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# Pregnancy outcome after 40 wks : Observational study.

Gynaecology

**KEYWORDS:** FOETAL OUTCOME , MULTIGRAVIDAS ,POST TERM PREGNANCY, OLIGOHYDRAMNIOS.

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## ABSTRACT

This is an observational study conducted during a period of the 6 months from May 2016 to Oct 2016 in the department of obstetrics & Gynecology at RCSM Government medical College, Kolhapur, to evaluate the mean gestational age of delivery in 200 cases of pregnant women after 40 wks of gestation [ 40 weeks 1 day to 41 week 7 days .] and to study maternal and foetal outcome of pregnancy in them after 40weeks of gestation.

The incidence of delivery after 40 wks of gestation is high in multigravidas . After 40 weeks of gestation in majority of cases spontaneous onset of labour occurs and they get delivered vaginally however patients with previous LSCS and oligohydramnios had more chances of cesarean section . There was no significant associated foetal mortality and morbidity in both vaginal or LSCS delivered babies .

**Introduction :**

Most babies are born around the estimated due date, usually within two weeks before or after their due date. Pregnancy is considered term at 40 wks ( or 280 days ) A pregnancy that continues for longer than 42 wks is called a post term, prolonged or overdue pregnancy[1].

If the mother and baby are both doing well it is better to wait for one week after 40 weeks of gestation if there is no any particular risk for baby and mother [1]. The chances of complications in babies is the lowest if he or she is born between 39 wks 0 days and 40 wks 6 days ( *Sponge C.Y. 2013* )[2]

Post term pregnancy is associated with an increased risk of fetal & neonatal mortality and morbidity ( *Olesen et al 2003 a, 2003b* )[3] as well as an increased maternal morbidity ( *Caughey et al 2007* )[4]. Fetal morbidity is relatively increased in pregnancies beyond 41 wks of gestation. This includes passage of meconium, meconium aspiration syndrome, macrosonia & dysmaturity.

Increased fetal morbidity could therefore be prevented by induction of labour ( IOL) at term, however both clinician and patients are concered about the risks of induction of labour including uterine hyperstimulation, failed induction and increased cesarean section rates.

In the United States Of America (U.S.A) most of women get induction trials when they reached their " due date " of 40 wks[5].

According to one survey done in U.S.A. in the 2013 named " Listening to mothers 111 "mentioned that health care provider routinely induces labour in 41% of pregnant women for multiple maternal and foetal indications, ( *Delercq et al.2014*). Out of which 44% were induced because they were close to the due date[5].

Funded by the U.S. national institutes of health, the doctors incharge of the ARRIVE study ( A Randomized Trial of Induction Versus Expectant management) are currently enrolling 6000 first time mothers from across the U.S. These women are being randomly assigned for elective induction at 39 wks or waiting for labour to start on its own ( expectant management ) up to 41 wks[5].

Our study is observational study. It suggests expectantant management between 40 weeks to 41 weeks completed wks of gestation has significant increase in spontaneous onset of labour and reduced risk of induction and fetal mortality and morbidity.

**Objective :**

1. To evaluate the mean gestational age of delivery in pregnant women after 40 wks of gestation. [ 40 weeks 1 day to 41 week 7 days ].
2. To study maternal and foetal outcome of pregnancy in them after 40weeks of gestation.

**Materials and Methods:**

This is an observational study conducted during a period of 6 months from May 2016 to October 2016 in the department of obstetrics & Gynaecology at Government Medical College, Kolhapur.

**Inclusion criteria :**

In present study all pregnant women with > 40 wks of gestation (i.e. 40 wks 1 day & above) were included. Women were:

1 Primigravida or multigravida.
2 Already in labour >3cm or more dilatation or in latent phase of labour.
3 Had previous one or more cesarean section.
4 Had medical or foetal reason for induction.

Their gestational age was confirmed by 1st trimester ultrasonography reporting crown rump length.

**Sample size :** 200 pregnant women of gestational age greater than 40 wks.

Study results were analysed with SPSS software, using chi-square test and proportional test.

In this study less than 41 weeks (<41wks) includes women of gestatioanal age of 40weeks1day to 40weeks 7days.

Greater than 41 weeks (>41wks) includes women of gestational age of 41weeks1day to 41weeks 7days.

**Results:**

**1. Age wise distribution.**

| Age (years ) | Primigravida | Multigravida |
|---|---|---|
| 15-20 | 27 | 04 |
| 21-25 | 58 | 65 |
| 26-30 | 10 | 27 |
| 31-35 | 02 | 05 |
| >35 | 01 | 01 |

**2. Mode of delivery in present pregnancy.**

| Parity | Vaginal delivery | LSCS |
|---|---|---|
| Primigravida | 73 | 25 |
| Multigravida | 71 | 31 |
| Total | 144 | 56 |

**3. Neonatal outcome.**

**APGAR score at 1 min and 5 mins**

| GESTATIONAL AGE | 8-10APGAR SCORE | < 8APGAR SCORE |
|---|---|---|
| < 41 wks | 158 | 04 |

| | | |
|---|---|---|
| >41 wks | 35 | 03 |

**4. Amniotic fluid Index in 3rd trimester sonography.**

| AFI | <41wks | >41vwks |
|---|---|---|
| <5cm | 04 | 02 |
| 5-10cm | 21 | 102 |
| >10 cm | 13 | 58 |

**5.Onset of labour versus mode of delivery .**

| Gestational Age | Onset of labour | Vaginal delivery | Cesearean delivery |
|---|---|---|---|
| 40 weeks 1 day - 41 wks | Spontaneous | 95 | 10 |
| | Induced | 23 | 02 |
| More than 41 wks & 1 day | Spontaneous | 14 | 05 |
| | Induced | 12 | 01 |

**6 . Indications for LSCS (Total : 56 cases ) in present delivery.**

| Indications | Cases | % |
|---|---|---|
| Previous single LSCS | 16 | 28.5% |
| Previous two LSCS | 01 | 1.7 % |
| Oligohydramnios | 21 | 37.5% |
| Foetal bradycardia | 18 | 32.3% |

**Discussion :**

As women set closer to 41 weeks of pregnancy, it is appropriate for her and her care provider to discuss the benefits and risks of elective induction and expectant management.

Most research articles and guidelines say that because there are benefits and risks to both options, the women's values, goals and preferences, should play a part in decision making process. Women have right to decide whether they prefer to induce labour or wait for spontaneous labour with foetal monitoring[5].

In our study, 200 cases were observed in terms of onset of labour, mode of delivery, neonatal outcome and ultrasonography for assesment of liquor at 40 wks.

Accurate pregnancy dating is crucial in diagnosis and management of post term pregnancy. The last menstrual period is usually less accurate than an ultrasound ( *ACOG 2014* )[6]. The most accurate time to perform an ultrasound to determine the gestational age was 11-14 wks. ( *Khambalia et al 2013* )[7] In our study, the gestational age was assigned based on first trimester ultrasound showing crown rump length.

In our study incidence of post term pregnancy was more in multigravida of age group 21-28yrs (P< 0. 05 chi square test). As gestational age advances greater than 41 weeks, probability of induction of labor increases (P<0.05)

Mode of delivery didn't correlated with parity of women (P>0.05 chi square test ). However women with spontaneous onset of labour had greater proportion of vaginal delivery.

As gestational age advanced, >41wks, amniotic fluid index was found significantly decreased (p<0.05)

Perinatal mortality and morbidity didn't increased as gestational age advances between 40-42wks (P>0.05 ).

Out of 200 cases 56 were delivered by LSCS and the indications for LSCS were as below

1] 37.5% of cases show oligohydramnios (AFI < 5cm )

2] 32.3% had foetal bradycardia followed by spontaneous or induced onset of Labour.

3] 30.2 % had previous cesarean section.

The incidence of LSCS was high in patients with previous LSCS. This may be because of poor compliance of the patients and high work load of labour room. This makes monitoring of previous LSCS patients difficult till 42 weeks of gestation . In present study mode of delivery mainly depends on mode of previous delivery and amount of liquor assessed by sonography at 40 weeks of gestation.

This study found that mean gestational age of delivery in both primigravida and multigravida was 40 weeks 5 days and 40 weeks 3 days respectively and this is corresponding with study published in 2001, (*Smith 2001*)[8].

**Conclusion :**

The traditional way of calculating the estimated due date of 40 wks from the date of the last menstrual period is not evidence based, instead it is more rightful to give women additional time frame to get deliver.

As gestational age advances greater than 41wks spontaneous onset of labour reduces. At 40 wks, if amount of liquor is good one can wait up to 41 wks for spontaneous onset of labour. In today's modern obstetrics, ultrasonography plays an important role in assessing wellbeing of baby after 40 wks and guides in decision making of whether to go for induction or do expectant management.

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