

**Original article:**

## Evaluation of management of the prolonged pregnancies

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### Abstract:

**Introduction:** The issues of postterm pregnancy, its risks, and its management options have generated considerable discussion for more than a hundred years and are still a matter of controversy .

**Materials and Methods:** The study was carried out in Rural Hospital , Loni in the Department of Obstetrics and Gynaecology, Pravara Rural Hospital, Loni. 150 patients who cross 280 days i.e. 40 weeks confinement were included in this study.

**Results :** In our study 12% develop severe asphyxia (APGAR  $\leq 6$  at 1 min) of this 25% from Group I, 25% from Group II, 50% from Group III and this asphyxia persist for 5 min (APGAR  $\leq 6$  at 5 min) in 6% of this 10% from Group I, 20% from Group II, 70% from Group III.

**Conclusion:** In conclusion, findings suggest that maternal-fetal risks increase from 41 weeks and starting antenatal testing at 41 weeks of gestation may decrease the complications. Closer monitoring should commence and induction of labor should be considered in gestational week 41. Further studies are needed for management of post-term pregnancies and what is designated as post-term pregnancy needs to be readdressed.

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### Introduction:

The issues of postterm pregnancy, its risks, and its management options have generated considerable discussion for more than a hundred years and are still a matter of controversy. <sup>1</sup>The problem was described in modern obstetric terms for the first time in 1902 by Ballantyne<sup>2</sup>, who wrote: ‘The postmature infant has stayed too long in intrauterine surroundings; he has remained so long in utero that this difficulty is to be born with safety to himself and to his mother.

The problem of the postmature infant is intranatal. For many years the biological possibility that a pregnancy could exceed the 42<sup>nd</sup> week was questioned. It was not until the early 1960s that conclusive evidence of an increased risk of fetal mortality in postterm pregnancy was presented [McClure-Browne, 1963]. Many obstetricians met

this information with criticism. However, postterm pregnancy was gradually recognized as a problem when the pediatricians became interested in the matter. In 1954, in a postmature classification system, Clifford<sup>3</sup> described the degree of affliction suffered by postterm neonates, and eventually in the late 1960s and 1970s, with the advent of ultrasound dating, the fetal risk associated with postterm pregnancy was fully established.

### Materials and Methods:

The study was carried out in Rural Hospital , Loni in the Department of Obstetrics and Gynaecology, Pravara Rural Hospital, Loni. 150 patients who cross 280 days i.e. 40 weeks confinement were included in this study.

Only those patients who were sure of their date of last menstrual period and who had done ultrasound at

least once either in 1<sup>st</sup> trimester or in 2<sup>nd</sup> trimester were included in this study group.

The postdated patients were divided into 3 groups:

Group I : From 40 wks 1 day to 40 wks 6.

Group II : From 41 wks to 41 wks 6.

Group III : Beyond 42 weeks.

Amongst 150 patients, who were hospitalized with diagnosis of postdatism.

- ❖ 50 were from group I, 50 were from group II and 50 from group III.
- ❖ 37 patients have undergone expectant management
- ❖ 33 patients induced with sweeping and stretching
- ❖ 26 patients induced with oxytocin

- ❖ 20 induced with misoprost
- ❖ 6 induced with cerviprime
- ❖ 28 patients directly taken for section and not induced.

Complete clinical assessment of the post-dated patients was done including measurement of weight, fundal height and abdominal girth in cms. Daily fetal movement count records were kept by the patients who were admitted at term and who became post dated waiting to go into spontaneous labour. Ultrasonographic evaluation for assessing the fetal maturity was done in all post date patients .Whenever possible single BPD measurement along with Manning score and AFI were recorded. In a few patients who came late in labour USG could not be done.

**Table: A Mode of delivery.**

Mode of Delivery	Vaginal	LSCS
Group I	39 (78%)	11 (22%)
Group II	38 (76%)	12 (24%)
Group III	33 (66%)	17 (34%)

By applying Chi square test ( $\chi^2=2.11$ ,  $p=0.348$ ,  $d.f = 2$ ) There is significant co-relation between groups and mode of delivery.

- ❖ There are 2 instrumental(ventouse) deliveries were conducted in Group II and III each.
- ❖ Out of 150 deliveries 2 fresh still births has been occurred In Group III i.e. incidence of fetal mortality is 1.3%.
- ❖ Indications for caesarean sections were:

**Results:**

Table no: I Indications for LSCS

Indications for LSCS	Group I	Group II	Group III	Total
Failure of induction	3	2	2	7(17.5%)
Fetal Distress	2	5	5	12(30%)
Oligohydramnios	2	2	2	6(15%)
Arrest of Descent	1	3	2	6(15%)
CPD	0	1	4	5(12.5%)
MSL	0	2	2	4(10%)

**Table no:2 Management in 40.1-40.6 wks of gestation**

Method of induction	Mode of delivery		Total
	Normal	LSCS	
Ex	16(88%)	2(12%)	18
SS	12(85%)	2(15%)	14
Oxy	7(87%)	1(13%)	08
Miso	3(50%)	3(50%)	06
Cerviprime	0(0%)	1(100%)	01

Chi-square found significant at 0.1% level of significance ( $P < 0.1$ ).

( $\chi^2 = 9.10$ ,  $p = 0.059$ ,  $d.f = 4$ ).

The incidence of low APGAR scores goes on increasing with delay in confinement.

### Discussion:

In our study 12% develop severe asphyxia (APGAR  $\leq 6$  at 1 min) of this 25% from Group I, 25% from Group II, 50% from Group III and this asphyxia persist for 5 min (APGAR  $\leq 6$  at 5 min) in 6% of this 10% from Group I, 20% from Group II, 70% from Group III. 74% of postdated patients had vaginal deliveries while 24% of patients required operative intervention in the form of caesarean section and 2% have instrumental (ventouse) deliveries.

The incidence of caesarean section reported by various authors ranges between 26 to 45% (Schneider 26-36%, Lahiri 45%, Vaidya<sup>4</sup> 28% and Thakur<sup>5</sup> 42.3%) The incidence of caesarean section in patients between 40.1 weeks to 40.6 weeks gestation is 32%, patients between 41.1 weeks to 41.6 weeks gestation is 33%, and patients beyond 42 weeks is 45%. This incidence is similar to other studies. Out of 4 instrumental (ventouse) deliveries 50% are in Group II and 50% are in Group III.

In the present study, 30% caesarean sections done for fetal distress, 17.5% were done for failure of induction, 15% were done for oligohydramnios, 15% were done for arrest of descent, 12.5% for cephalo-pelvic disproportion.

Martin (1969) observed fetal distress as the indication for caesarean section in 31.6%. Lahiri quotes that fetal distress requiring abdominal delivery was noted in 18.7% patients at 41 weeks pregnancy, 39% at 42 weeks and 4 in 18.7% patients at 41 weeks pregnancy, 39% at 42 weeks and 46.1% at 43 weeks.<sup>6,7,8</sup>

Thakur<sup>5</sup> has reported that only 10.3% babies required caesarean section for fetal distress, 4.3% caesarean section were done for failed induction and 12.4% for other causes associated with postdatism. Martin reported indications for caesarean section as failed induction leading in LSCS is 21.1% patients, functional dystocia in 26.3% and cephalopelvic disproportion in 21.1% patients.

We in present study use 4 techniques for induction of labour they are sweeping and stretching, cerviprime (PGE2) gel, Misoprost (PGE1) and oxytocin. There was significant association between induction of labour and different groups perinatal mortality or morbidity in terms of caesarean section in all Groups. In Group I patients induced with oxytocin 87% patients delivered vaginally, in Group II patients induced sweeping and stretching, misoprost, and Cerviprime all patients delivered

vaginally, and in Group III patients, all the patients induced with cerviprime were delivered vaginally.

**Conclusion:**

In conclusion, findings suggest that maternal-fetal risks increase from 41 weeks and starting antenatal testing at 41 weeks of gestation may decrease the

complications. Closer monitoring should commence and induction of labor should be considered in gestational week 41. Further studies are needed for management of post-term pregnancies and what is designated as post-term pregnancy needs to be readdressed.

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