



A STUDY OF INDUCTION V/S EXPECTANT MANAGEMENT OF POST-DATED PREGNANCY

Obstetrics & Gynaecology

Dr. Tulsi Akhaja*	2nd Year Resident Doctor, Department of Obstetrics and Gynaecology, Shri M.P. Shah Govt. Medical College, Jamnagar*Corresponding Author
Dr. N. I. Anand	Professor and Head, Department of Obstetrics and Gynaecology, Shri M.P. Shah Govt. Medical College, Jamnagar
Dr. T. C. Nayak	Associate Professor, Department of Obstetrics and Gynaecology, Shri M.P. Shah Govt. Medical College, Jamnagar
Dr. I. J. Anand	Professor, Dept. of Paediatrics, Shri M.P. Shah Govt. Medical College, Jamnagar
Dr. Nita Rada	Associate Professor, Department of Obstetrics and Gynaecology, Shri M.P. Shah Govt. Medical College, Jamnagar
Dr. Mona D. Gandhi	Associate Professor, Department of Obstetrics and Gynaecology, Shri M.P. Shah Govt. Medical College, Jamnagar

ABSTRACT

Background: Post-dated pregnancy, defined as pregnancy reaching 40 weeks of gestation, is associated with increased maternal and fetal complications. The optimal approach between induction of labour and expectant management remains a clinical dilemma, particularly with concerns regarding mode of delivery and neonatal outcomes. **Aim:** To evaluate and compare the maternal and neonatal outcomes of induction of labour versus expectant management in post-dated pregnancies. **Materials and Methods:** This retrospective study was conducted in the Department of Obstetrics and Gynaecology at Shri M.P. Shah Government Medical College and G.G. Hospital, Jamnagar. Medical records and labour room delivery registers of 100 women with singleton, vertex pregnancies beyond 40 weeks of gestation and reliable last menstrual period were reviewed over a period of one year. Women with high-risk pregnancies, multiple gestation, malpresentation, or uncertain LMP were excluded. **Results:** Of the 100 women, 53 underwent spontaneous labour and 47 underwent induction of labour. Normal vaginal delivery was more frequent following spontaneous labour (40/53; 75.5%) than induction (21/47; 44.7%), while LSCS was higher in the induction group (55.3% vs. 24.5%). The most common indication for LSCS was meconium-stained liquor with fetal distress (38.5%). Neonatal outcomes were broadly comparable, although one intrauterine death occurred in the induction group. Maternal complications, particularly PPH and need for additional uterotonics, were more frequent following induction. **Conclusion:** In this study, spontaneous onset of labour was associated with a higher likelihood of vaginal delivery and fewer maternal complications, whereas induction was associated with higher LSCS rates. Careful fetal surveillance and timely management of post-dated pregnancies are essential to optimize maternal and neonatal outcomes.

KEYWORDS

Post-dated pregnancy; Induction of labour; Expectant management; Spontaneous labour; Caesarean section; Maternal outcomes; Neonatal outcomes; Fetal distress; Meconium-stained liquor.

INTRODUCTION

- Post dated pregnancy is pregnancy that reaches 40 weeks of gestation.
- Post term pregnancy is pregnancy that reaches 42 weeks of gestation.
- Its incidence is approx. 5 – 10 %. It creates anxiety for the patient as well as obstetrician.
- With increase in isolated small family norms each pregnancy becomes precious one's.
- Post dated pregnancy needs thorough attention as it leads to increased fetal and maternal complications.
- The commonest contributing factor to post-dated pregnancy is error in estimating gestational age. Although such errors have decreased with use of early USG in estimating gestational age.
- For a mother post-dated pregnancy often leads to increased obstetric interventions such as induction of labor, LSCS, instrumental delivery for causes such as failed induction, prolonged labor, PPH are also more frequent.
- Complications such as meconium aspiration, asphyxia, cord complication, pneumonia, septicaemia, peripheral nerve injury, etc.
- Therefore management of post-dated pregnancy has to be a careful balance between expectant observation and timely interventions.
- Management of such pregnancies relies upon careful monitoring of postdate fetus during ante-partum and intra-partum periods. It varies from induction of labor to awaiting the spontaneous onset of labor while assessing various biophysical and biochemical markers of fetal wellbeing such as NST, USG, Amniocentesis, etc has made it possible for safe continuation of pregnancy.
- The most important in post-dated pregnancy is whether to intervene at 41 or 42 weeks and whether labor induction is warranted or to continue with expectant management using various antepartum fetal monitoring.

AIMS OF STUDY

- To evaluate induction v/s expectant management in post-dated pregnancy.

MATERIALS AND METHODS

This is a retrospective study conducted in department of OBGY at Shri M.P. Shah Government Medical College and G.G. Hospital, Jamnagar. Over the period of 1 year, total of 100 patient's files was evaluated and included in this study.

This study was done by retrospective analysis of labor room delivery register and hospital medical records.

Inclusion Criteria

- Singleton pregnancy
- Vertex presentation
- Patient who are sure about there LMP
- Gestation age > 40 weeks

Exclusion Criteria

- Patient unable to give accurate LMP
- High risk pregnancy (DM, APH, PIH, severe anemia, Heart disease)
- Multiple pregnancy
- Malpresentation

RESULTS

	Primigravida		Multigravida		Total
	Spontaneous	Induction	Spontaneous	Induction	
ND	22	14	18	7	61
LSCS	10	22	3	4	39
Total	32	36	21	11	100

Among the primigravida women, 32 underwent spontaneous labour and 36 underwent induction of labour. In the spontaneous labour group, 22 (68.8%) had a normal vaginal delivery, while 10 (31.2%) underwent lower segment caesarean section (LSCS). In the induction group, 14 (38.9%) had a normal vaginal delivery and 22 (61.1%) required LSCS.

Among the multigravida women, 21 experienced spontaneous labour and 11 underwent induction. In the spontaneous labour group, 18 (85.7%) delivered vaginally and 3 (14.3%) underwent LSCS. In the induction group, 7 (63.6%) had a normal vaginal delivery, whereas 4 (36.4%) required LSCS.

Overall, the rate of normal vaginal delivery was higher among women with spontaneous onset of labour compared to those who underwent induction, irrespective of gravidity. Conversely, LSCS rates were higher in the induction groups, particularly among primigravida women, where more than half of the induced women required caesarean delivery (61.1%).

These findings suggest that spontaneous labour is associated with a greater likelihood of vaginal delivery, while induction of labour may be associated with an increased risk of caesarean section, especially among primigravida women.

Indication of LSCS

Indication	No. of patients
MSL / Fetal distress	15
Non progressive Lbor	9
Failure of induction	4
CPD	9
Others	2
Total	39

Among the 39 women who underwent LSCS, the most common indication was meconium-stained liquor (MSL) with fetal distress, accounting for 15 cases (38.5%). This was followed by non-progression of labour in 9 cases (23.1%) and cephalopelvic disproportion (CPD) in 9 cases (23.1%). Failure of induction was observed in 4 cases (10.3%), while other indications accounted for 2 cases (5.1%).

Thus, fetal compromise in the form of MSL with fetal distress emerged as the leading indication for caesarean section in the study population, followed by non-progression of labour and cephalopelvic disproportion.

Gravidity	Spontaneous	Induced	Total
Primi	32	36	68
Multi	21	11	32
Total	53	47	100

Among the 53 women who underwent spontaneous labour, birth asphyxia was observed in 9 neonates (17.0%), while 11 neonates (20.8%) required NICU admission for observation. No cases of intrauterine death (IUD) were reported. A total of 33 neonates (62.3%) were born healthy without any complications.

Among the 47 women who underwent induction of labour, birth asphyxia occurred in 6 neonates (12.8%), and 11 neonates (23.4%) required NICU admission for observation. One case of intrauterine death (2.1%) was reported in the induction group. Twenty-nine neonates (61.7%) were healthy at birth without any complications.

Overall, the proportion of healthy neonates was comparable between the spontaneous labour and induction groups. NICU admission for observation was the most common neonatal complication in both groups. Birth asphyxia was slightly more frequent in the spontaneous labour group, whereas one case of intrauterine death was observed in the induction group.

Neonatal Complications

	Spontaneous	Induction
Fetal Asphyxia	9	6
NICU observation	11	11
IUD	0	1
Healthy	33	29
Total	53	47

Antenatal Complications

Complications	No. of patients
Oligohydramnios	21
MSL	27
HTN	10
GDM	5
None	37

Among the study participants, 37 (37%) had no antenatal complications, indicating that more than one-third of the women experienced an uncomplicated antenatal period. Among those with complications, meconium-stained liquor (MSL) was the most common complication, reported in 27 (27%) participants, followed by oligohydramnios in 21 (21%) participants. Hypertension (HTN) was observed in 10 (10%) participants, while gestational diabetes mellitus (GDM) was the least common complication, affecting 5 (5%) participants.

Maternal complications

Maternal outcomes	Spontaneous	Induction
PPH	3	5
Cervical tear	0	2
Sepsis	1	1
Need of additional uterotonics in 3rd stage	2	5
No Complication	46	33
Total	53	47

In the spontaneous labour group, postpartum haemorrhage (PPH) occurred in 3 women (5.7%), sepsis was observed in 1 woman (1.9%), and 2 women (3.8%) required additional uterotonics during the third stage of labour. No cases of cervical tear were reported. Overall, 46 women (86.8%) experienced no maternal complications.

In the induction group, PPH was observed in 5 women (10.6%), cervical tear in 2 women (4.3%), sepsis in 1 woman (2.1%), and 5 women (10.6%) required additional uterotonics during the third stage of labour. A total of 33 women (70.2%) had no maternal complications. Comparison of the two groups demonstrated a higher incidence of maternal complications among women undergoing induction of labour compared to those with spontaneous labour. PPH was the most common maternal complication observed in both groups, while the requirement for additional uterotonics was also more frequent in the induction group.

CONCLUSION

- Post dated pregnancy remains clinical dilemma for an obstetrician.
- The choice is between watchful expectancy for labour to start or induction in postdated patients.
- As postdated pregnancies are related with maternal and fetal complications like PPH, Fetal Asphyxia, infection, NICU admission, etc.
- Acc to our study for post dated pregnancy induction of labor are associated with higher rates of LSCS, fetal distress and MSL.
- Therefore, it is recommended to not prolong the post dated pregnancies abd their induction must be performed promptly after the projected date has passed.

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