

Relationship between gastritis history, age and parity with the incidence of hyperemesis gravidarum in pregnant women at the Main Mariani clinic, Medan Petisah district, Medan city in 2022

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Article Info	ABSTRACT
Keywords: History of Gastritis, Age, Parity, Hyperemesis Gravidarum	<p>The exact cause of Hyperemesis gravidarum is not yet known, but the complex interaction of biological, psychological and socio-cultural factors of multiple pregnancies, women with their first pregnancy, ages <20 years and >35 years, molar pregnancies, excess body weight is thought to be the cause of Hyperemesis gravidarum (Anasari, 2020). From the results of Basic Health Research (RISKESDAS) in 2020 there were 13.1% of pregnant women with Hyperemesis gravidarum with almost the same proportion in urban areas (36.4%) and rural areas (37.8%). The purpose of this study was to determine the history of gastritis, age and parity with the incidence of hyperemesis gravidarum in pregnant women at the Main Mariani Clinic, Medan Petisah District, Medan City in 2022. This type of research uses quantitative research with descriptive correlation research methods in order to determine the relationship between the independent variables and the dependent variables. Survey research design using an analytic cross sectional approach. Where researchers make observations or measurements of variables at one time and the time used is retrospective. The population and sample are 42 people, the sampling technique is total sampling. The data collected in this study were secondary data, namely data obtained from the medical records of Mariani's main clinic. The data analysis used was univariate analysis and bivariate analysis using Fisher's Exact Test. Based on statistical results using the Fisher's Exact Test, it shows that there is a relationship between a history of gastritis and the incidence of hyperemesis gravidarum, a p value of 0.002 < 0.05. There is no relationship between age and the incidence of hyperemesis gravidarum with a p value of 1.00 > 0.05. There is no relationship between parity and the incidence of hyperemesis gravidarum with a p value of 0.749 > 0.05). The conclusion in this study is that the age factor is that the majority of ages are not at risk and parity is multipara, this causes no relationship. It is hoped that all health workers are expected to be more active in providing services and improving health for pregnant women.</p>
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INTRODUCTION

Pregnancy is every woman's dream, especially for a wife who has been building a household for a long time. Sometimes during pregnancy unwanted problems occur, this creates confusion for couples who are experiencing pregnancy for the first time, due to the lack of information and knowledge about reproduction, especially about pregnancy, so that the actions taken when problems occur are inappropriate. The pregnancy period starts from the moment of conception until the birth of the fetus. The pregnancy period is divided into 3 phases, namely the first trimester (0-3 months), the second trimester (4-6 months), and the third trimester (7-9 months) (Walyani, 2020).

Pregnancy is a condition where a woman has a fetus growing inside her body (which is generally in the womb). Pregnancy in humans ranges from 40 weeks to 9 months, calculated from the beginning of the last menstrual period until delivery. Pregnancy is a reproductive process that needs special care so that it can run well, because pregnancy is dynamic, because pregnant women who are initially normal, can suddenly become at high risk (Fauziyah, 2020).

Hyperemesis gravidarum is nausea and vomiting that occurs up to 20 weeks of gestation, vomiting is so severe that everything you eat and drink is vomited up, affecting your general condition and daily work, weight loss, dehydration, and there is acetone in the urine, not due to diseases such as appendicitis, . Pyelitis and so on (Nur, A, 2020).

The exact cause of Hyperemesis gravidarum is not yet known, but a complex interaction of biological, psychological and socio-cultural factors is thought to be the cause of Hyperemesis gravidarum. Apart from that, multiple pregnancies, women with their first pregnancy, aged <20 years and >35 years, molar pregnancies. And excess body weight is a trigger factor for Hyperemesis Gravidarum (Anasari, 2020).

Gastritis is an inflammation of the gastric mucosa that is acute, chronic, diffuse, or local. Characteristics of this inflammation include anorexia, a feeling of fullness or discomfort in the epigastrium, nausea and vomiting. Local inflammation of the gastric mucosa will develop if the protective mechanisms of the mucosa are filled with bacteria or other irritants. (Ida, 2017). Gastritis or often known as ulcer disease is a very annoying disease. Gastritis usually occurs in people who have irregular eating patterns and eat foods that stimulate the production of stomach acid. Some microorganism infections can also cause gastritis. Pregnant women who experience the onset of vomiting will usually cause irregular eating patterns and will cause gastritis to recur. Recurrence of gastritis causes the mother to lose her appetite, causing excessive nausea and vomiting and leading to hyperemesis gravidarum.

The age included in a high-risk pregnancy is less than 20 years and above 35 years. Age under 20 years is not a bad time to get pregnant because the reproductive organs are not yet perfect so it can cause nausea and vomiting. Nausea and vomiting occur at the age of under 20 years due to insufficient physical, mental and social function maturity of the expectant mother, which can lead to doubts about the body, love, and care and upbringing of the child she will give birth to. Meanwhile, nausea and vomiting that occurs over the age

of 35 years is caused by psychological factors, where the mother is not ready to get pregnant or does not even want to be pregnant so she will feel very depressed and stressed (Masrurah, 2019).

Parity can be divided into nullipara, primipara, multipara, and grandemultipara. The incidence of Hyperemesis gravidarum is more often experienced by primigravida and multigravida, this is related to the level of stress and the age of the mother when experiencing the first pregnancy (Nur, A, 2020). Hyperemesis gravidarum tends to occur in primiparous pregnant women. This is due to the lack of physical readiness to face pregnancy and experience in childbirth, which causes fear during pregnancy, nausea and vomiting occur in 60-80% of primigravida. In one in a thousand pregnancies the other symptoms are more severe, this is due to increased levels of the hormones estrogen and HCG (Anasari, T, 2019).

Nausea and vomiting are common things in early pregnancy. Nausea and vomiting usually occur in the morning, which is why it is also called morningsickness, but it does not rule out the possibility that it also occurs in the afternoon and evening. Excessive nausea and vomiting that occurs throughout the day until it interferes with daily work and causes dehydration is called Hyperemesis gravidarum (Isnaini, N, 2019).

According to the World Health Organization (WHO), the number of cases of Hyperemesis gravidarum reaches 12.5% of all pregnancies. Nausea and vomiting can disrupt and create fluid imbalance in the kidney and liver tissue, resulting in necrosis (WHO, 2017). Around 60 - 80% of primigravidas and 40 - 60% of multigravidas experience nausea and vomiting, but these symptoms occur more severely in only 1 in 1,000 pregnancies. The incidence of Hyperemesis gravidarum in Indonesia in 2015 was 1.5-3% of pregnant women. (Indonesian Ministry of Health, 2017).

From the results of Basic Health Research (RISKESDAS) in 2020 there were 13.1% of pregnant women with Hyperemesis gravidarum with almost the same proportion in urban areas (36.4%) and rural areas (37.8%). According to research conducted by Armiati Nur entitled "The relationship between Hyperemesis gravidarum and birth weight of babies at Haji Hospital Makassar in 2020". Hyperemesis gravidarum not only threatens the client's life, but can cause side effects on the fetus. One of it is weight at born is low. According to research conducted by Hasnawati, data obtained from RSIA Siti Fatimah Makassar, there is a relationship between Hyperemesis gravidarum and the baby's birth weight, namely mothers who during pregnancy have suffered from Hyperemesis gravidarum have a 6.67 times greater risk of giving birth to LBW than those who do not suffer from it. at all.

Based on the initial survey conducted by the author in September, it was found that in medical record data from January to September, 150 pregnant women who had ANC visits were found in the first, second and third trimesters and 35 pregnant women who experienced hyperemesis gravidarum were obtained. Of those with a history of gastritis before pregnancy, 20 people were aged less than 20 years and more than 35 years old, 18 people were their first child, which was a factor in hyperemesis gravidarum. Therefore, researchers are interested in conducting research at the Mariani Main Clinic regarding "The

Relationship between History of Gastritis, Age and Parity with the Incident of Hyperemesis Gravidarum in Pregnant Women at the Mariani Main Clinic, Medan Petisah District, Medan City in 2022"

METHODS

This type of research uses quantitative research with descriptive correlation research methods to determine the relationship between independent and dependent variables. Research design is a research plan that is prepared in such a way that researchers can obtain answers to their research questions. Based on the research objectives, the survey research design used an analytical cross-sectional approach. Where the researcher makes observations or measurements of variables at one time and the time used is retrospective.

Data analysis was carried out to support hypothesis verification, using:

1. Univariate Analysis

Univariate analysis is used to explain or describe the characteristics of each research variable (Grove, 2014). Univariate analysis in this study is analyzing the frequency distribution and presentation of demographic data, namely: occupation, gestational age, marital status

2. Bivariate Analysis

Bivariate analysis is used to determine the relationship between each independent variable and the dependent variable. The statistical test in this study uses the Fisher's Exact Test because the table used is 2x2 to estimate or evaluate the frequency under investigation whether there is a significant relationship or not, with a confidence level of 95%. The significance test uses a significance limit of 5% (0.05):

- a. The P value is <0.05 , then H_0 is accepted, which means the sample data supports the existence of a meaningful (significant) relationship.
- b. The P value is > 0.05 , then H_0 is rejected, which means the sample data does not support a significant relationship (not significant).

RESULTS AND DISCUSSION

Results

Mariani's main clinic is located on Jl. Gatot Subroto, Gg. Johar, No. 5. Mariani's main clinic is one of the clinics in the Medan Petisah District area. The working area of Mariani's main clinic is 600 km², with the number of patients ranging from approximately 620 people. The clinic borders the following areas:

1. To the north, it borders West Medan District.
2. To the south, it borders Medan Baru District.
3. To the west, it borders Medan Sunggal District.
4. To the east it borders West Medan District

Mariani's main clinic serves general medical patients, pregnant women, maternity, postpartum, babies and maternal and child health.

The research results showed that the majority of respondents' education was high school, 26 people (61.9%), 35 people (83.3%) were housewives. The distribution of characteristics of mother respondents is presented in table 1 below:

Table 1 Distribution of Respondent Characteristics

Category	Amount	Percentage (%)
Education		
JUNIOR HIGH SCHOOL	7	16.7
SENIOR HIGH SCHOOL	26	61.9
PT	9	21.4
Amount	42	100
Work		
IRT	35	83.3
Private employees	5	11.9
Civil servants	2	4.8
Amount	42	100

Table 2 Frequency Distribution of History of Gastritis with Hyperemesis Gravidarum in Pregnant Women at Mariani Main Clinic, Medan Petisah District, Medan City, 2022

No	History of Gastritis	Amount	Percentage (%)
1	There is	32	76.2
2	There isn't any	10	23.8
	Total	42	100

Based on table 2, it can be seen that the frequency distribution of history of gastritis from 42 respondents (100%) is that the majority of respondents had a history of gastritis, namely 32 people (76.2%).

Table 3 Age Frequency Distribution of the Incident of Hyperemesis Gravidarum in Pregnant Women at Mariani Main Clinic, Medan Petisah District, Medan City, 2022

No	Category	Amount	Percentage (%)
1	No Risk	39	92.9
2	Risky	3	7.1
	Amount	42	100

Based on table 3, it can be seen that the age frequency distribution of 42 respondents (100%) is that the majority of respondents are not at risk, 39 respondents (92.9%).

Table 4 Frequency Distribution of Parity and the Incident of Hyperemesis Gravidarum in Pregnant Women at Mariani Main Clinic, Medan Petisah District, Medan City, 2022

No	Parity	Amount	Percentage (%)
1	Primipara	20	47.6
2	Multiparous	22	52.4
	Amount	42	100

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Based on table 4, it can be seen that the Parity frequency distribution of 42 respondents (100%) is that the majority are Multipara with 22 respondents (52.4%).

Table 5 Frequency Distribution of Hyperemesis Gravidarum Incidents in Pregnant Women at Mariani Main Clinic, Medan Petisah District, Medan City, 2022

No	Hyperemesis Gravidarum	Amount	Percentage (%)
1	Not occur	15	35.7
2	Happen	27	64.3
	Amount	42	100

Based on table 5, it can be seen that the frequency distribution of Hyperemesis Gravidarum occurred from 42 respondents (100%), namely the majority occurred in 27 people (64.3%).

Table 6 Cross-Tabulation Distribution of History of Gastritis with the Incident of Hyperemesis Gravidarum in Pregnant Women at Mariani Main Clinic, Medan Petisah District, Medan City, 2022

No	History of Gastritis	Hyperemesis Gravidarum						<i>p-value</i>
		Not occur		Happen		Total		
		f	%	F	%	f	%	
1	There is	7	16.66	25	59.5	32	100	0.002
2	There isn't any	8	19.1	2	4.8	10	100	
	TOTAL	15	35.7	27	64.3	42	100	

Based on the research results in table 6, it shows the cross-tabulation results of the relationship between a history of gastritis and the incidence of hyperemesis gravidarum in pregnant women at the Mariani Main Clinic, Medan Petisah District, Medan City in 2022. It can be seen that from 42 respondents (100%), namely from 27 people (64.3 % of pregnant women experienced Hyperemesis Gravidarum as many as 25 people (59.5%) had a history of gastritis and 2 people (4.8%) had no history of gastritis. Of the 15 people (35.7%) there was no hyperemesis gravidarum, there were 7 people (16.66%) with a history of gastritis and 8 people (19.1%) had no history of gastritis.

Discussion

Based on the research results in table 6, it shows the cross-tabulation results of the relationship between a history of gastritis and the incidence of hyperemesis gravidarum in pregnant women at the Mariani Main Clinic, Medan Petisah District, Medan City in 2022. It can be seen that from 42 respondents (100%), namely from 27 people (64.3 % of pregnant women experienced Hyperemesis Gravidarum as many as 25 people (78.1%) had a history of gastritis and 2 people had no history of gastritis. Of the 15 people (35.7%) there was no hyperemesis gravidarum, there were 7 people (21.9%) with a history of gastritis and 8 people (80%) had no history of gastritis.

Based on statistical results using Fisher's Exact Test, it shows a p value of 0.002 which is smaller than the error level of 0.05 (0.002<0.05). So H_0 is rejected and H_a is

accepted, which means there is a history of gastritis with hyperemesis gravidarum in pregnant women at the Mariani Main Clinic, Medan Petisah District, Medan City in 2022.

Hyperemesis gravidarum is one of the complications in pregnant women in the first trimester. The incidence of pregnant women experiencing hyperemesis gravidarum is 40-60% in multigravida pregnant women and around 60-80% occurs in primigravida pregnant women, who experience nausea and vomiting which can become more severe in 1 in 1000 pregnancies (Hackley and Barbara, 2012).

According to Syamsuddin Syahril (2018) Excessive nausea and vomiting is one of the complications of pregnancy which affects the health status of the mother and the growth and development of the fetus, where this incident can be detected and prevented during pregnancy. Nausea and vomiting are the most frequently encountered disorders in pregnancy, especially during pregnancy. trimester I (Communications et al., 2020).

Women during early pregnancy who previously had a history of stomach ulcers are at high risk of recurrence, especially when they have cravings. When cravings, sometimes young pregnant women have no appetite, nausea and vomiting due to the influence of the hormone chorionic gonadotropin. Because the stomach is often empty, illness cannot be avoided. Likewise, previously suffered stomach ulcers can worsen a pregnant woman's cravings, namely excessive nausea, vomiting, hyperemesis gravidarum (Widayana, 2013).

Pregnancy itself can be a pathogenetic factor in the acute destruction of chronic gastritis, because smooth muscle movement of the gastrointestinal tract is suppressed by progesterone, while gastric acid secretion increases during pregnancy. In early pregnancy, increased fluid retention in the body and changes in intracellular extracellular fluid volume caused by increased steroid hormones are thought to result in changes in pH. In the gastrointestinal tract, changes in pH can result in reactivation of latent *Helicobacter pylori* infections. (Wiraharja, RS, et al., 2014).

According to the researcher's conclusion, the research is in line with research conducted by Syahril Syamsuddin (2018) with the title The Relationship Between Gastritis, Stress, and Support from Husbands of Patients with Hyperemesis Gravidarum Syndrome in the Working Area of the Poasia Health Center, Kendari City, which states that from the results of statistical analysis using the chi-test. square is obtained p value = 0.000 with a confidence level of 95% ($\alpha = 0.05$) shows that there is a significant relationship between gastritis and hyperemesis gravidarum syndrome p value (0.001) < 0.05. Of the 42 respondents (100%), that is, of 27 people (64.3%) pregnant women experienced Hyperemesis Gravidarum, 25 people (59.5%) had a history of gastritis and 2 people (4.8%) had no history of gastritis. Of the 15 people (35.7%) there was no hyperemesis gravidarum, there were 7 people (16.66%) with a history of gastritis and 8 people (19.1%) had no history of gastritis.

In early pregnancy, increased fluid retention in the body and changes in intracellular extracellular fluid volume caused by increased steroid hormones are thought to result in changes in pH. In the gastrointestinal tract, changes in pH can result in reactivation of latent *Helicobacter pylori* infections.

CONCLUSION

After conducting research on "The Relationship between History of Gastritis, Age and Parity with the Incident of Hyperemesis Gravidarum in Pregnant Women at the Mariani Main Clinic, Medan Petisah District, Medan City in 2022," the researchers were able to conclude that: The majority of pregnant women experienced a history of gastritis at the Mariani Main Clinic, Medan Petisah District, Medan City in 2022. The majority of pregnant women's age was in the no-risk category (20-34 years) at the Mariani Main Clinic, Medan Petisah District, Medan City in 2022. The majority of pregnant women were Parity in the category Multipara at the Mariani Main Clinic, Medan Petisah District, Medan City in 2022. There is a relationship between the history of gastritis and the incidence of hyperemesis gravidarum in pregnant women at the Mariani Main Clinic, Medan Petisah District, Medan City in 2022. There is no relationship between age and the incidence of hyperemesis gravidarum in pregnant women at the clinic. Utama Mariani, Medan Petisah District, Medan City in 2022. There is no relationship between parity and the incidence of Hyperemesis Gravidarum in Pregnant Women at the Main Mariani Clinic, Medan Petisah District, Medan City in 2022.

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