

# The Effectiveness of Red Ginger To First Trimester In Pregnant Women With Emesis Gravidarum

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## The Effectiveness of Red Ginger To First Trimester In Pregnant Women With Emesis Gravidarum

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**Abstract:** Nausea and vomiting or emesis gravidarum are symptoms that commonly occur in pregnant women in the first trimester and are physiological, caused by hormonal changes in pregnant women. The purpose of this study was to determine the effectiveness of giving red ginger water to reduce the frequency of emesis gravidarum in first trimester pregnant women. One Group Pre-Post Test Design research design. The research was conducted in Februari - July 2024 in the working area of the Jabon Public Health Center Jombang. The sample was 60 respondents selected with purposive sampling technique. The instrument used to measure emesis gravidarum is The Rhodes Index Nausea, Vomiting and Retching. Bivariate analysis using the Mann-Whitney test. The average difference in the frequency of emesis gravidarum before and after the intervention of red ginger extract was 3.01 and cardamom water was 2.91. The results of the Mann-Whitney test in which the intervention pretest and posttest intervention pairs of giving red ginger were a p value of 0.000 <0.05. Giving red ginger intervention is effective in reducing the nausea of emesis gravidarum significantly in reducing the frequency of emesis gravidarum.

**Keywords:** emesis gravidarum; red ginger; trimester 1

### PRELIMINARY

Nausea and vomiting or emesis gravidarum are common symptoms in pregnant women in the first trimester and are physiological, caused by hormonal changes in pregnant women. Emesis gravidarum is a symptom experienced by the majority of pregnant women, namely 80% of primigravidas and 60% of multigravidas (Carolin, 2022). This occurs due to changes in the hormones Human Chorionic Gonadotropin, Progesterone, Estrogen, and serotonin. Emesis gravidarum causes changes in the body's metabolism, resulting in a decrease in appetite so that the mother lacks nutrition (Utami, 2020). In a small percentage of pregnancies (0.2% -5%), persistent and excessive nausea and vomiting, commonly called hyperemesis gravidarum, can lead to dehydration, electrolyte imbalance, and weight loss are the main causes of a pregnant woman being hospitalized during the first trimester (Ningsih, 2020). The number of pregnant women with cases of Emesis Gravidarum in Indonesia is still high, namely 2,203 and it was found that 543 pregnant women experienced Emesis Gravidarum in the early period of pregnancy. So, it can be estimated that the average incidence of Emesis Gravidarum cases in 2021 is 67.9%. Where 80% of this incidence occurs in primigravidas, this figure is higher compared to the incidence in multigravidas, which is only 69% because primigravida pregnant women tend to be more sensitive to anxiety and fear which ultimately disturbs the stomach (Naila, 2022). Worsening conditions due to hyperemesis gravidarum can often have a significant impact on a woman's quality of life, such as causing emotional trauma

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during pregnancy (Ramadhani, 2019). Continuous emesis gravidarum without treatment can cause chronic weight loss and increase the incidence of fetal growth disorders in the womb or what is often called Intrauterine Growth Restriction. The consequence that occurs due to hyperemesis gravidarum is weight loss (Wardani, 2020). There are many alternative treatments other than administering pharmacological drugs or hospital care that can be given in prevention and initial treatment efforts, such as administering ginger drink extract which has been widely used in history because of its many natural medicinal and antiemetic properties. The best available evidence shows that ginger is an effective and inexpensive treatment for nausea and vomiting and is safe to consume (Indrayani, 2018). This non-pharmacological treatment is giving red ginger. In theory, cardamom therapy intervention in overcoming morning sickness can also be reduced because cardamom fruit contains essential oil which contains cineol which is delicious, slightly spicy, warms like eucalyptus oil, so cardamom becomes an alternative for pregnant women who experience nausea and vomiting, so as not to increase excessive stomach acid (Agoes, 2013). Apart from that, by giving ginger for four days, with a dose of one glass in the morning and one drink in the afternoon, most of the research respondents were in the mild emesis category, 80% of pregnant women in the first trimester experienced nausea and vomiting. Other research also states that ginger tea is effective in reducing emesis gravidarum in the first trimester (Abidah, 2020). The aim of this study was to determine the effectiveness of giving red ginger water to reduce the frequency of emesis gravidarum in first trimester pregnant women.

## **METHOD**

The research design in this study was pre-experimental with a One Group Pre-Post Test Design research design. The research time was carried out from February to July 2024. The research location for the Ginger intervention was carried out in the Jabon Community Health Center working area. The sample used for each intervention was 60 sample respondents selected using purposive sampling technique. The sample inclusion criteria in this study were: Mothers who were willing to be respondents. Pregnant women in the first trimester who experience nausea and vomiting. Pregnant women who are willing not to consume foods that trigger nausea and vomiting. The red ginger water intervention is 2.5 grams of red ginger, sliced and brewed in 250 ml of hot water, plus 1 tablespoon of sugar (10 grams) drunk 1x1 in the morning. The instrument for measuring emesis gravidarum used is The Rhodes Index Nausea, Vomiting and Retching which has been previously validated. Univariate analysis in the form of respondent characteristics and the average value (mean) of the nausea and vomiting index.

Bivariate analysis was carried out to see the effect before and after giving red ginger water on the frequency of nausea and vomiting in first trimester pregnant women using the Mann-Whitney test.

## RESEARCH RESULTS AND DISCUSSION

The resulting Sig value is 0.040 in the Pretest value, which means the data is not normally distributed because the Sig value is  $<0.05$  and in the Posttest the Sig value is 0.000, which means the data is also not normally distributed because the Sig value is  $<0.05$ , considering the values of both The variables above are not normally distributed, so the next step is the Mann Whitney U-Test. The results of the average frequency of emesis gravidarum before the intervention were 9.52 and the average frequency of emesis gravidarum after the intervention was 6.51 with the difference in the average frequency of emesis gravidarum before and after the red ginger extract water intervention of 3.19. The results of the Mann-Whitney test where in the pair of pretest intervention and posttest intervention obtained a Sig.2-tailed value of 0.000  $<0.05$ , it can be concluded that there is a difference in the average frequency of Emesis Gravidarum in the pretest and posttest intervention. Based on the results of the table above, it can be concluded that giving red ginger extract water to reduce emesis gravidarum is very effective. Based on the results of the research that has been carried out, it is clear that the majority of pregnant women are in the productive age, namely 20-35 years, 49.3%, with a high school education, 55.2%, with the majority being primiparas, 53.7% and working as housewives, 50.7%. The results of the study showed a significant effect in reducing emesis gravidarum after being given red ginger and cardamom interventions. This research is in line with (Ardani, 2013) which stated that there was a decrease in the quantity of emesis gravidarum after giving cardamom and ginger intervention with an average decrease for ginger drink therapy of 7.5 and cardamom drink therapy of 9.93. among pregnant women in the first trimester in Jabon Village, Jombang District, Jombang Regency." Ginger has long been proven to treat nausea, vomiting and digestive problems. Previous research conducted by (Romadhoni, 2019) reported that there was an effect of ginger extract on changes in the frequency of nausea and vomiting in first trimester pregnant women. The difference in the average frequency of nausea and vomiting in the intervention and control groups was 1.29 with p value = 0.019 ( $p \leq \alpha = 0.05$ ). The pharmacological effect of ginger in providing an antiemetic (anti-vomiting) effect is by removing gas from the stomach. Ginger is also a strong aromatic stimulant, besides being able to control vomiting by increasing intestinal peristaltic movements (Sridharan, 2020). About 6 compounds in ginger have been proven to have potent antiemetic (anti-vomiting)

activity. The action of these compounds is more directed at the stomach wall rather than the central nervous system. The nutrients contained in ginger are potassium (3.4%), magnesium (3.0%), copper (3.0%), manganese (3.0%), and vitamin B6 (pyridoxine) (2.5%) (Romadhoni, 2019). In addition, the gingerol compound in ginger is a strong molecule that can reduce oxidative products in the digestive tract (Firdausni, 2018). Gingerol can also cause blood vessels to dilate, which is characterized by a warming effect and can block serotonin, a chemical compound that causes nausea (Srikandi, 2020). Ginger can inhibit serotonin as a chemical messenger that causes the stomach to contract and causes nausea (Pairul, 2018). The form of presentation of red ginger extract recommended for pregnant women in various studies is as follows: 2.5 grams of red ginger, sliced and brewed in 250 ml of hot water plus 1 tablespoon (10 grams) of sugar, drunk 1x1 in the morning. Serving can be added with sugar or honey according to taste (Zamaniyah, 2015). According to a research report in the journal of Obstetrics and Gynecology, ginger has the effect of relaxing and weakening the muscles in the digestive tract so that nausea and vomiting are reduced. Ginger has several active substances, namely gingerol, which is the most important compound and has been proven to have effective antiemetic activity with its properties. blocks serotonin, a chemical messenger. If this compound is blocked, the muscles of the digestive tract will relax and weaken so that nausea is reduced (Ningsih, 2020).

## **CONCLUSION**

Giving red ginger extract water can reduce the average frequency of emesis gravidarum in 1st trimester pregnant women in the Jabon Community Health Center area and is statistically significant

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