

Characteristics of Child Birthing Women and Fetal Outcome in Postdate Pregnancy

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ABSTRACT

Postdate pregnancy is an indirect cause of maternal and infant mortality. Generally, it can occur in 7% of pregnancies. The study aims to describe the characteristics of intrapartum women with postdate pregnancy, delivery method, and fetal outcome in 2018. The study was quantitative descriptive research using secondary data. The sample was obtained by a total sampling technique as many as 601. The results of the study showed that the majority of intrapartum women with postdate pregnancy were at the age of 20-35 years (75.4%), multiparity (55.1%), and spontaneous delivery method (73.7%). Fetal outcome (86.5%), babies who were not asphyxia and weighed 2500-4000 grams as many as (92%). All of these characteristics often occurred in the gestational age range of 40+1 – 40+6 weeks (56.6%), range 41-41+6 weeks (40.6%), and > 42 weeks (2.8%). The success of induction was indicated by the high rate of spontaneous delivery (73.7%), no incidence of asphyxia at > 42 weeks' gestation, and low macrosomia rates (2.7%) in post- term pregnancies in 2018. Good fetal outcome due to the correct termination efforts can be one of the considerations in the preparation of Standard Operational Procedure (SOP) for the management of postdate pregnancies.

Keywords: child birthing women, pregnancies, postdate pregnancy

showed that cervix is not ready, and thus birth induction is failed which can cause fetus abnormality [6].

1. INTRODUCTION

Postdate pregnancy contributes indirectly to maternal mortality. Postdate pregnancy increases the possibility of dystocia, severe perineal laceration due to macrosomia, vaginal birth, and Caesar birth. Postdate pregnancy happens in 7% of proceeding pregnancy [1]. Postdate pregnancy can be one of causal factors of asphyxia. The risks of postdate pregnancy can cause meconium aspirations syndrome (MARS), abnormal fetus pulse, umbilical cord compression, low Apgar score, and many more [2]. Asphyxia which does not receive immediate treatment can cause hypoxia, hypercapnia, acidosis, and even mortality [3]. Neonates asphyxia can be due to some factors such as mothers, placenta, fetus, and neonates' factors. Most of the asphyxia causes in Yogyakarta are during birthing process such as the occurrence of a preterm or difficult delivery, abnormal fetal presentation or position [4].

The importance of monitoring and supervision of pregnant, child birth, and post-partum women as the government effort to decrease the number of mortality and sickness of mothers and newborn babies because every pregnancy has the risk of maternal mortality [5]. The most appropriate treatment for postdate pregnancy is still debatable up to now. Postdate termination is best laid on the gestational age and fetus wellbeing. Postdate pregnancy management is divided into two opinions. Some experts suggest that induction must be held immediately after diagnosis. On the contrary, some other argue that management must be held on the basis of expectation or wait until birth happen naturally with a strict fetus supervision. Some cases revealed that after 42 weeks of gestational age, 70% of them

2. METHOD

The study used descriptive quantitative aiming at explaining and describing mothers' characteristics namely age and parity, child birth method, and fetal outcome; birth weight and asphyxia in postdate pregnancy. The population of the study was 601 postdate pregnant women giving birth at a Wonosari regional public hospital from January 1st 2018 up to December 31st 2018 by using total sampling technique. The data were taken from delivery registering book at delivery ward and followed by analysis through descriptive quantitative method on the basis of univariate and the data were in the form of frequency to explain and describe the original situation.

3. RESULTS AND DISCUSSION

The study was held at a regional public hospital in 2019 for 2 month of data taking process. Patients with postdate pregnancy enrolled through maternal clinic by previously acquired referral letter from private midwifery clinic, primary health center of other first level health facilities (FKTP). Before the patients entered delivery room, they had been checked their physical and USG at maternal clinic and received intervention order from doctor in charge (DPJP) from the same clinic to be intervened with pregnancy termination based on various consideration of examination result. The number of patients in 2018 in delivery ward was 1750 and there were 601 women with postdate pregnancy.

Table 1 Frequency Distribution of Giving Birth Women with Postdate Pregnancy Variable from January – December 2018 (n = 601)

Variables	Frequency (f)	Percentage (%)
Mothers' Age		
<20 y.o	43	7.2 %
20-35 y.o	453	75.4 %
>35 y.o	105	17.5 %
Parity		
Primipara	258	42.9%
Multipara	331	55.1%
Grandemultipara	12	2.0%
Childbirth Method		
Spontaneous SC	443	73.7%
	158	26.3%
Birth Weight		
< 2500 gram	32	5.3%
2500-4000 gram	553	92%
>4000 gram	16	2.7%
Asphyxia Incidence		
Non-asphyxia	520	86.5%
Asphyxia	81	13.5%
Gestational Age		
>40 ⁺¹ - 40 ⁺⁶ weeks	340	56.6%
41- 41 ⁺⁶ weeks	244	40.6%
>42 weeks	17	2.8%

Table 1, showed that the number of postdate childbirth was 601 patients and the age of mothers was approximately 20 – 35 years old (453 people/75.3%). The ages range of 20 – 35 years old are healthy reproductive ages and most pregnant women give birth in these ages range. According to [9], some studies showed that postdate childbirth happened in healthy reproductive ages.

The number of postdate childbirth was 601 and the most cases were multipara (331 respondents/55.1%), while 42.9% of them were primiparous. Previous postdate makes bigger possibility of occurrence in multipara. Primiparous others can increase postdate pregnancy due to less contraction happened in the last period of trimester III. Parity is considered as the key factor in determining intervention during pregnancy and childbirth.

Table 2 Frequency Distribution of Mothers' Age in Giving Birth Women with Postdate Pregnancy from January – December 2018

Mothers' Age	Gestational Age						Total
	40 ⁺¹ - 40 ⁺⁶ weeks		41– 41 ⁺⁶ weeks		>42 weeks		
	(f)	(%)	(f)	(%)	(f)	(%)	
< 20 y.o	20	(46.5%)	22	(51.1%)	1	(2.3%)	43
20-35 y.o	260	(57.3%)	182	(40.1 %)	11	(2.4%)	453
>35 y.o	60	(57.1%)	40	(38.1%)	5	(4.8%)	105
Total							601

Table 2, showed that mothers' age with postdate pregnancy mostly happened in the age group of 20 – 35 years old; 453 people. Risky ages are ages less than 20 years old and more than 35 years old. Age becomes risk factor in postdate

pregnancy but it still unconfirmed yet. Some studies argue that age becomes risk factor but others denied that age is not the risk factor [7].

Table 3 Frequency Distribution of Mothers' Parity in Postdate Pregnancy from January – December 2018

Parity	Gestational Age						Total
	40 ⁺¹ - 40 ⁺⁶ weeks		41 – 41 ⁺⁶ weeks		> 42 weeks		
	(f)	(%)	(f)	(%)	(f)	(%)	
Pimipara	149	(57.8%)	102	(39.5%)	7	(2.7%)	258
Multipara	186	(56.2%)	135	(40.8%)	10	(3%)	331
Grandemultipara	5	(41.7%)	7	(58.3%)	0	0	12
Total							601

Table 3, showed that parity in postdate pregnancy mostly happened in multipara; 331 people. Multiparity is mother's condition in which she has never been pregnant and gives birth for 2 – 4 times. Multiparity is (parity 2-3) has never

been regarded as risky parity [3]. Parity regarded as risky when it has been happened for more than 4 times, primigravida, older age group (> 35 years old) and youngest age group (< 20 years old).

Table 4 Frequency Distribution of Giving Birth Method in Giving Birth Women with Postdate Pregnancy from January – December 2018

Giving Birth Method	Gestational Age						Total
	40 ⁺¹ - 40 ⁺⁶ weeks		41– 41 ⁺⁶ weeks		> 42 weeks		
	(f)	(%)	(f)	(%)	(f)	(%)	
Spontaneous	246	(55.5%)	186	(42%)	11	(2.5%)	443
SC	94	(59.5%)	58	(36.7%)	6	(3.8%)	158
Total							601

Table 4, showed that giving birth method in postdate pregnancy was mostly spontaneous method that was 443 people. Postdate pregnancy is an important indication in selective childbirth plan. The indicators of childbirth factor

in postdate pregnancy are gestational age, amniotic fluid sufficiency, placenta classification, cervical examination findings, fetus weight estimation, past obstetric history, and patients' agreement [1].

Table 5 Frequency Distribution of Asphyxia Incidence in Women with Postdate Pregnancy Variable from January – December 2018

Asphyxia Incidence	Gestational Age						Total
	40 ⁺¹ 40 ⁺⁶ weeks		41– 41 ⁺⁶ weeks		> 42 weeks		
	(f)	(%)	(f)	(%)	(f)	(%)	
Non-asphyxia	288	(55.4%)	215	(41.3%)	17	(3.3%)	520
Asphyxia	52	(64.2%)	29	(35.8%)	0	0	81
Total							601

Table 5, revealed that asphyxia incidence in postdate pregnancy was mostly non-asphyxia that was 520 incidences. Asphyxia can be measured by low APGAR score in the 5th and 10th first minutes and acidosis

happened. Asphyxia neonatorum can be a continuation of fetal distress. Fetal distress is an imbalance condition between O₂ and fetus nutrition or is also defined as fetus experiencing hypoxia [3].

Table 6 Frequency Distribution of Baby Birth Weight in Women with Postdate Pregnancy Variable from January – December 2018

Birth Weight	Gestational Age						Total
	40 ⁺¹ - 40 ⁺⁶ weeks		41– 41 ⁺⁶ weeks		>42 weeks		
	(f)	(%)	(f)	(%)	(f)	(%)	
< 2500 gram	14	(43.7%)	15	(46.9%)	3	(9.4%)	32
2500 - 4000 gram	314	(56.8%)	225	(40.7 %)	14	(2.5%)	553
> 4000 gram	12	(75%)	4	(25%)	0	0	16
Total							601

Table 6, presented the most birth weight was 2500 – 4000 gram; 553 people. According to [8], intrauterine fetus growth is influenced by placenta function in which placenta roles when fetus is still inside the womb becomes the way of nutrition and oxygen supply as well as the way to release metabolism waste.

Postdate pregnancy is an important indication in selective childbirth plan. The number of spontaneous childbirths out of 601 postdate childbirth was 443 (73.7%). The management of postdate pregnancy at Wonosari regional public hospital was performed by pregnancy termination in delivery room in accordance with SOP after all examination result was released and induction was done based on doctor's order. First, patient was given induction using catheter balloon followed by intravenous oxytocin drip 5 IU as the continuation series of childbirth until 2 series (2

flabot). Induction process using the method revealed significant success numbers so that childbirth number using section Caesarea at Wonosari regional public hospital was lower than spontaneous method considering some childbirth induction steps in postdate pregnancy enable patients to have spontaneous childbirth and service support by midwives in delivery ward to encourage physiological childbirth.

The number of non-asphyxia babies was very high that was 520 respondents (87%). The high number of non-asphyxia babies at Wonosari regional public hospital proves the appropriate pregnancy and childbirth management implementation, and thus the output of postdate pregnancy minimizes complication occurring later. This is also shown by the number of asphyxia incidence in > 42 gestational age

that was 0 incidence meaning that there was no asphyxia incidence in above 42 weeks of gestational age.

The number of new-borns with normal birth weight in postdate pregnancy was mostly in 2500 – 4000 gram of birth weight that was 552 babies or 92% babies were born in normal weight out of 601 childbirth. [10] argued that one of important factor in determining new-born birth weight is the precision in gestational age calculation since the first menstrual day (HPHT) or through correct USG examination to determine gestational age. Mortality and morbidity risk were decreasing when the gestational age reached 40 weeks and was rising after 41 of gestational age. In the study, the biggest new-born birth weight was in the range of 2500 – 4000 gram referring to table 6 in which 314 babies were born in the range of 40+1 - 40+6 of gestational age. Fetus supervision in the last period of pregnancy and pregnancy termination in the precise gestational age can minimize destructive output risk for fetus.

4. CONCLUSION

The characteristics description of women with postdate pregnancy at Wonosari regional public hospital majority are mother's age ranged 20-35 years old (75.3%), multiparity (55.07%), and have a spontaneous delivery process (73.7%) The description of asphyxia new-borns in postdate pregnancy were 86.5% non-asphyxia and 92 % have birth weight 2500-4000 grams. The study result can be the reference in policy and Standard Operational Procedures of postdate pregnancy management by considering the study result that is the good fetus output which enables to do pregnancy termination in appropriate moment. Proper counselling and education by doctors and midwives in the last period of trimester III related to childbirth plan can be improved by giving comprehensive care and fetus condition supervision thoroughly by pregnancy supervision once a week entering 36 weeks of gestational age to ensure fetus condition supervision.

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