

Comparative Study of Maternal and Fetal Outcome in 40 Completed Weeks And Beyond

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Abstract:

Background: Approximately 3-10% of all pregnancies continue till 42 weeks. Advances in obstetric and neonatal care have lowered the absolute mortality risk. The perinatal mortality of 2-3 deaths per 1000 deliveries at 40 weeks will double by 4-6 times at 42 weeks. So the pregnancy that continues beyond 42 weeks requires careful fetal surveillance. **Aims & Objectives:** To study the maternal morbidity and mortality in 40 weeks and beyond and also to know fetal outcome after 40 weeks and more. **Materials and Methods:** 78 women who completed 40 weeks of gestational age were selected for the study. These women were divided into 3 groups, 40 weeks, 41 weeks and 42 weeks and in all these groups both maternal and fetal outcome in terms of morbidity and mortality were compared. **Results:** In this study, LSCS and instrumental delivery is increased in all the groups. Duration of labour is increased in all groups in spite of primigravida or multigravida. Spontaneous labour cases had more LSCS and instrumental delivery when compared to induced labour. Regarding the perinatal morbidity i.e., low Apgar score, meconium stained liquor are increased in pregnancy beyond 40 weeks and more. **Conclusion:** In this study definite increase in maternal morbidity in the form of Instrumental deliveries, LSCS, PPH and Perineal tear in pregnancy after 40 weeks and so on.

Key Word: LSCS, PPH, Prolonged pregnancy, Meconium stained

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I. Introduction

The issues of post term pregnancy has risked its management for both mother and fetus. The fetal risk is associated with prolonged pregnancy is very small but it is real, which needs careful fetal surveillance when the pregnant goes beyond 40 weeks. The main problem of post term is during labour [1]. Women worry when they do not deliver by the estimated date of delivery. Thus the importance of counseling during antenatal visit to inform mothers that they will deliver between 38 to 42 weeks and not on the date of EDD. Based on these factors, it is difficult to have a uniform policy for management of post term pregnancy [2]. Post term pregnancy is more common in primigravida women. A previous post term pregnancy gives risk of 2.2% for next pregnancy to go for post term pregnancy [3].

II. Material & Methods

The present study was done in Department of OBG at Dr B R Ambedkar Medical College & Hospital, Bangalore, between July 2018 to June 2019. The study includes the women who were completed 40 weeks and beyond. Routine blood test and USG done.

Inclusion Criteria

1. Maternal age group 18-40yr
2. Singleton pregnancy
3. Regular menstrual cycle with Reliable Dates
4. USG done between 12-20 wks of pregnancy.

Exclusion Criteria

1. Irregular cycle with Unknown Dates
2. Mal presentations
3. Maternal complications like Pre eclampsia, diabetes and cardiac disease etc

III. Observations

In this study totally 78 pregnant women were included after taking consent and all other criteria taken into account.

Gest age	No of cases	Percentage
>40 weeks	51	65.38
>41 weeks	17	21.79
>42 weeks	10	12.82

Table no1. Gestational age wise distribution of cases

Age(yrs)	>40 wks	>41wks	>42wks
18-22	13(28.88%)	09(47.36%)	05(35.71%)
23-27	17(37.77%)	05(26.31%)	04(28.57%)
28-32	11(24.44%)	04(21.05%)	05(35.71%)
33-37	04(0.08%)	01(0.05%)	----
>38	----	-----	-----

Table No 2. Age wise distribution of cases

Gest age	PRIMI	MULTI
>40	25(53.19%)	17(54.83%)
>41	17(36.17%)	07(22.58%)
>42	05(10.63%)	07(22.58%)
Total	47(60.05%)	31(39.95%)

Table No 3. Parity wise distribution of cases

Gest age	Vaginal delivery	Instrumental delivery	LSCS
>40	22	05	15
>41	16	02	10
>42	05	01	02

Table No 4. Mode of delivery with Gestational Age

Gest Age	Vaginal delivery	Instrumental delivery	LSCS
>40	15	03	05
>41	08	01	03
>42	01	01	-
Total	24	05	08

Table No 5. Mode of delivery in Spontaneous labour with Gestational Age

Gest Age	Vaginal delivery	Instrumental delivery	LSCS
>40	07	02	10
>41	08	01	07
>42	04	-	02
Total	19	03	19

Table No 6. Mode of delivery in Induced labour with Gestational Age

Morbidity	>40 wks	>41 wks	>42wks
PPH	02	03	01
Cervical tear	01	02	01
Perineal tear	---	02	01

Table No 7. Maternal morbidity with Gestational Age

Gest Age	>40wks	>41wks	>42wks
Thin meconium	07	08	11
Thick meconium	01	10	09
Golden yellow colour	01	03	01

Table No 8. Foetal morbidity (Meconium stained liquor)

IV. Discussion

As the pregnancy advances beyond 40 wks of gestation, perinatal mortality is 2-3 deaths per 1000 deliveries at 40 wks, which doubles by 42 wks by 4-6 times more at 43 wks.

In this study, there were 65.38% cases belongs to >40 wks of Gestational Age, 21.79% of cases belongs to >41 of Gestational Age and 12.82% of cases belongs to > 42 wks of Gestational age. Observation from British Columbia Reproductive Care programme shows that average of 12-13% in 40 wks of GA, 1.5%-2% in 41 wks of GA and 0.1% in 42 wks of GA[4].

In this study, there is inverse relationship between maternal age incidence of prolonged pregnancy. In 40 wks 37.77% were of age between 23-27 yrs, 28.88% were of age between 18-22yrs, 24.44% were of age between 28-32yrs and finally 0.88% were of age between 33-37yrs. But in 41 wks the highest age were in 47.36% were in age between 18-22yrs and among 42 wks, the highest was 35.71% were of age between 18-22yrs. A similar observation was made bt Eden et al where the age of post term was 25 yrs[5]

In this study, post term pregnancy occurred more in primigravida than multigravida, Among 40 wks of GA 53.19% were primi gravida, 36.17% were of 41wks of GA were primi and 10.63% of 42 wks with primi gravid. But in multi gravid 54.83% of 40 wks of GA,22.58% each were of 41 &42 wks of GA. But however no difference found in primi and multigravidas in study by Alexander et al in post term pregnancy[6]

In this study, 37 pregnant women went into spontaneous labour, 15 women were from 40 wks, 08 from 41 wks and 01 from 42 wks but induced labour were more in 41 wks when compared to 40 wks. LSCS was more in induced labour when compared with spontaneous labour 10 women in induced verse 05 women in spontaneous labour. Similar study shows LSCS is more in induced group than spontaneous and most common indication for LSCS was fetal distress[7].

In this study, there were no antenatal and postnatal death in pregnancy after 40 wks of GA. The main cause of morbidity in the this study is more of LSCS, perineal tear, cervical and PPH. But when compared to other study, were LSCS, PPH, cervical tear or perineal tear are more like our study[8]

In this study, perinatal mortality at 40 wks is 1.4%, 7% at 41wks and 19% at 42 wks of GA. Similar study showed poor Apgar score, thick meconium stained syndrome and NICU admission is more with increased risk of perinatal morbidity and mortality[9]

V. Conclusion

Our study shows definite increase in the maternal morbidity in the form of Instrumental deliveries, LSCS, PPH, Perineal tear in pregnancy after 40 wks and more. But maternal morbidity increase when pregnancy cross >42 wks. Fetal morbidity is also more when pregnancy more than 40 wks in the form of meconium aspiration syndrome.

In modern obstetrics so much of scientific approaches in detection of fetus surveillance have developed but still perinatal morbidity and mortality is very high.

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