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Zalacca fruit consumption to reduce nausea and vomiting in trimester I pregnant women in Banjarnegara District

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ABSTRAK

***Latar Belakang** : Mual dan muntah terjadi pada 80 – 85% kehamilan selama triwulan pertama dengan gejala muntah yang mengganggu sebesar 52%. Cara mengatasi mual muntah secaranon farmokolgi dengan konsumsi buah segar yaitu salak. Dalam 100 mg buah salak memiliki kandungan B6 0,2 mg yang dapat mengurangi rasa mual.*

***Tujuan** : Tujuan penelitian ini untuk mengetahui buah salak dapat mengurangi mual dan muntah pada ibu hamil trimester 1.*

***Metode :** Metode penelitian yang digunakan adalah quasy eksperimental dengan rancangan pretest post test control group design.Variabel dalam penelitian ini adalah buah salak, mual dan muntah. Jumlah sampel 30 responden. Kelompok perlakuan mendapatkan intervensi buah salak 100 mg dan B6 3 x 10 mg per hari selama 10 hari sedangkan pada kelompok kontrol mendapatkan terapi anti mual yaitu B6 3 x 10 mg /hari selama 10 hari, sebelum dilakukan intervensi, kelompok kontrol dan kelompok perlakuan akan mendapatkan pre tes (pengkajian mual muntah) dan kemudian dilanjutkan pemberian intervensi selama 10 hari dan diakhiri dengan post tes (pengkajian mual muntah). Analisa data secara univariat, bivariat dengan uji Analisis Repeated Measure Anova(Test of Between-Subjects Effect).*

***Hasil** : penelitian menunjukan bahwa ada pengaruh konsumsi buah salak untuk mengurangi mual (p=0,000) dan muntah dengan nilai p=0,012.*

***Kesimpulan** : konsumsi salak 100mg dapat mengurangi mual dan muntah pada ibu hamil trimester 1.*

KATA KUNCI *: kehamilan; buah salak; mual; muntah; trimester 1*

ABSTRACT

***Introduction** : Nausea and vomiting occur in 80-85% of pregnancies during the first trimester with annoying vomiting symptoms in 52%. The way to deal with nausea and vomiting is pharmacochemical by consuming fresh fruit, namely zalacca. In 100 mg of zalacca fruit contains B6 0.2 mg which can reduce nausea.*

***Objectives** : To find out that zalacca fruit can reduce nausea and vomiting in pregnant women in the 1st trimester.*

***Methods** : The research used was a quasy experimental design with a pretest posttest control group design. The variables in this study were zalacca fruit, nausea and vomiting. The number of samples is 30 respondents. The treatment group received 100 mg of zalacca fruit and B6 3 x 10 mg per day for 10 days while the control group received anti-nausea therapy, namely B6 3 x 10 mg / day for 10 days, before the intervention, the control group and the treatment group would get pre-test (assessment of nausea and vomiting) and then continued with the intervention for 10 days and ended with a post test (assessment of nausea and vomiting). Data analysis was univariate, bivariate using the Repeated Measure Anova (Test of Between-Subjects Effect) test.*

Result : *Showed that there was an effect of consuming zalacca fruit to reduce nausea (p = 0.000) and vomiting with a value of p = 0.012.*
Conclusion : *Consumption of 100mg zalacca can reduce nausea and vomiting in 1st trimester pregnant women.*

KEYWORD: *pregnant; zalacca fruit; nausea; vomiting; trimester 1*

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INTRODUCTION

Pregnancy is a natural process for a woman. However, most pregnant women experience discomfort caused by nausea and vomiting. Nausea (nausea) and vomiting (emesisgravidarum) are common symptoms and often occur in the 1st trimester of pregnancy (1). Although nausea and vomiting in pregnancy do not threaten the safety of the mother's life, it can disturb the mother's discomfort and have a detrimental impact on women's family, social and professional life (2). Nausea usually occurs in the morning, but can also occur at any time of the night. These symptoms occur approximately 6 weeks from the first day of the last menstrual period and last for approximately 10 weeks of pregnancy (2).

Physiologically, nausea occurs due to increased levels of estrogen in the blood that affect the digestive system. Nausea and vomiting that occur continuously can lead to dehydration, hyponatremia, whipochloremia, and decreased urine chloride. Hypokalemia can result from vomiting and excessive excretion, further increasing the frequency of vomiting and damaging the liver. The mucous membranes of the stomach and esophagus can be damaged, so that gastrointestinal bleeding can occur(3). Some pregnant women will try to resolve the symptoms of nausea and vomiting on their own. The habit of pregnant women dealing with nausea and vomiting on their own, sometimes they realize it or not, can endanger the health of the mother and the fetus (4). How to deal with nausea and vomiting pharmacologically by giving vitamin B6 and for non-pharmacology by drinking ginger water, lemon aromatherapy or consuming fresh fruit (5) (6). Fresh fruit that can be consumed is *zalacca*fruit. Selection of zalacca fruit to reduce nausea and vomiting because it contains B6, the fruit is easy to eat, has a thick fleshy texture, has a sweet taste and most importantly does not stimulate the mother to vomit. In addition, zalaca fruit has high antioxidants which are necessary for pregnant women (7). Overall antioxidants are important for fetal development, increase endurance during pregnancy, and are able to prevent infection during pregnancy (8). In 100 mg of *zalacca* fruit contains 0.2 mg of B6, flavonoids and antioxidants(7)(9)(10). In previous studies to reduce nausea and vomiting, consuming grapefruit juice and ginger stew. The results show that ginger stew is more effective than the consumption of grapefruit juice, but there are pregnant women who are lazy to drink ginger stew because they are lazy to make it and don't like the spicy taste, so they want to replace or look for fresh fruit and consume immediately without having to make it first (11). This study aims to determine the effect of consumption of *zalacca* fruit to reduce nausea and vomiting in first trimester pregnant women.

MATERIALS AND METHODS

This type of research used quasy experimental with pretest posttest control group design. In this study, it was divided into 2 groups, namely the control group and the treatment group. The treatment group received 100 mg of *zalacca*fruit and B6 3 x 10 mg per day while the control group received anti-nausea therapy, namely B6 3 x 10 mg/ day. Before the intervention, the control group and the treatment group will get a pre test and then continue with the intervention for 10 days and end with a post test for the measurement of nausea and vomiting variables every day, namely day 2 to day 11. The population is all trimester 1 pregnant women who experienced nausea and vomiting at Puskemas Banjarnegara 1, Puskemas Banjarnegara 2 and Puskemas Klampok 1. When it was carried out in September 2020. The sampling technique was consecutive sampling method, a large sample of 30 pregnant women with nausea and vomiting were divided into 2 groups each of 15 respondents. The dependent variable in this study was nausea and vomiting, while the independent variable was *zalacca*fruit. Analyze data with *Analisis Repeated Measure Anova* (*Test of Between-SubjectsEffect*)

RESULTS AND DISCUSSIONS

Nausea

a. Flat Mean

Based on Figure 1 on day 1 to day 11 for the intervention group and the control group, the average value has decreased. For the intervention group, the average reduction in nausea was more than the control group

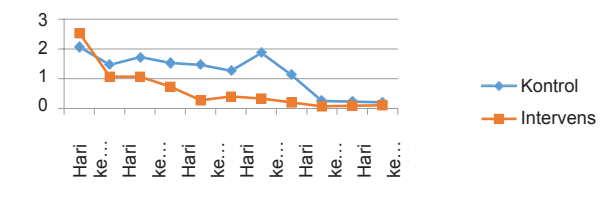

Figure 1. Graph of Average Nausea in the Control and Intervention Groups

b. Differences in the first trimester of pregnancy nausea in Controland Intervention Groups

Based on the Table 1 above shows that the p value <0.05, which means there is a difference in nausea of pregnant women in the first trimester in the intervention and control groups *p = 0,000.* Nausea in the first trimester of pregnant women on day 1 to day 11 for the intervention group and the control group experienced a decrease on average

Table 1. Analisis *repeated measure anova (test of between-subjects effect)*

Source	Type III Sum of Squares	Df	Mean Square	F	P value
Nausea	384,048	1	384,048	105,967	0,000

Vomiting

a. Flat Mean

Groups Based on Figure 2 on day 1 to day 11, pregnant women who vomited for the intervention group and the control group experienced a decrease in mean values. For the intervention group, the average decrease in vomiting was more than the control group

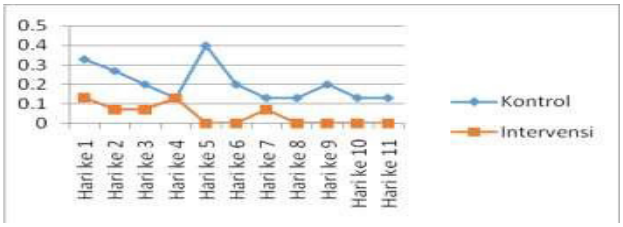

Figure 2. Graph of Average Vomiting in the Control and Intervention

b. Differences in the first trimester of pregnancy Vomiting in Control and Intervention Groups

Based on the Table 2 above, it shows that the p value <0.05, which means that there is a difference in vomiting of pregnant women in the first trimester in the intervention and control groups with a value of *p = 0.012.*

Table 2. Analisis *repeated measure anova (test of between-subjects effect)*

Source	Type IIISum of Squares	Df	Mean Square	F	P value
Vomiting	5,094	1	5,094	7,153	0,012

DISCUSSION

Nausea

Nausea in the first trimester of pregnant women on day 1 to day 11 for the intervention group and the control group experienced a decrease on average. For the intervention group, the average reduction in nausea was more than the intervention group. Based on the results of the Repeated Measure Anova (Test of Between-Subjects Effect) statistical test with a value of P = 0.000, which means that there is a significant difference between the intervention group and the control group. This is because in 100 mg of *zalacca* fruit contains B6 0.2 mg which can reduce nausea (7). In addition, based on research conducted by Setyaningrum, et al extract of *zalacca* fruit flesh has high antioxidant activity (9). Antioxidants are one of the nutrients that can reduce nausea. The content of B6 and antioxidants in salak fruit in this study made pregnant women experience a decrease in nausea more than pregnant women who did not consume *zalacca* (12). Apart from antioxidants, Zalacca fruit also contains flavonoids which are useful for increasing bile production and neutralizing digestive juices which can reduce nausea (13).

Vomiting

Based on research, vomiting in pregnant women decreased from day 1 to day 11 for both the control group and the intervention group. The results of the Repeated Measure Anova (Test of Between-Subjects Effect) statistical test with a value of *P = 0.012* showed that there was a significant difference between the control and intervention groups. *Zalacca* contains B6 which can reduce nausea and salak fruit is easier to consume because it has a thick texture and sweet taste so it doesn't stimulate vomiting (7). *Zalacca* also contains flavonoids which can increase bile production, and neutralize acids that can reduce nausea and vomiting can be reduced and will disappear (9)(12). This is in accordance with research conducted by Fatma el.al, which shows that fruit containing flavonoids given to nauseous and vomiting pregnant women can reduce nausea and vomiting(14).

CONCLUSION AND RECOMMENDATION

There is an effect of consumption of *zalacca* fruit to reduce nausea (p = 0.000) and vomiting with a value of p = 0.012. Consumption of 100mg *zalacca* can reduce nausea and vomiting in pregnant women in the 1st trimester. Suggestions for pregnant women if they experience nausea and vomiting are to consume Zalacca

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