

Maternal and Perinatal Outcomes in Postdated Pregnancy

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INTRODUCTION

WHO defines postdated pregnancy as pregnancy which persists beyond 294 days or 42 weeks of gestation [1]. The incidence of postdated pregnancy is approximately 7% [2]. The incidence can be reduced by 50% by using early ultrasound scan for calculating gestational age. WHO recommends induction of labor who have crossed 41 weeks [3].

Risk factors being calculating wrong EDD, Primigravida, History of prolonged pregnancy, Obesity. Placental sulfatase deficiency (X-linked recessive disorder) which results in decreased estrogen synthesis. Also, this leads to poor expression of oxytocin and prostaglandins receptors in myometrium. Postdated pregnancies are associated with increased risk of maternal complications like postpartum hemorrhage, cesarean sections, perineal tears, instrumental deliveries and neonatal complications like shoulder dystocia, fetal distress, mechanical aspiration syndrome, traumatic injury.

Aims and Objectives

- 1) To assess the co morbidities associated with post-datism.
- 2) To assess the maternal and fetal outcomes.

Materials and Methods

- 1) A Prospective study.
- 2) Department of Obstetrics and gynecology at ESIC- PGIMSR, Rajajinagar, Bangalore.
- 3) From August 2022 to August 2023.
- 4) Post dated pregnant women demographic profile, risk factors, maternal and neonatal complications were obtained.

Inclusion Criteria

- 1) All women who have crossed 40 weeks of gestation calculated from their last menstrual period.
- 2) Singleton pregnancy.
- 3) Cephalic presentation.

Exclusion Criteria

- 1) Previous LSCS.
- 2) Malpresentation.

Sample Size

An estimated 5000 deliveries occurring in two years at ESIC hospital Department of OBG Rajajinagar Bangalore, of which 200 cases post-dated pregnancy.

Data Analysis

Data were entered in Microsoft Excel and statistical analysis were carried out in SPSS software version 24.0. Qualitative variables were presented as frequency and percentages. Quantitative variables were presented as mean or median depending upon the distribution of data. Bar diagram and Pie charts were used for graphical representation of data.

Observations

The Study was conducted in ESIC & PGIMR Rajajinagar Bangalore. From August 2022 to August 2023. With sample size of 200 which includes both primary and multigravida.

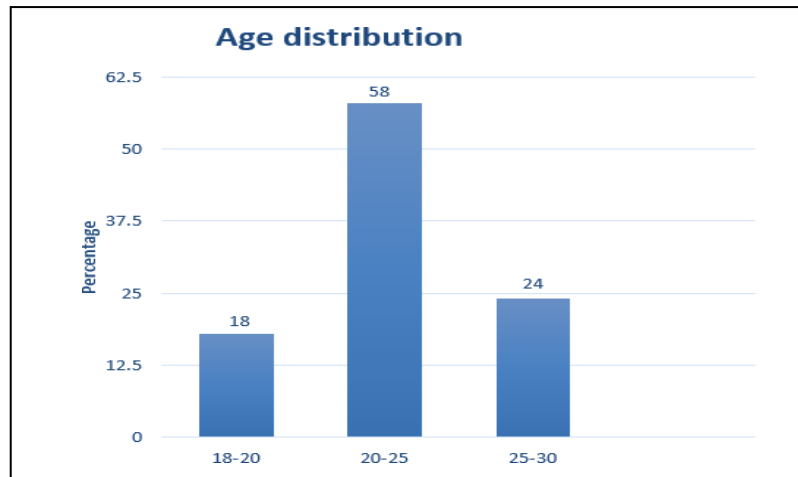


Figure 1: Graph wise distribution of study subjects based on the Age group $p=0.058$

Out of 200 cases, the number of women 116(58%) were in the age group of 20 -25 years followed by 48 (24%) between 25-30 years. There is a statistically significant difference in the gestational age in between groups $p >0.05$

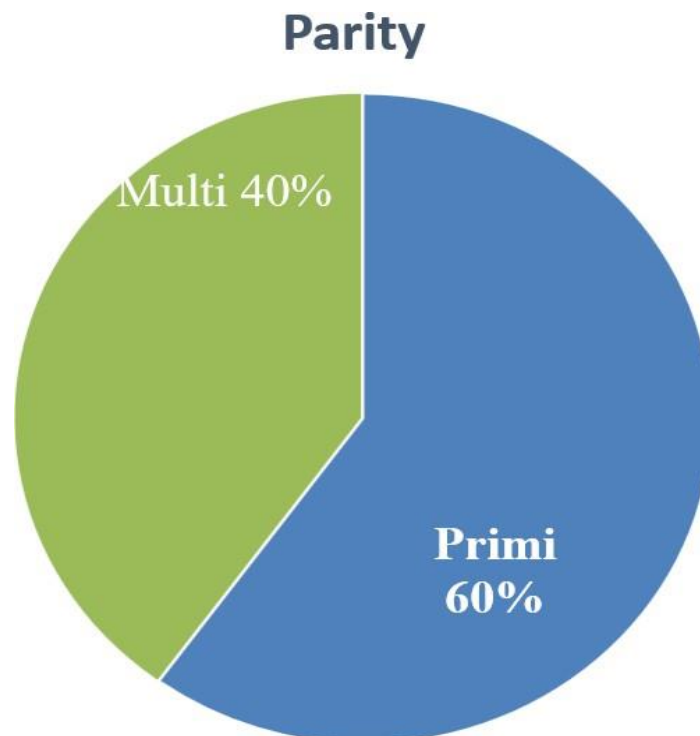


Figure 2: Graph wise distribution of study subjects based on the Parity.

In Our study the post-dated pregnancies observed in primigravida 120 (60%), and multi gravid is 80(40%).

Table 1: Table wise distribution of study subjects based on the mode of delivery.

Sl. No	Mode of delivery		Number of pts	Percentage of pts
1	FTVD (Including instrumental deliveries)	12 (6%)	96	48%
2	LSCS		104	52%
			200	100

Most of the post-dated pregnancies undergone caesarean section (52%) followed by Full term normal vaginal deliveries (48%)

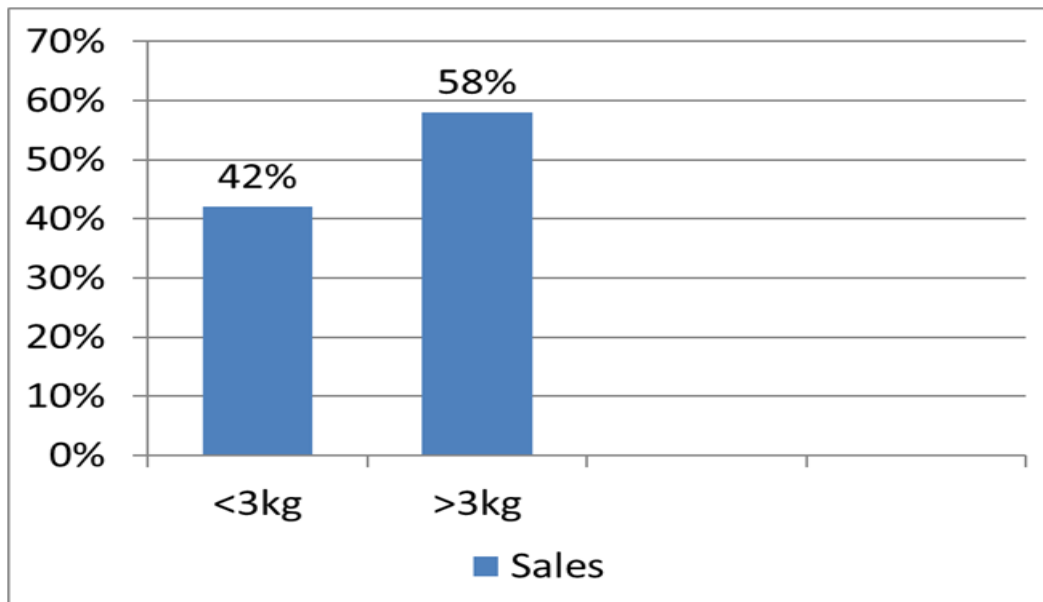


Figure 3: Graph wise distribution of study subjects based on the birth weight.

Most of the babies has birth weight of more than 3 kgs (58) followed by less than 3 kgs (42%). There is a statistically significant difference in the gestational age in between groups $p > 0.05$.

Table 2: Table wise distribution of study subjects for fetal outcome.

FETAL FACTOR			No. of cases	%
APGAR	<8at1 minute	>8at 5miute	88	44
	17%	27%		
MSL			47	23.5
Oligohydramnios			44	22
NICU			98	56

APGAR score gradually reduced with the progression in post-dated pregnancy requiring NICU admission and increasing the chances of perinatal morbidity and mortality.

Table 3: Table wise distribution of study subjects for maternal outcome.

Maternal Injuries	No. of cases
PPH	40
Perineal Injuries	9
Shoulder dystocia	5
Instrumental deliveries	12
Postpartum sepsis	2
Episiotomy wound gaping	1
Total	68

Table 4: Table wise distribution of Indication of caesarean section.

Indications	No, Cases	percentage
1.Fetal distress	70	67.3%
2.Failed Induction	24	23%
3.Arrest of descent	10	9.7
Total	104	100%

Most common indication for caesarean section is fetal distress (67.3%) followed by failed induction.

DISCUSSION

According to American College of Obstetricians and Gynaecologists (ACOG), the Society for Maternal-Fetal Medicine (SMFM) and other professional societies recommended that the term word is replaced by early term, full term, late term and post term this term to more reliable for deliveries occurring at or beyond 37 weeks of gestation.

The prevalence of postdatism in our study was 6%, which was comparable to study conducted by Ritika Bhriegu et al.⁴The mean age of the postdated pregnancy was found to be 20-25yrs which is similar to the study done by Mahapatro's et al [5]. The overall caesarean rate was 52% which was comparable to the study conducted by Ritika bhriegu et al.⁴In our study meconium stained liquor with fetal distress was the most common indication for LSCS which was comparable to study conducted by Mahapatro's et al [5]. The rate of instrumental delivery was found to be 6% which was comparable to study conducted by Singhal et al [6].

The incidence of postdated pregnancy was more in primigravida in our study which was comparable to study conducted by Ritika Bhriegu et al [4]. Meconium aspiration syndrome due to aspiration of meconium in intrauterine life is the most common cause of neonatal mortality and NICU admission which was comparable to study conducted by Shivani singh et al [7]. as in post-dated pregnancy there is placental aging and infarct and fetal hypoxia causes vagal stimulation causing intestinal peristalsis to cause meconium excretion. Oligohydramnios was seen in 40% of cases which was comparable to study conducted by Ritika Bhriegu et al [4]. as the amount of amniotic fluid gradually declines after 38 weeks at

the rate of 125ml per week causing oligohydramnios.

Maternal outcome includes Perineal tear in 9% cases, atonic pph in 4% cases, and shoulder dystocia in 5% cases which is comparable with the study done by Ritika Bhriegu et al [4].

Prolonged delivery was associated with increased risks of perinatal complications such as fetal distress and meconium aspiration syndrome. The rate of cesarean section was higher in prolonged pregnancies

CONCLUSION

- 1) As the complications are associated with post-datism. Pregnancy should not be allowed to go beyond post-term.
- 2) The patients should be counselled regarding the risks associated with advanced gestational age.
- 3) Antepartum fetal surveillance should be done in pregnancies crossing 40 weeks.
- 4) The patient should be offered for induction of labor before 42 weeks.

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