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Original Research Article

Study on the Fetomaternal Outcome in Pregnancy beyond 40 Weeks of Gestation at a Tertiary Care Center

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Abstract

Aims and Background: A prolonged pregnancy is defined as any pregnancy beyond 280 days. These pregnancies are more complicated and are also associated with compromised foeto- maternal outcomes. This study is to evaluate the foeto-maternal outcome in pregnancies after 40 weeks of gestation.

Materials and Methods: This is a prospective observational study of 12 months duration, and includes all the antenatal exceeding 40 weeks of pregnancy. Pregnancies with any complication and any fetal congenital anomalies were excluded. The spontaneous labor or induction rate, mode of delivery, and foeto-maternal complications were evaluated. The statistical analysis was done using SPSS software.

Results: Induction of labor found to be more in primigravida in comparison to multigravida. Cesarean section rate was found higher in induction of labor, 70%, than the spontaneous group, 24%, which is statistically significant.

Conclusion: Complication rates are higher with increasing gestational age.

Clinical significance: Pregnancies crossing 40 weeks should be monitored intensively and wisely.

Keywords: Prolonged pregnancy, Postdatism, Post-term pregnancy, induction of labor.

Introduction

Post-term pregnancy is defined as pregnancy with gestational age exceeding 40 weeks or 280 days from the first day of the last menstrual period. Ratnam et al. concluded that the incidence of post-term pregnancy is 4-14% of all pregnancies. Post term pregnancies are associated with factors like sedentary lifestyle, fetal anomalies like anencephaly and elderly pregnancy. [3]

There are increased fetomaternal morbidity and mortality when any pregnancy extend beyond the expected date of delivery (EDD).

Fetal complications like fetal distress, transient tachypnoea of newborn, oligohydramnios occurs.

The rate of perinatal mortality also increases like postpartum hemorrhage, fever, wound infection increases beyond 40 weeks of gestation, so consideration for termination of pregnancy should be done. The present study is conducted to assess the fetomaternal outcome after 40 weeks on the mode of delivery.

Materials and Methods

Source of Data: All antenatal patients beyond 40 weeks of gestation were observed for the fulfilment of inclusion and exclusion criteria. After taking proper consent, they were included in this study. They were admitted to the Department of Obstetrics and Gynecology, Guru Gobind Singh Govt. Hospital, Jamnagar, Gujarat. The study was conducted for a period of 12 months.

Study Design: This was a prospective observational study.

Study Subjects

Inclusion Criteria

- Gestational age was also confirmed by the date of last menstrual period.

- Antenatal women beyond 40 weeks of gestation either primi gravida or multigravida were included. Gestational age (GA) was confirmed by the first trimester ultrasonography report.
- Cephalic presentation.
- Singleton pregnancy.

Exclusion Criteria

- Any associated complications like previous lower segment cesarean section (LSCS), malpresentation, hypertensive disorders of pregnancy, diabetes (overt diabetes and gestational diabetes), all antepartum hemorrhages, multifetal pregnancy, anemia, and other medical disorders of pregnancy like heart disease, thyroid disorder.
- Any anomalies of the fetus.

Methodology

Total 50 cases were included after considering the inclusion and exclusion criteria.

After ruling out all the exclusion criteria and taking proper informed written consent, history about gestational age, parity confirmed, physical examination done and investigation sent. General and systemic examination done. For amniotic fluid index (AFI) and any Doppler abnormality ultrasonography done. Post-delivery follow up was taken for 10 days to watch for any complications.

Two groups were made,

Group 1: Post term pregnancy who were not in labour.

Group 2: Post term pregnancy who were in spontaneous labor.

In group 1 patients, vitals charting and fetal heart monitoring was done. After thorough vaginal examination, along with assessment of bishops score and pelvis, Induction of labor by intracervical 0.5 mg dinoprostone (PGE2) gel or foleys with misoprostol per-vaginally was done. Reassessment was done after 6 hours in patients with induction with dinoprostone gel and after 4hrs for patients with foleys and misoprostol. If labor was not established 2nd dose of dinoprostone gel and misoprostol repeated in respective patient. At cervical dilatation of around 4 cm artificial rupture of membrane done to watch for meconium stained liquor.

In group 2 patients after vitals charting, fetal heart monitoring and thorough examination of pelvis, augmentation of labor was done by oxytocin. At cervical dilatation of around 4 cm artificial rupture of membrane done to watch for meconium stained liquor.

Intrapartum labor monitoring done by cardiotocography, and partogram were also plotted.

Any fetomaternal complications were noted.

Results

Table 1: Case Distribution According To Age

Age	No. of patients	Percentage
< 20yrs	3	6.00%
20-40yrs	40	80.00%
>40yrs	7	14.00%

Table 2: Case Distribution According to the Parity

Parity	No. of patients	Percentage
Primigravida	28	56.00%
2nd gravida	15	30.00%
3rd gravida	5	10.00%
> 3rd gravida	2	4.00%

Table 3: Case Distribution into Spontaneous and Induced Section

	Spontaneous	Induced	Total
ND	15 (75.00%)	9 (30.00%)	24
CS	5 (25.00%)	21 (70.00%)	26
Total	20 (100%)	30 (100%)	50

Table 4: Case Distribution into Indication of Cesarean Section

Indications	No. of patients	Percentage
Oligohydramnios	10	38.46%
Meconium Stained liquor with fetal distress	8	30.70%
Non progress of labor	5	19.32%
Cephalopelvic disproportion	3	11.52%

Table 5: Case Distribution into Maternal Morbidity

Causes	No. of patients	Percentage
Post-partum hemorrhage	3	30.0%
Fever	3	30.0%
Wound infection	3	30.0%
Cervical tear	1	10.0%

Table 6: Case Distribution into Perinatal Morbidity

Causes	No. of patients	Percentage
Meconium stained liquor	8	40.0%
Transient tachypnea of the newborn	5	25.0%
Respiratory distress syndrome	2	10.0%
Neonatal Jaundice	5	25.0%
Neonatal convulsions	0	0.0%

Discussion

In our study most of the population was between 20-40 years of age. Post term pregnancy was found to be more frequently in primigravida (56%) then in 2nd gravida (30%) and least in multigravida. Out of all post term pregnancies, spontaneous labor occurred in multigravida (G>2) with more chances of successful normal vaginal delivery. In primigravida, majority of post term pregnancies were not in labor. Indeed, induction of labor was done. Out of that, good proportion of patients ultimately underwent cesarean section.

In our study, out of all cases, majority causes for C-section were found to be oligohydramnios (38.46%) followed by meconium stained liquor with fetal distress (30.74%), following by non-progression of labor (19.32%) etc. These indications were found to be common in both spontaneous group and induction group.

This study suggested that perinatal morbidity was found to be increased due to meconium aspiration syndrome. Other outcomes seen are transient tachypnea of the newborn, respiration distress syndrome, neonatal jaundice and no neonatal convulsion. From our study and most other studies, it is concluded that the incidence of LSCS and maternal and neonatal morbidity increases as pregnancy crosses 40 weeks of gestation. In our study, all the high-risk pregnancies which might have influenced the outcome were excluded. In the study, published in Indian Journal of Obstetrics and Gynecology research done in 2017, incidence of post-dated pregnancy was 17.36%. Indication for LSCS were MSL (45.1%), NPL (22.7%), FD (18.2%) previous LSCS (13.6%). Perinatal mortality showed increased incidence of admission to NICU.

Conclusion

All pregnant individuals should receive consistent prenatal care throughout gestation. A dating ultrasound is particularly recommended—especially for those with irregular menstrual cycles—to accurately determine gestational age and for the estimated date of delivery. Induction of labor must follow thorough counselling and documented consent. Ultrasonographic evaluation is essential in post-term pregnancies to assess the amniotic fluid volume. In cases of severe oligohydramnios (amniotic fluid index <5 cm), most patients promptly scheduled for emergency cesarean delivery. However, if labor has already commenced, a carefully monitored short trial of labor may be considered. Prolonged gestation on its own should not be viewed as a standalone indication for cesarean section; it should be accompanied by other obstetric justifications. Post-term pregnancies should be managed in well-equipped tertiary care centers, ensuring continuous fetal heart rate monitoring, accurate partograph documentation, and 24/7 availability of emergency obstetric interventions. This is particularly crucial for patients undergoing induction of labor.

Findings from the present study, along with existing literature, emphasize the heightened risk of maternal and neonatal complications associated with post-term gestation. Therefore, vigilant and comprehensive monitoring is vital in these cases.

References

1. Cunningham FG, Leveno KJ, Dashe JS, et al. Post term pregnancy. In: Williams Obstetrics 26e, 26th edition Published in New York, United States. McGraw Hill Professional; 2020.
2. Briscoc D. Management of pregnancy beyond 40 weeks gestation. American Family Physician, 2005, May.
3. Ratnam SSK, Rao Bhasker, Arulkumaran S. Obstetrics and Gynaecology for Post-Graduates, vol 2, pp. 90-95. Orient Longman Ltd, New Delhi, India; 1994.
4. Chhabra S, Dargan R. Postdated pregnancies. Management option. J. Obst. Gynae. India, 2007, July/Aug.
5. Alan H Decherney, Lauren Nathan, T Murphy Goodwin, et al. Current Diagnosis and

Treatment Obstetrics and Gynecologic, 10th edition, pp. 187-188, 283-295. McGraw-Hill Medical Publishing Division, New York, United States, 2007.

6. Naszia Amzad. Fetomaternal outcome of pregnancy between 20 and 42 weeks. Professional Medical Journal 2008, September.