as compared with that in conventional method of delivery.

Since the incidence of prolonged labour is negligible the incidence of puerperal morbidity and sepsis were practically not observed.)

Only 1 foetus died during labour and there were 2 neonatal deaths. One infant showed evidence of residual damage to the central nervous system after accelerated labour. Baby suffered cerebral irritation and motor seizures, whereas in previous series 5 infants showed the evidence of residual brain damage.

The above 2 neonatal deaths were due to prematurity. Ledger and Witting (1972) had perinatal mortality of 30 per 1000 live births in their series which was mainly due to low birth weight infants.

Active management of labour cannot be practised casually. It has to be done under constant supervision and requires services more of skilled personnel rather than

of highly sophisticated monitoring equipments.

With this policy of management of labour the incidence of prolonged labour, forceps delivery, foetal distress, late neurological involvements and perinatal mortality has been considerably reduced. The crowning reward is the obstetric experience of patient who has no bitter hang over at all.

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