

Investing the Outcome for Both Mother and Fetus in Pregnancies That Go Beyond the Expected Due Date

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Abstract:

Background: Postdated pregnancy has been defined as pregnancy that exceeds 280 days or 40 weeks of gestation. Expected date of delivery is most reliably determined early in pregnancy and may be based on Last menstrual period in women with normal regular menstrual cycle. If estimated gestational age by patient's LMP is difficult to determine then EDD is obtained by Ultrasonography accurately in first trimester.

Objectives: To study maternal outcome in Postdated pregnancy.

Material and Methods: This is a prospective study that includes Postdated pregnancies admitted at Darbhanga medical college and Hospital Darbhanga, Laheriasarai, Bihar. which is tertiary care centre, the study period being 12 months. The data was collected using a piloted proforma meeting the objectives of study by means of personal interview with patients after taking informed consent.

Conclusion: The clinician's ability to identify a potentially compromised fetus has been improved by the introduction of reliable antepartum surveillance methods. Watchful waiting can safely be used in most postdate pregnancies with normal antepartum test results and without other risk factors.

Keywords: Fetal distress, Postdated pregnancies, Primigravida, Oligohydramnios.

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Introduction

Postdated pregnancy refers to any pregnancy beyond 40 completed weeks. The prolongation of pregnancy beyond 40 weeks occurs frequently that is 1 in every 10 pregnancies [1]. The objective of every obstetrician is the delivery of a healthy baby to a healthy mother at the end of each pregnancy. [2]

As Wrigley in 1958 said, there can be no more an 'exact' time for gestation than an 'exact' height or an 'exact' weight for everyone. The period after 40 weeks of gestation is a matter of concern both for patient and obstetrician. [3] Inadequate counselling regarding expected date of delivery may create undue anxiety and distress for the patient. Maternal morbidity with large for date/macrosomic babies occurs because of increased incidence of dystocia, prolonged labour and shoulder dystocia, which results in increased risk of pelvic floor trauma, instrumental deliveries and caesarean sections. Risk of caesarean delivery was found to be increased when labour was induced for macrosomia compared

to spontaneous onset of labour. Perinatal complications which are more in Post term pregnancies include Meconium aspiration, asphyxia before, during and after delivery, cord complications, fractures, peripheral nerve injury, pneumonia and septicaemia. Routine early Ultrasound for dating of Pregnancy is best intervention to reduce the incidence of Post term pregnancies. Expected date of delivery this topic is taken to study the fetomaternal outcome of pregnancy. [4,5]

Aim of Objective: To study maternal outcome in Postdated Pregnancy. To study fetal outcome in Postdated Pregnancy.

Material and Methods

This is a prospective study that includes Postdated pregnancies admitted at Darbhanga medical college and Hospital darbhanga, Laheriasarai, Bihar, India. which is tertiary care centre, the study period being 12 months. from. The data was collected using a

piloted proforma meeting the objectives of study by means of personal interview with patients after taking informed consent.

Collection of Data: The data was collected using a piloted proforma meeting the objectives of study by means of personal interview with patients after taking informed consent.

Inclusion Criteria: Patient who are sure about their LMP having regular menstruation in age group 19 to 35 years, Early USG confirming EDD, Singleton Pregnancy with vertex presentation.

Exclusion Criteria: Patient unable to give accurate LMP. Patient who has no early ultrasonography. High risk pregnancies like diabetes, Antepartum haemorrhage, premature rupture of membranes, Hypertensive disorders in pregnancy and Rh-negative pregnancy, previous LSCS.

Methods-History: Taking, General Physical Examination, Systemic Examination, Per Abdomen Examination, Spontaneous labour onset, induction, mode of delivery – any operative interference, Perinatal morbidity by Low APGAR, Meconium Aspiration Syndrome, NICU admission, perinatal mortality if any, maternal morbidity as atonic PPH, third- and fourth-degree perineal tears if any were recorded. our study out of 100 expectant mothers with postdated pregnancies 80% of them set into spontaneous labour, induction rate being 7% LSCS rate being 12%, rate of NICU admission is 17%, rate of instrumental delivery being 1%, rate of Oligohydramnios is 4%, rate of Perinatal mortality is 2%, with an absolute precision of 10% and 95% confidence, interval,

Results

The study conducted at Darbhanga medical college and Hospital Laheriasarai, Bihar. which is tertiary care centre, the study period being 12 months. In this study out of 100 expectant mothers with postdated pregnancies 80% of them set into spontaneous labour. Induction rate is 7% which is much less than spontaneous labour. Out of 7 (7%) expectant mothers induced, 5(71.4%) cases were Primigravida. Out of 7 (7%) cases of induction of labour, 2 (28.5%) cases were > 41 weeks, 2(28.5%) cases were 40 weeks 6 days, 2(28.5%) cases were 40 weeks 5 days and in that one (14.25%) presenting with oligohydramnios and 1 (14.25%) case being 40 weeks 3 days with oligohydramnios. Out of 7(7%) cases of induction, 2(28.5%) expectant mothers underwent caesarean section, 1(14.2%) for failed induction and 1(14.2%) for fetal distress, 5(71.4%) delivered normally and there was no instrumental delivery. 80 (80%) expectant mothers set into spontaneous labour, of which 11 (13.7%) cases underwent LSCS, 68(85%) cases delivered vaginally and there was 1(1.25%) case of vacuum assisted delivery in view of fetal distress.

Out of 100 cases 12 (12%) cases underwent LSCS, indication being CPD in labour for 3(3%) cases, fetal distress for 7(7%) cases, precious pregnancy for 1(1%) case, failed induction for 1(1%) case. Out of 100 babies 81(81%) babies were mother side, 18(18%) babies required NICU admission, 5(5%) babies in view of Respiratory distress, 3(3%) babies in view of Low birth weight, 4(4%) babies in view of MSL and 4(4%) babies in view of transient tachypnea, 1 neonatal mortality due to MAS.

Table 1: Association between Gestational Age and Parity of Study Group

Gravida		Gestational age		Total
		40-41 weeks	>41 weeks	
Primi	Count	54	9	63
	Percent	65.83%	50%	63%
Multi	Count	28	9	37
	Percent	34.14%	50%	37%
Total	Count	82	18	100
	Percent	100%	100%	100%
Chi-square value: 0.17				
P value: 0.68				

Association between parity and gestational age. Out of 82 subjects (100%) with gestational age of 40-41 weeks, 54(65.83%) had primi as compared to the group with more than 41 weeks gestational age-9(50%).

Table 2: Association between Gestational Age and Birth Weight Among Study Group

Birth Weight (in kg)		Gestational age		Total
		40-41 weeks	>41 weeks	
<2.5	Count	7	1	8
	Percent	8.5%	5.6%	8.0%
2.5-3.5	Count	74	17	91
	Percent	90.2%	94.4%	91.0%
>3.5	Count	1	0	1
	Percent	1.2%	0.0%	1.0%

Total	Count	82	18	100
	Percent	100.0%	100.0%	100.0%
Chi-square: 0.412				
P value: 0.814				

Association between gestational age and birth weight. Out of 82 subjects (100%) with gestational age of 40-41 weeks, majority of them had birth weight from 2.5 to 3.5 kg- 74(90.2%) followed by 7(8.5%) having less than 2.5 kg. Similarly in gestational age of more than 41 weeks, 17(94.4%) were having birth weight in the range of 2.5 to 3.5 kg.

Discussion

As pregnancy advances to beyond 40 weeks the placental insufficiency sets in because of reduced respiratory and nutritive placenta function. [6,7]

Age Distribution: Mean age in our study is 25.32 ± 3.8 in subjects with 40- 41 weeks gestational age, 24.44 ± 4.2 in more than 41 weeks gestational age. Eden et al study mean age was 25.8 years. Mahapatros study mean age was 24.19 plus or minus 3.30. [8,9]

Parity and Pregnancy Beyond 40 Weeks: In present study pregnancy beyond 40 weeks occurred more frequently in Primigravida compared to multigravida. Pregnancy beyond 40 weeks in Primigravida is 63% compared to 37% in multigravida a similar finding was reported by Alexander et al. [10,14]

Mode of Delivery: Rate of surgical intervention increased in cases of pregnancy beyond 40 weeks because of increased frequency of fetal distress. In present study rate of caesarean section is 12%. According to Prabha Singh et al rate of caesarean was 16.7% Labour Induction Versus Spontaneous Labour.[15]

In present study 7% cases were induced compared to 80% cases which had set into spontaneous labour. 1% of induced cases had LSCS and in Spontaneous group LSCS rate is 11% LSCS rate was 26% in induced group in Prabha Singh et al study. In Devinder Kaur et al, rate of caesarean was 30% in induced group. NEONATAL Morbidity [16-19]

In present study incidence of MAS is 1%, respiratory distress is 5% in Bhreiguet al study incidence of MAS is 7%. [20]

Perinatal Mortality: Perinatal mortality in present study is 2 OLIGOHYDRAMNIOS. There is 4% incidence of Oligohydramnios in present study. Incidence of Oligohydramnios by Morris JM et al is 7.98% NICU Admission rate. NICU admission rate in present study 17%.

Conclusion

The most important controversy that needs to be addressed is the issue of whether to use routine

induction for all postdate patients or to selectively induce patients who have favourable cervixes, non-reassuring antepartum test results, macrosomia or other antepartum complications. The clinician's ability to identify a potentially compromised fetus has been improved by the introduction of reliable antepartum surveillance methods. Watchful waiting can safely be used in most postdate pregnancies with normal antepartum test results and without other risk factors.

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