

## RESEARCH ARTICLE

# Assessment of maternal and perinatal outcome in postdated pregnancies in a tertiary care center

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## ABSTRACT

**Objectives:** 1) To assess the maternal and perinatal mortality and morbidity in uncomplicated postdated pregnancies in a tertiary care centre. 2) To find out the causes and rates of different modes of delivery in uncomplicated postdated pregnancies in a tertiary care centre. **Methodology:** A prospective observational study was done in the O&G department of JMCH, Jorhat, Assam from June 2020 to May 2021 among 110 uncomplicated postdated antenatal patients including both primigravida and multigravida willing to participate in the study and meeting both inclusion and exclusion criteria, attending the OPD and admitted at labour wards and their new born upto 7 days and maternal and perinatal mortality and morbidity was studied. Data was collected using a proforma after taking informed consent. Data pertaining to mode of delivery, type of vaginal delivery, indications of caesarean section, maternal complications, birth weight, APGAR score at 1min and 5min, perinatal morbidity and perinatal mortality were analysed. **Results:** Majority of women belonged to age group 20 to 25 years (51.8%). 60% of them delivered vaginally, 7.2% had instrumental delivery whereas 32.8% women required caesarean section, the most common indication being meconium stained liquor (25%). 49.1% of women were given induction by various means and 45.5% of them had successful vaginal delivery. 12.7% babies had NICU admission with respiratory distress (28.6%) being the most common reason. **Conclusion:** Postdated pregnancies can be considered as a high risk pregnancy due to higher maternal and fetal complications. With regular antenatal check up, the incidence of post dated pregnancies can be decreased.

**Keywords:** Postdated pregnancy, maternal outcome, perinatal outcome.

When a baby makes his entrance into the world might ends up with a complications. Postdated pregnancy is found as one of the dominant cause of fetal as well as maternal complications. When pregnancy has crossed the expected date of delivery or gestation longer than 40 weeks or 280 days from the first day of last menstrual period is called postdated pregnancy that complicates up to 10% of all pregnancies and carries increased risk to the mother and fetus<sup>1-3</sup>. It has been reported that postdated pregnancy is associated with increased risk of intrapartum fetal distress mostly due to oligohydramnios, meconium stained liquor, macrosomia, fetal post maturity syndrome and caesarean

delivery. The maternal risks include an increase in labor dystocia (9-12% vs 2-7% at term), an increase in severe perineal injury (3<sup>rd</sup> and 4<sup>th</sup> degree perineal lacerations) related to macrosomia (3.3% vs 2.6% at term) and operative vaginal delivery and a doubling in the rate of caesarean delivery (14% vs 7% at term) and post partum hemorrhage. Both maternal and perinatal risk increases with increase of gestational age beyond 40 weeks<sup>4-7</sup>.

The risks to the fetus increase more after 41 weeks of gestational age mainly due to increasing fetal weight, decline in placental function, oligohydramnios which increase the chances of cord compression and meconium aspiration. In

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cases of postdated pregnancy, fetus is more at risk of hypoxia during labor than a fetus at term and risk of fetal mortality is doubled once gestational age crossed 41 weeks<sup>8</sup>.

Pregnancy beyond dates is one of the most frequent clinical dilemma faced by the obstetricians, whether to choose expectant management with antepartum foetal surveillance or to prescribe induction of labor is remains controversial. There are several recommendations for the post dated pregnancy management, but no protocol is considered as gold standard. So management varies from hospital to hospital and country to country.

As there is fetal and maternal risk associated with postdated pregnancy, need of induction is more with postdated pregnancy. Recent review showed that a policy of labor induction for women with postdated pregnancy compared with expectant management is associated with fewer perinatal deaths and caesarean sections.<sup>9-11</sup>

With Assam having the highest MMR of 223 and 2<sup>nd</sup> highest IMR of 44 across the country (according to sample registration system bulletin -2015-17) and postdated pregnancies being one of the factors contributing to it (indirectly leading to post partum hemorrhage, increased caesarean deliveries, increased instrumental deliveries, foetal asphyxia, foetal distress, meconium aspiration syndrome), the need for study of impact of postdated pregnancy on maternal and perinatal outcome becomes essential in this part of the country. There has been no recent study conducted till date on this part of the country. In the present study, postdated pregnancies are studied to find out the mode of delivery, maternal mortality and morbidity, perinatal mortality and morbidity.

Objectives of the study -

1. To assess the maternal and perinatal mortality and morbidity in uncomplicated postdated pregnancies in a tertiary care centre.

2. To find out the causes and rates of different modes of delivery in uncomplicated postdated pregnancies in a tertiary care centre.

### **Materials and method**

This prospective observational study was carried out in department of Obstetrics and Gynaecology, Jorhat medical college and hospital, Jorhat during a period of one year from June 2020 to May 2021. Approval of the institutional ethics committee was taken prior to commencement of the study.

Sample size - From the hospital indoor register record, per month uncomplicated postdated pregnancies attending the obstetrics and gynaecology department of Jorhat medical

college was around 100. Considering this population proportion, sample size for the present study was found to be around 110 with 95% confidence interval, 10% absolute precision using epi info software.

Sampling method - Consecutive sampling.

Study variables – Age, parity, gestational age, type of induction, mode of delivery, indications for caesarean, maternal complications, fetal complications.

Inclusion criterias -

- Pregnant women who have crossed the expected date of delivery either by first trimester USG or LMP (last 3 menstrual cycles regular, not used contraceptive pills for past 3 months, not conceived during lactational amenorrhoea).
- Singleton pregnancy.
- Cephalic presentation.
- Willing to participate in the study.

Exclusion criterias -

- High risk pregnancies like diabetes, antepartum haemorrhage (APH), pre labour rupture of membranes (PROM), toxemia of pregnancy, heart disease, chronic hypertensive disease, chronic renal disease and other associated medical disorders, previous caesarean section, anaemia, previous scarred uterus (myomectomy).
- Congenital anomalies.
- Irregular menstrual cycles and unknown LMP and not having 1<sup>st</sup> trimester ultrasonography.
- Multiple gestation.
- Non – vertex presentation.

Initially the postdated pregnant ladies were screened for eligibility (meeting the inclusion and exclusion criteria) and if found eligible, informed consent were taken after proper explanation of the study and data were collected by using a standard proforma.

Detailed clinical history like menstrual history, obstetrics history, past history, personal history, marital history, family history were noted. Exact gestational age was calculated by using the Naegele's formula based on previous regular menstrual cycles or from first trimester USG scan. If a women had regular menstrual cycles along with also first trimester USG scan, gestational age was calculated from the first trimester scan.

The patient's general condition, temperature, pulse, blood pressure, pallor, icterus, height and weight were noted. Systemic examination and per abdominal examination was

done to know the presentation and position of the fetus, auscultation was done to note the fetal heart rate.

Sterile per vaginal examination was done for pelvic adequacy and to assess cervical dilation, cervical effacement, station, consistency and position of cervix and modified Bishop's score was calculated. Women with low Bishop's score needed further intervention by induction. On admission, following investigations were done -

- Obstetric ultrasound
- Non-stress test and biophysical profile
- Routine blood investigations.

Fetal monitoring was done with the help of ultrasonography, non-stress test, biophysical profile and daily fetal movement count. Close monitoring was done for those women in labor. Decision for induction, instrumental delivery or caesarean section was taken according to fetal heart rate and the progress of labour or any other abnormalities detected in the investigations. Records were kept about the mode of delivery and if any postpartum maternal complications occurred, was labeled under maternal morbidity. The baby was attended by the paediatrician after delivery, birth weight and APGAR scores was noted in 1 minute and 5 minutes, whether any need for NICU admission was noted. Any neonatal deaths were noted. Patients along with their newborn were followed up till 7 days post-delivery and any maternal and perinatal mortality or morbidity was recorded.

Data was compiled and analysed using Microsoft Excel and data is presented in terms of percentage, mean  $\pm$  SD. Chi square test for qualitative data and student t test for quantitative data is used to find the P value. P value  $<0.05$  was considered as statistically significant.

## Results

Out of 110 postdated women, majority 57(51.8%) participants belonged to the age group of 20-25 years. The mean age was  $24.81 \pm 4.23$  years. It is seen that 66.36% women were primigravida whereas 33.63% women were multigravida. The p-value was found statistically significant (0.0006). The socioeconomic status of all the participating women were studied according to the modified Kuppuswamy scale 2019 and it was found that majority (52.7%) belong to class IV (upper lower). In this study, 87(79.1%) belonged to rural areas and 23(20.9%) urban which was found to be highly statistically significant (p-value=0.0001). In this study, out of 110 postdated women 42.7% were booked and 57.3% women were unbooked.

However the distribution was not statistically significant (p-value = 0.127) (table 1).

**Table 1: Demographic profile**

Demographic data	No	Percentage	
Age in years	<20	20	18.22
	20-25	57	51.8
	26-30	24	21.8
	>30	09	8.18
			Mean age - $24.81 \pm 4.23$ years
Gravida	Primi	73	66.36
	Multi	37	33.64
Socioeconomic status	I	02	1.8
	II	06	5.5
	III	13	11.8
	IV	58	52.7
	V	31	28.2
Residency	Rural	87	79.1
	Urban	23	20.9
Booking status	Booked	47	42.7
	Unbooked	63	57.3
			p-value -0.0006
			p-value -0.0001
			p-value -0.127

Majority (60%) belonged to gestational age group of 40 weeks 1 day - 41 weeks and 40% were from gestational age 41 weeks 1 day - 42 weeks (table 2).

**Table 2: Distribution of patients according to gestational age**

Gestational age	Number	Percentage
40 weeks 1 day - 41 weeks	66	60
41 weeks 1 day - 42 weeks	44	40
Total	110	100

In this study, majority of the postdated women had Bishop's score  $<4$  (52.7%) followed by 27.3% who had Bishop's score of 4-6 and 20% had score of  $>6$  (table 3).

In the present study, 54 (49.1%) postdated women received induction by various means. Majority (50%) received induction with dinoprostone gel, 40.7% with oxytocin following artificial rupture of membranes and 9.3% were induced with tablet misoprostol. In this study, use of foley's catheter for induction is not used (table 3).

**Table 3: Distribution of patient according to Bishop's score and type of induction**

A. Bishops score			
Score	Number	Percentage	
<4	58	52.7	
4-6	30	27.3	
>6	22	20	
Total	110	100	
B. Type of induction			
Oxytocin	22	40.7	
Dinoprostone gel	27	50	
Misoprostol	05	9.3	
Total	54	100	

In the present study, out of 66 patients in the gestational age group of 40 weeks 1 day - 41 weeks, majority 46(69.7%) had NVD, 16(24.2%) had LSCS and 4(6.1%) had instrumental delivery. In the gestational age group 41 weeks 1 day - 42 weeks, 20(45.5%) out of total 44 patients had NVD and 20(44.5%) had LSCS and 04(6.1%) had

instrumental delivery. The p-value is found statistically significant (0.03). As the gestational age group kept on increasing, rate of LSCS kept on increasing (table 4). Incidence of spontaneous vaginal delivery is more in 40 to 41 wks of gestational age. The p-value is found to be highly statistically significant (0.0001) (table 4).

**Table 4: Mode of delivery and type of vaginal delivery in relation with gestational age**

Gestational age	40wks 1 day to 41 wks	41 wks 1 day to 42 wks
SVD (spontaneous)	29 (63.04%)	07 (35%)
SVD (induced )	17 (36.96%)	13 (65%)
SVD (total)	46	20
P value	0.0001	
LSCS	16	20
Instrumental delivery	04	04
P value	0.03	

SVD – Spontaneous vaginal delivery; LSCS – Lower segment caesarean section

In this study, the leading cause of caesarean section is meconium stained liquor (25%) followed by cephalopelvic disproportion (22.2%) (table 5).

**Table 5: Indications of caesarean section**

Indications	Number	Percentage
Cephalo-pelvic disproportion	8	22.2
Failure of induction	6	16.7
Meconium stained liquor	9	25
Fetal distress	5	13.8
Gross oligohydramnios	4	11.1
Non-reactive NST	2	5.6
Non-progress of labour	2	5.6
Total	36	100

**Table 6: Maternal complications**

Complications	Gestational age in wks		Gestational age in wks		p-value
	40w1day – 41w Number	41w1day –42w Number	40w1day- 41w Percentage	41w1day- 42w Percentage	
No complication	56	12	84.8	27.3	<0.05
Oligohydramnios	04	14	6.1	31.8	<0.05
Perineal tear	00	04	0	9.1	<0.05
Atonic PPH	01	07	1.5	15.9	<0.05
Cervical tear	00	02	0	4.5	>0.05
Para-urethral tear	03	03	4.5	6.8	>0.05
Wound infection	02	00	3	0	>0.05
Shoulder dystocia	00	02	0	4.5	>0.05

In this study, 84.8% women in the gestational group 40 weeks1day - 41weeks and 27.3% women in the gestational age group 41weeks1day – 42 weeks had no complication. The most common maternal complication in the gestational age group 40 weeks 1 day - 41weeks is oligohydramnios (6.1%) followed by para-urethral tear (4.5%), wound infection (3%), atonic PPH (1.5%). In the gestational group 41 weeks1day – 42 weeks, the most common maternal complication found is oligohydramnios (31.8%) followed by atonic PPH (15.9%), perineal tear (9.1%), para-urethral tear

(6.8%) and shoulder dystocia (4.5%). The p-value is found significant for the distribution of oligohydramnios, perineal tear and atonic PPH.

**Table 7: Fetal complications**

Foetal complications	No	Percentage
Birth asphyxia	02	14.3
Respiratory distress	04	28.6
MAS	03	21.4
LBW	02	14.3
Hyperbilirubinemia	02	14.3
Macrosomia	01	7.15
Gestational age	40 wks 1 day - 41 wks	41 wks 1 day - 42 wks
NICU admission	3	11
P value	0.001	
IUFD	nil	02 (1.8%)
Neonatal death	nil	02 (1.8%)

MAS – Meconium aspiration syndrome; LBW – Low birth weight; NICU – Neonatal intensive care unit; IUFD – Intrauterine foetal death.

In this study, 12.7% newborn had NICU admission.4.5% newborn born to mothers with gestational age from 40weeks1day to 41 weeks had NICU admission while 25% newborn born to mothers with gestational age >41weeks had NICU admission (table 7).

In this study, the most common cause of perinatal morbidity is respiratory distress (28.6%). The other causes of perinatal morbidity were meconium aspiration syndrome (21.4%), birth asphyxia (14.3%), low birth weight (14.2%), hyperbilirubinemia (14.2%), macrosomia (7.14%) (table -7).

In this study overall perinatal mortality is 3.6% (i.e.P.M.R is 36/1000 births). Rate of IUFD is 1.8% and 1.8% newborn had neonatal death. The 2 IUFD's were due

to placental insufficiency owing to postmaturity. The 2 early neonatal death in this study is because of meconium aspiration syndrome and is due to negligence on the part of this 2 mothers who came late after crossing 41weeks directly in labour with thick meconium stained liquor with draining per vagina for more than 24 hours. In this study, it is found that the rate of perinatal mortality increases with increasing gestational age from 0% in the gestational age group 40weeks1day- 41weeks to 9.1% in the gestational age group

41weeks1day- 42 weeks. The p – value is found to be significant.

### Discussion

In the present study, majority 57(51.8%) participants belonged to the age group of 20-25 years with mean age was  $24.81 \pm 4.23$  years which is found similar with several studies like Paliulyte V et al<sup>12</sup>, Mahapatro AK et al<sup>13</sup>, Eden et al<sup>14</sup> etc. In a study by Bhreigu et al<sup>16</sup>, maximum participating women (79%) belonged to age group 20 to 25 years.

In this study, majority 73 (66.36%) women were primigravida and 37(33.64%) were multigravida. The p-value was found significant (0.0006) and found similar with study by Mahapatro et al<sup>13</sup>, and Kandalgaonkar VP et al<sup>18</sup>. In our study majority (52.7%) of the patients were found belonged to upper lower class rural background with highly significant p value (0.0001) and found similar with study by Singh N et al<sup>21</sup>, and Agrawal S et al<sup>22</sup>. Majority of the patients were found unbooked.

Poor Bishop's score is associated with failure of induction and lesser chances of vaginal delivery. In the present study, majority (52.7%) of the postdated women had Bishop's score <4 followed by 27.3% who had Bishop's score of 4-6 and 20% had score of >6. Those with Bishop's score <4, most of them needed further intervention by induction of labour by either tab misoprostol or dinoprostone gel or augmentation of labour by oxytocin infusion after artificial rupture of membranes (ARM). In patients with Bishop's score <4, maximum underwent caesarean section in view of failure of induction. In the study done by Kandalgaonkar VP et al and Agarwal S et al, similar results were found where majority had Bishop's score <4.

In the present study, out of 110 postdated women, 54(49.1%) women were induced by various means. Maximum induction was done by dinoprostone gel in 27 patients (50%), followed by oxytocin infusion after artificial rupture of membranes in 22 patients (40.7%) and least by tab misoprostol in 5 patients (9.3%). Similar observations were seen in study by Kandalgaonkar VP et al and Agrawal S et al. But in a study by Patel N et al maximum induction was done by tab misoprostol 25mcg which is not found similar with our study.

In this study 66 (60%) patients were found with gestational age 40 to 41 weeks and another 44 (44%) were found with gestational age of 41 to 42 weeks and (60%) delivered vaginally followed by caesarean rate of (32.8%) and instrumental delivery rate of (7.2%) which is found similar with several studies like-Akhter S et al<sup>20</sup>, Dobariya

PV et al<sup>15</sup>, Francis S et al<sup>24</sup>, Patel N et al<sup>25</sup>, Bhriegu et al<sup>16</sup>, Mahapatro et al, and Shinge N et al<sup>26</sup>.

In the present study, out of 66 patients in the gestational age group of 40 to-41weeks, majority 46(69.7%) had NVD, 16(24.2%) had LSCS and 4(6.1%) had instrumental delivery whereas out of 44 patients in the gestational age group of 41-42weeks, 20(45.5%) had NVD and 20(44.5%) had LSCS and 4(6.1%) had instrumental delivery. The p-value is found statistically significant (0.03). As the gestational age group kept on increasing, rate of LSCS kept on increasing. This findings is found similar with the studies conducted by Lata et al<sup>27</sup> and Bhriegu et al. Moreover in our study it is found that incidence of SVD (54.5%) is more in the gestational age group of 40 to 41 wks with significant p value of (0.0001) which is found similar with Bhriegu et al.

In the present study, the overall rate of LSCS was 32.8%. The most common indication of caesarean section was Meconium stained liquor(25%) followed by cephalopelvic disproportion (22.2%), failure of induction (16.7%), fetal distress (13.8%), gross oligohydramnios (11.1%), non-reactive NST(5.6%) and non-progress of labour(5.6%) found similar with Mahapatro et al, Akhter P et al and Bhriegu et al.

In this study maternal complications increased as the gestational age is increased from 40weeks to 42 weeks with significant p value <0,0001. In the gestational age group 40 to-41weeks, the most common maternal complication was oligohydramnios in 4 patients (6.1%), para-urethral tear in 3 patients (4.5%), wound infection in 2 patients (3%) and atonic PPH in 1 patient (1.5%). While in the gestational age group 41 to 42weeks, the most common maternal complication was oligohydramnios in 14 patients (31.8%), atonic PPH in 7 patients (15.9%), perineal tear in 4 patients (9.1%), para-urethral tear in 3 patients (6.8%) and then cervical tear and shoulder dystocia each accounting for 4.5% with significant p-value (< 0.05). Similiar results were found in several studies like Caughey et al, Patel N et al and Lata et al. No maternal mortality is found in this study.

In this present study, the rates of perinatal morbidity in the form of NICU admission increased as the gestational age increased from 40 weeks upto 42 week with significant p value (0.001). In our study, the most common fetal complication or the indication for NICU admission was respiratory distress in 4 babies (28.6%) meconium aspiration syndrome in 3 babies (21.4%), 2 babies (14.3%) each for birth asphyxia, LBW, which is found similar with studies conducted by Bhriegu et al and Singh N et al.

In this study, the overall perinatal mortality is 3.6%. Those contributing to this mortality rate are 2 IUFD's (1.8%) and 2 early neonatal deaths (1.8%). All the mortality were in the mothers of gestational age from 41weeks1day to 42weeks. The perinatal mortality rate according to similar studies done by Akhter et al, Thakur et al<sup>29</sup> and Agrawal S et al was 5.4%, 3%, 4% respectively. There is definite increase in the perinatal mortality as the gestational age increases beyond 40 weeks. In this study, increased perinatal mortality is due to increased incidence of meconium stained liquor and meconium aspiration syndrome and intra uterine fetal demise leading to increased perinatal mortality in postdated pregnancies. This rate of perinatal mortality in the present study shows the need to terminate pregnancy before 41weeks to reduce perinatal mortality and morbidity.

Limitation of the study - As this study was undertaken only for a short period of time and was restricted to only the patients attending the Jorhat Medical College, the scope was limited. For obtaining significant and reliable findings, a broad and extensive study is required.

### Conclusion

From the present study, it can be concluded that, the postdated pregnancy is a high risk factor for maternal and perinatal outcome. There is increase in maternal and perinatal morbidity and perinatal mortality in the form of increased caesarean sections, instrumental delivery, perineal tear, atonic PPH, neonatal respiratory distress, meconium aspiration syndrome and high rates of NICU admission in postdated pregnancies.

Management of pregnancy beyond 40weeks up to 42weeks remains controversial. Confirmation of dates is an integral part of the management. Gestational age assessment by first trimester ultrasonography and accurate LMP can reduce the incidence of postdated pregnancy. Regular antenatal check-ups with proper counselling and awareness of the expecting mothers regarding the complications of postdated pregnancy is mandatory.

From the present study, it seems reasonable enough to terminate pregnancy before 41 weeks to reduce perinatal morbidity and mortality and hence the plan of induction should be before 41weeks or once the lady crosses 40 weeks of gestation by accurate dating with strict intra-partum fetal monitoring.

With the advent of modern technology in the medical science, further improvement in the diagnosis and confirmation of postdated pregnancy along with convenient

and effective monitoring of the foetus will show the vista of light in near future.

**Conflict of interest:** None. **Disclaimer:** Nil.

### References

1. Kenny LC. Post term pregnancy. Obstetrics by Ten Teachers. 19th editions. New York: CRC Press; 2011.
2. Arias F, Bhide AG, Arunkumaran S, Damania K, Daftary SN, editors. Practical guide to high risk pregnancy and delivery. 3rd Edition. Gurgaon: Elsevier India; 2008: 255-70.
3. Caughey AB, Washington AE, Laros RK Jr. Neonatal complications of term pregnancy: rates by gestational age increase in a continuous, not threshold, fashion. Am J Obstet Gynecol. 2005; 192(1):185-90.
4. Heimstad R, Romundstad PR, Salvesen KÅ. Induction of labour for post-term pregnancy and risk estimates for intrauterine and perinatal death. Acta Obstet Gynecol Scand. 2008; 87(2): 247-9.
5. Caughey AB, Stotland NE, Washington AE, Escobar GJ. Maternal and obstetric complications of pregnancy are associated with increasing gestational age at term. Am J Obstet Gynecol. 2007; 196(2):155-e1.
6. Usher RH, Boyd ME, McLean FH, Kramer MS. Assessment of fetal risk in postdate pregnancies. Am J Obstet Gynecol. 1988; 158(2): 259-64.
7. Grubb DK, Rabello YA, Paul RH. Postterm pregnancy: Fetal death rate with antepartum surveillance. Obstet Gynecol. 1992; 79:1024-6.
8. Fernando A. Prolonged pregnancy. In: Nasim S, ed. Practical guide to high risk pregnancy and delivery. Noida: Elsevier; 2008: 255-256.
9. Alfirevic Z, Walkinshaw SA. A randomised controlled trial of simple compared with complex antenatal fetal monitoring after 42 weeks of gestation. Br J Obstet Gynaecol. 1995; 102: 638-43.
10. 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.
11. Paliulytė V, Ramašauskaitė D. Labour induction in postdate pregnancy: when to start-at week 40 or 41 of gestation? Acta Medica Lit. 2010; 17.
12. Mahapatro A, Samal S. Fetomaternal outcome in pregnancy beyond 40 week. Int J Pharma Bio Sci. 2015; 6(2): 53-8.

13. Eden RD, Gergely RZ, Schiffrin BS, Wade ME. Comparison of antepartum testing schemes for the management of the postdate pregnancy. *Am J Obstet Gynecol.* 1982;144: 683-92.
14. Dobariya PV, Shah TP, Ganatra KH. Feto-maternal outcome in pregnancy beyond 40 weeks. *International Journal of Reproduction Contraception Obstetrics Gynaecology*, 2017 Feb; 6(2): 527-31.
15. Bhriegu R, Agarwal M, Hariharan C. Assessment of maternal and perinatal outcome in postdated pregnancy. *Journal Datta Meghe Inst Med Sci Univ.* 2017;12: 35-40.
16. Reddy UM, Bettgowda VR, Dias T, Yamada-kushnir T, Ko CW, Willinger M. Term pregnancy: a period of heterogenous risk for infant mortality. *Obstet Gynecol.* 2011; 117: 1279-87.
17. Kandalgaonkar VP, Kose V. Fetomaternal outcome in postdated pregnancy. *Int J Reprod Contracept Obstet Gynecol.* 2019 May; 8(5):1899-1906.
18. Naz F, Javid A, Saeed S. Neonatal outcome in post-term pregnancy. *Age (Omaha).* 2006; 42(45): 75.
19. Akhter P, Sultana M, Hoque M, Sultata S, Khatun MR, Dabee SR. Maternal outcome of prolonged pregnancy. *J Bangladesh Coll Phys Surg.* 2014; 32(2): 66.
20. Singh N, Misra D, Srivastava S. Postdated Pregnancy: its maternal and fetal outcome. *Int J Reprod Contracept Obstet Gynecol.* 2020 Aug; 9(8) : 3223-27.
21. Agrawal S, Patidar A, Kumar S. Fetomaternal outcome in postdated pregnancy: A Retrospective Study. *International Journal of Medical and Biomedical Studies.* 2020 June; 4(6): 22-6.
22. Anand N, Shah H, et al. A clinical study of maternal outcome in post dated pregnancy in a tertiary care hospital. *International journal reproduction contraception obstetrics gynaecology.* 2019 September; 8(9): 3573-77.
23. Francis S. A retrospective study on fetomaternal outcome beyond 40 weeks period of gestation. *Indian J Res.* 2015: 4(12):113-5.
24. Patel N, Modi P. A Study of maternal and fetal outcome in post date pregnancy. 2017; 6(9): 2015-8.
25. Shinge N, Prashanth S. Comparative study of maternal and fetal outcome in pregnancies of gestational age 40 completed weeks and beyond. *J Evol Med Dent Sci.* 2013; 2(25): 4509-16.
26. Lata, Sinha A, Prasad D, et al. Perinatal and maternal outcome in postdated pregnancy: a retrospective study. *J Evid Based Med Healthc.* 2019; 6(21):1548-51.

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