

EFFECTIVENESS OF COCONUT WATER AND RED GINGER ON DECREASING EMESIS GRAVIDARUM AT TPMB RAHMAYANTI AGUSTINI YEAR 2022

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Abstract.

Background : The number of artificial gravidarum events in Indonesia obtained from 2,203 pregnancies which can be fully observed is 543 pregnant women exposed to gravidarum. In Indonesia about 10% of pregnant women get emesis from gravidarum. In east Java, emesis an gravidarum accounts for 10% - 15% of the number of pregnant mothers as much as 182,815 in 2015 (NHS, 2015). According to the initial survey carried out by researchers of 10 pregnant mothers in the girlfriend medical center, there are 8 people (80%) of pregnant mothers who emesis the gravidarum of the trimester I pregnancy and 2 (20%) who are not emesis by the gravidarum. A gravidarum emesis of this pregnancy can be attributed to external levels and a progesterone within the body (wiknjastro, 2012). Management of nausea and vomiting can be done by non-pharmacological methods. Non-pharmacological therapies such as drinking boiled red ginger and coconut water. Red ginger contains zingiberol, zingiberene essential oil, curcumin, bisabillene, flandrene, gingerol, vitamin A which can reduce nausea and vomiting. Coconut water also contains minerals, namely magnesium, potassium and calcium. It turns out that drinking coconut water can relieve symptoms of nausea and vomiting.

objective : It is known that the effectiveness of giving coconut water and red ginger in the pregnant mother to drop in emesis gravidarum.

Methods : Quasi experimental with a pretest protest design with a two experimental design. The samples in this study were all pregnant women at TBPM Rahmayanti in October – December 2022 as many as 30 people, the sampling technique was total sampling.

Results : There is an effectiveness of giving coconut water and red ginger to pregnant women in reducing emesis gravidarum (p.value 0.000).

Conclusions and Suggestions : Coconut water and red ginger decoction are both effective in reducing emesis gravidarum. Midwives are expected to provide counseling to pregnant women, how to make red ginger stew and drink coconut water to reduce emesis gravidarum. Reading Lists: 36 readings (2015-2021).

Keywords: Emesis Gravidarum, Coconut Water, Red Ginger.

PRELIMINARY

The incidence of emesis gravidarum is at least 15% of all pregnant women (WHO, 2014). Emesis gravidarum occurs throughout the world with varying incidence rates, namely 1-3% of all pregnancies in Indonesia, 0.9% in Sweden, 0.5% in California, 1.9% in Turkey, and in the United States the prevalence of emesis gravidarum is as much as 0.5%-2% (Helper, 2008).

Nausea and vomiting (emesis gravidarum) is common in early pregnancy (Trimester I). Nausea and vomiting usually occurs in the morning, which is why it is also called morning sickness, but it does not rule out the possibility of occurring during the day and at night. Changes in the gastrointestinal tract and increased levels of Human Chorionic Gonadotropin (hCG) in the blood cause several complaints that make mothers feel uncomfortable during pregnancy, including nausea and vomiting. Emesis gravidarum causes a decrease in appetite so that there is a change in the balance of electrolytes with

potassium, calcium and sodium which causes changes in the body's metabolism. Emesis gravidarum can get worse into hyperemesis gravidarum which causes the mother to vomit continuously every time she drinks or eats, as a result the mother's body becomes weaker, pale,

Factors that influence the occurrence of emesis gravidarum are psychological, environmental, social, cultural and economic, psychological factors consist of stress, husband and family support. Psychological factors that result in stress play an important role, for example divorce, loss, work, fear of pregnancy and childbirth, fear of responsibility as a mother, can cause mental conflicts that can exacerbate nausea and vomiting as unconscious expressions of reluctance to become pregnant or as an escape difficulties in life (Prawirohardjo, 2010).

Emesis gravidarum can result in excessive gastric acid release so that the nausea and vomiting experienced will be too frequent and cause health problems that lead to the influence of the nutritional status of pregnant women (Winkjosastro, 2012). The nutritional status of pregnant women is very important for the health of the fetus and its womb, so that pregnant women with poor nutritional status can result in abnormal fetal development (Sulystiawati, 2008).

Treatment of nausea and vomiting in pregnancy depends on the severity of the symptoms. Treatment can be carried out by means of pharmacology and non-pharmacology. Pharmacological therapy is carried out by administering antiemetics, antihistamines, anticholinergics, and corticosteroids. Various antiemetic (anti-emetic) and natural drug options are available to reduce nausea and vomiting (Wylde et al., 2016). Several safe and effective pharmacological therapies are available for women who do not improve with initial treatment (Widowati, 2020).

However, it would be better if pregnant women were able to overcome the problem of nausea in early pregnancy by using non-pharmacological complementary therapies first. This is because non-pharmacological complementary therapies are non-instructive, non-invasive, inexpensive, simple, effective and without adverse side effects (Runiari, 2016). Mothers often seek professional help to reduce their nausea and vomiting symptoms, but treatment is not always successful. Certain complementary therapies (herbal treatments) are usually used, including ginger, chamomile, peppermint, echinacea, cranberries and raspberries are some of the herbs used for this purpose. In addition, non-pharmacological therapy is carried out, including by regulating diet, emotional support, acupuncture, aromatherapy, ginger drinks and coconut water (Widowati, 2020).

Red ginger contains zingiberol, zingiberene essential oil, kurkumen, bisabillene, flandrena, gingerol, vitamin A and bitter resin can block serotonin which is a neurotransmitter synthesized by serotonergic neurons found in the central nervous system and enterochromaffin cells in the digestive tract so that it can provide a sense of comfort in stomach which can overcome nausea and vomiting. Red ginger works well when dealing with morning sickness and nausea associated with pregnancy (Yanuaringsih et al., 2020).

Apart from red ginger, coconut water also has many benefits for pregnant women apart from preventing dehydration. The benefits of coconut water for pregnant women are very diverse. Coconut water is also known to be good for the health of the fetus. Coconut water contains various nutrients, such as carbohydrates, fiber, and protein. In addition, coconut water also contains minerals, namely magnesium, potassium, and

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calcium which turns out to be drinking coconut water can relieve symptoms of nausea and vomiting (Agustin, 2021).

Data obtained from TBPM Rahmayanti in the last three months the number of mothers was 30 and those who experienced nausea.

Based on a preliminary study conducted at TPMB Rahmayanti Agustini, out of 10 pregnant women who experienced nausea and vomiting, 6 pregnant women experienced mild nausea and vomiting, 3 mothers experienced moderate nausea and vomiting and 1 mother experienced severe nausea and vomiting based on the PUQE measurement scale. researchers are interested in conducting research with the title "Effectiveness of giving coconut water and red ginger to reducing emesis gravidarum at TPMB Rahmayanti Agustini in 2022".

RESEARCH METHODS

The research method uses Quasi experimental with the pretest protest design with the design of two experiments. Data collection was carried out using primary data, namely data obtained from observations. The data collection instrument used is observation sheet in the first trimester of pregnant women. The population in this study were all pregnant women at TBPM Rahmayanti in October - December 2022 with a total of 30 people, the sampling technique was total sampling. The analytical method used was univariate and bivariate analysis with paired simple t test.

RESEARCH RESULT

Table 1 Incidence of Nausea Vomiting Before and After Giving Coconut Water and Ginger at TPMB Rahmayanti Agustini in 2022

| Emesis Gravidarum | Coconut water | | | | Red ginger | | | |
|--------------------------|----------------------|-------------|-----------------|-------------|-------------------|-------------|-----------------|-------------|
| | Pre Test | | Posttest | | Pre Test | | Posttest | |
| | F | % | F | % | F | % | F | % |
| Yes | 15 | 100% | 1 | 6.7% | 15 | 34% | 2 | 13.3% |
| No | 0 | 0% | 14 | 93.3% | 0 | 53% | 13 | 86.7% |
| Total | 15 | 100% | 15 | 100% | 15 | 100% | 15 | 100% |

Based on table 1 it shows that the majority of pregnant women in the pre-test of the coconut water group experienced nausea and vomiting as many as 15 respondents (100%), after being given coconut water they experienced no nausea and vomiting as many as 14 respondents (93.9%) and those who still experienced nausea , vomiting as much as 1 respondent (6.7%),

In the pre-test of the Red Ginger Group, 15 respondents (100.0%) experienced nausea and vomiting, after being given red ginger, 13 respondents (86.7%) did not experience nausea and vomiting and 2 respondents still experienced nausea and vomiting (13.3%).

Table 2 Effectiveness of giving coconut water to pregnant women against emesis gravidarum at TPMB Rahmayanti Agustini, 2022

| Group | Nauseous Gag | Frequency | | Differenc e Means | stdd Deviation | <i>p</i> Values Deviation |
|---------------|-----------------|-----------|-------|-------------------------|-------------------|------------------------------|
| | | Post test | | | | |
| | | N | % | | | |
| Coconut water | Yes | 1 | 6.4% | ,9333 | ,000 | 0.000 |
| | No | 14 | 93.3% | | | |

*Paired Until T-Test**

Based on table 2 Pregnant women who were given coconut water did not experience nausea and vomiting as many as 14 respondents (93.3%), while pregnant women who were given nausea and vomiting and were given coconut water were 1 respondent (6.4%). The results of the Paired Sample T Test obtained a sig (2-tailed) value of 0.000 or <0.005, so it was concluded that there was effectiveness of coconut water in reducing significant emesis gravidarum in pregnant women who experience nausea and vomiting.

Table 3 The Effectiveness of Giving Red Ginger to pregnant women against emesis gravidarum at TPMB Rahmayanti Agustini, 2022

| Group | Nauseous Gag | Frequency | | Differenc e Means | stdd Deviation | <i>p</i> Values Deviation |
|------------|-----------------|-----------|------|-------------------------|-------------------|------------------------------|
| | | Post test | | | | |
| | | N | % | | | |
| Red ginger | Yes | 2 | 13,3 | ,8667 | ,000 | 0.000 |
| | No | 13 | 86.7 | | | |

*Paired Until T-Test**

Based on table 3 Pregnant women who were given red ginger did not experience nausea and vomiting as many as 13 respondents (86.7%), while pregnant women who were given nausea and vomiting and were given coconut water were 2 respondents (613.3%). The results of the Paired Sample T Test obtained a sig (2-tailed) value of 0.000 or <0.005, so it was concluded that red ginger was effective against significant emesis gravidarum in pregnant women who experience nausea and vomiting.

DISCUSSION

Incidence of Nausea Vomiting Before and After being given coconut water and red ginger at TPMB Rahmayanti Agustini, Based on table 5.1 it shows that the majority of pregnant women in the coconut water pre-test group who experienced nausea and vomiting as many as 15 respondents (100%), after being given coconut water experienced 14 respondents (93.9%) did not have nausea and vomiting and 1 respondent (6.7%) still experienced nausea and vomiting.

In the pre-test of the Red Ginger Group, 15 respondents (100.0%) experienced nausea and vomiting, after being given red ginger, 13 respondents (86.7%) did not experience nausea and vomiting and 2 respondents still experienced nausea and vomiting (13.3%). Based on the results of the research, the coconut water group experienced a decrease, while the red ginger group experienced a decrease.

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The results of this study are in accordance with the theory (Prawirohardjo, 2014), nausea and vomiting if not handled properly will continue to become hyperemesis gravidarum or excessive nausea and vomiting so that it can interfere with daily activities and the condition of pregnant women becomes worse, such as decreased electrolyte fluids in the body mother, resulting in hemoconcentration which can slow blood circulation, decreased appetite which affects fetal growth and development, nutritional disorders, dehydration, weakness, and weight loss

Nausea Vomiting is one of the discomforts during pregnancy caused by the production of pregnancy hormones, when the fertilized egg attaches to the uterine wall, the body will produce HCG. This causes nausea, so the feeling of nausea that appears is a sign that the body is producing the hormones it needs for pregnancy, besides that there is also an increase in the levels of the hormones estrogen and progesterone.

In line with Sefti Dwi Kayanti's research (2019) showed that there was a relationship between giving coconut water and red ginger in reducing nausea and vomiting with post-test values of no nausea and vomiting in 27 respondents (79.4%), mild 7 respondents (20.6%) in pregnant women Trimester I in the Work Area of the Moyo Hulu Public Health Center, Sumbawa Regency, West Nusa Tenggara in 2019.

According to the assumptions of the researchers, from the results of the study, most of them had been given coconut water and red ginger, there was a decrease in nausea and vomiting with emesis gravidarum in pregnant women because other factors that affect nausea and vomiting in pregnant women are psychosocial factors. The diagnosis of pregnancy is often confirmed by the result of a suspicion precipitated by nausea and vomiting, in the absence of another etiology

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The Effectiveness of Giving Coconut Water Against Nausea and Vomiting in Pregnant Women at TPMB Rahmayanti Agustini,

Based on table 5.2.1 Pregnant women who were given coconut water did not experience nausea and vomiting as many as 14 respondents (93.3%), while pregnant women who were given nausea and vomiting and were given coconut water were 1 respondent (6.4%). The results of the Paired Sample T Test obtained a sig (2-tailed) value of 0.000 or <0.005 , so it was concluded that there was effectiveness of coconut water in reducing significant emesis gravidarum in pregnant women who experience nausea and vomiting.

In line with theory(Princess, 2021),The benefits of coconut water for pregnant women can also be felt during the early period of pregnancy. Dehydration from morning sickness is common symptoms of pregnancy. However, because these drinks are high in calories, women who have a tendency to gain weight should be careful. Since it is also considered a diuretic, pregnant women may need to make more frequent visits to the restroom.

The results of the analysis test stated that coconut water had an effect on reducing the intensity of nausea and vomiting in first trimester pregnant women. The results of this study were in line with the results of this study which had not been carried out by previous researchers but according to Abdullah's research results (2021) said that giving coconut water was effective in reducing pain dysmenorrhea in young women. The statistical test results with Wilcoxon obtained a p value of $0.000 < 0.05$, so it was concluded that giving green coconut water was effective in reducing dysmenorrheal pain in young women. Research resultMundriyastutik (2020) also says thatthere was an effect of giving green coconut water as a natural therapy to reduce primary dysmenorrhea in young women ($p=0.000$).

According to the researchers' assumptions from the results of the study because of the high water and electrolyte content it is believed to be able to hydrate the body of pregnant women. This certainly can help preventdehydration during pregnancywhich can harm the mother and fetus. This benefit can especially be obtained afterpregnant women exerciseor when in hot weather. Not only does it prevent dehydration, the water and electrolyte content can relieve fatigue after the mother's activities by replenishing fluids lost due to sweating. It is also important, drinking coconut water can help reduce nausea and vomiting (morning sickness) in pregnant womenbody, one of which is gingerol which blocks serotonin. This compound causes the stomach to contract so that if it is blocked, the muscles of the digestive tract will relax and weaken so that the feeling of nausea decreases (Ningsih et al., 2020).

The Effectiveness of Giving Red Ginger Against Nausea Vomiting in Pregnant Women at TPMB Rahmayanti Agustini, 2022

Based on table 5.2.2 Pregnant women who were given red ginger did not experience nausea and vomiting as many as 13 respondents (86.7%), while pregnant women who were given nausea and vomiting and were given coconut water were 2 respondents (613.3%). The results of the Paired Sample T Test obtained a sig (2-tailed) value of 0.000 or <0.005 , so it was concluded that red ginger was effective against significant emesis gravidarum in pregnant women who experience nausea and vomiting.

In theory, ginger is an effective herb in reducing nausea and vomiting in first trimester pregnant women because it contains components that are useful for the body, one of which is gingerol which blocks serotonin. This compound causes the stomach to

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contract so that if it is blocked, the muscles of the digestive tract will relax and weaken so that the feeling of nausea decreases (Ningsih et al., 2020).

Ginger is considered a medicinal herb used for the treatment of nausea during pregnancy. The mechanism of action in reducing nausea and vomiting has been clinically tested for the effectiveness of ginger in reducing emesis gravidarum. The ginger plant has a long history as a medicinal ingredient and is used to relieve digestive problems such as nausea, loss of appetite, motion sickness, colds, and pain. -Ginger is also a strong aromatic stimulant, besides being able to control vomiting by increasing intestinal peristalsis. Several studies state that ginger has a beneficial effect on cancer prevention, nausea and vomiting during pregnancy, nausea and vomiting in chemotherapy patients and nausea and vomiting after surgery (Amelia and Isna, 2017).

The results of the analysis test stated that steeping ginger had an effect on reducing the intensity of nausea and vomiting in first trimester pregnant women. The results of this study were in line with the results of the study by Ningsih et al. (2020) where ginger infusion is effective in reducing the frequency of emesis in first trimester pregnant women. Then research conducted by Yanuariningsih et al. (2020) stated that there was an effect of steeping ginger on nausea and vomiting in first trimester pregnant women. Furthermore, in the research conducted by Sumarni et al. (2019) which showed that ginger was effective in reducing nausea and vomiting.

The author's analysis 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, so that ginger is effective in reducing nausea and vomiting.

CONCLUSION

The incidence of nausea and vomiting in pregnant women at TPMB Rahmayanti Agustini was obtained based on post-test data for the coconut water group which did not experience nausea and vomiting for 14 respondents (93.3%). Meanwhile, in the red ginger group who did not experience nausea and vomiting, there were 13 respondents (86.7%).

There is a significant effectiveness between consuming coconut water and red ginger on nausea and vomiting in pregnant women at TPMB Rahmayanti Agustini Sig (2-tailed) value of 0.000.

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