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Overcoming Emesis Gravidarum By Consuming Ginger (Zingiber Officinale Var. Rubrum)

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Abstract

Objectives: Determine the effect of ginger for women with Emesis Gravidarum.

Methodology: This research was quasi-experimental, with the design used being one group pretest-posttest. The sample in this study was the first-trimester pregnant women consisting of 34 women who were selected by the total sampling technique. Emesis gravidarum measurement used was the PUQE-24 instrument. Univariate and bivariate data analyses w performed with Paired T-Test.

Results: The average emesis score before the intervention of ginger is 10.74, and most are in the category of moderate nausea and vomiting, 76.5%. The average emesis score after a ginger intervention is 6.88, and most are in the variety of mild nausea and vomiting, 52.9%. There is an effect of giving ginger to women with emesis gravidarum.

Conclusions and Recommendations: Ginger is effective in reducing emesis of the gravidarum. It is expected that health workers can provide information to pregnant women who experience nausea and vomiting that consume ginger at the correct dose and the right way to reduce nausea and vomiting.

Keywords: Emesis Gravidarum; Ginger (Zingiber Officinale Var Rubrum)

Introduction

Emesis gravidarum is experienced by most pregnant women, both primigravida and multigravida. Emesis Gravidarum occurs in 60-80% primigravidas and 40-60% multigravidas. Most primigravidas are not adapted to estrogen and chorionic gonadotropin hormones, so emesis of gravidarum is more common. Whereas the multigravidas have adjusted to hormonal changes, they already have experience with pregnancy and childbirth.[1]

In a minority of pregnancies (0.2% -5%), persistent and excessive nausea and vomiting resulting in dehydration, electrolyte imbalance, and weight loss (called Hyperemesis gravidarum) can be the leading cause of hospital admission during the first half. Pregnancy.[2] Evidently, this often debilitating condition can significantly impact a woman's quality of life, both personally and

professionally, and cause emotional trauma. The exact cause of nausea and vomiting is unclear and may depend on several factors.[3]

Many herbs can be used to treat emesis gravidarum, such as citrus lemon and ginger. Giving lemon aromatherapy can reduce emesis of gravidarum.[4] Ginger is an ancient herb used widely in history because of its many natural medicinal properties and antiemetics. The best available evidence shows that ginger is an effective and inexpensive treatment for nausea and vomiting and is safe.[5] The world claims that ginger extract helps treat digestive ailments because ginger is aromatic, can stimulate farting, and warm the body. Gingerols and volatile compounds cause the spicy taste and aroma of ginger.[6] In 2012, the European Medicines Agency published an assessment report from the herbs medicinal products committee that explained the use of ginger to prevent nausea and vomiting. Plausible clinical evidence exists for the beneficial effects of the powdered dried rhizome of ginger in several conditions associated with nausea and vomiting. [7]

According to research, after 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 are in the mild emesis category, 80% of the first-trimester pregnant women who experience nausea and vomiting. Meanwhile, the average frequency of nausea and vomiting after giving ginger is 6.85. The results show a decrease in the intermediate frequency of nausea and vomiting after being provided ginger tea by 2.45.[8] Other studies have also stated that there is the effectiveness of ginger tea in reducing emesis gravidarum in the first trimester.[9]

Based on the data obtained from Bunda Medika Clinic, during September-November 2019 showed 147 pregnant women and 53 (36%) were in the first trimester. Out of this number, 34 (64.15%) experienced nausea in pregnancy. These data show that the incidence of emesis of gravidarum in the first trimester is relatively high, and this disorder causes discomfort during pregnancy. Based on this, researchers are interested in researching the benefits of ginger herb to deal with complaints of nausea and vomiting because generally, people still use anti-nausea drugs to reduce nausea and vomiting.

Method

Research design

This research used Quasi-Experimental with One Group Pretest-Posttest Design.

Population and Sample

The population in this study was all of the first-trimester pregnant women who experienced symptoms of nausea and vomiting. The number of samples in this study was 34 respondents selected using the total sampling technique.

Research location

The research was conducted at Bunda Medika Clinic, Bojongsari, Depok, West Java.

Data collaction technique

Data collection was carried out using the Pregnancy-Unique Quantification of Emesis and Nausea (PUQE) sheet.

Research materials

The ingredients used in this study were 2.5 grams of Ginger (Zingiber officinale var. Rubrum), sliced and brewed with 250 ml of warm water plus 10 grams of sugar, taken 2x1 per day for four days.

Data analysis technique

The normality test in this study was carried out by looking at the skewness and kurtosis values where the results were normally distributed so that the statistical test used was the Paired T-test.

Results and discussion

Results

Table 1. The Characteristics of Research Respondents

Respondent Characteristics	Frequency	Percentage
Age		
<20 years	7	21
20 - 35 years	26	76
> 35 years	1	3
Education		
Junior High	8	23.5
High school	21	61.8
D3	2	5,9
SI	3	8.8
Profession		
Housewife	24	70.6
Private employee	5	14.7
Civil Servant	2	5,9
Entrepreneur	3	8.8
Parity		
Primiparous	20	58.9
Multiparous	14	41.1

Based on table 1, it is known that of the 34 respondents, the majority are in the age range of 20-35 years with 26 (76%), high school graduates with 21 (61.8%), housewives with 24 (70.6%), and in the primiparous condition with 20 (58.9%).

Table 2. The Effect of Ginger (Zingiber Officinale var. Rubrum) on Pregnant Women with Emesis Gravidarum

Variable	Pre-test		Post-test		t-count	p-value
	M	SD	M	SD		

Giving Ginger	10.74	1.88	6.68	1.77	15.62	0.000

Based on table 2, the analysis results with the average emesis score before the intervention is 10.74 and after the intervention is 6.68. The T-test results show a p-value of (0.000). Thus H_0 is rejected, which means there is a difference in the emesis score before and after the intervention (giving ginger), so it can be concluded that Ginger (Zingiber officinale var Rubrum) on Pregnant Women with Emesis Gravidarum at Bunda Medika Clinic.

Discussion

Respondent Characteristics

Age

In this study, age in the high and low-risk categories experienced emesis of gravidarum. It could happen because the age factor of pregnant women is also related to the mother's psychological characteristics. Psychological factors that influence pregnancy can come from within the pregnant women (internal) and can also come from external aspects of the pregnant women. Psychological factors that influence pregnancy and come from within the mother can form pregnant women's personality background and hormonal changes.

According to Syarifah's research (2012), it is shown that there is a significant correlation between the age of pregnant women and the incidence of hyperemesis gravidarum.[10]

Education

Education is needed to obtain information such as things that support health to improve the quality of life. Education can influence a person, including their behavior towards the lifestyle that motivates them to participate in healthy change: the lower their education, the less the desire to take advantage of health services. Conversely, the more educated a person is, the easier it is to receive information and utilize existing health services. Education is a predisposing factor in individuals, such as knowledge, attitudes, experiences towards health, and level of education. For example, healthy behavior (health checks for pregnant women) requires knowledge of the benefits of pregnancy checks, both for the mothers' health and their fetus.[11]

It is known that the causes of emesis of gravidarum are multifactorial. In this study, the education of pregnant women who experience emesis of gravidarum varies. This suggests that emesis of gravidarum can occur in pregnant women with any educational background. Many other risk factors can cause emesis of gravidarum, such as gonadotropic hormone levels, age of pregnant women, knowledge, attitudes, experiences of pregnant women, support from husbands, and so on.

Profession

In this study, pregnant women who do not work (IRT) also experienced emesis of gravidarum. This suggests that emesis of gravidarum can occur in any pregnant woman, whether working or not. It is known that the causes of emesis of gravidarum are multifactorial, one of which is hormones. Pregnancy can cause hormonal changes in women because there is an increase in estrogen, progesterone, and the release of the hormone chorionic gonadotropin gravidarum.

Parity

The incidence of emesis gravidarum is experienced by most pregnant women, both primigravida and multigravida. Emesis gravidarum occurs in 60-80% of primigravidas and 40-60% of multigravidas. Emesis of gravidarum is more common. Most primigravidas have not adapted to estrogen and chorionic gonadotropins, so. Meanwhile, some multigravidas may adjust to hormonal changes because they already have experience with pregnancy and childbirth. That is evidenced by other studies showing a significant correlation between gravida status and the incidence of emesis gravidarum. [1]

Gravida status factors influence the incidence of emesis gravidarum. In primigravida mothers, psychological factors play an essential role in this disease. Fear of responsibility as a mother can cause mental conflicts that aggravate nausea and vomiting as an unconscious expression of reluctance to become pregnant.

Effect of Ginger on Emesis Gravidarum

Pregnancy has two common causes nausea and vomiting. Nausea and vomiting affect up to 80% of women during their first trimester of pregnancy, ranging from morning sickness to hyperemesis gravidarum (HG).[2,3] National Institute for Health and Clinical Excellence has recognized ginger to remedy nausea and vomiting during early pregnancy. [12]

In this study, some pregnant women experienced emesis of gravidarum but did not use drugs because experiencing nausea and vomiting in the first trimester of pregnancy is considered a consequence of early pregnancy.

Based on the analysis results in this study, it is known that the average emesis score before the intervention is 10.74 and after the intervention is 6.68. Dependent T-test results obtained a p-value of (0.000) which is < (0.05) thus, H_0 is rejected, which means there is an effect of Ginger (Zingiber Officinale var. Rubrum) on pregnant women with emesis Gravidarum

These results are in line with other studies that is a significant difference in the frequency of emesis gravidarum before and after being given 2.5 grams of ginger, sliced and brewed with 250 ml of warm water and added with 10 grams (one teaspoon) of sugar, which is drinking two times a day for four days.[13] Likewise, the research results of Carolin (2019) show that there is a significant difference in the degree of nausea of pregnant women before and after being given ginger oil aromatherapy in the experimental group.[14]

The gingerol compound causes a decrease in the frequency of nausea and vomiting after giving ginger, which blocks serotonin (a chemical that induces nausea and vomiting). An increase in progesterone causes decreased smooth muscle tone motility and esophageal regurgitation. Increase in gastric emptying time, and reverse peristalsis. So here, ginger plays a role by stimulating the motility of the gastrointestinal tract and stimulating the secretion of saliva bile in other forms. After ginger promotes tract motility and secretes saliva bile in different forms, ginger relaxes and weakens the digestive tract muscles having ginger in the stomach with gingerol content in it.[6]

Researchers argue that ginger drinks can reduce the frequency of emesis gravidarum in

pregnant women as evidenced by the results of research in the field with the results of all respondents experiencing a decrease in emesis gravidarum frequency after four days of being given 2.5 grams of white ginger, sliced and brewed with 250 ml of warm water plus 10 grams (1

tablespoon) of sugar. They have taken 2x1. Respondents said that they felt warm after drinking the ginger tea (stew). Adding sugar in this drink is intended to give a sweet taste to ginger water and reduce dehydration in pregnant women due to emesis of gravidarum.

Conclusion

Results of the research on the effect of Ginger (Zingiber officinale var. Rubrum) given to pregnant women with Emesis Gravidarum at Bunda Medika Clinic, Bojongsari, Depok. The mean result of the emesis before the ginger intervention is 10.74. The mean result after the ginger intervention is 6.88.

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