

Literature Review: Herbs to Prevent Nausea and Vomiting in Pregnant Women

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ABSTRACT

Introduction: Nausea and vomiting are experienced by pregnant women during early pregnancy and are often caused by hormonal changes due to an increase in the hormones estrogen, progesterone, and the release of human chorionic acid. Most pregnant women 70- 80% experience morning sickness and as many as 1-2% of all pregnant women experience it morning sickness which extreme. Ginger's pharmacological function is antiemetic, acting as an anti-vomiting agent. **Objective:** The purpose of this research is to review the literature, articles, and results documents of research on current activity interventions related to the effectiveness of giving herbal plants to reduce nausea and vomiting in pregnant women. **Method:** The method used in writing this article is a review of the results of a study that related to complementary therapies to reduce nausea and vomiting during pregnancy. The type of data used is secondary data. Sources of data in this literature review study were obtained by tracing scientific research articles from 2017 to 2022 using a data base such as Google Scholar, MyJM, and Science Direct, which included as many as five articles. **Result:** Initial treatment for nausea and vomiting should be conservative and accompanied by changes in diet, emotional support, and alternative therapies such as herbs. Ginger therapy can provide a more significant reduction in nausea and vomiting compared to leaf therapy, mint therapy, and kaffir lime therapy. In addition, ginger therapy, done together with hands-on massage or with vitamin B6 therapy, has a significant effect on overcoming nausea and vomiting during pregnancy. **Conclusion:** There is a significant effect of giving ginger therapy to reduce nausea and vomiting in the first trimester of pregnancy. Ginger therapy and the administration of vitamin B6 or hand massage can be an alternative therapy to help overcome nausea and vomiting in pregnant women.

Keywords: ginger, herbs, nausea and vomiting

Introduction

Women experience physiological changes during pregnancy that occur starting from conception to delivery with a gestation period between 38-40 weeks or 226-280 days (Ahmadi, 2019). Changes during pregnancy in the mother are in the form of changes in the physical and psychological aspects. During pregnancy, there are considerable metabolic changes that are associated with hormonal changes. These changes are caused by the needs of the fetus, the supply of nutrients to the mother, and the mother's lifestyle behavior before and during pregnancy (Anggraeny & Ariestiningsih, 2017). Fetal growth and hormonal changes during pregnancy often cause discomfort for the mother. One of the common problems felt by pregnant women is nausea and vomiting (Novieastari, Ibrahim, Deswani, & Ramdaniati, 2019).

According to the American College of Obstetricians and Gynecologists (ACOG), in general, nausea and vomiting are experienced by pregnant women during early pregnancy and are often referred to as morning sickness. Although it is often called morning sickness, this condition does not only occur in the morning but can occur at any time (ACOG, 2020). The occurrence of nausea and vomiting as a symptom of emesis gravidarum is caused by hormonal changes due to an increase in the hormones estrogen, progesterone, and the release of human chorionic acid (Pulungan et al., 2020).

In America, the prevalence of nausea and vomiting in each trimester is different. In the 1st trimester, the prevalence of nausea was 63.5%, 33.8% in the 2nd trimester, and 26.2% in the 3rd trimester. While the prevalence of vomiting in each trimester was 29.3%, 22.1%, and 14.1% (Coronado, Fasero, Álvarez-Sánchez, & Rey, 2014). The East Java Provincial Health Office in 2016 stated that there was an incidence of emesis gravidarum in East Java Province of 10-15% of the number of pregnant women in 2016, namely 183,645 (Mudlikah & Ningrum, 2019). The number of maternal deaths collected from family health program records at the Ministry of Health increases every year. In 2021 there were 7,389 deaths in Indonesia (Kemenkes RI, 2022). The number of maternal deaths in West Java Province was 1206 cases or 147.43 per 100,000 KH (Dinas Kesehatan Provinsi Jawa Barat, 2022).

Herbal plants are easy to get and can be used such as ginger, leaves peppermint, lemon, etc (Afriyanti, 2017). Nausea and vomiting during pregnancy can be caused by high fluctuating levels of Human Chorionic Gondotrophin (HCG) so that when given herbal medicine it can relieve the frequency of nausea and vomiting due to drug the herbs has anti-nausea properties and make relax (Somoyani, 2018). Nausea and vomiting are common discomforts experienced by women pregnant. These symptoms more or less occur after 6 weeks from the first day of menstruation last and lasted for about 10 weeks. Most pregnant women 70- 80% experience morning sickness and as many as 1-2% of all pregnant women experience it morning sickness which extreme (Cholifah & Nuriyanah, 2018).

Nauseous vomit, which happens during pregnancy, is caused by the enhancement rate hormones estrogen and progesterone, which are produced by human chorionic gonadotropins (HCG) in the serum from the placenta. Emesis gravidarum causes a decrease in appetite for food, so there is a change in electrolyte balance with potassium, calcium, and sodium, which cause changes in metabolism in the body. Emesis gravidarum later it will gain weight to become hyperemesis gravidarum which causes Mother Pregnant vomiting continuously every time you drink or eat, the result is a pregnant woman's body getting weaker, paler, and the frequency of urination has decreased dramatically, resulting in fluid the body is reduced and the blood becomes thick (hemoconcentration) so it slows down

circulation blood that is oxygen and network so that can raises damage network which can endanger health Mother and development fetus which it contains (Afriyanti, 2017).

Trimesters the first pregnancy is a critical period because the fetus is in the process of developing its organs and body. If a fetus experiences a lack of nutrition, certain organ formations can fail. Besides the fetus's risk of being born with low birth weight, Reduced fluid in the body can affect fetal development. Nausea and vomiting can cause it to droplust. Consume foods that will have an effect on the development of the fetus. Overcome nauseous Vomiting during pregnancy can be treated using both pharmacological and non-pharmacological methods. Please use pharmacology to overcome nausea and vomiting during pregnancy. Wrong only one is pyridoxine (vitamin B6), which causes nausea and vomiting in pregnancy. Action, non-pharmacology Which normal is suggested by power health, such as advising pregnant women to consume ginger in the form of ginger tea, relaxation techniques, and aromatherapy.

Nausea experienced during pregnancy can be overcome by using complementary therapy with easily available ingredients such as ginger, peppermint leaves, and lemons. Ginger's pharmacological function is antiemetic, acting as an anti-vomiting agent. Ginger, an aromatic stimulant containing zingiberene essential oil (zingirona), zingiberol, bisabillene, kurkumen, gingerol, flandrene, vitamin A, and resin bitter, can block serotonin, which is something neurotransmitters synthesized on serotonergic neurons present in the central nervous system and enterochromaffin cells in the digestive tract, so that it can provide a sense of comfort in the stomach and overcome nausea and vomiting (Fitria, 2018). It is hoped that later, overcoming nausea and vomiting in pregnant women can be done easily because of the easy ingredients obtained.

Objective

Based on the researcher's background, he was interested in studying literature, articles, and document results about the latest intervention activity related to the effectiveness of gift plant herbs in reducing nausea and vomiting in pregnant mothers.

Method

The method used in writing this article is a review of the results results study Which related with therapy complementary in reduce or reduce nausea and vomiting during pregnancy. Literature review or literature review is research that critically examines or reviews knowledge, ideas, or findings contained in the body of academic-oriented literature (academic- oriented literature). The method used in writing this article is review (reviews).

This is done because researchers cannot conduct research directly due to the ongoing corona virus (covid-19) pandemic. Which data typeused is data secondary. Source data in literature research this review obtained through searching scientific research articles from 2017 to 2022 using the google scholar database, MYJM and science direct as much 5 article.

Method analysis Which used ie use analysis content journal documentThis study uses online research journals obtained through search sites journal Trusted with criteria inclusion as following:

- a. Journals study on line about gift therapy complementary inreduce or lower nausea vomiting at times pregnancy.
- b. Journal study on line which used is at in prone to time period 5 yearfinal.
- c. Journals study on line which classy national and international.

- d. There is number ISSN (*International standard Serial number*) good in version printas well as electronics.
- e. There is DOI (*Digital Object Identifiers*) in journal study.
- f. Journals study obtained through site search journal which trusted that isMYJM and science direct.

Result

5 studies which analyzed in literature reviews this form gift therapy complementary in reducing or lower nauseous vomit on mother pregnant.

Table 1. Analysis of Literature Review Result

	Author	Title	Population	Method	Result
1	(Indrayani, Burhan, & Widiyanti, 2018)	The Effect of Ginger Wedang on Nausea and Vomiting Frequency in First-Trimester Pregnant Women in North Bengkulu.	10 Mothers in their first trimester who have emesis gravidarum.	One group pretest-posttest design.	Research results show average mother's nausea and vomiting frequency during pregnancies in the first trimester when given wedang ginger at 9.30. While the average frequency of nausea and vomiting in first-trimester pregnant women after being given wedang ginger is 4.50, The bivariate analysis results show that there is a 4.80 difference in the average frequency of nauseous vomiting before and after wedang intervention ginger, with a p value of 0.000.
2	(Nurlaela Sari & Anri, 2021)	Hand Massage Therapy and Herbal Drinks Ginger Honey for Pregnant Women with Nausea Vomiting.	The sample is divided into two groups: group control (30 pregnant mothers) and group treatment (30 pregnant mothers).	Quasi experiment with pretest-posttest design, which was done over 3 months.	There is a significant influence between which in give therapy hand massage and consumption drink herbs with which no given treatment of discomfort nausea vomiting on pregnant mother.
3	(Munawwarah & Yahya, 2022)	The Effect of Giving Kaffir Lime Therapy and Boiling Ginger Water on the Frequency of Nausea and Vomiting in Pregnant	Pregnant Mother which there are at the health center Dahlia Makassar, that is as many as 30 people.	Design two group pretest-posttest design study experiment.	Research results show that flat-flat frequency nauseous vomiting occurs 4.27 times. Meanwhile, after being given kaffir lime, the average frequency of nausea and vomiting was 2.33 times. The average frequency of

	Women Experiencing Hyperemesis Gravidarum in 2022.			nauseous vomiting before giving stew water and ginger was 4.67 times. Whereas once given stew ginger water, average frequency of nauseous vomiting was 1.93 times. According to the findings of this study, gift therapy with ginger is more effective against nausea and vomiting in pregnant women than gift therapy with orange.	
4	(Khasanah & Margiyati, 2017)	Comparison of The Effectiveness of Ginger Decil and Vitamin B6 on Nausea and Vomiting in Pregnant Women in The First Trimester.	Pregnant mother trimester 1, which experiences nauseous vomiting (emesis gravidarum) in Clinic Wikaden Imogiri Bantul, a total of 15 people with treatments using vitamins B6 and 15 people by using stewed ginger and done during 7 days.	Quasi experiment by approaching pretest-posttest with two experiments.	There is no difference in effectiveness between drinking ginger and taking vitamin B6 for reducing nausea and vomiting in first-trimester pregnant women. Both are effective in reducing nausea in first-trimester pregnant women.
5	(Sumarni, Rosita, & Musdalifah, 2019)	The Effectiveness of Giving Ginger and Mint Leaf Boiled Water Against the Intensity of Nausea and Vomiting in First Trimester Pregnant Women at the Dahlian Health	Pregnant mothers in trimester 1, who experience nausea and vomiting (emesis gravidarum), at the Dahlia Makassar Health Center, as many as 30 mothers.	Quantitative research, the design of this study was a quasi-experimental with two groups (one group Giving ginger-infused water, one group giving mint leaves) pretest	The research results show that from the results Analysis of independent test samples T-test administration of ginger water is more effective than Giving mint leaves to reduce nausea and vomiting in first trimester pregnant women, where the value of p0.000 is smaller than the value of a, which is 0.05.

Discussion

In the 5 studies analyzed, the interventions provided in the research on preventing nausea and vomiting in pregnant women used various methods, including the pre- and post-test groups with ginger therapy interventions (2 articles) and a comparison of two treatment interventions (3 articles).

Intervention Therapy Ginger

Initial therapy for nausea and vomiting should be conservative with changes in diet, emotional support, and alternative therapies such as herbs. Ginger brew can be an alternative to overcoming nausea and vomiting in pregnant women. Ginger can prevent nausea and vomiting because it is able to block serotonin, a chemical compound that can cause the stomach to contract, causing nausea (Ali, Ishak, & Hiola, 2021).

According to the research articles reviewed, pregnant women who receive ginger therapy experience a significant decrease in the average mean frequency of nausea and vomiting. According to (Rusman, Andiani, & Fakultas Ilmu Kesehatan, 2017) research before receiving the intervention, the average respondent experienced nauseous vomiting 13 times per day, but after receiving the intervention of warm ginger drink, the average frequency of nausea and vomiting decreased.

Intervention Comparison

Pharmacological and non-pharmacological therapies can be used to treat complaints of nausea and vomiting in pregnant women. Pharmacological therapy includes the use of antihistamines, metoclopramide, vitamin B6 (pyridoxine), ondansetron, and methylprednisolone. Non-pharmacological therapies that can be done are changes in diet, emotional support, relaxation techniques, and alternative therapies such as herbal medicine (Tamara Gusti E, Hariadini, Mukti, Rahayu, & Sari, 2022).

This is in accordance with the statement (Khorasani F, Aryan H, Sobhi A, Aryan R, Abavi-Sani A, Ghazanfarpour M, Saeidi M, 2019), explaining that ginger and vitamin B6 own effect Which identical in reduce nauseous vomit during first trimester of pregnancy in pregnant women. Ginger can be used as a brew and in aromatherapy. Aromatherapy has been shown to reduce the frequency of nauseous vomiting during pregnancy by using scents that are fresh, awaken the Spirit, refreshing, and soothing to the soul. When essential oils are inhaled, the molecules enter the nasal cavity and furthermore will bring the aromatic element that is in the oil to the top of the nose. Vibrating hair is in it, which works as a receptor and will deliver electrochemical messages to the central nervous system. This message will activate a person's emotional and memory centers, which will then deliver the message back to the entire body through systemic circulation. The message that is sent throughout the body will be converted into one action with the release of neuro substances in the chemical form of feeling happy, relaxed, and calm.

From article study which reviewed show that therapy ginger can provided a more significant reduction in nausea and vomiting compared to leaf therapy mint and kaffir lime therapy. In addition, ginger therapy, done together with hands-on massage or with vitamin B6 therapy, has a significant effect on overcoming nausea and vomiting during pregnancy.

Conclusion

Sourced from a number of articles that have been reviewed, so we can conclude the following:

1. There is a significant effect of giving ginger therapy to reduce nausea and vomiting in the first trimester of pregnancy.
2. Ginger therapy and the administration of vitamin B6 or *hand massage* can be an alternative therapy to help overcome nausea and vomiting in pregnant women.

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