Lemon Aromatherapy Intervention to Reduce Nausea and Vomiting in **Gastritis Patients**

Dadi Hamdani¹, Beti Rostantia¹, Nendah Sulistiani¹, Nur Hidayat¹ ¹STIKes Muhammadiyah Ciamis, Indonesia

Correspondence: Beti Rostantia Email: betirostantia@gmail.com

Address: Jl. K.H. Ahmad Dahlan No.20, Ciamis, Kec. Ciamis, Kabupaten Ciamis, Jawa Barat,

Indonesia, 46216, Telp.082216163200

ABSTRACT

Objective: To present care with lemon aromatherapy intervention as an effort to overcome nausea and vomiting in gastritis patients.

Methods: The method used is descriptive and nursing care that refers to the SDKI and SIKI. The subject of this study was 1 patient with a nursing diagnosis of nausea and vomiting in gastritis patients who were treated in the Dahlia Room, Banjar City Hospital. Data collection includes interviews, observations, physical examinations and documentation.

Results: The results of the case studies conducted showed a change after the nonpharmacological technique of lemon aromatherapy was proven by the final results, namely the evaluation carried out by the patient not feeling nauseated, the INVR scale 3.

Conclusion: The conclusion from the results of the lemon aromatherapy intervention was considered effective for reducing nausea and vomiting with a decreased INVR scale. with the results of the final evaluation of the INVR 3 scale, the client said that nausea was reduced.

Keywords: aromatherapy, gastritis, nausea

Introduction

Gaster is a pouch under the septum of the body cavity. Food is temporarily stored by the stomach and helps process it so that it enters the small intestine. An important organ of the human body is the stomach, because the stomach is an organ for digestion of food and drink that is consumed by humans. Gastritis in general is not widely known due to lack of information and knowledge about ulcer disease (Sandi et al., 2021). Gastritis is an inflammatory process or condition caused by inflammation and infection of the stomach lining and gastric submucosa. Gastritis can affect all walks of life of all ages or genders, but several studies have shown that gastritis often affects productive ages (Safii & Andriani, 2019). Acute gastritis lasts for several days and is usually caused by food. The most common form of gastritis, acute gastritis, is usually benign and self-limiting associated with the ingestion of gastric irritants such as aspirin, alcohol, caffeine, or food contaminated with bacteria. In addition, chronic gastritis is a prolonged inflammation of the stomach which may be caused by pernicious anemia, dietary factors such as caffeine, alcohol, smoking (Oktariana & Khrisna, 2019).

According to the World Health Organization (WHO) gastritis is the world's mortality rate in hospitalization, namely 17-21% of cases in 2012. According to WHO (2012) the percentage of gastritis incidence in Indonesia was found to reach 40.8%. Based on Indonesia's 2009 health profile, gastritis is one of the 10 most common diseases in hospitalized patients in Indonesia with a total of 30,154 cases (4.9%). The incidence of gastritis in several parts of Indonesia is very high with a prevalence of 274,396 cases from 238,452,952 residents (Utami & Kartika, 2018).

The easiest way to deal with nausea is by non-pharmacological methods, namely aromatherapy, one of which is lemon aromatherapy (Rofi'ah et al., 2019). Lemon aromatherapy is an essential oil extracted from the peel of an orange (citrus lemon) and is commonly used as aromatherapy. Lemon aromatherapy is very safe and effective for reducing nausea and vomiting (Jannah et al., 2021). Currently, many non-pharmacological therapies are available in the UK and Europe, one of which is lemon aromatherapy which is said to be 76% effective in German obstetrics. Aromatherapy has recently been introduced in the United States. Lemon aromatherapy, obtained by extracting lemon peel and lemon juice, is a safe type of aromatherapy. Lemon contains limonene, citral, linalool, linalool, and terpineol, which stabilize the central nervous system, make it happy, increase appetite, increase circulation (Cholifah & Nuriyanah, 2019).

Aromatherapy with essential oils is known to treat psychological disorders and diseases such as nausea, depression, anxiety, pain, and so on. Aromatherapy can be used in a variety of ways, including inhalations, baths, massages, and compresses. Based on these four methods, inhalation aromatherapy is the easiest, and fastest way to apply. Aromatherapy treatment occurs through two physiological systems, namely the body's blood circulation and the olfactory system (Kresna Wati et al., 2021).

Based on the explanation above, the author is interested in conducting a case study of the implementation of the use of lemon aromatherapy to reduce Mrs. A's nausea with a medical diagnosis of gastritis in the Dahlia Room, Banjar City Hospital.

Objective

This study aims to present care with lemon aromatherapy intervention as an effort to overcome nausea and vomiting in gastritis patients.

Method

This study uses a descriptive design through a nursing care approach by collecting data from the beginning of the assessment, determining nursing diagnoses, nursing planning, implementation and evaluation of clients who experience gastritis with a focus on lemon aromatherapy intervention with nausea problems.

In this case study the population taken is one subject. The selection of these participants the authors divide the inclusion criteria include patients with gastritis, patients able to communicate cooperatively, patients with nausea and vomiting, patients willing to be the subject of the study. The exclusion criteria for subjects who resigned as case study patients, patients who

returned from the ward and patients with limitations. The location and time of the research was carried out in the Dahlia Room of the Banjar City Hospital which was carried out for 4 days from 27 May 2022 to 30 May 2022. Researchers used interview techniques, physical examination observations and documentation. The instrument used to measure the nausea scale is the INVR (Index Nausea Vomiting and Retching) scale.

Result and Discussion Nursing Assessment

Data collection was carried out on 27 May 2022 at 10.30 WIB in the Dahlia room of the Banjar City Hospital, the patient was Mrs. A is 68 years old, the address is Banjar City, West Java Province with a patient complaint of nausea and vomiting, the patient said he had a history of gastritis ± 3 years ago.

The results of the examination showed BP 130/90 mmHg, P: 96x/minute, R: 20x/minute, R: 36.6oC. The results of the examination also showed that the patient looked nauseous and wanted to vomit. General awareness composmentis with total GCS: 15.

Table 1. Glasgow Coma Scale (GCS)

GCS	Reaction	Score
E : Eye	Spontaneous eye opening	4
M : Motorik	Follow the order	6
V : Verbal	Good orientation	5
	Total	15

Table 2. Blood Analysis

	Result	Standard
Hemoglobin	13.5	12~15 gr/dl
Leukosit	11.9	4.4~11.3 ribu\mm3
Trombosit	257	150~450 ribu\mm3
Hematokrit	40	35~47 %
Eritrosit	4.6	4.1~5.1 juta /uL
Basofil	0	0~1 %
Eosinofil	1	0~5 %
Netrofil	71	50~70 %
Limfosit	20	22~40 %
Monosit	8	2~8 %
MCV	86	80~96 fl
MCH	29	26~33 pg
МСНС	34	32~36 %

Nursing Diagnosis

Nursing diagnoses were taken based on the results of Data Analysis adjusted to the grouping of nursing diagnoses by the Indonesian National Nurses Association (PPNI) in the Indonesian Nursing Diagnosis Standards (IDHS) edition 1 (2016).

Table 3. Data Analysis

Data	Etiology	Diagnosis	Page
Subjective:	Spicy and sour	Nausea and	170
The client says	food	vomiting related to	
shortness of breath	1	gastric irritation	
and nausea	▼	(D.0076)	
Objectives:	Increased stomach		
The client looks	acid		
nauseous and wants	↓		
to vomit	Gastric muscle		
Vital Signs:	contraction		
TD: 130/90 mmHg	\		
RR: 20 x/"	Nauseous vomit		
HR: 96 x/"			
Temp: 36,6° C			
INVR: 14			

Nursing Intervention, Implementation and Evaluation

After analyzing the data from the diagnosis, then the interventions given were taken in the Indonesian Nursing Intervention Standards book edition 1 (2018).

Table 4. Nursing Interventions in Gastritis Patients

Diagnose	Intervention
Nausea and	1. Identify the impact of nausea on quality of
vomiting related to	life (eg: Appetite, activity, performance, role
gastric irritation	responsibilities, and sleep.
(D.0076)	2. Identify the cause of nausea.
	3. Monitor nausea
	4. Recommend using non-pharmacological
	techniques to treat nausea (lemon
	aromatherapy)

Table 5. Nursing Evaluation

Time	Evaluation	
Friday, 27 May	S: The client says nausea and wants to vomit.	
2022	0:	
10.30	T : 130/90 mmHg	
	P:96x/'	
	R:20x/'	
S: 36,6° C		
	INVR 14	
A: Nausea problem has not been resolved		
P : Continue intervention		
	 Monitor nausea 	
	 Recommend using lemon aromatherapy 	

After the lemon aromatherapy intervention for 3 consecutive days there was a decrease in the nausea scale from 14 to a scale of 3.



Figure 1. Development of Intervention Results

After providing nursing care to Mrs. A, 68 years old from the Banjar Kolot sub-district with a diagnosis of gastritis with complaints of nausea in the Banjar City Hospital Room from 27-30 May 2022. During the implementation of client and family care, they were very cooperative, making it easier to take action. This process includes assessment, determining nursing diagnoses, interventions, implementation and evaluation.

Assessment is the first step in the nursing care process. The assessment is carried out with appropriate physical examination tools to collect data and identify patient problems, researchers can collaborate with both patients and families. Based on the results of the assessment on 27 May 2022 at 10.30 the client said nausea and vomiting with the results of vital signs blood pressure 130/90 mmHg, respiration $20\,x$ / minute, pulse $96\,x$ / minute, body temperature $36.60\,C$, the patient looks nauseated INVR 14 scale .

The second stage is the determination of nursing diagnoses which are carried out after collecting assessment data on Ny. Based on the analysis of the data obtained, the diagnosis that emerged was Nausea and vomiting related to gastric irritation. Which is characterized by subjective data, namely the client says nausea and wants to vomit, while the objective data obtained is the INVR 14 Scale.

According to the facts in the field and existing theories, the results obtained have an interest in determining nursing diagnoses for gastritis sufferers. The facts in the field state that gastritis sufferers can lead to a nursing diagnosis of Nausea and Vomiting (Nausea) due to irritation of the stomach caused by an increase in stomach acid which can affect the disruption of gastric performance (Ardiansyah, Fauziah, & Ningsih, 2018).

The third stage is nursing planning which is carried out after collecting data and establishing a diagnosis, then the writer plans the actions to be carried out. The interventions carried out in accordance with the Nursing Intervention Standards book (PPNI, 2016) are as follows:

Table 6. Nursing Intervention

Intervention	Rational

- 1. Identify the experience of nausea
- 2. Identify the impact of nausea on quality of life (appetite, activity, performance, role responsibilities and sleep)
- 3. Identify factors that cause nausea
- **4.** Monitor nausea (frequency, duration, and severity)
- 1. Know the factors that allow the occurrence of nausea.
- 2. Identify the effect of nausea on the patient's quality of life.
- 3. Know the factors that allow the occurrence of nausea.
- 4. Knowing the level of nausea experienced by the patient

In addition, the authors add non-pharmacological focused actions that are not contained in the nursing intervention book but exist in several previous studies, namely giving lemon aromatherapy to reduce nausea.

From the diagnosis that appears and the symptoms that arise above are nausea and vomiting marked by the INVR 14 scale, the intervention carried out is giving lemon aromatherapy. This intervention can reduce nausea, so that by doing this technique nausea in clients will be reduced. Theoretically, lemon aromatherapy obtained by extracting lemon peel is a safe type of aromatherapy. Lemon contains limonene, citral, linallyl, linalool, terpineol which can stabilize the central nervous system, cause feelings of happiness, increase appetite, improve blood circulation, and act as a sedative (Rofi'ah, Widatiningsih, & Sukini, 2019).

The fourth stage is the implementation of the action on Mrs. A with gastritis, researchers can do according to the nursing plan that is set, the short implementation time is a limitation in carrying out comprehensive nursing care.

The fifth stage is the last stage, namely the evaluation carried out to monitor the ongoing nursing process and assess the effect of nursing actions on the client. The evaluation stage refers to the goals that have been determined when formulating a nursing action plan. Evaluation was carried out at the end of the researcher doing nursing care. The problem of Nausea and vomiting (D.0076) is related to gastric irritation in Mrs. A resolved using lemon aromatherapy, nausea was reduced on the INVR 3 scale.

Conclusion

After providing nursing care to Mrs. A, in the Dahlia room at the Banjar City Hospital on 27-30 May 2022, the authors conclude that there is a decrease in the INVR scale after the lemon aromatherapy intervention for clients who experience nausea and vomiting. The INVR scale before the intervention was 14, and after the intervention was 3.

References

- 1. Ardiansyah, R., Fauziah, F., & Ningsih, A. (2018). *Lambung Menggunakan Metode Dempster-Shafer*. 24(3), 182–196.
- 2. Cholifah, S., & Nuriyanah, T. E. (2019). Aromaterapi Lemon Menurunkan Mual Muntah pada Ibu Hamil Trimester I. *Jurnal Kebidanan Midwiferia*, *4*(1), 36. https://doi.org/10.21070/mid.v4i1.1844
- 3. Jannah, M., Rahmawati, A., & Lestari, D. I. (2021). Efektivitas Pemberian Aromaterapi Lemon untuk Menurunkan Frekuensi Mual & Muntah pada Ibu Hamil Trimester I: Literatur Review

- The Effectiveness of Giving Lemon Aromatherapy to Reduce the Frequency of Nausea & Vomiting in First Trimester Pregnant Women: *PROMOTIF: Jurnal Kesehatan Masyarakat*, 11(02), 191–195.
- 4. Kresna Wati, P., Dewi Susanti, V., & Br Karo, M. (2021). Pengaruh Aromaterapi Lemon Mual Muntah Pada Ibu Hamil Trimester 1 Di Klinik Paramitra The Effect of Lemon Aromatherapy, Nausea and Vomiting on Trimester I Pregnant Women in Paramitra Clinic. *PLACENTUM Jurnal Ilmiah Kesehatan Dan Aplikasinya*, 9(2), 2021.
- 5. Murni, S., & Riandari, F. (2018). Penerapan Metode Teorema Bayes Pada Sistem Pakar Untuk Mendiagnosa Penyakit Lambung. *Jurnal Teknologi Dan Ilmu Komputer Prima (JUTIKOMP)*, 1(2), 19–25. https://doi.org/10.34012/jutikomp.v1i2.226
- 6. Ardiansyah, R., Fauziah, F., & Ningsih, A. (2018). Lambung Menggunakan Metode Dempster-Shafer. 24(3), 182–196.
- 7. Cholifah, S., & Nuriyanah, T. E. (2019). Aromaterapi Lemon Menurunkan Mual Muntah pada Ibu Hamil Trimester I. Jurnal Kebidanan Midwiferia, 4(1), 36. https://doi.org/10.21070/mid.v4i1.1844
- 8. Jannah, M., Rahmawati, A., & Lestari, D. I. (2021). Efektivitas Pemberian Aromaterapi Lemon untuk Menurunkan Frekuensi Mual & Muntah pada Ibu Hamil Trimester I: Literatur Review The Effectiveness of Giving Lemon Aromatherapy to Reduce the Frequency of Nausea & Vomiting in First Trimester Pregnant Women: PROMOTIF: Jurnal Kesehatan Masyarakat, 11(02), 191–195.
- 9. Kresna Wati, P., Dewi Susanti, V., & Br Karo, M. (2021). Pengaruh Aromaterapi Lemon Mual Muntah Pada Ibu Hamil Trimester 1 Di Klinik Paramitra The Effect of Lemon Aromatherapy, Nausea and Vomiting on Trimester I Pregnant Women in Paramitra Clinic. PLACENTUM Jurnal Ilmiah Kesehatan Dan Aplikasinya, 9(2), 2021.
- 10. Murni, S., & Riandari, F. (2018). Penerapan Metode Teorema Bayes Pada Sistem Pakar Untuk Mendiagnosa Penyakit Lambung. Jurnal Teknologi Dan Ilmu Komputer Prima (JUTIKOMP), 1(2), 19–25. https://doi.org/10.34012/jutikomp.v1i2.226
- 11. Oktariana, P., & Khrisna, L. F. P. (2019). Asuhan Keperawatan Keluarga Dengan Masalah Gastritis. Jurnal IKeperawatn Komunitas, 197–209.
- 12. PPNI. (2016). Standar Intervensi Keperwatan Indonesia: Definisi dan Tindakan Keperawatan. In Edisi I Cetakan II.
- 13. Rofi'ah, S., Widatiningsih, S., & Sukini, T. (2019). Efektivitas Aromaterapi Lemon untuk Mengatasi Emesis Gravidarum. Jurnal Kebidanan, 9(1), 9–16. https://doi.org/10.31983/jkb.v9i1.3814
- 14. Safii, M., & Andriani, D. (2019). Faktor–Faktor Yang Berhubungan Dengan Kejadian Gastritis Pada Pasien Yang Berobat Di Puskesmas. Jurnal Keperawatan Dan Fisioterapi (Jkf), 2(1), 52–60. https://doi.org/10.35451/jkf.v2i1.281
- 15. Utami, A. D., & Kartika, I. R. (2018). Terapi Komplementer Guna Menurunkan Nyeri Pasien Gastritis: Literatur Review. REAL in Nursing Journal (RNJ), 1(3), 123–132. https://dx.doi.org/10.32883/rnj.v1i3.341.g109