

THE EFFECT OF CONSUMPTION OF GINGER STEW, HONEY, AND MINT LEAVES ON THE FREQUENCY OF HYPEREMESIS GRAVIDARUM IN FIRST TRIMESTER PREGNANT WOMEN AT ALISAH CLINIC MEDAN AREA IN 2022

FARADITA WAHYUNI¹, MESTIKA RIJA HELTI TANJUNG², HERLINA SIMANJUNTAK³, NURHAMIDA FITHRI⁴, YANTI⁵ and RANI DUMARIS MANALU⁶

^{1,3,4,5,6} STIKes Senior Medan, Indonesia

² Universitas Haji Sumatera Utara, Indonesia

^{1*}Corresponding author: faraditawahyuni8@gmail.com

Email: mestikarija1@gmail.com² herlinasimanjuntak912@gmail.com³, pitipitinez@gmail.com⁴, afriwanyanti@gmail.com⁵, ranidumaris@gmail.com⁶

Abstract

Hyperemesis gravidarum is excessive nausea or vomiting that can interfere with daily activities and even endanger pregnant women's lives. Ginger is a plant with a million properties that has been known for a long time. Ginger is one of the essential spices. The rhizome has many benefits, including as a cooking spice, drink, and candy, and is also used in traditional medicinal ingredients. This study aimed to determine the effect of a decoction of ginger, honey, and mint leaf on the frequency of hyperemesis gravidarum in first-trimester pregnant women at the Alisah Medan Clinic in 2022. The independent variable was giving ginger decoction with mint leaves and honey. The sample in this study were all pregnant women in the first trimester at the Medan Area Alisah Clinic as many as 30 respondents. The sampling method used in this study is the total sampling technique, where the entire population is sampled. The type of research used is quasi-experimental with a one-group pretest-posttest design. The study results: Before being given ginger, honey, and mint leaves, all respondents experienced severe nausea and vomiting in as many as 20 people (66.7%). In comparison, the frequency of nausea and vomiting experienced in the trial was 10 people (33.3%). After being given ginger decoction with mint leaves and honey, most pregnant women experienced moderate hyperemesis gravidarum, 28 people (93.3%), while 2 people (6.7%) had severe nausea and vomiting. The analysis results show that the probability value is p-value 0.000 < sig α = 0.05. It was concluded that consuming boiled ginger, honey, and mint leaves affected the frequency of hyperemesis gravidarum in first-trimester pregnant women at the Medan Alisah Clinic. It is hoped that health workers can add information to develop research on ginger against nausea and vomiting in pregnant women with different types of preparations and a more significant number of samples.

Keywords: Ginger Stew, Honey, Mint Leaves, and Hyperemesis

INTRODUCTION

Pregnancy is a continuous process from ovulation, conception, nidation, implantation, and embryo development in the uterus until the term. Every process in pregnancy is a crisis condition that requires psychological and physiological adaptation to the influence of pregnancy hormones and mechanical stress due to the enlargement of the uterus and other tissues (Bobak et al., 2005).

According to the World Health Organization (WHO), the number of incidents of hyperemesis



gravidarum reaches 12.5% of all pregnancies worldwide. In Indonesia, data on pregnant women with hyperemesis gravidarum reached 14.8% of all pregnancies (Ministry of Health, Republic of Indonesia). According to WHO 2019, Maternal Mortality Rate (MMR) in the world, namely as many as 303,000 people. The maternal mortality rate is the number of maternal deaths resulting from pregnancy, childbirth, and postpartum, which indicates women's health status. The most common causes of maternal death in Indonesia are bleeding, hypertension, infection, and metabolic disorders. The death rate in Indonesia is 4,221 cases (RI Ministry of Health 2019). Based on district/city profile reports, the maternal MMR reported in North Sumatra in 2019 was 179 out of 3002,555 live births or 59.16 per 100,000 live births.

Hyperemesis Gravidarum is excessive nausea and vomiting in pregnant women, causing an imbalance in electrolyte levels, unable to eat and drink without getting sick, and losing weight. The cause of hyperemesis gravidarum is still unclear. However, it can be influenced by several predisposing factors: increased progesterone levels, estrogen, and human chorionic gonadotropin (Hcg) can trigger nausea and vomiting. Nausea and vomiting in pregnancy are usually mild and can be controlled according to the pregnant woman's condition. These conditions sometimes stop in the first trimester, and overcoming nausea and vomiting during pregnancy can be done through pharmacological and non-pharmacological measures. Non-pharmacological measures are usually recommended by health workers, such as advising pregnant women to consume herbal plants such as ginger. Ginger, as a type of herbal plant, has advantages compared to other herbal plants, especially for pregnant women experiencing nausea and vomiting. Initial therapy for emesis should be Conservative therapy accompanied by changes in diet, emotional support, and alternative therapies such as herbs. Traditional remedies can be used by drinking a cup of warm ginger. In Kampung, ginger treats nausea in pregnant women (Rofiah et al., 2017).

Ginger contains Zingiberene essential oil (zingirona), zingiberol, bisabilena, curcumin, gingerol, flandrena, vitamin A, and bitter resin, which can block serotonin, which is a neurotransmitter that is synthesized in serotonergic neurons in the central nervous system and enterochromaffin cells in the digestive tract. Digestion is believed to provide comfort in the stomach to overcome nausea and vomiting (Ahmad, 2013).

Ginger can be consumed in various forms, such as drinks, candy, or sweets. Ginger is a plant with a million properties that has been known for a long time. Ginger is one of the essential spices. The rhizome has many uses, including spices, drinks, and candies, and is also used in traditional medicinal ingredients. The chemical ingredients in ginger that can overcome nausea and vomiting include essential oils, which have a refreshing effect and produce an aroma that blocks the gag reflex. Oleoresin causes a spicy taste that warms the body and produces sweat. The dose of ginger should be no more than 2 grams per day because it can trigger a miscarriage.

Data from North Sumatra Province the incidence of hyperemesis gravidarum is 59% and in Medan City hyperemesis gravidarum still reaches 35%.

Based on a preliminary survey conducted by researchers at the Alisah clinic with 10 respondents in the first trimester of pregnancy, they said 7 people had high hyperemesis

gravidarum, around ≥ 10 times per day. In contrast, 3 others experienced moderate hyperemesis 1-5 times per day.

The formulation of the problem in this study is whether there is an effect of the consumption of ginger decoction, honey, and mint leaves on the frequency of hyperemesis gravidarum in first-trimester pregnant women at the Alisah Clinic.

RESEARCH METHODS

This research is quasi-experimental research with a one-group pretest-posttest design. In this design, before the treatment is given, the sample is first given a pretest (initial test), and after the experiment, the sample is given a pretest (final test). This design is used following the objectives to be achieved, namely to determine the effect of the consumption of ginger stew on nausea and vomiting in pregnant women.

Research design one group pretest-posttest design

O1: Initial test (pretest) before treatment is given

O2: Posttest after treatment is given

X: Experimental treatment by giving ginger candy

LOCATION AND TIME OF RESEARCH

The location of this research is at the Alisah Clinic AR. Hakim Street Gg. Buntu No. 34, Tegal Sari III, Medan Area subdistrict, Medan City. When the research was carried out in February - July 2022.

POPULATION AND RESEARCH SAMPLE

Population

The population in this study were all first-trimester pregnant women who experienced nausea and vomiting. As many as 30 people at the Alisah Clinic Medan.

Sample

Samples taken were first-trimester pregnant women, every pregnant woman who fulfills the inclusion criteria of this study has the same opportunity to be included in the sample in this study. Then the sample size in this study is the entire population. The sampling technique in this study was a total sampling of 30 respondents in the first trimester of pregnancy.

RESULTS

Univariate Analysis

Frequency of Hyperemesis Gravidarum before giving ginger decoction, honey and mint leaves to pregnant women in the first trimester at the Alisah Clinic in 2022.

Table 4.1 Distribution of the frequency of hyperemesis gravidarum before giving ginger and mint leaves

No	Frequency	N	%
1	Moderate	10	33.3%
2	Weight	20	66.7%
Total		30	100%

Based on table 4.1 the frequency of nausea and vomiting in pregnant women in the first trimester before being given ginger stew with mint leaves, all responses experienced severe nausea and vomiting in 20 people (66.7%). While the frequency of nausea and vomiting experienced moderate by 10 people (33.3%).

Table 4.2 Frequency of nausea and vomiting in first trimester pregnant women after being given a decoction of ginger, honey and mint leaves.

No	Frequency	Post Test	
		N	%
1	Moderate	28	93.3%
2	Weight	2	6.7%
Total		30	100%

Based on table 4.3, The majority of respondents with a moderate frequency of nausea and vomiting after the intervention were 28 people (93.3). Before the intervention, the majority experienced severe nausea and vomiting, as many as 2 people (6.7%).

Bivariate Analysis

Bivariate analysis in this study used bivariate analysis of paired data using a paired test to determine the effect of consuming ginger decoction with mint leaves and honey on the frequency of first-trimester hyperemesis gravidarum at the Medan Alisah Clinic in 2022. Will be presented in table 4.4.

Table 4.4 Effect of consuming boiled ginger with mint leaves and honey on the frequency of first trimester hyperemesis gravidarum.

Group	N	Mean	Difference in Mean	St Deviation	P-Value
Before	30	10.17	3.14	1.510	0.000
After	30	7.03		1.956	

Based on table 4.4, the results of the paired t-test data obtained a mean of 10.17 for the pre-intervention group and 7.03 for the post-intervention group. Obtained from the data analysis, there was a decrease in nausea and vomiting in the experimental group, with a difference of 3.14. After the paired test, it was known that the sig value was 0.000 before and after the intervention, or before and after the experiment, was given ginger-boiled water with mint leaves where this value is <0.05 so that this test shows significant results.

DISCUSSION

Based on tables 4.1 and 4.2 above, it is known that of the 30 respondents before the intervention, most had severe hyperemesis gravidarum, 20 respondents (66.7%), moderate hyperemesis gravidarum, and 10 respondents (33.3%). While the respondents after the intervention most of the respondents experienced moderate hyperemesis, 28 respondents (93.3%), and severe hyperemia, 2 respondents (6.7%).

The paired t-test data obtained a mean of 10.17 for the pre-intervention group and 7.02 for the post-intervention group. After the paired test was carried out, it was known that the sig value was 0.00 before and after the intervention, or before and after the experiment was given ginger boiled water and mint leaves. Where this value is <0.05 , so this test shows significant results. There is an effect of consuming boiled ginger with mint leaves and honey on the frequency of first-trimester hyperemesis gravidarum at the Alisah Medan Clinic in 2022. Research conducted by Parwitasari (2017) showed that there was a significant difference between the average -the average intensity of the degree of nausea and vomiting before and after being given ginger decoction, while the average intensity of the degree of nausea and vomiting of pregnant women before and after being given a decoction of mint leaves obtained p-value (0.003) $<\alpha$ (0.05) with the conclusion that there is a difference in mean average intensity of nausea and vomiting before and after giving ginger and mint leaves to pregnant women.

This research is also in line with Ayu Dwi Putri (2017), which stated that the average respondent experienced a frequency of nausea and vomiting 13 times a day before being given the intervention. After being given the warm ginger drink intervention, the average frequency of nausea and vomiting decreased to 3.18 times daily with a $p = 0.000$. It can be concluded that both clinically and statistically, warm ginger drinks reduce nausea and vomiting in first-trimester pregnant women.

Complaints of nausea and vomiting in pregnant women are widespread. Therefore, in addition

to pharmacological treatment, there are also non-pharmacological treatments. In this study, ginger and mint leaves were given to pregnant women in their first trimester who were nausea and vomiting.

Most of the mother's last education was in high school, with 22 respondents (73.3%). The results of this study follow research conducted by (Rimonta, 2017) regarding the comparison of the effectiveness of a combination of ginger and pyridoxine extracts with pyridoxine alone in reducing complaints of nausea and vomiting in pregnant women, with the results of high school education having a more significant influence on the incidence of nausea and vomiting in pregnancy.

For some women, symptoms may last throughout the day or not occur at all upon waking in the morning. Nausea and vomiting during pregnancy are usually caused by changes in the endocrine system that occur during pregnancy, mainly due to high fluctuations in HCG (human chorionic) levels. Gonadotropins), especially since the most common period of gestational nausea or vomiting is in the first 12-16 weeks, when HCG reaches high levels.

According to Rof'ah, Handayani, and Rahmawati (2017), Initial therapy for emesis should be conservative, accompanied by changes in diet, emotional support, and alternative therapies such as herbs. Traditional remedies can be used by drinking a cup of warm ginger. In India, ginger is used to treat nausea in pregnant women. Ginger can be consumed in various forms, such as drinks, candy, or sweets. This study follows Vutyavanich's statement (2001 in Tiran, 2008) that ginger is an effective treatment for relieving pregnancy-related nausea and vomiting. Types of diseases that can be treated with ginger include headaches, dizziness, increased appetite, and vomiting.

Based on the researcher's assumption that the content of ginger can prevent nausea and vomiting because ginger can block serotonin. This chemical compound can cause the stomach to contract, causing nausea.

CONCLUSION

There was an effect of boiling ginger before the intervention as much as 10.17 and after the intervention as much as 7.03. The average decrease was 3.14. The statistical test results obtained a p-value < (0.05). It can be concluded that giving ginger decoction with mint leaves and honey effectively reduces nausea and vomiting in pregnant women in the first trimester.

RECOMMENDATIONS

For respondents, especially pregnant women who experience nausea and vomiting, it is recommended to be able to use ginger as an alternative ingredient to reduce nausea and vomiting in pregnancy.

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