



**ORIGINAL RESEARCH PAPER**

**Gynecology**

**PERINATAL OUTCOME IN POSTDATED PREGNANCIES WITH INDUCTION OF LABOUR.**

**KEY WORDS:** Postdated Pregnancy, Induction Of Labor, Perinatal Outcome

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**ABSTRACT**

**INTRODUCTION:** Fetal, Neonatal and Maternal complications associated with pregnancy beyond 40 weeks have always been underestimated. The present study conducted to find out the perinatal outcome of such prolonged pregnancy. **CASE STUDY:** A prospective observational study of 25(40-41 wks) and 25(41-42 wks) patients with uncomplicated prolonged pregnancy fulfilling the inclusion and exclusion criteria were taken, who are admitted in department of obstetrics and gynaecology at Great eastern medical school and hospital, Srikakulam. Induction given with 25 mcg misoprostol and dinoprostone gel, and perinatal outcome was followed up. **RESULTS:** Among 25 in first group, 19(76%) were NVD, and 6 (24%) were LSCS(indications-meconium stained liquor in 2, abnormal CTG in 2, non progression of labour in 1, induction failure-1), NICU admissions were 0. In second group, i.e, (41-42 wks), 12 (48%) were NVD, LSCS were 13(52%)( indications were meconium stained liquor-4, abnormal CTG-3, non progression of labor in 2, failed induction-4 patients), NICU admissions were 5. **CONCLUSION:** perinatal morbidity is more common in group with gestational age >41 weeks. With Regular antenatal check-up, incidence of postdated pregnancy can be decreased and it is important because of definite risk to fetus as pregnancy continuing beyond 41 weeks of gestation is associated with increased perinatal morbidity and mortality especially those who do not come for regular antenatal check-ups.

**INTRODUCTION:**

Postdate, postterm, postmaturity, and prolonged pregnancy is accepted terms by WHO and the International Federation of Gynecology and Obstetrics to describe pregnancy beyond dates (expected date of delivery). As per WHO, postterm pregnancy (PTP) is defined as a pregnancy that persists beyond 294 days or 42 weeks of gestation.[1] The reported frequency of PTP is approximately 7%. [2]

The incidence of PTP varies depending on whether the calculation is based on the history and clinical examination alone, or whether early pregnancy ultrasound examination is used to estimate gestational age.[3,4] The assessment of the gestational age by early ultrasound examination has reduced the "incidence" of PTP by 50.0%. [5]

The interest in postdatism (just beyond expected date of delivery) has been recent and the management is controversial, more so with the advent of sonography providing information about placental aging and amount of amniotic fluid. [6-8]

**Etiology** \*Postdated pregnancies may be the result of, [9]

1. Error of the last menstrual period (most common)
2. More common in primigravida
3. Previous history of prolonged pregnancy
4. Maternal obesity [10]
5. Placental sulfatase deficiency (an X-linked recessive disorder) which results in reduced placental estrogen synthesis. This leads to poor expression of oxytocin and prostaglandins receptors in myometrium

**AIM:** To study the perinatal outcome in postdated pregnancies with induction of labor.

**STUDY DESIGN:** A Prospective Observational Study

**SAMPLE SIZE:** 50 Patients.

**STUDY SUBJECTS:** 25(40-41 wks) and 25(41-42 wks) patients with uncomplicated prolonged pregnancy fulfilling the inclusion and exclusion criteria were taken, who are admitted in department of obstetrics and gynaecology at Great eastern medical school and hospital, Srikakulam.

**Inclusion criteria:**

- 1) Antenatal cases beyond 40 weeks of gestation age between 18yrs and 35 yrs.

- 2) Having regular menstrual cycles and known LMP or with first trimester scan.
- 3) Singleton pregnancy with vertex presentation.

**Exclusion criteria:**

- 1) Congenital anomalies
- 2) Chronic hypertension, pre eclampsia and eclampsia
- 3) Pre-existing or gestational diabetes
- 4) Heart diseases
- 5) Antepartum haemorrhage.

**METHODOLOGY**

- After per abdominal examination and per vaginal examination i.e. assessment of bishop's score, Induction given with 25 mcg misoprostol or dinoprostone gel to all the 50 patients divided into 2 groups, 25(40-41 wks) and 25(41-42 wks).
- If cervix is favourable, oxytocin augmentation was done after assessing the uterine contractions.
- In both groups augmentation was done with amniotomy with good cervical dilatation and oxytocin drip started as per need.
- If per vaginal findings were same after second time of dinoprotone gel instillation or four times of misoprostol tablet induction, it was labelled as failure of induction, and decision of caesarean section was taken.
- The colour of liquor was seen after amniotomy, If thick meconium stained and any non reassuring fetal heart rate, non progression of labor, were taken for caesarean section for better perinatal outcome.

**RESULTS:**

**AGE:** 8(16%) patients were of <20 years, 32(64%) were of 20-30 years, 10(20%) were of >30 years.

**GRAVIDA:** 32(64%) were PRIMIGRVIDA and 18(36%) were MULTIGRAVIDA

**TYPE OF INDUCTION:** Mesoprostol(25 mcg) used in 36(72%) patients and Dinoprostone gel(0.5mg) in 14(28%).

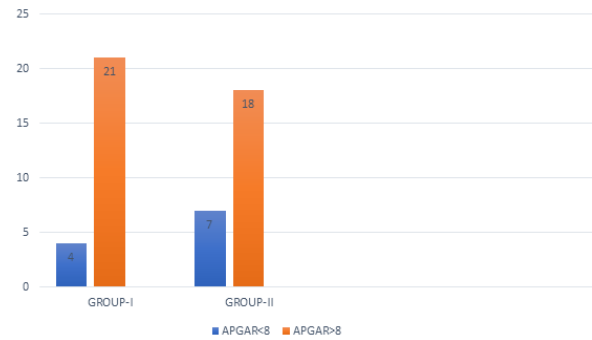
**TABLE-1: Distribution of Cases according to Mode of Delivery:**

Mode of Delivery	Group-1 No(%)	Group-2 No(%)
Normal Delivery	17(68%)	9(36%)
Instrumental Delivery	2(8%)	3(12%)
LSCS	6(24%)	13(52%)
TOTAL	25(100%)	25(100%)

**TABLE-2: Distribution of Cases according to the Indication of LSCS:**

Indication of LSCS	Group-1 No.(%)	Group-2 No.(%)
MECONEUM STAINED LIQUOR	2(33.3%)	4(30%)
ABNORMAL CTG	2(33.3%)	3(24%)
NON PROGRESSION OF LABOUR	1(16.6%)	2(16%)
FAILED INDUCTION	1(16.6%)	4(30%)
TOTAL	6(100%)	13(100%)

**PERINATAL OUTCOME**



**GRAPH-1: Distribution of Cases according to APGAR Score at 5 minutes:**

\*4(16%) babies of group-1 have APGAR <8 , \*21(84%) babies of group-1 have APGAR >8.

\*7(28%) babies of group-2 have APGAR <8 , \*18(72%) babies of group-2 have APGAR >8.

- NICU admissions were 0 in 1<sup>st</sup> group(40-41 wks) and 5 in 2<sup>nd</sup> group(41-42wks).
- Of 5 in 2<sup>nd</sup> group-meconium aspiration syndrome in 3 babies and birth asphyxia in 2 babies seen, which were resuscitated.

**RESUSCITATION:**

Stimulation done in 4(group-1), 7(group-2) babies. Bag and Mask- for one(group-1) and 4(group-2) babies. CPAP done in 2 babies of group-2 and nil in group-1.

**DISCUSSION:**

- Majority of the patients belong to age group 20-30 years 32(64%). While the mean age in Mahapatro's[11] study was 24.19 ± 3.30, while the mean age in Eden et al.'s[12] study was 25.8 years.
- In our study, majority cases were primigravida (64%) which is similar to Mahapatro[11] and Alexander et al.'s study.[13]
- In Group I, 24% were needed LSCS, while in Group II 52% were needed LSCS. It was found to be 28.9% out of 34 pregnancies the rate of LSCS beyond 41 weeks was found to be 5 (14.7%) which was (21.1%) by Kaplan et al.'s study.[14]
- The most common indication for LSCS in both Groups were fetal distress and Meconium stained liquor followed by Failure to progress. Runa Heimstad et al., and Morris et al. (2003) studied similar results.(15)
- James Alexander et al., studied fetal distress as the most common indication for LSCS in Group I while both fetal distress and failure to progress in Group II.
- Majority of babies 39(78%) were having Apgar score >7. Singal P et al. 18, James Alexander et al. 19 and Heimstad R et al. 20 found similar results as present study.
- Present study shows that percentage for type of induction for Cerviprime Gel and Misoprostol (25µg) Tablet was, 28% and 72% respectively. A comparative study done by Ss Ramesh et al. shows 32% and 68% for Cerviprime and misoprostol (25µg) respectively.

**CONCLUSION:**

- With Regular antenatal check-ups, incidence of

postdated pregnancy can be decreased and it is important because of definite risk to fetus as pregnancy continuing beyond 40 wks of gestation is associated with increased perinatal morbidity & mortality especially those who do not come for regular antenatal check-ups.

- Confirmation of diagnosis of exact term pregnancy is very important as many patients don't have regular menstrual history and LMP.
- To conclude Post term pregnancies require early detection, effective and proper planning management. The mere fact that the pregnancy is post term does not necessitate a hasty line of management towards operative delivery. Provided there are no indications for caesarean, post term pregnancy per se is not an indication for the same.

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