

The Correlation Between Half-Sitting Position And Lithotomy Position With Degree Of Perineal Rupture In Delivery Room At Hospital Dr. H. Moch. Ansari Saleh Banjarmasin

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ABSTRACT

Objective: To Identify and analyze the correlation between half-sitting position and lithotomy position with a degree of perineal rupture in the delivery room at Dr. H. Moch. Ansari Saleh Hospital, Banjarmasin.

Methods: This research uses analytical survey with cross-sectional approach. The sample used 30 primiparous laboring mothers at Dr. H. Moch Ansari Saleh Hospital Banjarmasin with sampling technique. It is non-probability sampling that is accidental sampling. The data collection was done with observation with data was analyzed using *Kolmogorov Smirnov* test with a confidence level of 95%.

Results: The result shows that there is a significant correlation between half-sitting position and perineum rupture degree ($p=0.013 < \alpha 0,005$) and there is a significant correlation between lithotomy position with perineum rupture degree ($p = 0.013 < \alpha 0,005$).

Conclusion: There is a significant correlation between half-sitting position and lithotomy position with a degree of perineal rupture.

Keywords: Correlation, Half-sitting Position, Lithotomy Position, Perineal Rupture

I. INTRODUCTION

According to the World Health Organization in 2014, the Mortality Rate in the world reached 289,000 people. Based on Indonesian Demographic and Health Survey 2012, Maternal Mortality Rate in Indonesia is 359 per 100,000 live births. Based on the

results of the Intercensal Population Survey (SUPAS) 2015, maternal mortality has decreased to 305 maternal deaths per 100,000 live births. [1,2] The Ministry of Health in 2012 states that the causes of maternal deaths in Indonesia are bleeding (42%), Eclampsia (13%), complications of abortion (11%), infection (10%), and old delivery (9%) [3]

In South Kalimantan Mortality Rate in 2011 was 120 per 100,000 live births. In 2012 Mortality Rate increased to 123 per 100,000 live births. The highest number of deaths during maternity and the most causes of complications in labor such as bleeding and difficult birth [4]. Labor is a process of removing the conception of fetus and placenta from the uterus through the birth canal [5]. In postpartum, there may be various complications such as bleeding due to uterine atony, placental retention, and perineal rupture. The perineal rupture is a birth canal injury that occurs during the birth of a baby using either a tool or not using a device. Perineal rupture occurs in almost all first deliveries and not infrequently in subsequent labor [6].

Factors that cause perineal rupture include maternal factors consisting of mother's age, parity, birth spacing, how to strain and wrong maternity position. Fetal factors consist of newborn's weight and presentation. Factors during vaginal delivery consist of forceps extraction, vacuum extraction, tool trauma, and episiotomy, then the maternal assistant factor improper delivery of labor [7]

The perineum rupture is affected by the position in labor. The position of labor is determined by a helper with the aim of facilitating the delivery process. Selection of labor position is very influential on the delivery process. An effective delivery position can reduce discomfort and reduce

pressure on the perineum region [8]. Maternity with supine position/lithotomy may reduce the incidence of perineal rupture, reduce the action episiotomy, and reduced incidence of perineal rupture degrees [9,10]

Rupture of the perineum is the cause of postpartum hemorrhage, postpartum hemorrhage is the leading cause of maternal mortality in Indonesia. [11] Based on World Health Organization data in 2009 there were 2.7 million cases of perineal rupture in maternal mothers. Figures are expected to increase to 6.3 million by 2050 if they do not receive more attention and handling. In Asian countries perineal rupture is also a considerable problem in society, 50% of incidence of perineal rupture in the world occurs in Asia. The prevalence of maternal women with perineal rupture in Indonesia is 52% in that there is a sufficient birth or birth in infants aged 25-30 years and 24% in mothers aged 32-39 years [12]

Based on data in RSUD Dr. H. Moch Ansari Saleh Banjarmasin, postpartum hemorrhage in 2013 there are 21 cases of Post Partum bleeding from 3126 mothers in 2014, 18 cases of Post partum bleeding from 5951 mothers, 2015 as many as 25 cases of Post partum bleeding from 4776 maternity mothers, and in January - March of 2016 as many as 16 cases of Post partum bleeding from 681 maternity mothers. Based on the above data there is an increase in the number of bleeding every year, so should get more attention and handling. [13]

Based on data in RSUD Dr. H. Moch. Ansari Saleh Banjarmasin 2015 has a normal number of child deliveries of 2150 people, and 969 people have perineal rupture, where in 2016 there were a total of 2615 normal deliveries, and 1337 people had perineal rupture [13]

II. MATERIALS AND METHODS

This research uses analytical survey method and this research uses cross-sectional approach by approach, observation or data gathering at one time (point time approach).

The population in this study were all primiparous mothers who gave normal birth. Based on primipara maternity data in the Maternity Room (Verlous Khamer / VK). Dr. H. Moch. Ansari Saleh Banjarmasin in October - December of 2016, there are 233 mothers. The sampling technique uses accidental sampling. In this study using a minimal sample of 30 primiparous maternal women with the determination of sample criteria divided into two parts: inclusion criteria in this study were a primiparous mother, perineum not rigid and normal delivery while exclusion criteria in this study were multigravida mother, rigid perineum, and normal childbirth by action. The type of data in this study was primary data obtained by observing maternal vaginal delivery using an observation sheet while secondary data of maternity data, postpartum bleeding and perineal rupture in the Maternity Room (Verlous Khamer / VK) RSUD DR. H. Moch

Ansari Saleh Banjarmasin. Data analysis using Kolmogorov Smirnov

III. RESULTS

This study was conducted to determine the relationship between the half-sitting position and the lithotomy position with the degree of perineal rupture in the maternity mother at Dr. H. Moch Ansari Saleh Banjarmasin and got the result:

1. Half Seated Position

Table 1 Maternal position distribution of half-sitting

No	Half sitting	Frekuensi	Persentase
1	Yes	9	30
2	No	21	70
total		30	100

Based on table 1 shows that of 30 respondents there are 9 people (30%) maternity mother with a half-sitting Position

2. Lithotomy Position

Table 2 Maternal Position Distribution in Lithotomy

No	Lithotomy Position	Frekuensi	Persentase
1	Ya	21	70
2	Tidak	9	30
total		30	100

Based on table 2 shows that of 30 respondents there are 21 people (70%) maternity mothers with lithotomy position

3. Perineum Rupture Degree

Table 3 Distribution of Degree of Perineal Rupture

No	The degree of perineal rupture	Frekuensi	Persentase
1	degree 1	2	6,7
2	degree 2	20	66,7
3	degree 3	8	26,7
Total		30	100

Table 3 shows that from 30 respondents there are 2 people (6.7%) of maternal mother

with perineal rupture of degree 1, 20 people (66,7%) of maternal mother with perineal rupture degree 2 and 8 people (26,7%) maternal mothers with 3-degree perineal rupture (Spelling)

4. The Relationship between The Half-Sitting Position With The Degree Of Perineal Rupture And The Relationship Between The Lithotomy Position And The Degree of Perineal Rupture

Table 4 Half-seated relationship with perineal rupture and the lithotomy position and the degree of perineal rupture

N	Position	Perineal rupture						Total		p-value
		Degree 1	Degree 2		Degree 3		f	%		
		f	%	f	%	f	%			
1	Half-sitting	2	6,7	7	23,3	-	0	9	30	0,013
2	Lithotomy Position	-	0	13	43,3	8	26,7	21	70	0,013
	Total	2	6,7	20	66,6	8	26,7	30	100	

Based on table 4 of the test results Kolmogorov Smirnov obtained p-value = 0.013 with a confidence level of 95% or $\alpha = 0.05$, this means $H_0 =$ rejected, $H_a =$ accepted, then there is a relationship between the half-sitting position with the degree of perineal rupture. And Based on table 4 of the test results Kolmogorov Smirnov obtained p-value = 0.013 with a confidence level of 95% or $\alpha = 0.05$, this means $H_0 =$ rejected, $H_a =$ accepted, then there is a relationship between the lithotomy position with the degree of perineum rupture (Spelling)

IV. DISCUSSION

In this study, the position of labor most used by mothers during labor and most often recommended by health personnel is the lithotomy position. The lithotomy position is the most common birthing position in Indonesia. The lithotomy position facilitates the health worker in assisting the birth process. The position of the labor of lithotomy where Mother is asked to sleep on her back by hanging her two thighs on a special support for birth. According to Gupta et al, in the supine/lithotomy maternity position reduces the incidence of perineal rupture, reduces episiotomy [10] (Spelling)

From the results of this study it was found that maternity mothers with lithotomy positions experienced more perineal rupture because in this position the perineum was too stretched to make the perineum easier to rupture and cause perineal rupture to degree III, but there are also other factors that can increase the risk of perineal rupture that is heavy the baby's body is born, the larger the baby's weight, the perineum becomes more stretched, which can lead to greater rupture. The position of the lithotomy also causes the mother difficult to strain because the mother can not rest on the foot and this position causes the mother is not free to breathe, causing the delivery of oxygen through the blood flowing from the mother to the fetus through the relative placenta is reduced. This is because the location of large blood vessels

is below the baby's position and depressed by the mass or the baby's weight.

According to Gotvall's research that women who give birth to lithotomy positions increase the risk of rectal sphincter trauma [14] According to Soong's research, it was found that most women giving birth in the supine position (lithotomy) require perineal suturing, fewer semi-recumbent positions requiring perineum suturing.

In the lithotomy position further, increases the risk of OASIS (obstetric anal sphincter injuries) higher bathing half-sitting position because the lithotomy position increases the excessive pressure in the sphincter areas during labor. The position of the lithotomy reduces the ability of the maternal mother to acting because the mother's weight is below parallel to the infant's position, and in the lithotomy position the mother cannot control the strength of the straining, the mother is not free to breathe [15]

The results of this study are in line with the research of Muliawati (2014) reinforce that there is a relationship between maternity position with perineal rupture. From the results of this study maternal women who use lithotomy positions more experienced perineal rupture while maternal mothers who use half-sitting position is less [16]

In the lithotomy position, there is perineal rupture of degree 3 it is caused by the elasticity of the mother's perineum, birth weight, precipitate delivery. Precipitous labor is a labor that is too fast to facilitate perineal

rupture because the muscles in the perineum are suddenly stretched without careful preparation for the birth of the head, so that in the second stage or when the fetal release requires good coordination and coordination by the patient labor can be controlled in the direction of the birth axis. In the 3 maternal mothers who become the sample of research, ruptured perineum degree 3 is caused by the age of the mother who is too young under the age of 20 years. Under the age of 20 can result in greater perineal rupture due to psychological mothers who are not mature so that mothers are not able to strain well, and less cooperative.[17,18,19]

According to Yulianik (2014), the advantages of lithotomy position that is the help of labor can freely help the process of childbirth. The birth canal is facing forward, so the birth attendant can more easily see the progress of the opening. The delivery time can be predicted more accurately so that the action of episiotomy can be done more freely. When the baby's head is born easier to hold and direct. The weakness of the lithotomy position of the mother is difficult to strain, this position may cause the perineum to stretch until the occurrence of tears on the perineum, oxygen delivery through the blood flowing from the mother to the fetus through the relative placenta is reduced [20]

In this study maternity position with half sitting very little interest of mother in labor process. Every mother in a half-sitting position can provide a sense of comfort for

the mother and make it easy for her to rest between contractions. In the half-sitting position allows the mother to strain because both feet of the mother stood upright, pressing the perineum area so as not to experience excessive stretching and strength straining mother will be more focused because it is influenced by the style of gravity below. mothers with perineal rupture of degree 1 are due to elastic mother's perineal state and fetal weight that is not too large.

According to Muliawati (2014), the half-sitting position can be done during the first and second stage, ie by the way the woman sits with the body to form more than 45° angle to the bed. The advantage of a half-sitting position that is easier to do by the mother, easier for birth attendants to guide the birth of the baby's head and observe or support the perineum. The disadvantages of the half-sitting position is the pressure on the sacrum and coccyx bone can interfere with the movement of the hip joint [16].

The half-sitting position is very beneficial for mothers because in the position of half-sitting perineum does not experience excessive stretching so as to minimize perineal rupture. Perineal stretching during labor is also affected by perineal elasticity, significantly the perineal elasticity may prevent perineal rupture because of perineum tissue softness so that the tissue will open without resistance at delivery, but primiparas are usually found in the rigid perineum. Perineal elasticity can be obtained by perineal

massage, where this message will stimulate blood flow to the perineum to prepare the perineal strain when the baby's head is discharged [16]

Nutrition affects the tissue health and elasticity of the perineum because good nutrition is important to prepare the perineum during labor to make the perineum more elastic so that stretching does not result in greater perineal rupture. Nutrients can be absorbed by the skin through the digestive system, so as to maintain tissue health and perineal elasticity [15]

According to Haslinger's research, the tearing up to the anal sphincter increased significantly in squatting position (2.9%) and kneeling (2.1%) compared to the bed-bed (1.0%) position or in water (0.9 %). Logistic regression analysis showed significantly higher risk for tearing up to anal sphincter in squatting (OR 2.92, 95% CI 1.04-8.18) and kneeling position (OR 2.14, 95% CI 1.05-4.37) compared to the sleeping bed group on the bed. [21]

In the half-occupied position, the risk of OASIS (obstetric anal sphincter injuries) is less than the lithotomy position because in the half-sitting position the mother can reduce excessive pressure on the ani sphincter at the time of fetal outbreak and the mother can be cast to the maximum without being wasted [21]

The results of this study are in line with Handayani and Triwahyuni (2016) research which reinforces that there is a correlation

between the strain position and the perineal rupture. The incidence of perineal rupture occurs mostly in the maternal mother with the position of not half sitting (tilt, supine, lithotomy) that is as much as 18 respondents or 56.3% [19]. Meanwhile, according to research Jander said that maternity in a squatting position should get special attention because it can cause a more severe perineum rupture, especially in the fetus macrosomia [22]

But this is in contrast to the results of Altman's research which says that the intact perineum is more common in the maternal group of women with squats than the sitting maternal mothers who can reach perineum ruptures of grade 3 [23]

V. CONCLUSION

Based on the results of the study can be concluded that the position of maternity is the most widely used at birth is the position of lithotomy.

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