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Factors Related to the Event of Premature Rupture of Membrane in Muna Regency Hospitals

Wahyu Utami, Tasnim, Sultan Akbar Toruntju

Mandala Waluya University, Indonesia
Correspondence : wu542322@gmail.com

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ABSTRACT

Introduction : One of the maternal health programs is to accelerate the decline in numbers. Maternal mortality and maternal mordibity. One ofe the causes of maternal death is infection that can be caused by premature rupture of membranes.

Method : This research was quantitative with a cross sectional study design. Study has been carried out in September 2021. The research sample is 164 people obtained by simple random sampling. Processed data using the chi square test.

Result : The result showed that the frequency of ANC visit had a phi value of 0,538, parity phi 0,454, anemia phi= 0,438, history of prom phi = 0,720, CPD phi =0,410, trauma in pregnancy phi = 0,573.

Conclusion : The conclusion is that there is a relationship between the frequency of ANC visit, Parity, Anemia, History of prom, Cephalopelvik disproportion and trauma during pregnancy with the incidence of premature rupture of membranes in the distric hospital Muna.

Introduction

Pregnancy is a natural process. The changes that occur in women during normal pregnancy are physiological, not pathological. Therefore, the care provided is also care that minimizes intervention. Premature rupture of membranes or premature rupture of membranes is defined as premature rupture of membranes. This can occur in term or preterm pregnancies. [1]

One of the objectives of the maternal health program is to accelerate the reduction of maternal mortality and maternal morbidity. Maternal mortality rate (MMR) in addition to providing an overview of public health status, can also provide an overview of the level of health services, especially services for pregnant women, mothers giving birth and also the postpartum period. The number of Maternal Mortality Rates (MMR) in 2019 out of 18 districts, the highest MMR was in North Konawe and North Buton Regencies, while Muna Regency was in 9th place. [2]

All of these conditions cause low community contact, especially pregnant women with health workersand tend to give birth with non-health assistance, so that if there are abnormalities in pregnancy that are not detected early, this becomes a serious problem if pregnancy complications or childbirth conditions occur. who need a referral. Based on data from three regencies in Southeast Sulawesi Province which became the subsample in this study, namely in Blud, Bombana Regency, the number of mothers who experienced premature rupture of membranes in 2018 was 64 cases out of 284 deliveries (22.5%), Blud RS Benyamin GuluhKolaka was 70 cases from 176 deliveries (39.7%) and at Bahteramas General Hospital as many as 156 cases from 648 deliveries (24.74%).[3]

Method

This type of research is quantitative with a cross sectional study design which aims to determine the factors associated with the incidence of premature rupture of membranes in the Muna District Hospital. The population in this study were all mothers giving birth in the maternity ward of the Muna District Hospital totaling 193 people. The sample in this study were some of the mothers giving birth in the delivery room of the Muna District Hospital as many as 164 people.

Result

Table 1 based on the table above, it shows that of the 28 samples (17%) that had sufficient ANC frequency, there were 5 samples (7.4%) who had PROM and 23 samples (23.8%) who did not. Furthermore, of the 136 samples (83%) that had a low ANC frequency, there were 62 samples (92.6%) who had PROM and 74 samples (76.2%) who did not. Based on the results of statistical tests using the Chi square test at Asig.2 = 0.000, the value of Phi = 0.538 means that there is a relationship between the frequency of ANC visits and the incidence of premature rupture of membranes in women giving birth in the delivery room of the Muna District Hospital. The results of the close relationship test showed a phi coefficient of 0.538, this indicates a moderate strength of the relationship between the frequency of ANC visits and the incidence of premature rupture of membranes.

Table 2 based on the table above, it shows that of the 32 samples (19.6%) who had parity at risk, as many as 25 samples (37.4%) experienced PROM and 7 samples (7.2%) did not. Furthermore, of the 132 samples (80.4%) who had parity at no risk, there were 42 samples (62.6%) who had PROM and 90 samples (92.8%) who did not. Based on the results of statistical tests using the Chi square test at Asig.2 = 0.000, the value of Phi = 0.454 means that there is a relationship between parity and the incidence of premature rupture of membranes in women giving birth in the delivery room of the Muna District Hospital. The results of the closeness test showed a phi coefficient of 0.454, this indicates a moderate strength of the relationship between parity and the incidence of premature rupture of membranes.

Table 3 based on the table above, it shows that of the 69 samples (42%) who had anemia, there were 45 samples (67.1%) who had PROM and 24 samples (24.8%) who did not. Furthermore, from 95 samples (58%) who did not have anemia, there

were 22 samples (32.9%) who had PROM and 73 samples (75.2%) who did not. Based on the results of statistical tests using the Chi square test at Asig.2 = 0.000, the value of Phi = 0.438 means that there is a relationship between anemia and the incidence of premature rupture of membranes in

women giving birth in the delivery room of the Muna District Hospital. The results of the close relationship test showed a phi coefficient of 0.438, this indicates a moderate strength of the relationship between anemia and the incidence of premature rupture of membranes.

Table 1. The Relationship between the Frequency of ANC Visits with the Incidence of Premature Rupture of Membranes in Women Giving Birth in the Delivery Room of the Muna District Hospital

ANC Frequency	KPD Status				Amount		Asig.2	*Phi*
	KPD		No KPD					
	n	%	n	%	n	%		
Enough	5	7,4	23	23,8	28	17	0,000	0,538
Not Enough	62	92,6	74	76,2	136	83		
Total	67	40,9	97	59,1	164	100		

Table 2. The Relationship between Parity and the Incidence of Premature Rupture of Membranes in Women Giving Birth in the Delivery Room at the Muna District Hospital

Parity	KPD Status				Amount		Asig.2	*Phi*
	KPD		No KPD					
	n	%	n	%	n	%		
at risk	25	37,4	7	7,2	32	19,6	0,000	0,454
No risk	42	62,6	90	92,8	132	80,4		
Total	67	40,9	97	59,1	164	100		

Table 3. The Relationship between Anemia and the Incidence of Premature Rupture of Membranes in Women Giving Birth in Delivery Room at the Muna Distict Hospital

Anemia	KPD Status				Amount		Asig.2	*Phi*
	KPD		No KPD					
	n	%	n	%	n	%		
Anemia	25	67,1	24	24,8	69	42	0,000	0,438
No Anemia	42	32,9	73	75,2	95	58		
Total	67	40,9	97	59,1	164	100		

Discussion

The relationship between the frequency of ANC visits and the incidence of premature rupture of membranes in women in labor

The results showed that from 28 samples (17%) who had sufficient ANC frequency, there were 5 samples (7.4%) who experienced PROM and 23 samples (23.8%) who did not experience PROM. This could be due to a lack of awareness. mothers in implementing or implementing health communication that has been given by the midwife, for example consuming nutritious food and not being obedient in consuming the blood-

boosting tablets that have been given. Blood-boosting tablets can function to prevent anemia in pregnancy and anemia in pregnancy can be the cause of premature rupture of membranes. [4]

Based on the results of statistical tests using the Chi square test at = 0.05 and Asig.2 = 0.000, the value of Phi = 0.538. it means that there is a relationship between the frequency of ANC visits with the incidence of premature rupture of membranes in women giving birth in the delivery room of the Muna District Hospital. The results of the close relationship test showed a phi coefficient of 0.538, this indicates a moderate strength of the

relationship between the frequency of ANC visits and the incidence of premature rupture of membranes.

The results of the study are in line with Anjar Tri Astuti's research [5] which states that there is a significant relationship between the frequency of ANC visits and the incidence of premature rupture of membranes, Phi value = 0.591, meaning that pregnant women who do not regularly make ANC visits have a risk of experiencing premature rupture of membranes compared to pregnant women.

The Relationship of Parity with the Incidence of Premature Rupture of Membranes in Maternity

Parity is the state of giving birth to children both alive and dead, but not abortion and regardless of the number of children. Thus, multiple births are counted as one time parity. Parity can be a complicating factor for pregnancy and childbirth. Grandemultipara mothers (parity > 4) have reproductive organs that are not optimal, namely they have experienced weakness in tissue strength so that they are at high risk of experiencing premature rupture of membranes. [6]

The results showed that of the 32 samples (19.6%) who had parity at risk, 25 samples (37.4%) had PROM and 7 samples (7.2%) did not. Furthermore, of the 132 samples (80.4%) who had parity at no risk, there were 42 samples (62.6%) who had PROM and 90 samples (92.8%) who did not. Mothers who have parity are not at risk but premature rupture of membranes still occurs due to other factors such as physiological disorders such as emotional and pregnancy anxiety. Anxiety is an unpleasant emotional state of a person which is characterized by feelings of anxiety, tension and worry in a person. [7]

After carrying out the chi square statistical test, the researchers got the results at = 0.05 and Asig.2 = 0.000, the value of Phi = 0.454 means that there is a relationship between parity and the incidence of premature rupture of membranes in women giving birth in the delivery room at the Muna District Hospital. The results of the closeness test showed a phi coefficient of 0.454, this indicates a moderate strength of the relationship between parity and the incidence of premature rupture of membranes. The results of this study are in line with research conducted by Ikrawanty [8], from the results of the chi square statistical test, the value of Phi = 0.01 <0.05, which means that there is a significant relationship between maternal parity and the incidence of premature rupture of membranes at RSIA Siti Khadijah Makassar.

The Relationship of Anemia with the Incidence of Premature Rupture of Membranes in Maternity

The results showed that of the 69 samples (42%) who had anemia, there were 45 samples (67.1%) who had PROM and 24 samples (24.8%) who did not experience PROM, this was caused by other factors that caused the mother to suffer from anemia. anemia but no PROM. These factors are other micronutrients such as acrobic acid or vitamin C which is sufficient. Ascorbic acid participates in the balance between collagen synthesis and degradation and can be a criterion in reducing the occurrence of premature rupture of membranes. Daily supplementation of 100 mg/day of vitamin C after 20 weeks of gestation effectively reduces the incidence of premature rupture of membranes.

Anemia in pregnancy is mostly caused by iron deficiency due to lack of input of iron elements in food, impaired reabsorption, impaired use or because too much iron comes out of the body, for example bleeding.

Anemia can be prevented or overcome by taking iron tablets or often called blood-added tablets containing iron. Iron tablets have an essential function in the body, namely as a means of transporting electrons in cells and as an integrated part of various enzyme reactions in body tissues. Iron tablets also reduce the risk of anemia during pregnancy if taken regularly.

Based on the results of statistical tests using the Chi square test at Asig.2 = 0.000, the value of Phi = 0.438 means that there is a relationship between anemia and the incidence of premature rupture of membranes in women giving birth in the delivery room of the Muna District Hospital.

Conclusion

The conclusions from this study conducted at the Muna District Hospital from September to November are as follows: There is a moderate relationship between the frequency of ANC visits and the incidence of premature rupture of membranes in the delivery room at the Muna District Hospital, There is a moderate relationship between parity and the incidence of ruptured membranes. There is a moderate relationship between anemia and the incidence of premature rupture of membranes in the delivery room at the Muna District Hospital.

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