

POST-TERM LABOUR

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The diagnosis of a post term pregnancy and labour is really difficult. Majority of clinical criteria like menstrual scanning, fundal height study etc. have lot of variations. Detection of foetal ossification centre on radiology or biochemical parameters of amniotic fluid can at best determine a term or a preterm pregnancy. Various hormonal assays (e.g. 24 hours urinary oestriol estimation) and therapeutic tests (e.g. OCT) are helpful to detect a waning placental function but cannot point out a postterm pregnancy. Ultrasonic cephalometry though accurate, is a highly skilled and costly procedure.

Again, apart from large institutions, it is as yet not possible for peripheral health units or most of the obstetricians in our country to have the results from sophisticated gadgets. So that calculation of EDC from LMP in a regularly menstruating woman remains the sole important guide to find out a postterm pregnancy.

Even with a diagnosis of post term

pregnancy, one is at a loss to decide whether the patient should be allowed to wait for a normal onset of labour or should have interference, when to interfere, and whether labour should be induced or caesarean section done.

In this study, there is an attempt to find out the outcome of post term labour with reference to management.

Material and Methods

When labour occurs in a pregnancy 14 days or more passed the conventionally accepted due date in a regularly menstruating woman, it is generally considered as post term (Dewhurst, 1976).

In this study, we have observed and analysed 65 cases of post term labour (excluding uncertain dates and abnormal cycles) during the period June 1979 to March 1981 in the Department of Obstetrics & Gynaecology, I.P.G.M.E.R. & S.S.K.M. Hospital, Calcutta. Results of labour in consecutive 130 women carrying 41 weeks have also been analysed as control to find out any significant difference in outcome. Calculation of EDC from LMP, as per Naegele's rule, was the principal criterion to find out a post term pregnancy. Other parameters usually considered were radiological demonstration of foetal ossific centres and urinary oestriol assay.

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Analysis and Observation

(a) Incidence

The incidence of post term labour during the period was 1.9 per cent.

Of the 65 post term labours, 51 delivered at 42 weeks, 13 at 43 weeks and only 1 went upto 44 weeks. Thus majority of post term labours were allowed upto 42 weeks. It was found that while 1.5% of total delivered at 42 weeks, 16.5% delivered at 41 weeks and 26.3% at 40 weeks.

(b) Relation to Parity

40 (61.5%) of the post term labours were in primigravidae, 13 (20%) in 2nd, 8 (12.3%) in 3rd, 2 in 4th and the rest 2 in 5th gravidae.

At 41 weeks, during the same period, 47.5% were primi and 26.2% were 2nd gravidae. At 40 weeks, 43.8% were primi and 29.5% were 2nd gravidae.

The results showed that primigravidae tended more to be post dated and post term.

(c) Relation to Age

No significant correlation was found between gestational periods and different age groups.

(d) Method of Delivery

Table I shows the mode of pregnancy termination in the post term group.

Table I shows that 18 of the post term gravidae (27.7%) had normal onset of labour and 42 (64.6%) had induction. The rest had elective caesarean section.

The "normal onset group" were either emergency admissions in labour or were uncomplicated previous induction failures. The "induction group" terminated in caesarean section in a high percentage (50% or nearly 3 times the normal onset group) of cases. Again, at

TABLE I
Method of Delivery in Post Term Labour
(Total—65 cases)

(A) At 42 weeks (51 cases):		
1. Allowed normal onset/admitted in labour		.. 12
* Normal labour	— 8	
* Forceps/ventouse	— 2	
* Caesarean section	— 2	
2. Induction of labour		.. 34
* Normal labour	— 4	
* Forceps/ventouse	— 14	
* Caesarean section	— 16	
3. Elective caesarean section		.. 5
(B) At 43 weeks (13 cases):		
1. Normal onset/admitted in labour		5
* Normal labour	— 3	
* Forceps	— 1	
* Caesarean section	— 1	
2. Induction of labour		.. 8
* Normal labour	— 2	
* Forceps	— 1	
* Caesarean section	— 5	
(C) At 44 weeks (1 case):		
Admitted in labour & normal labour		1

43 weeks, induction was associated with a higher caesarean section rate (62.5%) as compared to 42 weeks (47.1).

The indication for caesarean section was foetal distress in first stage of labour in 21 cases (87.5%) at 42 or 43 weeks. Two had non-satisfactory progress of labour and 1 was a primigravida with breech at 43 weeks admitted in labour. Elective caesarean section was done at 42 weeks for added indications like high floating head, unfavourable cervix, malpresentations, or evidences of placental insufficiency or induction-failures in cases of preeclampsia/hypertension etc.

Table II shows the mode of delivery in 130 cases carrying 41 weeks.

TABLE II
Mode of Delivery at 41 Weeks
(Total—130 cases)

1. Normal onset/admitted in labour ..	97
* Normal labour —	65
* Forceps/ventouse —	22
* Caesarean section —	10
2. Induction of labour ..	21
* Normal labour —	3
* Forceps/ventouse —	6
* Caesarean section —	12
3. Elective caesarean section ..	12

At 41 weeks, 97 cases were admitted either in labour or were otherwise uncomplicated cases allowed to wait passed 40 weeks and had spontaneous onset of labour at 41 weeks. In this group, only 10.3% terminated in caesarean section—nearly half for evidences of foetal distress.

Twenty-one cases, otherwise uncomplicated, had induction at 41 weeks for post dated pregnancy alone. 57.1 per cent in this group terminated in caesarean section and mostly for foetal distress—a significantly high figure. Elective caesa-

rean section was done for added complications like pre-eclampsia/hypertension high floating head and unfavourable cervix, malpresentation etc.

It is seen from Table I and II that non-elective caesarean section, rate, mostly for foetal distress, was 18.7% at 41 weeks, 39.1% at 42 weeks and 46.1% at 43 weeks—a distinct rise as pregnancy continued post term.

(e) Relation to Foetal Outcome

Table III shows the distribution of newborns according to birthweight.

Table III reflects that percentage incidence of low birthweight babies increased as the labour went post term.

Table IV illustrates the foetal results.

Table IV shows that 3.2% of the newborns were grossly asphyxiated at birth at 41 weeks. In the post term group, the figure rose to 5.9% at 42 weeks and as high as 23.1% at 43 weeks.

Perinatal mortality too was only 2.4% (24 per 1000) at 41 weeks. The figure rose to 9.8% (98 per 1000) at 42 weeks

TABLE III
Analysis According to Birthweight

Birthweight	41 wks. (130)		42 wks. (51)		43 wks. (13)		44 wks. (1)	
	No.	%	No.	%	No.	%	No.	%
Below 2.5 kg	14	10.8	17	33.3	5	38.5	1	100
2.5 to 3.5 kg.	116	89.2	34	66.7	8	61.5	—	—

TABLE IV
Foetal Results

Result	41 Wks. (Total 130)		42 Wks. (Total 51)		43 Wks. (Total 13)		44 Wks. (Total 1)	
	No.	%	No.	%	No.	%	No.	%
Gross asphyxia	4	3.2	3	5.9	3	23.1	—	—
Still-birth	1	0.8	2	3.9	2	15.4	—	—
Neonatal death	2	1.6	3	5.9	1	7.7	—	—

and reached the peak of 23.1% (231 per 1000) at 43 weeks. The perinatal death rate in post term labours was also higher than the overall figure (50.2 per 1000) during the period. The foetal prognosis was appreciably lower in post term labour.

There were 4 neonatal deaths in the post term group—2 died of gross asphyxia and 2 had meconium pneumonitis—following induced labours.

Comments

A post term labour is always a matter of concern because of our knowledge of waning placental function past term and danger of intrauterine foetal hypoxia which may culminate in foetal death. Failure of the normal onset of labour at term again means induction of labour if one is to avoid such inherent foetal hazard. While not all cases are suitable for an induced labour, some obstetricians would prefer to wait for a normal onset of labour, particularly in uncomplicated cases, with the belief that induction has its own hazards and that induced labours may terminate more in caesarean section.

In the present study, it was found (Table I, II) that induction at 41 weeks was associated with a 57.1 per cent CS rate compared to 10.3 per cent CS rate in the normal onset cases in the group. In the post term group CS rate following induction (47.05%) at 42 weeks was also higher than the normal onset group (16.6 per cent). At 43 weeks, CS rate following

induction was 62.5 per cent compared to 20 per cent in the other group. The figures amply reveal the high CS rate following induction and more so when post term. There was a higher CS rate even in normal onset cases when post term.

But when the method of delivery is compared to the foetal outcome (Table IV), it is found that the perinatal mortality at 41 weeks is much lower (24 per 1000) compared not only to the post term group (164.5 per 1000) but also to the overall perinatal mortality (50.2 per 1000) in the hospital during the period. This shows that the foetal safety is highest at 41 weeks, once the pregnancy is past term, but not when post term. A much more cautious observation and management at 41 weeks (because of being past term) might account for this low foetal death rate. Once the pregnancy is post term, same intensive care and management resulted in an appallingly high foetal death rate from hypoxia. A post term labour is thus always to be avoided. The study also shows that even in uncomplicated cases, induction at 41 weeks is justified if labour does not start on its own. Though this may mean more sections, foetal salvage is highest during this period which is the aim of any obstetrician.

Reference

1. Dewhurst, C. J.: *Integrated Obstetrics and Gynaecology for postgraduates*, 2nd ed., Blackwell Scientific Publications, London, 1976.