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Fetomaternal outcomes in postdated pregnancy in a tertiary care hospital: A retrospective study

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Abstract
Aim: To analyse maternal and perinatal outcomes of pregnancy which has crossed the expected date of delivery.
Background: Pregnancy which last beyond 40 weeks is a known complication of normal delivery. Postdated pregnancy causes specific hazards to both mother and fetus. Mother faces problem like increased incidence of induced labour, instrumental delivery, prolonged labour, shoulder dystocia, LSCS, instrumental delivery which itself associated with many other morbidities, fetal complications ranging from IUGR to macrosomia. The aim of the study was to find out the maternal and perinatal complications associated with postdated pregnancy.
Materials and Methods: A retrospective analysis of nine month (February 2021 to October 2021) was done in tertiary care hospital to know the outcome of pregnancies which has crossed the expected date of delivery.
Results: In our study, Maximum number of patients belonged to the age group of 25-30 years both in study (60%) and control group (58.4%). The maximum number of patients in the study group (81.6%) belonged to the gestational age of 40-41 weeks while all the controls belonged to 37-40 weeks gestational age. 68% of the patients in study group were primigravida and in the control group 62.4% were primigravida. The percentage of LSCS in study group was 36% which was higher than in the control group where it was 16%. Incidence of instrumental delivery was also higher in the study group as compared to control group (11.2% as compared to 3.2%). Among the indications for LSCS, the most common indication in the study group was acute fetal distress which includes meconium stained liquor (28.9%) followed by cephalopelvic disproportion (22.2%) while in the control group, most common indication was nonprogress of labour (35%) followed by acute fetal distress (25%). All maternal and perinatal complications were higher in the study group as compared to the control group.
Conclusion: In women with postdated pregnancy an individualized approach to be done. Early intervention should be done in postdated pregnancy to decrease maternal and perinatal complications.

Keywords: Postdated, maternal complications, perinatal complications, LSCS, instrumental delivery

Introduction
Postdated, post maturity, post term and prolonged pregnancy is accepted term by the International Federation of Gynaecology and Obstetrics and WHO to describe pregnancy beyond expected date of delivery. As per WHO, post term pregnancy (PTP) is defined as pregnancy that persists beyond 294 days or 42 weeks of gestation [1]. Prolongation of complicates upto 10% of all pregnancies and carries increased risk to mother and fetus [2]. Postdated pregnancies may be due to multiple etiologies. 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]. There is increased risk of oligohydramnios, meconium stained liquor, fetal postmaturity syndrome, macrosomia and cesarean section, all of which jeopardize the baby as well as the mother. Prolonged pregnancy has always been regarded as a high risk pregnancy because perinatal morbidity and mortality is known to arise [4]. The growth and survival of most postdated infants suggests that placental function deteriorates with increasing length of the gestational age. The combination of continued fetal growth and arrested placental growth may lead to situation of decreasing placental nutrient reserve, compromised fetal circulation and eventually fetal distress. However, a recent electron microscopy study of placental changes in prolonged pregnancy suggested that uteroplacental ischemia and not the placental aging may be important in genesis of postmaturity syndrome [5]. The maternal risks of postdated pregnancy are sometimes underestimated.

These includes increase in rate of labour dystocia, operative vaginal deliveries, severe perineal injuries related to macrosomia, increase rate of cesarean delivery [6, 7]. As there is fetal and maternal risk associated with postdated pregnancy, need of induction is more with postdated pregnancy. One recent systematic review showed that the policy of labor induction for women with postdated pregnancy compared with expectant management is associated with fewer perinatal deaths and fewer cesarean sections [8]. Management protocol for post term pregnancy is fetal surveillance for prolonged pregnancy, induction of labour, during intrapartum care proper monitoring of labour [9]. The aim of the study was to analyse the maternal and fetal outcomes of the postdated pregnancy.

Material and Methods

This was a retrospective record based study for nine months (February 2021 to October 2021) in the department of obstetrics and gynaecology in tertiary care hospital.

Inclusion criteria

- Singleton pregnancy
- Cephalic presentation
- Absence of any other maternal complications
- Period of gestation greater than 40 weeks

Exclusion criteria

- Previous cesarean section
- Gestational hypertension
- Gestational diabetes
- Malpresentation
- Abruption
- Placenta previa

Methodology

Total 250 patients admitted in labor room were selected for the study and they were divided into two groups (125 patients in each group). Study group (Group A) with gestational age > 40 weeks and control group (Group B) with gestational age 37-40 weeks.

All the data regarding the age, parity, gestational age, any maternal complications like intrauterine growth restriction, Oligohydramnios etc. was collected. The maternal outcomes in term of cesarean section, postpartum haemorrhage, instrumental delivery, sepsis were noted. The fetal outcomes in terms of intrapartum asphyxia, intrauterine fetal death, admission to neonatal intensive care unit etc. were noted.

Results

Table 1: Age wise distribution of cases and controls

Age (Years)	Number of cases (Group A)	Number of controls (Group B)
Below 25	32 (25.6%)	38 (30.4%)
25-30	75 (60%)	73 (58.4%)
>30	18 (14.4%)	14 (11.2%)
Total	125	125

Table1 shows that maximum number of patients belonged to the age group of 25- 30 years both in Group A (60%) and Group B (58.4%).

Table 2: Distribution according to gestational age

Period of gestation (Weeks)	Number of cases (Group A)	Number of controls (Group B)
37-40	0	125 (100%)
40-41	102 (81.6%)	0
>41	23(18.4%)	0
Total	125	125

Table 2 depicts that the maximum number of patients in the study group (81.6%) belonged to the gestational age of 40-41 weeks while all controls (100%) belonged to 37-40 weeks of gestational age.

Table 3: Distribution according to parity

Parity	Number of cases (Group A)	Number of controls (Group B)
Primigravida	85 (68%)	78 (62.4%)
Multigravida	40 (32%)	47 (37.6%)
Total	125	125

Table 3 shows that, 68% of the patients in the study group were primigravida and in control group 62.4% were primigravida.

Table 4: Distribution according to mode of delivery

Type of delivery	Cases (Group A)	Controls (Group B)
Normal vaginal delivery	66 (52.8%)	101 (80.8%)
Instrumental delivery	14 (11.2%)	4 (3.2%)
Cesarean section	45 (36%)	20 (16%)
Total	125	125

As shown in table 4, percentage of cesarean section was 36% in the study group, which was higher than in control group where it was 16%. Incidence of instrumental delivery was also higher in the study group as compared to control group (11.2% as compared to 3.2%).

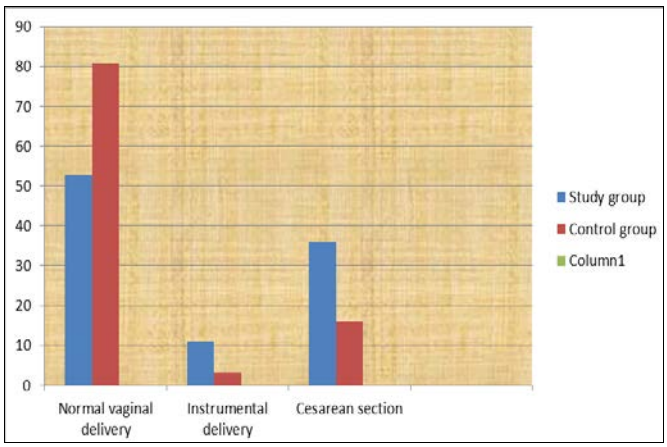

Fig 1: Shows normal vaginal delivery, instrumental delivery and cesarean section

Table 5: Distribution according to indication of Cesarean section

Indication of LSCS	Cases (Group A)	Controls (Group B)
Acute fetal distress including MSL with fetal distress	13 (28.9%)	5 (25%)
MSL with poor bishop's	8 (17.8%)	1 (5%)
Failed induction	8 (17.8%)	3 (15%)
Non progress of labor	4 (8.9%)	7 (35%)
Non-reactive NST	2 (4.4%)	2 (10%)
Cephalopelvic disproportion	10 (22.2%)	2 (10%)
Total	45	20

As shown in table 5, among the indications for LSCS, the most common indication among the Group A was acute fetal distress which includes meconium stained liquor (28.9%) followed by cephalopelvic disproportion (22.2%). In Group B, most common indication was non progress of labor (35%) followed by acute fetal distress (25%).

Table 6: Distribution according to maternal complications

Complications	Cases (Group A)	Control (Group B)
PPH (Atonic/ Traumatic)	30	10
Sepsis	12	3
Prolonged labour	10	4
Total	42	17

Table 6 depicts maternal complications like PPH, sepsis all were higher in study group. Maternal morbidity was 33.6% in study group while it was 13.6% in control group.

Table 7: Distribution according to fetal outcomes

Fetal outcome	Cases (Group A)	Control (Group B)
No asphyxia	76 (60.8%)	105 (84%)
Fetal asphyxia (APGAR<6/10)	22 (17.6%)	10 (8%)
Admission to NICU	24 (19.2%)	10 (8%)
Intrauterine death (IUD)	3 (2.4%)	0 (0%)
Total	125	125

Among fetal outcomes, as depicted in table 7, 17.6% of infants in the study group had asphyxia as compared to only 8% in the control group. 19.2% infants of the study group had to be admitted to the NICU as compared to 8% in the control group. 2.4% IUD were there in study group as compared to none in control group.

Discussion

The present study was conducted to find out the incidence of maternal and perinatal complications in postdated pregnancies. Total 250 patients were included (125 cases and 125 control) according to inclusion and exclusion criteria. Majority of postdated pregnancies were in the age group of 25 to 30 yrs followed by below 25 years in both the groups. Beischer [10] in his study also found that majority of post-dated patients belonged to the age group of 25-30 years, while Alexander J *et al.* [11] found that majority of patients were between 20-30 years of age group. Present study depicted that 68% women were primigravida which is in accordance to Mahapatro and Alexander *et al.* study [12, 11]. In the present study, it was demonstrated that cesarean section rate was 36% in study group which was higher than in the control group where it was 16%. Incidence of instrumental delivery was also higher in the study group as compared to control group (11.2% as compared to 3.2%). In a similar study by Mahapatro the rate of LSCS was found to be 28.9% and that of instrumental delivery was 5.72% [12]. In study by Singhal *et al.* [13] the rate of LSCS was found to be 14.7% and that of instrumental delivery was 8.6%. In this study among the indications for LSCS, the most common indication among the study group was acute fetal distress which includes meconium stained liquor (28.9%) followed by cephalopelvic disproportion (22.2%). In the control group, most common indication was non progress of labour (35%) followed by acute foetal distress (25%). Bhriegu R *et al.* [14] in their study also found that Meconium stained liquor with fetal distress was the most common indication for LSCS (23.5%) and Mahapatro *et al.* [12] also elucidated that fetal distress was found to be the most common indication for LSCS(65.5%). In our study, the maternal morbidities were higher in study group (33.6%) as compared to control group (13.6%). Among the fetal outcomes, 17.6% of infants in the study group had asphyxia as compared to only 8% in the control group. 19.2% infants of study group required NICU admission as compared to 8% in the control group. 2% was the percentage of intrauterine death in the study group as compared to none in the control group. Bhriegu R *et al.* [14] in their study, also found increased incidence of obstetric complications such as perineal tear, atonic postpartum haemorrhage, and perinatal complications such as fetal distress and meconium aspiration syndrome. Similar studies by Singhal *et al.* [13] and Alexander *et al.* [11] also revealed increased incidence of maternal and perinatal complications like low Apgar scores and admission into NICU.

References

1. Balakrishnan S. Textbook of Obstetrics. Hyderabad, India: Paras Medical Publishers 2013, 218.
2. Norwitz ER, Snegovskikh VV, Caughey AB Prolonged pregnancy: when should we intervene? Clin Obstet Gynecol 2007;50:547-57.
3. Van Eyk N, Allen LM, Sermer M, Davis VJ. Obstetric outcome of adolescent pregnancies. J Pediatr Adolescent Gynecol 2000;13(2):96.
4. Grant JM. Induction of labour confers benefits in prolonged pregnancy. Br J Obstet Gynaecol 1994;101:99-102.
5. Jones JP, Fox H. Ultrastructure of the placenta in prolonged pregnancy. J Pathol 1978;126(3):173-9.
6. Rand L, Robinson JN, Economy KE. Post-term induction of labor revisited. Obstet Gynecol 2000;96(5 Pt 1):779-83.
7. Treger M, Hallak M, Silberstein T. Post-term pregnancy: should induction of labor be considered before 42 weeks? J Maternal Fetal Neonatal Med 2002;11(1):50-3.
8. Gulmezoglu AM, Crowther CA, Middleton P *et al.* Induction of labour for improving birth outcomes for women at or beyond term. Cochrane Database Syst Rev 2012;6:CD004945.
9. Mandruzzato G, Alfirevic Z, Chervenak F, Gruenebaum A, Heimstad R, Heinonen S. Guidelines for the management of postterm pregnancy. J Perinat. Med 2010:38(2010)111-9.
10. Beischer NA, Evans JH, Townsend L. Studies in prolonged pregnancy. I: Incidence of prolonged pregnancy. Am J Obstet Gynecol 1969;103:476.

11. Alexander JM, McIntire DD, Leveno KJ. Forty weeks and beyond: Pregnancy outcomes by week of gestation. Obstet Gynecol 2000;96:291-4.
12. Mahapatro A. Fetomaternal outcome in pregnancy beyond 40 weeks. Int J Pharm Bio Sci 2015;6:53-8
13. Singhal P. Fetomaternal outcome following postdate pregnancy. A prospective study. J Obstet Gynecol India 2001;51:89-93.
14. 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.