THE EFFECT OF GIVING GINGER TO REDUCING HYPEREMESIS GRAVIDARUM IN PREGNANT WOMEN IN THE NANA DIANA'S CLINIC MEDAN CITY

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ABSTRACT

Background *: Hyperemesis gravidarum* is a complaint experienced by pregnant women that interferes with daily activities, decreased appetite to cause disturbed nutrition to the fetus. Ginger is an herb that has long been known to prevent nausea and vomiting The incidence of hyperemesis gravidarum in Indonesia in 2016 is 15-3% of the total number of pregnant women. Most causes of maternal death are bleeding pregnant 70-80% have morning sickness and as many (25,2%), infections (11,1%), sepsis (15%), hypertension in pregnancy (12%), complications of abortion are not safe (13%) and other causes (8%)

Purpose : This study aims to determine the effect of Ginger in Reducing *Hyperemesis Garvidarum* in Pregnant Women at Nana Diana Clinic Medan City in 2019.

Method: The design of this research is *Quasi eksperiment* with one group pre- post test design. The population of first trimester pregnant women is *Hipermesis gravidarum.* The sample of each group is 32 respondents for each experimental and control groups.. The sample technique is total sampling. The examination uses observation sheet. Data analysis uses using paired t-test to find out the Effect of Giving Emprit Ginger in Reducing *Hyperemesis Garvidarum* in Pregnant Women.

Results : Average frequency of *Hipermesis gravidarum* in the experimental group before given ginger as much as 2,38 times a day and decreased to 1,00 times a day. Bivariate test results showed that warm ginger drinks were effective in reducing nausea and vomiting in pregnant women (p value=0,000)

Conclusion : Giving warm ginger drink is effective in reducing the frequency of nausea and vomiting in first trimester pregnant women.

Keywords: Pregnant Women, *Hiperemesis Gravidarum*, Ginger

Background

Hyperemesis gravidarum can be caused because an increase in Hormone Chorionic Gonodhotropin (HCG) can be a factor in nausea and vomiting. Increased levels of the hormone progesterone cause smooth muscle in the gastrointestinal system to relax so that motility decreases and the stomach becomes empty. Hyperemesis gravidarum, which is a complication of young pregnant women if it occurs continuously, can result in dehydration, electrolyte imbalance, and can result in carbohydrate and fat reserves being used up for energy purposes.

The target of reducing MMR is still used as a target for the 3rd Sustainable Development Goals (SDGs). Ensuring a healthy life and encouraging welfare for all people of all ages, namely reducing MMR to below 70 per 100,000 KH, ending preventable infant and under-five mortality , by reducing the Neonatal Mortality Rate to 12 per 1,000 KH and the under-five mortality rate to 25 per 1,000 live births that must be achieved by 2030 [1].

The incidence of hyperemesis gravidarum in Indonesia in 2016 was 1.5-3% of the total number of pregnant women (SDKI, 2016). Most of the causes of maternal death are bleeding. 70-80% of pregnant women experience morning sickness and as much as (25.2%), infection (11.1%), sepsis (15%), hypertension in

pregnancy (12%), complications of abortion are not safe (13,%), other causes (8%), for example heart disease, diabetes, anemia, malaria and including hyperemesis gravidarum[2]. According to research conducted by Viviana in RSUD. Dr. Pirngadi in 2009, there were 34 cases (82%) of 280 pregnant women who experienced hyperemesis gravidarum.

Ginger is a plant with a million properties that have been known for a long time. Ginger is an important spice. The rhizome has many benefits, including as a spice in cooking, drinks, and candy and is also used in traditional medicinal herbs.

The first advantage of ginger is that it contains essential oils which have a refreshing effect and block the gag reflex, while gingerol can smooth the blood and the nerves work well. As a result, the tension can be melted away, the head is fresh, nausea and vomiting are suppressed. The arsiri oil produces arsiri arsiri arroha, while the oleoresis causes a hot, sweaty taste[4.]

Based on the results of the initial survey at the Nana Diana Clinic, in April 2019 there were approximately 40 pregnant women who experienced hyperemesis gravidarum. The treatment given was vitamin B6, none of which were given other therapies such as the recommendation to drink Emprit ginger. Based on the description above, the authors are interested in researching directly on the effect of Ginger Emprit in reducing hyperemesis gravidarum in pregnant women.

Metode

This research is a quasi-experimental research with the design used is one group pretest-postest design. This study uses a total sampling technique with a sample size of 32 people. Inclusion criteria The inclusion criteria were pregnant women who had hyperemesis gravidarum who were willing to be the research sample, liked ginger, and were not fasting, while the exclusion criteria were pregnant women who had gastrointestinal disorders, such as stomach, appendicitis.

Researchers provide steeping ginger in the following ways: 1. Tools and materials for making ginger brew: ingredients: 250 mg, 50 ml hot water, tools: Grater, knife, pan, glass, spoon. 2. How to make a good and correct brew of ginger according to the predetermined amount: peel 250 mg of ginger and wash it thoroughly. Grate the peeled ginger until it is smooth. Prepare 50 ml of boiled water that is still warm. Enter the grated ginger into the still warm water. Wait for 15 minutes until the color turns brownish yellow, stirring occasionally. Then pour the ginger cooking water in the glass. After completing the brewing of ginger, the researchers provided the respondents with steeping ginger according to the time planned by the researcher, namely 4 times a day before eating. The location of this research is at the Nana Diana Clinic and the research began in June-August 2018. The data analysis technique used was the paired t test, which is a test carried out to compare the difference between two means of two pairs of samples with the assumption that the data is normally distributed.

Table 4.1
Respondent Characteristics Frequency Distribution Based on Gravida

Gravida	Frequency	Precent
Primigravida	25	78,1
Sekundigravida	5	15,6
Multigravida	2	6,3
Jumlah	32	100

Based on table 4.1 above, it can be seen that maternal Gravida taken from 32 respondents is the majority of Gravida I mothers as many as 25 people (78.1%)

Table 4.2
The Difference in Frequency of Hyperemesis Gravidarum Before and After Ginger Emprit

Hyperemesis Gravidarum Frequency	Amount	Mean	Median
Before	32	2,38	2,00
After	32	1,00	1,00

Based on table 4.2 above, it can be seen that the distribution of the mean frequency of maternal hyperemesis gravidarum taken from 32 respondents was 2.38 times / day with a median of 2.00 before being given emprit ginger and the mean frequency of maternal hyperemesis gravidarum taken from 32 respondents was 1.00 with median 1.00 after being given ginger emprit.

Table 4.3
Frequency Distribution of Respondents Characteristics Before and After Ginger Emprit

Hyperemesis Gravidarum Frequency	Average	Standard Deviation	t Count	P *Value*
Before	2,38	0,554	14,051	0,000
After	1,00	0.000		

Based on table 4.3, it can be seen that the average or mean frequency of maternal hyperemesis taken from 32 respondents was 2.38 times / day with a standard deviation of 0.554 before being given emprit ginger. Meanwhile, the average or mean frequency of hyperemesis gravidarum of pregnant women taken from 32 respondents was 1.00 times / day with a standard deviation of 0.000 after being given emprit ginger. that is, there is a decrease in the frequency of Hyperemesis after offering ginger emprit. By using the paired t test, it was obtained t count 14.051 and p value = 0.000 <(α = 0.05), this indicates that there is a significant difference in the frequency of hyperemesis gravidarum of pregnant women before and after being given emprit ginger at the Nana Diana clinic in 2019.

Discussion

Respondents in this study were the majority of Gravida I mothers as many as 25 people (78.1%) and the minority Gravida III as many as 2 people (6.3%), meaning that gravida primi mothers experience hyperemesis gravidarum more often, this is in accordance that hyperemesis gravidarum occurs in about 60-80% of primigravidas and 40-60% in multigravidas[5]. The average frequency of maternal hyperemesis gravidarum taken from 32 respondents was 2.38 times / day before being given emprit ginger. While the average frequency of maternal hyperemesis gravidarum taken from 32 respondents was 1.00 times / day after being given emprit ginger. it means that there is a decrease in the frequency of Hyperemesis gravidarum after giving Ginger Emprit.

Essential oil content (1.50-3.50%), starch content (54.70%), fiber content (6.59%), ash content (7.39-8.90%)[6]. Ginger emprit contains 19 useful components for the body, one of which is gingerol, which is the most important compound and has been shown to have potent antiemetic activity by blocking serotonin, a chemical messenger compound. This compound causes the stomach to contract so that when it is blocked, the muscles of the digestive tract will relax and weaken so that the feeling of nausea is much reduced.

From the results of statistical tests using paired t test, it was concluded that there was a significant difference in the frequency of hyperemesis gravidarum of pregnant women before and after being given ginger with a value (p = 0.000).

The results of this study are consistent with the study of Vutyavanich et al (2001) which proved the effectiveness of ginger in pregnant women in overcoming Hyperemesis gravidarum, that the intervention group given ginger tablets

generally experienced a decrease in nausea and vomiting compared to the group given placebo tablets.

Ginger contains at least 19 components that are useful for the body, one of which is gingerol, which is the most important compound and has been shown to have potent antiemetic activity by blocking serotonin, a chemical messenger compound. This compound causes the stomach to contract so that when blocked, the muscles of the digestive tract will relax and weaken reducing nausea. So that pregnant women can continue their daily activities calmly and comfortably and concentrate fully on maintaining the pregnancy until it leads to delivery with healthy mothers and babies with a feeling of calm without being burdened by anything so that a smart nation generation candidate can be found[7].

Conclusion

The average Hyperemesis gravidarum among 32 respondents before giving Ginger Emprit at the Nana Diana Clinic, Medan City in 2019 was 2.38 times / day and after Ginger Emprit at the Nana Diana Clinic, Medan City in 2019 was 1.00 times / day.

The bivariate test results show that Ginger Emprit drink is effective in reducing Hyperemesis Gravidarum in pregnant women where p value = 0.000 <(α = 0.05).

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