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A clinicopathological study of postdated pregnancy in GMC Jammu

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Abstract
Introduction: Post-term or postdated pregnancy is defined as pregnancy that persists beyond 294 days or 42 weeks of gestation. Its incidence is up to 10% of all pregnancies and carries increased risk to the mother and foetus.
Aim: To study the maternal and foetal outcome in postdated pregnancies.
Materials and methods: This was a retrospective observational study conducted in the department of gynaecology and obstetrics in GMC Jammu for a period of one year. 100 patients in the antenatal ward and labour room were selected for the study and were divided into two groups: Control group- Gestational age 37-40 weeks & Study group - Gestational age >40 weeks. Maternal and foetal complications were compared between the two groups.
Results: Among the study group, 48% of women were between 26-30 years. 62% women were primigravida. There was increased rate of cesarean sections (28%) and instrumental deliveries (8%) in the study group. Acute foetal distress and meconium stained liquor was the most common indication for LSCS seen in 14% cases followed by cephalopelvic disproportion in 6% cases. There was increased incidence of maternal complications like LSCS (28%), PPH (16%) and sepsis (12%). Foetal complications were also increased in the study group like foetal asphyxia (12%), admission into NICU (14%) and intrauterine deaths (2%).
Conclusion: Postdated pregnancy remains a clinical dilemma for an obstetrician. The choice is between watchful expectancy for labour to start or induction in postdated patients. Keeping in mind the increased complications associated with postdatedism, the safe approach seems to be early induction in case of post term pregnancies or careful monitoring by CTG and colour doppler studies if expectant management is decided.

Keywords: Postdatedism, maternal complications, perinatal complications

Introduction
Post-term or postdated pregnancy is defined as pregnancy that persists beyond 294 days or 42 weeks of gestation [1]. Its incidence is up to 10% of all pregnancies and carries increased risk to mother and foetus [2, 3]. Several studies has shown its association with an increased risk of foetal and neonatal mortality and morbidity (Olesen *et al.* [1]) as well as maternal morbidity (Caughey *et al.* [2]).
It is proposed that in postdated pregnancies, continued foetal growth and arrested placental growth is associated with a situation of decreasing placental nutrient reserve, compromised fetal circulation and eventually fetal distress. Prolonged pregnancies are associated with an increased incidence of macrosomia and macrocosmic infants have an increased chance of metabolic disturbances and polycythemia [4].
The maternal risks of postdated pregnancy include an increase in labor dystocia, perineal injury, operative vaginal delivery, cesarean deliveries [5, 6, 8, 9]. The foetal risks associated are increased foetal distress, meconium stained liquor, increased incidence of foetal asphyxia, NICU admissions and intrauterine deaths.
In this study the various aspects of postdated pregnancy and risk to the foetus in postdated pregnancy were evaluated, to find out the socio epidemiological factors in postdated pregnancy, to study the obstetric consequences of postdated pregnancy and to study the impact of postdated pregnancies in perinatal morbidity and mortality.

Methods

This was a retrospective observational study conducted in the department of gynaecology and obstetrics in GMC Jammu for a period of one year from January 2019 to December 2019.100 patients in the antenatal ward and labour room were selected for the study.

They were divided into two groups

- Control group- Gestational age 37-40 weeks
- Study group- Gestational age >40 weeks

Inclusion criteria

- Singleton pregnancy
- Cephalic presentation
- Absence of any other maternal complication

Exclusion criteria

Associated maternal complications like previous cesarean section, gestational hypertension, gestational diabetes, malpresentation, abruption, placenta previa, anaemia, foetal anomalies

All the data regarding the age, parity gestational age, any maternal complications like oligohydromnios, intrauterine growth restriction etc was collected. The maternal outcome was noted in terms of need for cesarean section, postpartum haemorrhage and sepsis. Foetal outcome was noted in terms of intrapartam asphyxia, intrauterine foetal death, admission to neonatal intensive care unit etc.

Results

Fig 1: Age wise distribution of cases and controls

Age (Years)	Number of Cases (%)	Number of Controls (%)
20-25	14(28%)	15(30%)
26-30	24(48%)	25(50%)
31-35	12(24%)	10(20%)
Total	50	50
Mean ± SD	28 ± 3.30	27 ± 3.169

Figure 1 shows that maximum number of patients belonged to the age group of 26-30 yes both in cases (48%) and control group (50%).

Fig 2: Distribution of cases and controls by gestational age

Period of gestation	Number of Cases (%)	Number of Controls
37-40 weeks	0	50 (100%)
40-41 weeks	37 (74%)	0
41-42 weeks	13 (26%)	0
Total	50	50

Figure 2 shows that the maximum number of patients in the study group (74%) belonged to the gestational age of 40-41 weeks while all the controls belonged to 37-40 weeks gestational age.

Fig 3: Distribution of cases and controls according to parity

Parity	Number of cases (%)	Number of controls (%)
Primigravida	31 (62%)	26 (52%)
Multigravida	19 (38%)	24 (48%)
Total	50	50

As shown in figure 3, 62% of the patients in study group were primigravida and in the control group 52% were primigravida.

Fig 4: Distribution of cases and controls according to the type of delivery

Type of delivery	Number of cases (%)	Number of controls (%)
NVD	32 (64%)	42 (84%)
Instrumental delivery	4 (8%)	1 (2%)
LSCS	14 (28%)	7 (14%)
Total	50	50

Figure 4 shows that in the study group the percentage of LSCS was 28% which was higher than in the control group where it was 14%. Incidence of instrumental delivery was also higher in the study group as compared to control group (8% as compared to 2%).

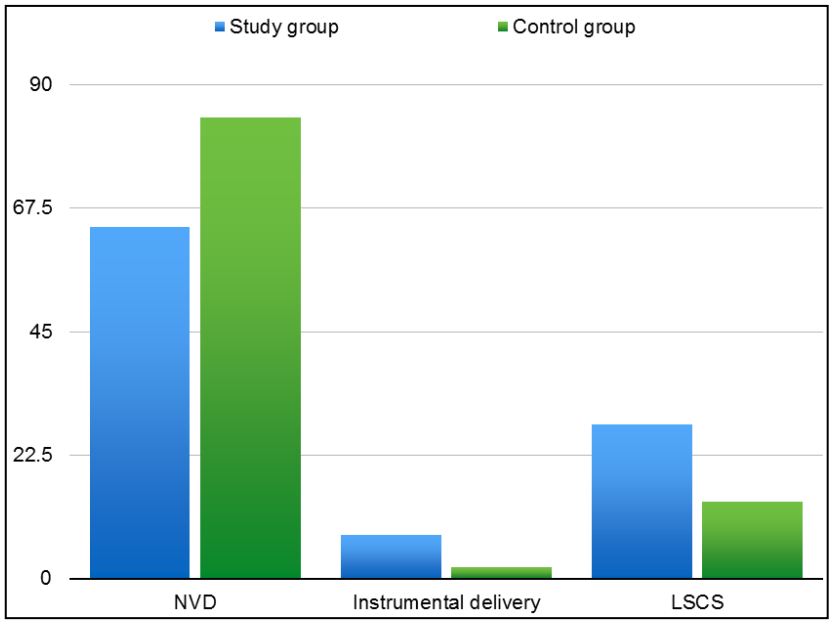

Fig 5: Comparison of the type of delivery between the study and control group.

Fig 6: Distribution of cases and controls according to the indication of LSCS

Indication of LSCS	Number of Cases (%)	Number of Controls (%)
Acute foetal distress/MSL	7(14%)	2(4%)
Failed induction	2(4%)	0
Non progress of labour	1(2%)	3(6%)
Non reactive CTG	1(2%)	2(4%)
CPD	3(6%)	0
Total	14	7

As shown in Figure 6, among the indictions for LSCS, the most common indication among the study group was acute foetal distress which includes meconium stained liquor (14%) followed by cephalopelvic disproportion (6%). In the study group, most common indication was non progress of labour (6%) followed by acute foetal distress (4%) and non reactive CTG (4%).

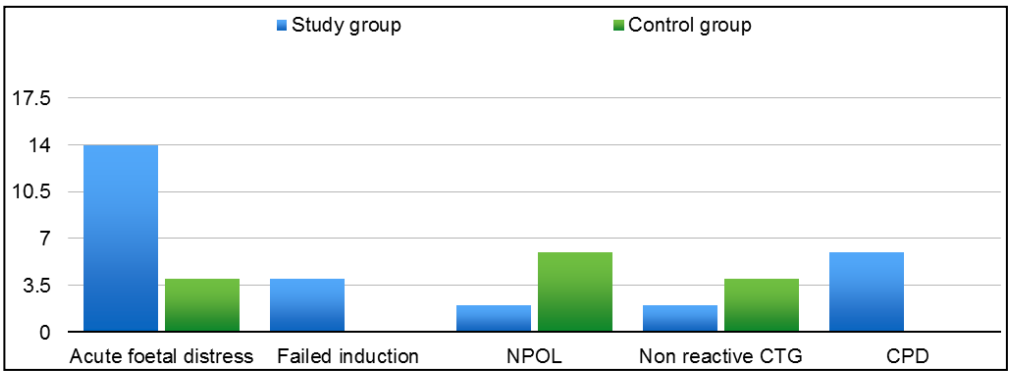

Fig 7: Comparison of the indications for LSCS in study and control group

Fig 8: Distribution of cases and controls according to maternal complications

Maternal complication	Number of cases	Number of controls
LSCS	14 (28%)	7 (14%)
PPH	8 (16%)	3 (6%)
Sepsis	6 (12%)	2 (4%)
Total	28	12

Figure 8 shows the maternal complications like LSCS, PPH and sepsis all were higher in the study group as compared to the control group.

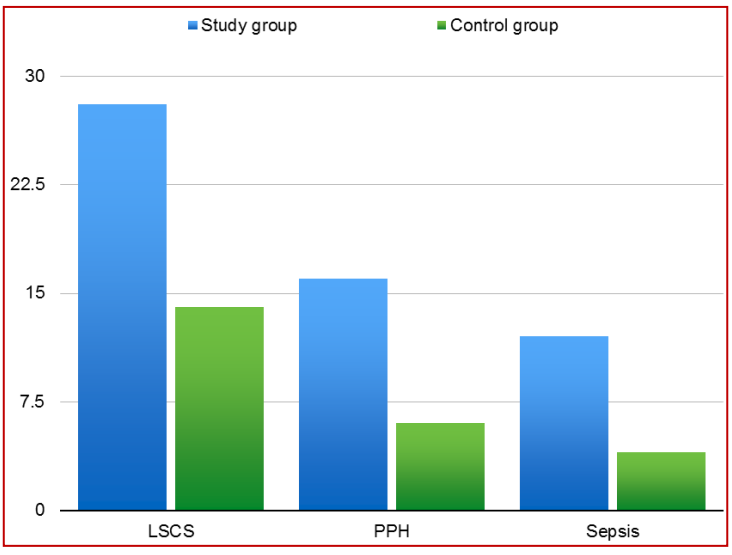

Fig 9: Comparison of maternal complications between study and control group

Fig 10: Distribution of cases and controls according to the foetal outcome

Foetal outcome	Number of Cases (%)	Number of Controls (%)
No asphyxia	36 (72%)	43 (86%)
Fetal asphyxia(APGAR score<6/10)	6 (12%)	3 (6%)
Admission to NICU	7 (14%)	4 (8%)
IUD	1 (2%)	0
Total	50	50

Among the foetal outcomes, as is depicted in figure 8, 72% of infants in the study group had asphyxia as compared to only 6% in the control group. 14% infants of the study group had to be admitted to the NICU as compared to 8% in the control group. 2% was the percentage of intrauterine deaths in the study group as compared to none in the control group.

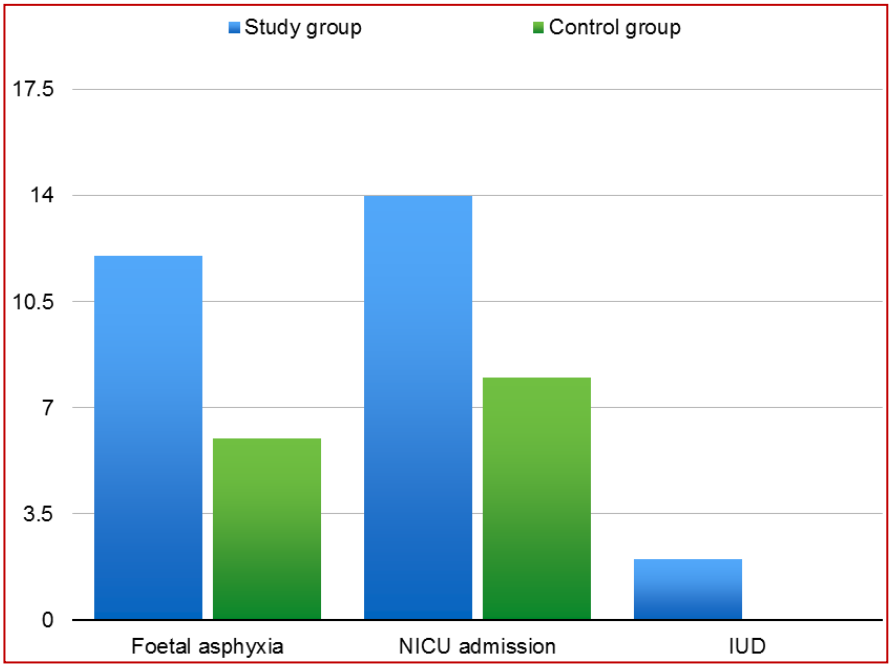

Fig 11: Comparison of foetal complications between study and control group

Discussion

This study was done in a tertiary hospital to find out the maternal and perinatal complications in postdated pregnancies. For this, a total of 100 patients were enrolled in the study constituting 50 cases and 50 controls.

In the study, among the cases, maximum number of cases i.e. 48% belonged to the age group of 26-30 years with the mean age being 28 ± 3.30 years in the study group. Similar studies by Mahapatro[6] and Eden *et al* [7] have shown the mean age to be 24.19 ± 3.30 and 25.8 years respectively. 62% of the patients in study group were primigravida which is similar to Mahapatro [6] and Alexander *et al*'s [8] study.

Among the mode of delivery, in the study group the percentage of LSCS was 28% which was higher than in the control group where it was 14%. Incidence of instrumental delivery was also higher in the study group as compared to control group (8% as compared to 2%). In a similar study by Mahapatro [6], the rate of LSCS was found to be 28.9% and that of instrumental delivery was 5.72%. In study by Singhal *et al.* [9], the rate of LSCS was found to be 14.7% and that of instrumental delivery was 8.6%. Davinder *et al.* [10]'s study showed the rate of instrumental delivery as 10.35%.

Among the indictions for LSCS, the most common indication among the study group was acute foetal distress which includes meconium stained liquor (14%) followed by cephalopelvic disproportion (6%). Bhriegu R *et al* [11] in their study also found that Meconium stained liquor with fetal distress was the most common indication for LSCS (23.5%) and in Mahapatro's[6] study, again fetal distress was found to be the most common indication for LSCS (65.5%).

In our study, there was increased risk of maternal complications and foetal complications like LSCS rate, postpartum haemorrhage, sepsis, foetal asphyxia, NICU admissions and intrauterine deaths as compared to the control group. Bhriegu R *et al*[11] in their study, also found increased incidence of obstetric complications such as rate of LSCS, perineal tear, atonic postpartum haemorrhage, and perinatal complications such as fetal distress and meconium aspiration syndrome. Similar studies by Singhal *et al.* [9] and Alexander *et al* [8] also revealed increased incidence of maternal and perinatal complications like increased LSCS rate, low Apgar scores and admission into NICU.

Conclusion

Postdated pregnancy remains a clinical dilemma for an obstetrician. The choice is between watchful expectancy for labour to start or induction in postdated patients. According to our study, postdated pregnancies are related with higher rate of LSCS and instrumental deliveries. Foetal distress and meconium stained liquor are significantly higher in postdated pregnancies. Similarly, maternal and perinatal complications like postpartum haemorrhage, sepsis, admission to NICU, low Apgar scores, foetal asphyxia and intrauterine deaths are also higher in post-term pregnancies. Therefore it is recommended to not prolong the postdated pregnancies and their induction must be soon after the expected date is crossed to prevent the above mentioned complications.

References

1. Olesen AW, Westergaard JG, Olsen J. Perinatal and maternal complications related to postterm delivery: A national register-based study, 1978-1993. Am J Obstet Gynecol 2003;189:222-227.
2. Caughey AB, Stotland NE, Washington AE *et al*. Maternal obstetric complications of pregnancy are associated with increasing gestational age at term. Am J Obstet Gynecol 2007;196:155
3. Fernando Arias. Practical guide to high risk pregnancy and delivery 3 Edition; India Harcourt private limited, 2008, 255-270.
4. Rand L, Robinson JN, Economy KE. Post-term induction of labor revisited. Obstet Gynecol 2000;96(5 Pt 1):779-83

5. Norwitz ER, Snegovskikh VV, Caughey AB. Prolonged pregnancy: when should we intervene? Clin Obstet Gynecol 2007;50:547-57.
6. Mahapatro A. Fetomaternal outcome in pregnancy beyond 40 weeks. Int J Pharm Bio Sci 2015;6:53-8.
7. Eden RD, Gergely RZ, Schifrin BS, Wade ME. Comparison of antepartum testing schemes for the management of the postdate pregnancy. Am J Obstet Gynecol 1982;144:683-92.
8. Alexander JM, McIntire DD, Leveno KJ. Forty weeks and beyond: Pregnancy outcomes by week of gestation. Obstet Gynecol 2000;96:291-4.
9. Singhal P. Fetomaternal outcome following postdate pregnancy. A prospective study. J Obstet Gynecol India. 2001;51:89-93.
10. Kaur D, Saini AS, Kaur J. Maternal and fetal outcome in postdated pregnancies. J Obstet Gynecol India 1997;47:331-4.
11. Bhriegu R, Agrawal M, Hariharan C. Assessment of maternal and perinatal outcome in postdated pregnancy. J Datta Meghe Inst Med Sci Univ 2017;12:35-40.