

THE ASSOCIATION BETWEEN MATERNAL AGE AND GRAVIDITY AND THE EVENT OF GRAVIDARUM EMESIS IN KUPANG, EAST NUSA TENGGARA

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ABSTRACT

Background: Emesis gravidarum or better known as morning sickness is a symptom of nausea which is usually accompanied by vomiting which generally occurs in early pregnancy, usually in the first trimester. This condition is generally experienced by more than half of pregnant women due to hormonal changes. This study aimed to analyze the association between maternal age and gravidity and the event of gravidarum emesis in Kupang, East Nusa Tenggara.

Subjects and Method: This was a cross-sectional study conducted at the Tenau Auxiliary Community Health Center, Kupang City, East Nusa Tenggara, from February to June 2019. Total of 60 pregnant women were enrolled in this study. The independent variables were maternal age and gravidity. The dependent variable was emesis gravidarum. The data were collected using a questionnaire and analyzed using the Chi-Square.

Results: Total of 68.3% of pregnant women were experienced emesis. 92.7% aged 20-35 years and 7.3% aged <20 years. 84.2% of pregnant women did not experience emesis aged 20-35 years and aged > 35 years were 15.8%. Most of the pregnant women who experienced emesis were primigravida (51.2%) and multigravida (48.8%). 84.2% of mothers did not experience multigravida emesis and did not experience primigravida emesis (15.8%), and they were statistically significant.

Conclusion: Maternal age and gravidity are positively related to the incidence of emesis gravidarum among pregnant women.

Keywords: age, gravidity, emesis gravidarum

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BACKGROUND

Pregnancy is a process natural and normal. However, during pregnancy, the mother experiences many changes both physically and psychologically. These changes will usually cause various complaints and discomfort during pregnancy. These complaints and discomforts can point to problems that may accompany pregnancy and lead to complications if not given proper care. One of the discomforts that some pregnant women often experience is emesis gravidarum.

Emesis gravidarum or better known as morning sickness, it is a symptom of nausea

usually accompanied by vomiting, generally occurs in early pregnancy, usually in the first trimester. This condition is generally experienced by more than half of pregnant women due to increased levels of the hormone estrogen. These symptoms usually appear in the morning with a frequency that will decrease every day, often with increasing gestational age (Irmawati, 2016). Factors that influence emesis gravidarum apart from being caused by hormonal changes are habits, psychological, diet, history of emesis and parity (Pujiati, 2018).

Nausea and vomiting among pregnancy

usually start at 9 to 10 weeks of pregnancy, worsens at 11 to 13 weeks and ends at 12 to 14 weeks. Only in 1-10% of pregnancies do symptoms continue past the 20th to 22nd week. In 0.3-2% of pregnancies, there is hyperemesis gravidarum, which causes the mother to be managed in a hospital setting (Gunawan, 2011).

Most of the emesis gravidarum can be treated with outpatient treatment, as well as sedation and anti-vomiting. But a small proportion of pregnant women are unable to cope with ongoing nausea and vomiting, which interferes with daily life and leads to lack of fluids and disturbed electrolyte balance. Excessive vomiting causes body fluids to decrease so that the blood becomes thick (hemoconcentration) which can slow blood circulation which means that the consumption of O₂ and food to the tissues is reduced. Lack of food and O₂ to the tissues will cause tissue damage which can increase the weight of the fetus and pregnant women. Although vomiting in the form of hyperemesis gravidarum is not common, its handling requires serious attention (Manuaba, 1998).

Nausea and vomiting occur in 80-60% of pregnant women, 1 in 1000 pregnancies, these symptoms become more severe (Wiknjosastro, 2007). Based on data from the Tenau Helper Health Center, the number of pregnant women during February-June, out of 153 pregnant women, there were 82 who experienced emesis gravidarum, and 2 cases became hyperemesis gravidarum (KIA Pustu Tenau Report, 2019).

Based on the description above, the authors intend to conduct Study that aims to:

- 1) Analyze the relationship between maternal age and the incidence of emesis gravidarum
- 2) To analyze the relationship between gravidity and the incidence of emesis gravidarum.

A person's age can affect their pregnancy. If a woman is pregnant during the reproductive period, it is less likely to experience

complications than women who are pregnant under or above the reproductive age (Marmi, 2014). According to Rochjati (2003), age <20 years and age > 35 years are one of the high-risk pregnancy factors.

Gravidity is the total number of pregnancies that have been experienced, regardless of gestational age. Gravida is a woman who is pregnant, primigravida is a woman who is pregnant for the first time, secundigravida is a woman who is pregnant for the second time, multigravida is a woman who is pregnant for more than the second time (Oxorn, 2010).

SUBJECTS AND METHOD

1. Study Design

This was a cross sectional study conducted at the Tenau Auxiliary Community Health Center, Kupang City, East Nusa Tenggara, from February to June 2019.

2. Population and Sample

The population in this study were all pregnant women at the Tenau Auxiliary Community Health Center, Kupang City. The sampling technique used was accidental sampling with a sample size of 60 pregnant women.

3. Study Variables

The independent variables in this study were the age and gravidity of the mother. The dependent variable in this study was emesis gravidarum

4. Study Instruments

This study using questionnaire as the study instrument.

5. Data Analysis Data

analysis used is univariate analysis and bivariate analysis using chi-squares with the help of IBM SPSS Statistics 20

RESULTS.

1. Characteristics of Study Subjects

Characteristics of respondents can be seen from the frequency distribution of respon-

dents based on the incidence of emesis, age and gravidity.

Table 1. Study subjects' characteristics

Variable	n	%
Age		
<20 years	3	5.0
20-35 years	54	90.0
> 35 years	3	5.0
Gravidity		
Primigravida	24	40.0
Multigravida	36	60.0
Incidence		
No emesis	19	31.7
Emesis	41	68.3

Table 1 shows that most of the respondents aged 20-35 years were 54 people (90.0%), most of the respondents were multigravidas who had been pregnant more than 1 time, as many as 36 people (60.0%), and most of the respondents at the Tenau Auxiliary Community Health Center experienced emesis during their pregnancy, namely 41 people (68.3%).

2. Bivariate Analysis

Table 2 shows the results of the bivariate analysis of the relationship between independent and dependent variables. The results of the analysis showed that there were 41 preg-

nant women who experienced emesis. Most of the mothers who experienced emesis were mothers aged 20-35 years 92.7% (38 people) and those aged <20 years as much as 7.3% (3 people) and none of them aged > 35 years experienced emesis gravidarum. emesis as many as 19 people. Most of the pregnant women who did not experience emesis were at the vulnerable age of 20-35 years, 84.2% (16 people) and aged > 35 years were 15.8% (3 people). The results of statistical tests show that there is a significant relationship between the age of pregnant women and the incidence of emesis seen from $p = 0.019$.

Table 2. Bivariate Analysis Relationship between Age and Incidence of Emesis Gravidarum

		Emesis Gravidarum		P
		No Emesis	Emesis	
Age	<20 years	0	3	0.019
	20-35 years	16	38	
	> 35 years	3	0	

Table 3. Bivariate Analysis Gravidity Relations and Events Emesis Gravidarum

		Emesis Gravidarum		P
		No Emesis	Emesis	
Gravidity	primigravidae	3	21	0009
	multigravida	16	20	

Table 2 shows the results of the bivariate analysis of the relationship of independent

variables and the dependent variable. The results of the analysis showed that there were

41 pregnant women who experienced emesis, most of these pregnant women were primigravida's, namely 51.2% (21 people) and multigravidas were 48.8% (20 people). There were 19 mothers who did not experience emesis, most of these pregnant women were multigravidas as many as 84.2% (16 people) and primigravida mothers were 15.8% (3 people). The results of statistical tests show that there is a significant relationship between maternal age and the incidence of emesis seen from the $p = 0.009$.

DISCUSSION.

1. Relationship between maternal age and the incidence of gravidarum emesis

Out of the 60 respondents, 41 pregnant women experienced emesis, all pregnant women aged < 20 years experienced emesis, while for mothers aged 20-35 years, 38 women experienced emesis and no mother experienced emesis at the age > 35 years. The difference in the number of respondents in each variable category is a deficiency in this study but based on the results, maternal age and the incidence of emesis gravidarum is 0.019 which is smaller than the significant value 0.05 which indicates a significant relationship between maternal age and the incidence of emesis gravidarum.

This is also in accordance with Study conducted by Rudiyanthi (2019) which was conducted in 2018 which stated that 70% of ages are at risk and there is a relationship between age and emesis gravidarum.

This study is not in line with Study conducted by Suryaningrum (2019) which states that there is no relationship between maternal age and the incidence of emesis gravidarum in pregnant women in the first trimester.

According to Ekasari (2019) age is an important part of reproductive status. Age is related to the increase and decrease in bodily

functions so that it affects a person's health status. Women aged < 20 years of development of the development of reproductive organs and functions physiological have not yet reached the optimal and psychological emotions mature enough, it will increase the occurrence of interruption of pregnancy. A person's age can affect their pregnancy. If a woman is pregnant during the reproductive period, it is less likely to experience complications than women who are pregnant under or above the reproductive age (Marmi, 2014).

2. Relationship between Gravidity and Emesis Gravidarum

Based on the results in table 3, after statistical tests were carried out on the results of the study, it was found that there was a relationship between maternal gravidity and the incidence of emesis gravidarum. Of the 60 respondents, 41 pregnant women experienced emesis, more primigravida women experienced emesis than multigravida mothers, this is based on the results of gravidity and the incidence of emesis gravidarum is 0.009 which is smaller than the significant value 0.05 which indicates a significant relationship between gravidity and the incidence of emesis gravidarum.

The results of this study are the same as Study conducted by Atika (2016) which assessed the relationship between parity and hyperemesis gravidarum in inpatients at hospital in Palembang.

Gravidity is the total number of pregnancies that have been experienced, regardless of gestational age. Gravida is a woman who is pregnant, a primigravida is a woman who is pregnant for the first time, a multigravida is a woman who is pregnant for more than the second time (Oxorn, 2010).

In primiparous pregnancy, her emotions are not yet optimal, tend to be unstable, mentally immature so that prone to shocks resulting in a lack of attention to meeting the needs of nutrients during pregnancy. This is

also related to the level of maternal stress and parity when experiencing their first pregnancy, primiparous mothers have not been able to adapt to the hormone's estrogen and chorionic gonadotropins (Saifudin, 2012).

Emesis gravidarum or better known as morning sickness is a symptom of nausea which is usually accompanied by vomiting which generally occurs in early pregnancy, usually in the trimester first. This condition is generally experienced by more than half of pregnant women due to increased levels of the hormone estrogen. In some cases, the same symptoms are experienced by women who are using hormonal contraceptives, or undergoing certain forms of hormonal therapy. These symptoms usually appear in the morning with a frequency that will decrease every day, often with increasing gestational age (Irmawati. 2016).

According to Manuaba (1995), the factors that cause nausea and vomiting in pregnancy are psychological factors, namely fear of pregnancy, not being ready for pregnancy and factors *choriogonadotropin*. Multiple pregnancy, hydatidiform mole primary and pregnancy.

Based on the results of the study, it can be concluded that there is a significant relationship between the age of pregnant women and the incidence of emesis gravidarum. There is a significant relationship between gravidity and the incidence of emesis gravidarum.

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