



Study of fetomaternal outcome in postdated pregnancy in a tertiary care centre

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Abstract

Introduction: Post-dated pregnancy is defined as one which has crossed expected date of delivery (i.e Pregnancy beyond 40 weeks). Studies have found incidence of postdated pregnancy between 4-14%. Post-dated pregnancy carries specific hazards to both mother and fetus. While mothers are faced with problems like increased incidences of induced labour, instrumental delivery and LSCS with associated morbidities, fetuses are faced with morbidities like meconium aspiration syndrome, asphyxia.

Aims and objectives: The study was to find out the incidence of maternal complications, perinatal mortality and morbidity in postdated pregnancies

Materials and Methods: This cross sectional observational study of feto-maternal outcome in post-dated pregnancy (Women beyond 40 weeks of gestation) was carried out in the department of obstetrics and gynaecology in Sree Mookambika Institute of Medical Sciences, Kulasekharam, from January 2019 to December 2019, after fulfilling the inclusion and exclusion criteria

Results: There is high fetal and maternal risk associated with postdated pregnancy. Incidence of operative deliveries is 65% in the study group. Postpartum haemorrhage is the most common maternal complication in the study group. In perinatal mortality meconium aspiration syndrome is most common followed by asphyxia.

Conclusion: Maternal morbidity increased in the form of LSCS, postpartum hemorrhage, perineal tear, as the gestational age increased beyond 40 weeks. The study also showed that there was significant increase in perinatal morbidity and perinatal mortality in the form of meconium aspiration syndrome, birth asphyxia and jaundice as the gestational age went beyond 40 weeks. Maternal and fetal morbidity and mortality can be reduced by electively inducing pregnant women at 40+0 weeks as allowing them to continue beyond this gestational age has shown adverse fetomaternal outcomes.

Keywords: maternal complications, Post datism, perinatal morbidity

Introduction

A post-dated pregnancy is the one which extends to or beyond 40 weeks or 280 days from the first day of the L.M.P and has an incidence of 4% to 14% [1]. Pregnancy more than 42 weeks or more than 294 days is called post term pregnancy. Fernandos Arias defined prolonged pregnancy as those pregnancies advancing beyond the expected date of delivery (EDD) [2]. The incidence of postterm pregnancy (>42 weeks) is approximately 6%-7% in Western countries. Approximately 2% of pregnancies go beyond 42 weeks in India [3]. Exact etiology is not known, but some risk factors are prepregnancy BMI (>25), nulliparity, previous history of postterm pregnancy, and genetic makeup [4]. Post term pregnancy is associated with an increased risk of fetal and neonatal mortality and morbidity as well as an increased maternal morbidity [5]. Inadequate counselling regarding expected date of delivery may create undue anxiety and distress for the patient [6]. Post term pregnancies are associated with an increased risk of postnatal mortality and morbidity including meconium aspiration syndrome, oligohydramnios, macrosomia, fetal birth injuries, septicemia, non-reassuring fetal heart rates and maternal complications are increased Caesarean section

Rate, cephalopelvic disproportion, cervical tear, dystocia and post-partum hemorrhage [7]. Management protocol for post term pregnancy is fetal surveillance for prolonged pregnancy, induction of labour, intra-partum care and proper monitoring of labour [5].

Aims and Objectives

To find out the incidence of maternal complications, perinatal mortality and morbidity in postdated pregnancies

Materials and Methods

A cross sectional observational study of feto-maternal outcome in post-dated pregnancy (Women beyond 40 weeks of gestation) was carried out in the Department of Obstetrics and Gynaecology in a tertiary care centre from January 2019 to December 2019, willing to participate and fulfilling the inclusion and exclusion criteria in the study period. Total of 110 post-dated deliveries happened at Sree Mookambika Institute of Medical Sciences, kulasekharam during this study period.

Inclusion Criteria

- Postdated women with regular menstrual cycles and

known first day of last menstrual period or with first trimester ultrasonography

- Singleton pregnancy with vertex presentation.
- Uncomplicated Antenatal cases beyond 40 weeks of gestation, willing to participate in the study.

Exclusion Criteria

- High risk pregnancies like diabetes, antepartum haemorrhage (APH), premature rupture of membranes (PROM) and pregnancy induced hypertension (PIH), heart disease, chronic hypertensive disease, chronic renal disease
- Previous caeserean sections
- Congenital anomalies
- Irregular menstrual cycles and unknown LMP and not having 1st trimester ultrasonography
- Multiple gestation
- Non-vertex presentation
- Not willing to participate in the study

The data was collected using a case record form after taking informed consent of the participants during the study period. Total 110 postdated patients were selected. Detailed clinical history like menstrual history, obstetrics history, past history, personal history, marital history, family history was noted. Exact gestational age was calculated using the Naegele’s formula in women with regular menstrual cycles. In case, if a woman has irregular menstrual cycles, her 1st trimester ultrasonography report was used for calculation of gestational age. Using week of gestation as the primary predictor variable, its association with the following maternal outcomes like operative deliveries and induction were studied and fetal outcomes like meconium aspiration syndrome, asphyxia and jaundice were studied.

Observations and Results

Total deliveries in the tertiary health care centre in the period of 1 year from January 2019 to December 2019, total numbers of cases of postdated pregnancies were 110. Table 1, Age distribution of postdated pregnancy. We had taken cases 110 cases out of which no case was found to have age more than 35 years

Table 1: Age distribution.

Age	Number of patients (total-110)	Percentage
<20	45	41%
20-35	65	59%
>35	0	0

Majority 86 (78%) of the study participants were belonging to primigravida group and 24 patients (22%) were multigravida

Table 2: Parity of the patient

	Number of patients	Percentage
Primigravida	86	78%
Multigravida	24	22%

Table-3 shows distribution of patients according to fetal complications. Meconium Aspiration Syndrome (MAS) was the most common (53.5%) complication in postdated

Pregnancy followed by Asphyxia (37.5%) and jaundice (9%)

Table 3: Distribution of patients according to fetal complications

Complication	Percentage
Mas	53.5
Asphyxia	37.5
Jaundice	9

In our study according to maternal complications associated with post term pregnancies. In 74% of patients there were no complications and among the complications, PPH (12%) was the most common complication followed by perineal tear (9%), cervical tear (4%) and shoulder dystocia (1%).

In our study patients according to pregnancy outcome, it shows that LSCS (65%) was the commonest among all and followed by FTND (spontaneous or induced) 32%, Instrumentaion we had vacuum 1% and forceps 2%. Induction was done in 82 patients

In our study distribution of patients according to type of induction shows cerviprime 55% followed by foley’s induction 23% and misoprostal (25mcg) 4%.

Discussion

The present study was conducted to find out the incidence of maternal complications, perinatal mortality and morbidity in postdated pregnancies. Total cases were 110 which were enrolled based on inclusion and exclusion criteria.

In our study incidence of post-dated pregnancies was more in age group 20 to 35 yrs. Chaudhri in his study found that majority of postdated patients belonged to the age group of 21 to 25 yrs ⁸, while Alexander et al found that majority of patients belonged to 20-30 years ^[9].

Present study shows that among maternal complications PPH was seen in 12% and is most common, perineal tear 9% and no complications in 74%. A comparative study done by Dr. Vijay kumar et al shows rate of PPH was 3.5% and no complications in 87.5% ^[10].

A comparative study done by Parajapati s et al shows that rate of fetal complications as MAS, Asphyxia and Jaundice was 59%, 10% and 4% respectively ^[7] while in our study the rate of Meconium aspiration syndrome (MAS), Asphyxia and Jaundice was 53.5%, 37.5% and 9% respectively.

For distribution of patients according to pregnancy outcome a comparative study done by Farhat naz/amina javid et al ^[11] showed that rate of LSCS, FTVD (spontaneous or induced) and Instrumentation was 70%, 18.33% and 11.67% respectively. In our study the rate for LSCS, FTND and Instrumentation was 65%, 32%, and 3% respectively.

In our study, induction of labour was done in 82 postdated pregnancies. A comparative study done by C.J.M Sneijers et al shows 88.7% rate of induction in post-dated pregnancy.

Present study shows that percentage for type of induction for Dinoprostone gel, Foleys and misoprostol (25µg) was 67.07%, 28.04% and 4.87% respectively, a comparative study done by Prajapati s et al ^[7] shows 46.2%, 10% and 2.6% for Dinoprostone gel, Foleys and misoprostol (25µg) respectively.

Conclusion

Postdated pregnancy is a high risk condition,so it require reduces the complications of postdated pregnancy(maternal and fetal outcomes).

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