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Comparison of Giving Coconut Water and Honey to First Trimester Pregnant Women in Reducing Hyperemesis Gravidarum at Pratama Regency Medical Clinic in 2023

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ABSTRACT

The incidence of hyperemesis gravidarum in Indonesia reaches 14.8% of all pregnancies In West Java there are 56.60% of pregnant women out of 121,000 with hyperemesis gravidarum, and in Bekasi Regency there are 50.21% of pregnant women who experience hyperemesis gravidarum out of a total of 26,231 pregnant women (1). Hyperemesis gravidarum can be treated using pharmacological therapy and non-pharmacological therapy. Non-pharmacological treatment therapy that can reduce hyperemesis gravidarum is consuming coconut water and honey. To find out the comparison of giving coconut water and honey to pregnant women in the first trimester in reducing hyperemisis gravidarum. Method uses quasi experimental with a pretest protest design with two experimental design. The sample in this study was all 30 pregnant women in the first trimester at the Pratama Regency Medical Clinic in November 2023 - January 2024, the sampling technique was total sampling. There is a difference in giving coconut water and honey to pregnant women in the first trimester in reducing hyperemisis gravidarum (p.value 0.000). After the comparison between the groups given coconut water and honey, it was concluded that coconut water was more effective in reducing hyperemisis gravidarum than honey with a difference of 6.07 in the coconut water treatment and 1.50 in the honey treatment, which was 4.567.

INTRODUCTION

Hyperemesis gravidarum is a condition of severe nausea and vomiting which causes weight loss, dehydration and alkalosis due to the release of hydrochloric acid and hypokalemia in pregnant women (2). Excessive nausea and vomiting (hyperemesis gravidarum) is a disorder that is often found in pregnant women in the first trimester, as many as 50% of pregnancies affect the mother's health status and fetal growth and development (3).

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Hyperemesis gravidarum not only threatens the life of pregnant women such as heart problems, loss of consciousness, mental disorders, nigtamus and cyanosis, but can also cause side effects on the fetus such as abortion, low birth weight babies (LBW), premature birth, malforation in newborn babies. As well as increasing the incidence of stunted fetal growth (Intrauterine growth retardation/IUGR). Hyperemesis gravidarum is more likely to experience emotional distress, but disappears after 18 months of birth.

According to WHO (2015) the number of cases of hyperemesis gravidarum reaches 12.5% of all pregnancies in the world. The number of pregnancies in the world with varying incidence rates, starting from 0.3% in Sweden, 0.5% in California, 0.8% in Canada, 10.8% in China, 0.9% in Norway, 2.2 % in Pakistan, and 1.9% in Turkey [(4)]. Meanwhile, the incidence of hyperemesis gravidarum in Indonesia reaches 14.8% of all pregnancies [(5)]. In West Java there are 56.60% of pregnant women out of 121,000 with hyperemesis gravidarum, and in Bekasi Regency there are 50.21% of pregnant women who experience hyperemesis gravidarum out of a total of 26,231 pregnant women [(1)].

Hyperemesis gravidarum can be treated using pharmacological therapy, namely multivitamin supplements, antihistamine, dopamine antagonists, corticosteroids, vitamins B1 and B6. Meanwhile, non-pharmacological therapy includes diet management, emotional support, acupuncture, aromatherapy, honey drinks and coconut water [(6)].

Honey is very beneficial for pregnant women if consumed according to the dosage, namely 3 - 5 spoons or 180 - 200 calories per day. The benefits of honey for pregnant women include increasing energy, increasing appetite, strengthening the fetus, preventing disease, facilitating bowel movements, alleviating symptoms of nausea and vomiting, etc. The contents of honey that can relieve symptoms of nausea and vomiting in pregnant women include pyridoxine, thiamin, niacin, and minerals such as potassium, calcium, magnesium and sodium.

Apart from honey, 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 fetal health. Coconut water contains various nutrients, such as carbohydrates, fiber and protein. Apart from that, coconut water also contains minerals, namely magnesium, potassium and calcium, which turns out that drinking coconut water can relieve symptoms of nausea and vomiting [(7)]. Young coconut water can overcome nausea and vomiting in pregnant women, especially in the first trimester, if consumed in sufficient quantities, namely 1 - 2 glasses per day.

Based on a preliminary study conducted at the Pratama Regency Medical Clinic, of the 15 pregnant women who experienced nausea and vomiting, 5 pregnant women experienced mild nausea and vomiting, 5 mothers experienced moderate nausea and vomiting and 5 mothers experienced severe nausea and vomiting based on the PUQE measuring scale. Based on the results of this preliminary study, researchers are interested in conducting research with the title "Comparison of giving coconut water and honey to pregnant women in the first trimester in reducing hyperemisis gravidarum at the Pratama Regency Medical Clinic in 2023".

METHOD

The research method uses a quasi-experimental design with a pretest posttest design with two experiments. Data collection was carried out using primary data. The data collection instruments used were sheet (PUQE)-24 and observation sheet. The population in this study was all 30 pregnant women in the first trimester at the Pratama Regency Medical Clinic in November 2023–January 2024, the sampling technique was total sampling. The analytical method used is univariate and bivariate analysis with a paired simple T test.

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RESULT AND DISCUSSION

Table 1
Frequency distribution of the intensity of nausea and vomiting before and after being given coconut water at the Pratama Regency Medical Clinic in 2023

Intensity Nausea vomiting	Pre Test		Post Test	
	f	%	f	%
No Vomiting	0	0	2	13,3
Light	5	33,3	10	66,7
Currently	6	40%	3	20
Heavy	4	26,7	0	0
Total	15	100,0	15	100,0

Based on table 1 above, it can be seen that of the 15 respondents before consuming coconut water, 5 respondents experienced mild nausea and vomiting (33.3%), 6 respondents experienced moderate nausea and vomiting (40%), and 4 respondents experienced severe nausea and vomiting (26.7%). After consuming coconut water, 2 respondents (33%) experienced no nausea and vomiting, 10 respondents (66.7%) experienced mild nausea and vomiting and 3 respondents (20%) experienced nausea and vomiting.

Table 2
Frequency distribution of the intensity of nausea and vomiting before and after being given honey at the Pratama Regency Medical Clinic in 2023

Intensity Nausea vomiting	Pre Test		Post Test	
	f	%	f	%
No Vomiting	0	0	5	33,3
Light	5	33,3	5	33,3
Currently	6	40	5	33,3
Heavy	4	26,7	0	0
Total	15	100,0	15	100,0

Based on table 2 above, it can be seen that of the 15 respondents before consuming honey, 5 respondents experienced mild nausea and vomiting (33.3%), 6 respondents experienced moderate nausea and vomiting (40%), and 4 respondents experienced severe nausea and vomiting (26.7%) . After consuming honey, 5 respondents (33.3%) experienced no nausea and vomiting, 5 respondents (33.3%) experienced mild nausea and vomiting and 5 respondents (33.3%) experienced moderate nausea and vomiting.

Table 3
Average Intensity of Nausea and Vomiting in First Trimester Pregnant Women before and after being given Coconut Water at Pratama Regency Medical Clinic in 2023

Intensity Nausea Vomiting					
Intervention Coconut Water	N	Mean	Difference Mean	Min	Max
Pretest	15	2.93	86	2	4
Posttest	15	2.07		1	3

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Based on table 3 above, it can be seen that the average intensity of nausea and vomiting before being given coconut water was 2.93, and the average intensity of nausea and vomiting after being given coconut water was 2.07, so that the difference between the average values of nausea and vomiting intensity before and after being given coconut water was obtained. after being given to drink coconut water it was 86.

Table 4
Average Intensity of Nausea and Vomiting in First Trimester Pregnant Women before and after being given Honey at Pratama Regency Medical Clinic in 2023

Intensity Nausea Vomiting					
Intervention Honey	N	Mean	Difference Mean	Min	Max
Pretest	15	2.93	93	2	4
Posttest	15	2.00		1	3

Based on table 4 above, it can be seen that the average intensity of nausea and vomiting before being given the honey drink was 2.93, and the average intensity of nausea and vomiting after being given the honey drink was 2.00, so the difference in the average value of the intensity of nausea and vomiting before and after being given was obtained. drink honey for 93.

Table 5
Comparison of Giving Coconut Water and Honey to First Trimester Pregnant Women in Reducing Hyperemisis Gravidarum at Pratama Regency Medical Clinic in 2023.

	Variable	Mean	Selisih Mean	SD	SE	*P* value
Posttest	Air Kelapa	6.07	4.576	2.703	0.493	.000
	Honey	1.06		0.509	0.093	

Table 5 shows that the average decrease in intensity of nausea and vomiting was 6.07 after being given coconut water and the average intensity of nausea and vomiting after being given honey was 1.50. Where from both, the p-value is .000. From the results above, it shows that the p-value < alpha (0.05), so it can be concluded that there is a significant comparison in the average reduction in the intensity of nausea and vomiting with the administration of coconut water and honey, so coconut water is more effective in reducing the intensity of nausea compared to honey.

Average Intensity of Nausea and Vomiting in First Trimester Pregnant Women before and after being given Coconut Water at the Pratama Regency Medical Clinic in 2023.

Based on table 3 above, it can be seen that the average intensity of nausea and vomiting before being given coconut water was 2.93, and the average intensity of nausea and vomiting after being given coconut water was 2.07, so that the difference between the average values of nausea and vomiting intensity before and after being given coconut water was obtained. after being given to drink coconut water it was 86.

The results of the analysis test stated that the research results were in line with the results of this research, which had never been carried out by previous researchers, but according to the results of Umiatin & Herawati (2022), there was significant effectiveness between coconut water and boiled ginger in the incidence of nausea and vomiting in first trimester pregnant women at PMB Umiatin, Bekasi Regency. with a value (p=0.000) <0.005.

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Its high water and electrolyte content is believed to hydrate the body of pregnant women. This can certainly help prevent dehydration during pregnancy which can harm the mother's body and fetus. What is also important, drinking coconut water can help reduce nausea and vomiting in pregnant women. Meanwhile, nausea and vomiting is a complaint of pregnant women that often occurs in the first trimester or during early pregnancy. The ingredients in coconut water can replace electrolytes lost due to hyperemesis gravidarum. Conditions where nausea and vomiting make you tired, it is possible that coconut water electrolytes can help stabilize the system. Pregnant women with hyperemesis gravidarum, an extreme form of morning sickness, need additional electrolytes to make up for losses from excessive vomiting. Coconut water contains valuable electrolytes such as potassium, sodium and magnesium.

According to the assumptions from the results of this study, most of the respondents experienced moderate nausea and vomiting before being given coconut water. Nausea, vomiting is a complaint that often appears and can vary from mild nausea when waking up to continuous vomiting throughout the day. Continuous vomiting accompanied by prolonged lack of drinking can cause shock, and prolonged dehydration will certainly hinder the growth and development of the fetus. Adequate nutrition during pregnancy is very necessary for the health of the fetus and pregnant mother. The weight of the newborn and gestational age, especially in premature births, are at risk of causing the death of the newborn.

Average intensity of nausea and vomiting in first trimester pregnant women before and after being given honey at the Pratama Regency Medical Clinic in 2023.

Based on table 4 above, it can be seen that the average intensity of nausea and vomiting before being given the honey drink was 2.93, and the average intensity of nausea and vomiting after being given the honey drink was 2.00, so the difference in the average value of the intensity of nausea and vomiting before and after being given was obtained. drink honey for 93.

Honey is a food ingredient that has a sweet and thick taste, golden to dark brown in color with high sugar content and low fat (9).

Based on research by Putri et al. (2017), it shows that there is a difference after consuming ginger water and honey with a value of p = 0.000. This means that there is effectiveness of giving a decoction of ginger and honey against nausea and vomiting.

In the first trimester or weeks 1-13, mothers often feel nauseous. Honey can be consumed by pregnant women to reduce the nausea they feel.

Researchers assume that honey has been proven to be a nutritious spice for the body. The benefits of honey for pregnant women in the first trimester are that honey for pregnant women has the benefit of being a supplement to increase energy and endurance for pregnant women during pregnancy and just before the birth of the baby. Pregnant women must prepare more energy when carrying a baby. The strength of the womb in the first trimester will have an impact until the pregnant woman's delivery period arrives. The mother will be better prepared and stronger to undergo the birthing process. So it helps improve digestion and for pregnant women reduces nausea and helps strengthen the fetus.

Comparison of Giving Coconut Water and Honey to First Trimester Pregnant Women in Reducing Hyperemisis Gravidarum at Pratama Regency Medical Clinic in 2023.

Table 5 shows that the average reduction in intensity of nausea and vomiting was 6.07 after being given coconut water and the average intensity of nausea and vomiting after being given honey was 1.50. Where from both, the p-value is .000. From the results above, it shows that the p-value < alpha (0.05), so it can be concluded that there is a significant difference in the average reduction in the intensity of nausea and vomiting with the administration of coconut water and honey.

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From the data that has been obtained in the results of this research, pregnant women in the first trimester who were treated with coconut water and honey before and after treatment had a difference, namely in the coconut water treatment it was 6.07 and in the honey treatment it was 1.50 which was 4.567. From the results of the post test between coconut water and honey, we got a p-value of .000, which means there is a significant comparison in the average reduction in the intensity of nausea and vomiting with the administration of coconut water and honey, so coconut water is more effective in reducing the intensity of nausea compared to honey.

CONCLUSION

The average intensity of nausea and vomiting in first trimester pregnant women before giving coconut water was 2.93 and after giving coconut water was 2.07. The average intensity of nausea and vomiting in first trimester pregnant women before giving honey was 2.93 and after giving honey was 2.00. using the paired simple test, it can be seen that there is a difference between before and after the intensity of giving coconut water and honey for hyperemesis gravidarum in first trimester pregnant women with results (p-value 0.000). So it was concluded that there was a significant comparison in the average reduction in the intensity of nausea and vomiting by administering coconut water and honey, so coconut water was more effective in reducing the intensity of nausea compared to honey.

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