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Original Research Article

Retrospective study of post term pregnancy and its outcome

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ABSTRACT

Background: Post Term Pregnancy is one of the commonest obstetric conditions. Pregnancy is called term when it lies between 37 weeks to 42 weeks (259 to 294 days) from the last menstrual period. If the pregnancy exceeds this period (above 42 completed weeks) it is classified as post term pregnancy. The overall incidence of post term pregnancy is 10.0% of all pregnancies. We estimate the recent incidence of post-date in Obstetrics and Gynecology Department, P. D. U. medical college, Rajkot (Gujarat).

Methods: We are taking 500 cases of Post-date pregnancy (Retrospective cases) at P. D. U. Medical College, Rajkot (Gujarat) to know the method of induction, pregnancy outcome, maternal and Fetal complications.

Results: In present study, out of 500 patients, induction was done in 366 patients and number of normal delivery was 377 (75.4%), LSCS was 113 (22.6%) and 10 (2%) was instrumental delivery.

Conclusions: Post term pregnancies require early identification, effective and proper planned management. Rate of vaginal deliveries has increased due to effective Prostaglandins (PGs) and their easy availability.

Keywords: Dinoprostone gel, Induction of labour, Intra cervical Foley's, Misoprostol, Post term pregnancy

INTRODUCTION

Post term pregnancy is associated with an increased risk of fetal and neonatal mortality and morbidity as well as an increased maternal morbidity.^{1,2} Exact etiology is not known but some risk factors are associated with post term pregnancy like parity, maternal age, past history of post term pregnancy, genetics and obesity.^{3,4}

Although the last menstrual period (LMP) has been traditionally used to calculate the estimated due date (EDD), many inaccuracies exist using this method in women who have irregular cycles, have been on recent hormonal birth control, or who have first trimester bleeding. In particular, women are more likely to be oligo-ovulatory than poly ovulatory, so cycles longer than 28 days are not uncommonly seen.⁵ Post term pregnancy associated with an increased risk of postnatal mortality

and morbidity including meconium aspiration syndrome, oligohydramnios, macrosomia, fetal birth injuries, septicemia, rate of non-reassuring fetal heart rate, fetal distress in labour and maternal complication increased C.S rate, cephalopelvic disproportion, cervical tear, dystocia, post-partum hemorrhage.⁶

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. Because of increased risk of maternal and perinatal morbidity and mortality, it is taken as high-risk pregnancy. The published data on risk of unexplained intrauterine death associated with PTP vary. It is mostly due to decrease in amniotic fluid volume; meconium passed in utero, placental changes like calcification, abruption placentae and big baby. In present study, we

take in account the method of induction and mode of delivery in retrospective 500 random cases taken at R. Z. Hospital, Rajkot, Gujarat. The study also showed that indication of labour is not associated with any major maternal and fetal complication.

Management protocol for post term pregnancy is fetal surveillance for prolonged pregnancy, induction of labour, intra-partum care and proper monitoring of labour.⁷

METHODS

This study was carried out retrospectively in the Department of Obstetrics and Gynecology, P.D.U. Government Medical College, Rajkot, Gujarat. A total of 500 patients beyond 40 weeks of gestation admitted in Obstetrics and Gynecology Department, R. Z. Hospital, Rajkot have been taken in the study group.

Inclusion criteria

- Antenatal cases beyond 40 weeks of gestation aged between 18yrs and 35 yrs
- Patients with regular menstrual cycles and known LMP or with first trimester scan
- Singleton pregnancy with vertex presentation.

Exclusion criteria

- Congenital anomalies
- Chronic hypertension, pre-eclampsia and eclampsia
- Pre-existing or gestational diabetes
- Heart diseases
- Antepartum haemorrhage.

The data are collected from the pregnant females between 18yrs and 35 years of age as per the inclusion and exclusion criteria. Using week of gestation as the primary predictor variable, its association with the following outcomes had been examined- in our study we have select 500 cases by lottery method and out of them 134 delivered spontaneously after Amniotomy and 366 were induced. We have used Dinoprostone gel, intra-cervical Foley's and misoprostol tab 25mcg for induction of labour and Artificial Rupture of Membranes (ARM).

RESULTS

Table 1, Age distribution of post term pregnancy. We had taken cases 500 cases out of which no case was found to have age more than 35 years.

Table 1: Age distribution.

Age (years)	Number of patients (%)
15 to <25	300 (60%)
25 to 35	200(40%)
>35	0

Induction was done in 366 patients out of 500 and 134 went in labour without induction by amniotomy. Table 2 shows distribution of patients according to type of induction. We took maximum 5 times induction with misoprost 25mcg.

Table 2: Distribution of the patient according to types of induction.

Types of induction	Total no. of patients (n=366)	%
Dinoprostone gel	231	46.20
Foleys	50	10
Misoprostol(25mcg)	13	2.60

Table 3 shows distribution of patients according to outcome, it shows that vaginal delivery was 377 (75.4%) was the commonest among all. Instrumental delivery was by obstetric outlet forceps.

Table 3: Distribution of patients according to pregnancy outcome.

Pregnancy outcome	%
FTVD (spontaneous or induced)	75.4
LSCS	22.6
Instrumentation	2

Table 4 shows distribution of patients according to fetal complications. Meconium Aspiration Syndrome (MAS) was the most common (59%) complication in post term pregnancy.

Table 4: Distribution of patients according to fetal complications.

Complications	%
MAS	59
Asphyxia	10
Jaundice	4

Table 5 shows distribution of patients according to maternal complications associated with post term pregnancies.

In 89.8% of patients there were no complications and among the complications, PPH (4%), cervical tear (5.2%) was the most common complication in post term pregnancy.

Table 5: Distribution of patients according to maternal complications.

Complications	%
PPH	4
Cervical tear	5.2
Perineal tear	15
Shoulder dystocia	0
No complications	449

DISCUSSION

This study was carried out retrospectively in the Department of Obstetrics and Gynecology, P. D. U. Government Medical College, Rajkot, Gujarat. A total of 500 patients beyond 40 weeks of gestation admitted in Obstetrics and Gynecology Department, R.Z. Hospital, Rajkot have been taken in the study group.

The aim of induction of labour in prolonged pregnancy is to reduce the prenatal mortality without increasing the maternal and perinatal morbidity. The study was to evaluate the outcome of induction in prolong pregnancy, whether routine induction of labour increases the rate of caesarian section, to find out complication of induction in prolong pregnancy. Perinatal mortality and morbidity is increased in pregnancies over 40 weeks, but can be reduced by the induction of labour.⁸

Present study shows that among maternal complications Cervical Tear was 5.2%, PPH in 4% and no complications in 89.8%, suggesting cervical tear was most common complication in this study. A comparative study done by Dr. Vijaykumar et al shows rate of PPH was 3.5% and no complications in 87.5%.⁷

A comparative study done by Farhat naz/amina javid et al shows that rate of fetal complications as MAS, Asphyxia and Jaundice was 68%, 55% and 8% respectively while in this study we have MAS 59%, Asphyxia 10% and Jaundice 4%.⁹

For distribution of patients according to pregnancy outcome a comparative study done by Farhat naz/amina javid et al shows that rate of LSCS, FTVD (spontaneous or induced) and instrumentation was 70%, 18.33% and 11.67% respectively.⁹

In the present study, induction of labour was done in 73.2% of post-term pregnancy. A comparative study done by C.J.M Sneijers et al shows 88.7% rate of induction in post-term pregnancy.

Present study shows that percentage for type of induction for Dinoprostone gel, Foleys and misoprostol (25µg) was 46.2%, 10% and 2.6% respectively, a comparative study done by Ss Ramesh et al. shows 74.4%, 17.7% and 9.21% for Dinoprostone gel, Foleys and misoprostol (25µg) respectively.

CONCLUSION

We conclude Post term pregnancies require early identification, effective and proper planned management. The mere fact that the pregnancy is post term does not

necessitate a hasty line of management towards operative delivery. Rate of vaginal deliveries has increased due to effective Prostaglandins(PGs) and their easy availability. Provided there are no contraindications for caesarean, post term pregnancy per se is not a contraindication for the same.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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