

# Comparison Of Giving A Combination Of Red Ginger And Mint Leaves Booked With A Combination Of Lime And Honey On The Intensity Of Vomiting In Pregnant Women In Trimester I

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## Abstract.

*Emesis gravidarum results in a decrease in appetite, this situation can cause changes in electrolyte balance with potassium, calcium and sodium which result in changes in body metabolism. Therefore, in reducing nausea and vomiting pregnant women should use complementary therapies that can be done easily at home. Pharmacological function is antiemetic (anti-vomiting). Lime has flavonoids, the flavonoid content is known to neutralize acidic digestive fluids, releasing toxins in the body. This study was conducted to determine the differences in the effectiveness of giving a combination of boiled red ginger and mint leaves and a combination of lime and honey on the intensity of nausea and vomiting in first trimester pregnant women. This study used a quasi-experimental research design with a pretest-posttest with control group design. Sampling by purposive sampling. The sample size was 28 pregnant women in the first trimester at the Cikande Public Health Center, Serang Regency. The research instrument is an observation sheet. Data analysis used Mann Whitney statistical test. The results of his research using the Mann Whitney statistical test showed a p-value of 0.498, this means that there is no significant difference in decreasing the intensity of nausea and vomiting in first trimester pregnant women at the Cikande Health Center, Serang Regency between those given boiled red ginger and mint leaves and a combination of lime and honey for 4 days of treatment. It is hoped that health workers will provide education to pregnant women in traditional medicine or local wisdom.*

**Keywords:** Red Ginger Decoction, Mint Leaves, Lime, Honey, Nausea Vomiting, Pregnant Women, First Trimester.

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## I. INTRODUCTION

In developing countries such as Turkey, the incidence of hyperemesis gravidarum is 1.9-2% of all pregnant women per year. In Pakistan, the incidence of hyperemesis gravidarum is 1.9% (1). In Southeast Asia, namely Japan, almost 3.6% of pregnant women experience hyperemesis gravidarum, while in Malaysia, 0.3-2% of pregnant women experience hyperemesis gravidarum. Nausea and vomiting (emesis gravidarum) is a common thing in early pregnancy (Trimester I). Nausea and vomiting usually occur in the morning (morning sickness), but also occur during the day and at night. Emesis gravidarum causes a decrease in appetite so that there is a change in the electrolyte balance with potassium, calcium and sodium which causes changes in the body's metabolism (2). Every pregnant woman will have different degrees of nausea, some don't really feel anything, but some feel nauseous and some feel very nauseous and want to throw up at any time. To reduce nausea and vomiting, pregnant women should use complementary therapies, including fruits and herbal or traditional plants that can be done easily at home (3). Tanaman herbal sebagai terapi komplementer untuk mengurangi mual muntah selama kehamilan yaitu jahe, peppermint, lemon, dll (4). One of the pharmacological functions of ginger is antiemetic (anti-vomiting). Ginger is a strong aromatic stimulant and can control vomiting by increasing intestinal peristalsis.

Ginger contains six compounds, namely zingiberene (zingirona) essential oil, zingiberol, bisabilena, curcumin, gingerol and flandrena in ginger which has been shown to have potent antiemetic (anti-vomiting) activity (5). Peppermint (Mint Leaf) is also known to be a safe and effective drug to treat nausea and vomiting in pregnant women. Mint leaves contain essential oil, namely menthol which can facilitate the digestive system and relieve stomach spasms or cramps because it has a mild anesthetic effect and contains carminative and antispasmodic effects that work in the small intestine in the gastrointestinal tract so that it can overcome or eliminate nausea and vomiting (6). Lime has flavonoids that increase the production of bile, acids, and digestive juices. Where the flavonoid content will neutralize acidic digestive fluids, releasing toxins in the body (7). Honey has several minerals that are important for the body. The content of pyridoxine in honey as a receptor antagonist and other benefits of honey can help maintain stamina and health during

pregnancy and help high nutritional intake for fetal growth in the womb(8).Based on the above phenomenon, the researcher will conduct a study on the comparison of the effectiveness of giving a decoction of a combination of red ginger and mint leaves and a combination of lime and honey on the intensity of nausea and vomiting in first trimester pregnant women at the Cikande Health Center, Serang district.

## II. METHODS

The research design used in this study was a quasi experiment with a pretest-posttest control group design. The time of the study was carried out for 4 days at the Cikande Health Center, Serang district. The sampling technique used purposive sampling(1). The population in this study were all pregnant women in the 1st trimester. The sample in this study was divided into 14 respondents respectively in the group who were given a decoction of red ginger and lime and honey so that the number of samples needed was 28 pregnant women in the first trimester.

## III. RESULT AND DISCUSSION

**Table 1.** Distribution of the frequency of nausea and vomiting intensity before and after being given a combination of red ginger and mint leaves in pregnant women in the first trimester at the Cikande Health Center, Serang Regency

Category	Pre		Post	
	n	%	n	%
Mild	0	0	8	57.1
Medium	0	0	6	42.9
Weight	14	100	0	0
<b>Total</b>	<b>14</b>	<b>100</b>	<b>14</b>	<b>100</b>

Based on table 1, it can be seen that the decrease in the intensity of nausea and vomiting of 14 first trimester pregnant women respondents at the Cikande Health Center, Serang district before being given a decoction of red ginger and mint leaves, all respondents experienced severe nausea and vomiting, as many as 14 people (100%) and the intensity of nausea and vomiting after being given the stew. Most of the red ginger and mint leaves decreased to mild, as many as 10 people (71.4%).

**Table 2.** Frequency distribution of nausea and vomiting intensity before and after being given a combination of lime and honey in first trimester pregnant women at Cikande

Public Health Center, Serang Regency				
Category	Pre		Post	
	n	%	n	%
Mild	0	0	10	71.4
Medium	0	0	4	28.6
Weight	14	100	0	0
<b>Total</b>	<b>14</b>	<b>100</b>	<b>14</b>	<b>100</b>

Based on table 2, it can be seen that the decrease in the intensity of nausea and vomiting of 14 respondents of first trimester pregnant women at the Cikande Health Center, Serang district before being given a combination of lime and honey, all respondents experienced severe nausea and vomiting as many as 14 people (100%) and the intensity of nausea and vomiting after being given a combination of oranges. lime and honey mostly decreased to light as many as 8 people (57.1%).

**Table 3.** Differences in the intensity of nausea and vomiting before and after being given a combination of boiled red ginger and mint leaves in first trimester pregnant women at the Cikande Health Center, Serang Regency

Variabel	n	Mean Rank	Z	p-value
Nauseous vomit Pre – Nauseous vomit Post	14	7.50	-3.448	0,001

Based on table 3, it can be seen that before and after being given boiled red ginger and mint leaves, the mean rank of the respondents' nausea and vomiting intensity was 7.50. Based on the non-parametric test, namely Wilcoxon, a p-value of  $0.001 < (0.05)$ . This shows that there is a significant difference in the intensity of nausea and vomiting before and after being given a combination of boiled red ginger and mint leaves in first trimester pregnant women at the Cikande Health Center, Serang district.

**Table 4.** Differences in the intensity of nausea and vomiting before and after the combination of lime and honey was given to pregnant women in the first trimester at the Cikande Health Center, Serang Regency

Variabel	N	Mean Rank	Z	p-value
Nauseous vomit Pre – Nauseous vomit Post	14	7.50	-3.397	0,001

Based on table 4, it can be seen that before and after the combination of lime and honey was given, the mean rank of the respondents' nausea and vomiting intensity was 7.50. Based on the non-parametric test, namely Wilcoxon, a p-value of  $0.001 < (0.05)$ . This shows that there is a significant difference in the intensity of nausea and vomiting before and after being given a combination of lime and honey in first trimester pregnant women at the Cikande Health Center, Serang district.

**Table 5.** Comparison of giving a combination of boiled red ginger and mint leaves with a combination of lime and honey on decreasing the intensity of nausea and vomiting in first trimester pregnant women at the Cikande Health Center, Serang Regency

Variabel	Group	n	Mean Rank	Z	p-value
Intensitas Mual	A	14	15.50	-0.678	0,498
Muntah	B	14	13.50		

Based on table 5, it can be seen that the 14 respondents who were given a decoction of red ginger and mint leaves the mean post-test rank of 15.50, while the other 14 respondents who were given a combination of lime and honey, the mean post-test rank was 13.50. Based on the Mann Whitney test, a p-value of 0.498 was obtained. Because the p-value is  $0.498 > (0.05)$ , it can be concluded that there is no significant difference in decreasing the intensity of nausea and vomiting in first trimester pregnant women at the Cikande Health Center, Serang district between those given a combination of boiled red ginger and mint leaves and those given combination of lime and honey. It is known that all respondents in group A experienced severe nausea and vomiting before being given a combination of red ginger and mint leaves. Meanwhile, all respondents in group B also experienced severe nausea and vomiting before being given a combination of lime and honey. After being given a combination of red ginger and mint leaves, the respondents experienced mild nausea and vomiting, as many as 10 people (71.4%). Meanwhile, from 14 respondents after being given a combination of lime and honey, most of them experienced mild nausea and vomiting, namely 8 people (57.1%). There was a significant difference in the intensity of nausea and vomiting before and after being given a decoction of red ginger and mint leaves, p-value  $0.001 < (0.05)$ . There was a significant difference in the intensity of nausea and vomiting before and after the combination of lime and honey was given to mothers with p-value  $0.001 < (0.05)$ . Based on the Mann Whitney test, a p-value of 0.498 was obtained. Because both p-values within 4 days of giving a combination of red ginger and mint leaves and a combination of lime and honey  $< (0.05)$ , it can be concluded that there is no significant difference in the decrease in the intensity of nausea and vomiting between those given a combination of red ginger stew. and mint leaves with a combination of lime and honey.

Pregnancy affects the mother's body as a whole by causing physiological changes that occur in all organ systems, most of the changes in the mother's body are mostly caused by hormonal work. These changes occur due to an imbalance in the hormones progesterone and estrogen, namely the female hormones that have been in the mother's body since pregnancy. Some complaints that make the mother feel uncomfortable include nausea and vomiting (2). 50% of pregnant women experience Emesis Gravidarum which is known as Morning Sickness (feeling sick in the morning) as an 'unpleasant' part of pregnancy (3). 50-90% of pregnant women experience nausea in the first trimester and about 25% of pregnant women experience problems with nausea and vomiting need time to rest from work). Every pregnant woman will

have different degrees of nausea, some feel nothing, but some feel nauseous and some feel very nauseous and want to throw up at any time (4) In the first trimester, most women will experience nausea with or without vomiting. These symptoms begin around the sixth week of pregnancy and usually decrease drastically by the end of the first trimester (around the 13th week). Changes in the gastrointestinal tract and increased levels of Human Chorionic Gonadotropin (hCG) in the blood cause several complaints that make the mother feel uncomfortable during pregnancy, including nausea and vomiting(5) In the results of research that has been carried out, nausea and vomiting felt by pregnant women in the first trimester at the Cikande Health Center, Serang district, which was highest before treatment was in the severe category because the frequency of nausea and vomiting was 5x/day. This happened because before being given boiled red ginger and mint leaves in group A and the combination of lime and honey in group B, there was an increase in pregnancy hormones such as the hormone HCG (Human Chorionic Gonadotropin), estrogen and progesterone. Morning sickness is the main complaint in early pregnancy (first trimester). The occurrence of pregnancy causes hormonal changes in women because there is an increase in the hormones estrogen, progesterone and placental HCG secretion. This hormone is thought to cause morning sickness (6).

Giving a decoction of a combination of red ginger and mint leaves as well as a combination of lime and honey are some of the interventions of the many complementary therapeutic interventions to reduce the intensity of nausea and vomiting. In overcoming nausea and vomiting during pregnancy can be done by pharmacological and non-pharmacological. Pharmacological action is to provide Vitamin B6. And non-pharmacological, namely consuming ginger, mint, honey, lime, relaxation techniques, and aromatherapy (7).The author's analysis in this study showed that steeping ginger can reduce the intensity of nausea and vomiting in pregnant women in the first trimester, this is in accordance with the theory which states that ginger contains compounds that can block nausea and vomiting which have been proven by research (8). that ginger is effective in reducing nausea and vomiting. In the research that has been done, most of the respondents who were given ginger steeping did not know that ginger can be used as an alternative to treat nausea and vomiting, especially in pregnancy. According to research respondents, ginger steeping helps in overcoming nausea and vomiting(9) This is in line with research by (10) which states that there is an effect of giving mint boiled water on the frequency of nausea and vomiting. Then in line with research by (11) which showed that steeping mint leaves can affect pregnant women with nausea and vomiting. And in line with the pen.Research conducted by (12) proved that steeping peppermint leaves reduces the frequency of emesis gravidarum. The analysis in the study (19) that the administration of steeping mint leaves showed a change in the intensity of nausea and vomiting in pregnant women in the first trimester after being given the mint steeping treatment. or even eliminate nausea and vomiting(13).The author's analysis of the success of combination therapy with lime and honey occurs because before being given a combination of lime and honey, nausea and vomiting are natural and normal. Nausea and vomiting that occur are caused by changes in the gastrointestinal tract and increased levels of Human Chorionic Gonadotropin (hCG) in the blood. After being given lime and honey, nausea and vomiting decreased because lime and honey had benefits for reducing nausea and vomiting in pregnancy. Lime has flavonoids and honey also contains pyridoxine, both of which act as serotonin receptor antagonists to reduce nausea and vomiting in pregnancy.

#### IV. CONCLUSION

In a comparative study of giving a combination of boiled red ginger and mint leaves with a combination of lime and honey above, there were results with no significant difference in decreasing the intensity of nausea and vomiting in first trimester pregnant women who had been applied for 4 days of treatment. And Carrying out health promotion for first trimester pregnant women who come to health services with complaints of nausea and vomiting, are offered to apply non-pharmacological interventions such as boiled red ginger and mint leaves or lime and honey to reduce the intensity of nausea and vomiting.

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