



Postdated pregnancy; Feto maternal outcome in a tertiary hospital in north-western Nigeria: A five year review

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Abstract

Background: postdated pregnancy is one of the most common obstetric condition. Pregnancy is said to be postdated when it exceed 40 weeks of gestation. It could lead to prolonged pregnancy, increased obstetric interventions as well as maternal and fetal morbidities.

Objective: This study is aimed to evaluate the feto-maternal outcome of postdate pregnancies at the Usmanu Danfodiyo University teaching Hospital (UDUTH) Sokoto.

Material and Method: This was a cross-sectional study of postdated pregnancies that were managed at the Usmanu Danfodiyo university Teaching Hospital (UDUTH) Sokoto, Nigeria, from 1st jan.2017 to 31st Dec. 2021. The case records of all postdated pregnancies that delivered at UDUTH within the study period were reviewed. Data was collected using structured pro-forma including social-demographic characteristics, gestations age at delivery, maternal and fetal complications. Relevant information was analyzed using statistical package for social sciences (SPSS) version 23.re

Result: There were 125 cases of postdated pregnancies reviewed giving a prevalence of 1.29 %. The mean age was 26.9 ± 5.5 years. Majority of the them were within the age group of 20 to 24 years and 25 to 29 years (36 % and 33 % respectively). They were mainly (76 %) Hausa / Fulani and the most practiced religion was Islam (82.4 %). Nulliparous women were the highest (54.4 %) number of cases. All the cases were booked and majority were delivered at gestation age of between 41 weeks to 41 plus 6 days. Among them, 26.5 % went into spontaneous labour and had spontaneous vaginal delivery, While 60 % had cervical ripening and induction of labor. The most common method of cervical ripening was by the use of misoprostol (91.9%). Vaginal delivery and caesarean section were the mode of delivery in 26.5 % and 13.3 % respectively while the remaining 60.2 % had induction of labor. Primary postpartum haemorrhage was the only maternal complication encountered in 1.6 %. There was no fetal complication observed.

Conclusion: The prevalence of postdated pregnancy was 1.29 %. Majority of them (86.5 %) had spontaneous vaginal delivery and primary postpartum haemorrhage was the only maternal complication identified with no fetal complication observed.

Keywords: postdate pregnancy, fetal outcome, maternal complications

Introduction

Postdated pregnancy is that pregnancy that exceed 40 weeks or 280 days from the first day of the last menstrual period (LMP). An incidence of 4-14%, ^[1, 2, 3] have been reported from various centres. The exact etiology of accurate prolonged pregnancies is not fully understood, however, some risk factors are associated with it. These factors include; male fetal gender, obesity, prior prolonged pregnancy, parity, maternal age and genetic predisposition. ^[1, 2, 3, 4] The assessment of the gestational age by early ultrasound examination had reduced the incidence of prolonged pregnancy by 50%. ^[2, 5] However, it is crucial to recognize the limitation of ultrasound estimation of gestational age at different gestational ages. ^[1, 6]

Some complications do occur to both mother and fetus in such pregnancies. It has been reported that pregnancy that exceeded the expected date of delivery is associated with an increased risk of oligohydramnios, meconium stained liquor, fetal macrosomia, fetal maturity syndrome and caesarean delivery, all of which jeopardize the baby as well as the mother. ^[1, 2, 5, 6, 7] Prolonged pregnancy has always been regarded as a high risk conditions because perinatal morbidity and mortality is known to increase. ^[2, 8] The aimed of this study was therefore, to evaluate the feto-maternal outcome of postdated pregnancies at UDUTHS.

Material and Methods

This was a cross-sectional study of postdated pregnancies that were managed at the Usmanu Danfodiyo University Teaching Hospital, Sokoto (UDUTHS) Nigeria, from 1st Jan.2017 to 31st Dec. 2021. The case records of all postdate pregnancies that delivered at UDUTH within the study period were reviewed. Data was collected using structured pro-forma. The information obtained include; social-demographic characteristics, gestations age at delivery, maternal and fetal complications. Relevant data was analyzed using statistical package for social sciences software (SPSS) version 23. The strength of the association was estimated using the chi-square test, and statistical significance was set at *P* values <0.05 at a 95% confidence interval.

Results

There were 9,622 total deliveries within the study period, out of which 125 constituted postdated pregnancies, giving a prevalence of 1.29 %. The mean age of the women was 26.9 ± 5.5 years. Their ages ranged between 17 years 40 years with a modal age groups of 20 to 24 years and 25 to 29 years (36 % and 33 % respectively). Majority of the cases (54.4 %) were nulliparous and mostly had at least secondary school education. The predominant ethnic group was Hausa/ Fulani (76%) and the most practiced religion was Islam (82.4%). Details of the sociodemographic characteristics are shown on Table 1.

Table 1: Sociodemographic characteristics of the cases.

Characteristics	Number (n)	Percentage (%)
Age		
Less than 20 years	2	1.6
20 to 24 years	45	36.0
25 to 29 years	42	33.6
30 to 34 years	17	13.6
35 and above	19	15.2
Parity		
Primigravida	68	54.4
Para 2	29	23.2
Para 3	15	12.0
Para 3	13	10.4
Occupation		
Unemployed	52	41.6
Business	26	20.8
Civil servant	23	18.4
Student	25	19.2
Educational status		
Non formal	23	18.4
Primary	8	6.4
Secondary	34	27.2
Tertiary	60	48.0
Tribe		
Hausa	95	76
Yoruba	9	7.2
Igbo	8	6.4
Others	13	10.4
Religion		
Islam	103	82.4
Christianity	22	17.6

All the cases were booked for antenatal care in the facility and majorities were delivered at gestational age of between 41 weeks to 41 weeks and 6 days. This is shown on figure 1.

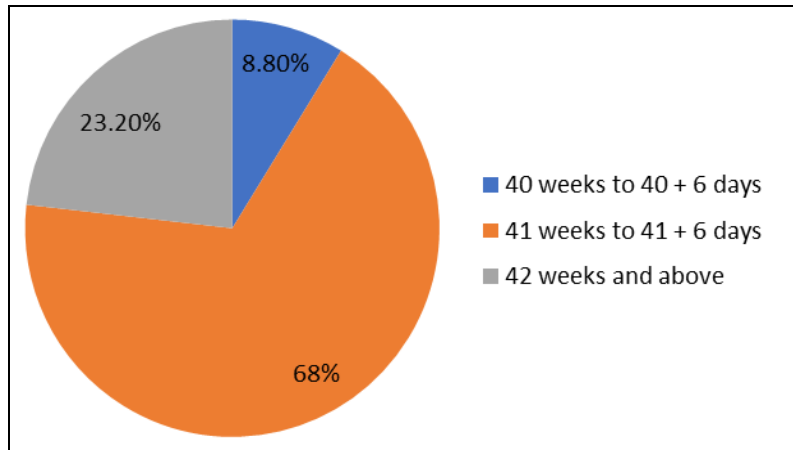


Fig 1: Gestational age distribution of the cases.

Among them, 26.5 % had spontaneous vaginal delivery and they comprised of those who went into spontaneous labour with subsequent spontaneous vaginal delivery. About 60 % had cervical ripening and induction of labour. This is shown on figure 2.

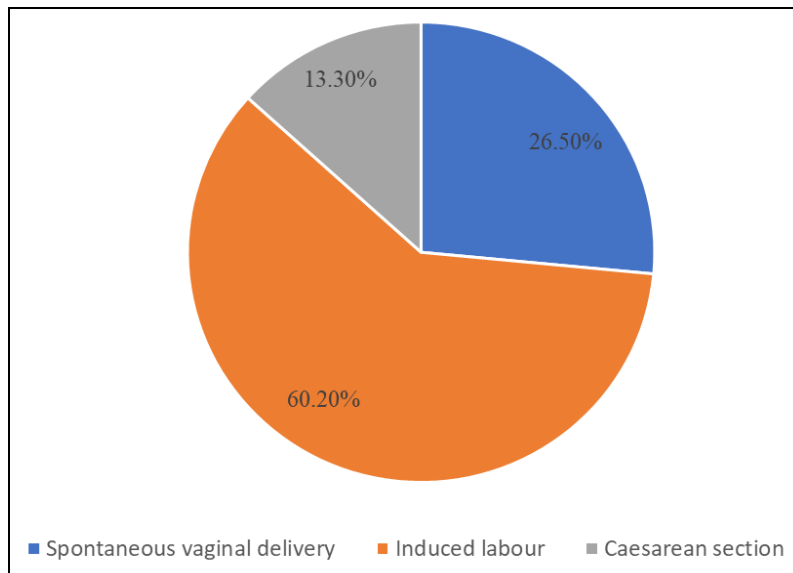


Fig 2: Mode of delivery among the parturients.

The most common method of cervical ripening was by the use of misoprostol among (91.9 %) and 8.1 % had cervical ripening with intracervical Foleys catheter insertion. While 38 % had cervical ripening with 1 to 3 doses of misoprostol others, 12.8 % had between 4 to 6 doses. This is shown on figure 3.

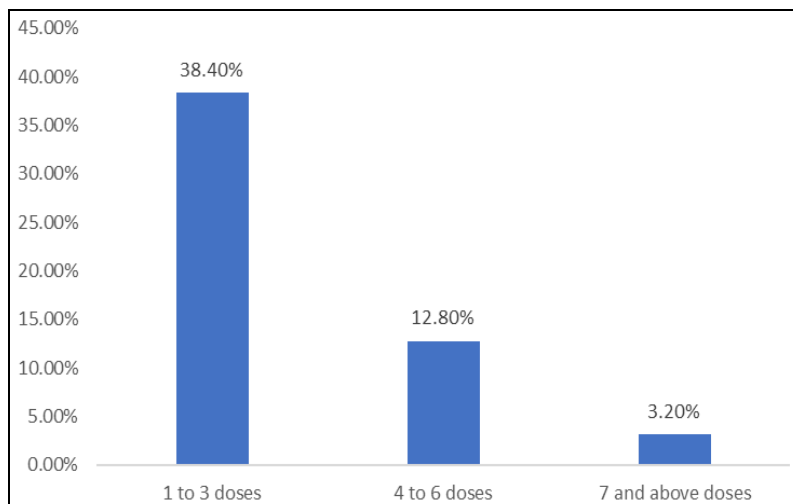


Fig 3: Doses of Misoprostol used for cervical ripening.

The mean duration of onset of labour to delivery was 6.4 ± 2.7 hours with a range of 2 to 14 hours. The only maternal complication encountered among the cases was primary post-partum haemorrhage which accounted for 1.6 % of the cases without maternal motility. The median 1st minute Apgar score was 8 and 9 at 5th minute. There was no fetal complication encountered.

Discussion

Postdated pregnancy has always been regarded as a high risk pregnancy as it is associated with increased maternal and perinatal morbidity and mortality. This risk increase in pregnancies that last two or more weeks after the expected date of delivery [4]. In this study the prevalence of postdated pregnancy was more among women within the age groups of 20-29 years. This was similar to what was found in other studies. [4, 9, 10] In this environment where the study was carried out women tend to marry early because of cultural and religious reasons and therefore this may be the reason of higher incidence of postdated among pregnancy a younger age group. Majority of the them(76%) were of Hausa/ Fulani ethnic group and Islam was the most (82.4%) practiced religion. The reason behind this may be related to the fact that it a Hausa / Fulani and Muslim dominated community. The study also found that most (54.4%) of the cases were nulliparous. This is in conformity with other studies that identified nulliparity as a risk factor [1, 2]. Another reason for this high incidence of postdated pregnancy among nulliparous women could be due to inaccuracies in recollecting the exact last menstrual period among them especially where pregnancy is unplanned¹. Majority (68%) them were delivered at gestational age of between 41 weeks to 41 and 6days. Our institutions' protocol recommends induction of labour at 41 weeks plus 3 days. The reason behind this is to avoid iatrogenic preterm delivery from inaccurate dating of gestational age and to ensure that where induction of labour is commenced, the client is delivered before 42 completed weeks, since the incidence of fetal morbidity and mortality tends to rise significantly at this point [1, 11]. Most (60%) cases had cervical ripening and induction of labour while 26.5% went into spontaneous labour and had spontaneous vaginal delivery. The most common method of cervical ripening was by the use of misoprostol (91.9 %). This common method for cervical ripening was earlier reported by another study in the same institution as well as in another study. [12, 13]. Postdated pregnancies were associated with higher rate of interventions and more maternal and fetal complications than term pregnancies [1, 4, 11]. However, the caesarean section rate of 13.3% found in this study was low compared to what was reported from other studies. There was no instrumental vaginal delivery or fetal complications encountered, unlike other studies [1, 4]. However, primary postpartum haemorrhage was observed in this study. The absence of fetal complication as well as the lower incidence of maternal complication observed may be attributed to the fact that all were booked and received optimal antenatal care as well as planned deliveries.

Limitation of the study

The this study was its retrospective design and institutional based using small sample size.

Conclusion

The prevalence of postdated pregnancy was 1.29 %. Majority of them (86.5 %) had spontaneous vaginal delivery and primary postpartum haemorrhage was the only maternal complication identified with no fetal morbidity, maternal or fetal mortality. observed.

Therefore, community based prospective studies with a larger sample size is recommended to obtain a result that will represent the populace.

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