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The Effectiveness Of Ginger And Honey Therapy To Reduce Nausea In Ca Mammary Patients On Chemotherapy

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ABSTRAK

Chemotherapy is one of the primary treatment modalities for patients with breast cancer (Ca mammae). Despite its effectiveness, chemotherapy frequently causes side effects such as nausea, which can negatively affect patients' quality of life and adherence to treatment. Pharmacological management is commonly used to control chemotherapy-induced nausea; however, it may not always be effective and can produce additional adverse effects. Therefore, supportive non-pharmacological interventions are needed. Ginger and honey are natural substances known for their antiemetic properties and potential to alleviate nausea. **Methods:**This study employed a descriptive case study design. The subjects were patients with Ca mammae undergoing chemotherapy who experienced nausea. Nausea levels were assessed using the Index of Nausea, Vomiting, and Retching (INVR) instrument before and after the administration of ginger and honey therapy. The intervention consisted of providing ginger and honey as a complementary therapy during the chemotherapy period. Data were analyzed descriptively by comparing pre- and post-intervention nausea scores. **Results:** The findings demonstrated a decrease in INVR scores after the administration of ginger and honey therapy. This reduction indicates an improvement in nausea symptoms among patients with Ca mammae following chemotherapy. **Discussion/Suggestion:** Ginger and honey therapy was shown to be effective in reducing chemotherapy-induced nausea. This intervention may serve as a safe, simple, and cost-effective non-pharmacological nursing strategy. It is recommended that nurses consider incorporating ginger and honey therapy as a complementary intervention to support patients undergoing chemotherapy.

Keywords: *Breast cancer, Chemotherapy, Nausea, Ginger, Honey*

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PENDAHULUAN

Breast cancer (Carcinoma mammae/CA mammae) is the cancer with the highest incidence in women worldwide. Data from the Global Cancer Observatory (GLOBOCAN) in 2022 showed that breast cancer accounts for approximately 24.5% of all cancer cases in women globally and is a leading cause of cancer death (World Health Organization, 2023). This high incidence makes breast cancer a priority health issue.

In Indonesia, breast cancer also ranks first as the most common cancer in women. GLOBOCAN data for 2022 recorded 66,271 new cases, or approximately 30.1% of all cancer cases in women. Furthermore, the prevalence of breast cancer is reported to be approximately 42 per 100,000 people. The 2018 Basic Health Research (Riskesdas) data showed an increase in tumor/cancer prevalence from 1.4 per 1,000 people in 2013 to 1.79 per 1,000 people in 2018, with breast cancer being one of the largest contributors. Most patients present to healthcare facilities at an advanced stage (stages III–IV), requiring aggressive therapy such as chemotherapy.

Chemotherapy is the primary treatment for breast cancer, but it often causes side effects such as nausea and vomiting, or chemotherapy-induced nausea and vomiting (CINV). Nausea is reported to occur in approximately 60–80% of patients undergoing chemotherapy and can negatively impact quality of life, nutritional status, and patient adherence to therapy (Hesketh et al., 2020). Nausea management generally involves pharmacological therapy, but this does not always provide optimal results and can potentially cause additional side effects.

Therefore, non-pharmacological therapy is needed to support primary therapy. Ginger (Zingiber officinale) is known to have antiemetic effects through its gingerol and shogaol content, which can inhibit serotonin receptors in the gastrointestinal tract. Honey also plays a role in protecting the gastrointestinal mucosa and improving patient comfort. The combination of ginger and honey has the potential to provide a synergistic effect in reducing nausea. In nursing practice, this therapy can be an independent, safe, and economical non-pharmacological intervention. Therefore, this study aims to determine the effectiveness of ginger and honey therapy in reducing nausea in breast cancer patients undergoing chemotherapy.

METHODS

This study used a descriptive case study method in four breast cancer patients undergoing chemotherapy and experiencing nausea. The intervention was a ginger and honey drink with a dose of 100 ml, given once a week for two weeks after chemotherapy (a total of two doses). The level of nausea was measured using the Index of Nausea, Vomiting, and Retching (INVR) instrument before and after the intervention. Data were analyzed descriptively by comparing nausea scores before and after ginger and honey therapy.

RESULTS

This study used a descriptive case study method in four breast cancer patients undergoing chemotherapy and experiencing nausea. The intervention was a ginger and honey drink with a dose of 100 ml, given once a week for two weeks after chemotherapy (a total of two doses). The level of nausea was measured using the Index of Nausea, Vomiting, and Retching (INVR) instrument before and after the intervention. Data were analyzed descriptively by comparing nausea scores before and after ginger and honey therapy.

Table 1. Patient Characteristics

	Patient 1	**Patient 2**	**Patient 3**	**Patient 4**
Initial	Mrs. M	Mrs. A	Mrs. T	Mrs. Y
Age	56 Years	57 Years	43 Years	50 Years
Gender	Woman	Woman	Woman	Woman
Diagnosis	Cancer of the breast, brain and bone metastasis	Ca. Mamae lung, bone, brain metastases	Ca. Mamae brain + bone metastases	Ca. Mamae liver, bone, brain metastases
TTV	BP: 110/63 mmHg Pulse: 70 x/minute Temperature: 36.5°C RR: 20 x/minute SpO_2: 98%	BP: 111/60 mmHg Pulse: 70 x/minute RR: 20 x/minute Temperature: 36.5°C SpO_2: 98%	BP: 110/70 mmHg Pulse: 78 x/minute RR: 20 x/minute Temperature: 36°C SpO_2: 98%	BP: 110/60 mmHg Pulse: 113 x/minute RR: 18 x/minute Temperature: 36.7°C SpO_2: 98%

Table 2. Table of INVR (Index of Nausea, Vomiting, and Retching) Scale Before and After Giving Ginger Honey Drink to Cancer Patients After Chemotherapy

		Before Ginger & Honey Drink Therapy	**After Ginger & Honey Drink Therapy**
Patient 1 Mrs. M	Week I	11 (Moderate Nausea and Vomiting)	2 (Mild Nausea and Vomiting)
	Week II	5 (Mild Nausea and Vomiting)	1 (Mild Nausea and Vomiting)
Patient 2 Mrs. A	Week I	8 (Mild Nausea and Vomiting)	2 (Mild Nausea and Vomiting)
	Week II	6 (Mild Nausea and Vomiting)	2 (Mild Nausea and Vomiting)
Patient 3 Mrs. T	Week I	6 (Mild Nausea and Vomiting)	2 (Mild Nausea and Vomiting)
	Week II	4 (Mild Nausea and Vomiting)	1 (Mild Nausea and Vomiting)
Patient 4 Mrs. Y	Week I	20 (Severe Nausea and Vomiting)	3 (Mild Nausea and Vomiting)
	Week II	13 (Moderate Nausea and Vomiting)	1 (Mild Nausea and Vomiting)

DISCUSSION

This case study involved four female patients diagnosed with metastatic breast cancer undergoing chemotherapy and experiencing post-therapy nausea. Results showed that ginger and honey drink therapy consistently reduced nausea and vomiting scores, measured using the INVR (Index of Nausea, Vomiting, and Retching) scale, in all post-chemotherapy breast cancer patients. Score reductions occurred in both the first and second weeks of the intervention, with a trend toward a shift in nausea and vomiting from moderate-severe to mild. These findings indicate that ginger and honey therapy has clinical efficacy in controlling chemotherapy-induced nausea and vomiting.

In patient Mrs. M, there was a significant decrease in INVR scores from moderate to mild nausea and vomiting after the intervention. This decrease occurred despite the patient receiving pharmacological antiemetic therapy in the form of ondansetron and Akgzeo. This suggests that administering ginger and honey drinks has the potential to act as an add-on therapy that enhances the effects of pharmacological antiemetics. This condition aligns with the principles of holistic nursing, which combine medical therapy and non-pharmacological interventions based on evidence-based practice.

Unlike Mrs. M, patients Mrs. A and Mrs. T did not receive antiemetic therapy either during treatment or as discharge therapy. Nevertheless, both patients still showed a decrease in INVR scores after being given ginger and honey drinks. This finding strengthens the hypothesis that the reduction in nausea and vomiting in these two patients was primarily influenced by the non-pharmacological effects of ginger and honey, without any contribution from antiemetic drugs. Thus, ginger and honey can be seen as an effective stand-alone nursing intervention in controlling chemotherapy-induced nausea.

Patient Mrs. Y showed the highest INVR score before the intervention, which was in the severe nausea and vomiting category. This condition is suspected to be related to the presence of liver metastases, which can clinically worsen gastrointestinal disorders due to decreased metabolic function and liver detoxification. Furthermore, Mrs. Y also did not receive antiemetic therapy, so there was no pharmacological support in controlling nausea and vomiting. However, after administering the ginger and honey drink, Mrs. Y's INVR score decreased significantly to the mild category. This indicates that ginger and honey therapy still provides clinical benefits, even in patients with more severe comorbid conditions.

Pathophysiologically, chemotherapy-induced nausea and vomiting occur due to cytotoxic drug stimulation of the chemoreceptor trigger zone (CTZ) and increased serotonin (5-HT3) release in the gastrointestinal tract, which activates the vomiting center in the medulla oblongata (Kozier et al., 2020). Furthermore, chemotherapy can irritate the gastrointestinal mucosa and disrupt intestinal motility, leading to gas accumulation or meteorism, resulting in bloating and discomfort (Smeltzer & Bare, 2018). This condition is consistent with the clinical findings in Mrs. M, who complained of bloating and an abdominal ultrasound showed meteorism.

Ginger's effectiveness as a complementary therapy is supported by its active compounds gingerol and shogaol, which have antiemetic effects through inhibition of serotonin (5-HT3) receptors in the gastrointestinal tract and vomiting center. Furthermore, ginger's carminative properties reduce gas formation and accumulation in the gastrointestinal tract, contributing to a reduction in feelings of bloating and abdominal fullness. The combination of ginger and honey provides additional benefits because honey has anti-inflammatory, antioxidant, and protective properties for the gastric mucosa, thus helping to reduce gastrointestinal irritation caused by chemotherapy and increasing gastrointestinal tolerance.

The findings of this study align with various previous studies. Pawestri and Wahyurini (2023) reported that ginger aromatherapy effectively reduced nausea in cancer patients after chemotherapy. Wulandari et al. (2024) also found that a ginger and honey drink reduced the INVR score from moderate to mild in cancer patients after chemotherapy. Furthermore, Aprilia et al. (2022) and Ginting and Wahyu (2024) reported a significant reduction in nausea and vomiting after administering ginger in various dosage forms. The consistency of these findings with previous studies strengthens the evidence that ginger and honey are effective and safe complementary therapies.

The gradual and consistent decrease in INVR scores, accompanied by subjective improvements such as reduced nausea and increased appetite, as well as objective findings such as the absence of vomiting and stable vital signs, indicate that ginger and honey therapy has a positive impact on the patient's quality of life. Therefore, ginger and honey drink intervention can be recommended as a non-pharmacological nursing intervention that is easy to apply, economical, and has high clinical value in supporting the management of nausea and vomiting in post-chemotherapy breast cancer patients.

CONCLUSION

This study concludes that ginger and honey therapy is effective in reducing nausea in patients with breast cancer (Ca mammae) undergoing chemotherapy, as indicated by decreased INVR scores after the intervention. The findings suggest that ginger and honey can be used as a complementary, safe, simple, and cost-effective non-pharmacological nursing intervention to manage chemotherapy-induced nausea. It is recommended that nurses consider incorporating ginger and honey therapy into nursing care plans to improve patient comfort and support adherence to chemotherapy. Further studies with larger sample sizes and experimental designs are suggested to strengthen the evidence and explore the long-term effects of this intervention.

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