

ORAL CARE WITH EVIDENCE OF NAUSEA AND VOMITING IN BREAST CANCER PATIENTS TREATING CHEMOTHERAPY

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ABSTRACT

This study was to determine the relationship between oral care and the incidence of nausea and vomiting in breast cancer patients undergoing chemotherapy. This research method uses descriptive correlation by using a cross sectional approach. The sample of this study was breast cancer patients who underwent chemotherapy as many as 34 respondents using accidental sampling technique. The results of the univariate analysis of this study with oral care in the poor category as many as 29 respondents (82.9%) and nausea and vomiting in the poor category as many as 27 respondents (77.1%) in breast cancer patients undergoing chemotherapy. The results of this study found a relationship between oral care and nausea and vomiting in breast cancer patients undergoing chemotherapy with a value ($p = 0.000 < = 0.05$). In conclusion, the treatment is able to monitor the management of nausea and vomiting due to chemotherapy, the patient's response before, during and after chemotherapy, as well as assessing the effectiveness of oral care actions carried out by patients and their families

KEYWORDS Oral Care, Nausea and Vomiting, Breast Cancer



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INTRODUCTION

The World Health Organization (WHO) states that breast cancer is duct lining (epithelial) cells as much as (85%) and lobes (15%) that occur in the glandular tissue of the breast. (Organization, 2022). Cancer originates from the transformation of normal cells into tumor cells in a gradual process that generally develops from pre-cancerous lesions to malignant tumors. These changes are the

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result of interactions between genetic factors. (Organization, 2022). Patients with stage I, Stage II, or III breast cancer will receive various types of systemic therapy, part of the treatment. One of the treatments for breast cancer is chemotherapy, which uses a type of drug to destroy cancer cells.. (Kline et al., 2018). The prevalence of new cases of breast cancer reached 68,858. cases (16.6%) of a total of 396,914 new cases of cancer in Indonesia in 2020. Meanwhile the number of deaths reached more than 22 thousand cases. (RI, 2020).

Chemotherapy is given intravenously (IV) using a catheter or port. (Kline et al., 2018). Chemotherapy is given in the form of a single drug with several combinations and combinations of several chemotherapy drugs. The body's response during chemotherapy treatment can refer to the circulatory and immune systems and the body will respond to the occurrence of fatigue, dizziness, shortness of breath and fast heart rate. The side effects caused by chemotherapy itself. (Kline et al., 2018).

(Lacy & Cangemi, 2022) Stating that nausea and vomiting due to chemotherapy is an uncomfortable feeling in the back of the throat and epigastrium so that stomach contents come out of the oral cavity. There are several factors that trigger nausea and vomiting including types of therapy such as opioid therapy, metabolic delay, gastrointestinal irritation, increased intracranial pressure, which is caused by the tumor itself and the presence of metastases and nerve therapy treatment.

The side effect of chemotherapy that often appears is nausea, vomiting, which occurs after or after a few hours and can occur the next day after undergoing chemotherapy. Efforts to prevent or reduce nausea and vomiting, one way to prevent vomiting is to prevent nausea. (Grever et al., 1992).

(Huang et al., 2021), stated that there were several series of reactions caused by chemotherapy, namely nausea and vomiting. Clinically the most common type is nausea and vomiting due to acute and delayed chemotherapy. Acute nausea and vomiting usually occurs within minutes to hours after administration and usually resolves within the first 24 hours. Meanwhile, delayed nausea and vomiting occur more than 24 hours after chemotherapy and can last for 6-7 days. Nausea and vomiting due to chemotherapy not only causes problems such as electrolyte disturbances and malnutrition but can also cause patient anxiety, depression and other negative emotions.

The occurrence of nausea and vomiting is much more, then more frequent in the delayed phase than during the acute phase. Overall incidence of nausea, vomiting and vomiting in patients receiving chemotherapy. Events in CINV that can be predicted by assessment (Rahmah, 2009). The expected presentation of patients with nausea and vomiting is 10% lower than the data obtained and observed in the study. With the incidence of nausea being higher, namely 23.3 and 38.5%, each of which in these two phases indicates a worse chemotherapy control than the effects in the days after administration of chemotherapy drugs (Grassi et al., 2015)

Oral care is considered as the basic integrity to achieve health, with optimal function of the oral mucosa. Oral care can also reduce the colonization of oral organs microorganisms, can reduce pain, prevent infection of the soft tissues of the oral cavity which is a risk of systemic infection. Components of oral nursing which

include evaluating the condition of the oral cavity, educating patients or families, brushing teeth, flossing and gargling. A study conducted in Hong Kong reported that oral care with the incidence of oral mucososes was reduced by 38%. With the degree of pain and severity of oral mucositis also significantly reduced. (Chan et al., 2021).

RESEARCH METHOD

This research uses a quantitative research method using a correlational descriptive design using a cross-sectional approach. The sample in this study consisted of 34 breast cancer patients undergoing chemotherapy. The instrument for nausea and vomiting uses the INVR (Rhodes index of nausea and vomiting and recthing) questionnaire. This research was conducted by testing the correlation. The research was ethically approved and approved by the research ethics committee of the Gunung Jati Regional Hospital (No. 029/LAYAKETIK/KEPPKRS/GJ/V/22022).

RESULT AND DISCUSSION

Based on the results of research with univariate and bivariate analysis presented in the following table:

Table 1
Frequency Distribution of Respondents Based on Oral Care in Breast Cancer Patients Undergoing Chemotherapy

Oral Care	(F)	(%)
Not good	29	82,9 %
Good	5	14,3%
Amount	34	100 %

Based on Table 1, it shows that the majority of respondents (82.9%) had oral care in the unfavorable category, less than half (14.3%) had oral care in a good category in breast cancer patients undergoing chemotherapy

Table 2
Frequency Distribution of Respondents Based on Nausea Vomiting in Breast Cancer Patients Undergoing Chemotherapy

Mual muntah	(F)	(%)
Mual muntah berat	7	20,0%
Mual muntah buruk	27	77,1%
Total	34	100%

Based on Table 2, it shows that less than half of the respondents (20.0%) experienced nausea and vomiting in the severe category, while the majority (77.1%) had nausea and vomiting in the bad category in breast cancer patients undergoing chemotherapy.

Bivariate Test

Table 3
Oral Care With Nausea Vomiting In Breast Cancer Patients Undergoing Chemotherapy

Oral care	Nauseous					P value
	Light	Currently	Heavy	Bad	Amount	
Not Good	0	0	2 (6,9%)	27 (93,1%)	29 (100,0%)	0,000
Good	0	0	5 (100,%)	0 (0,0%)	5 (100,0%)	
Very Good	0	0	0	0	0	
Amount	0	0	7 (20,6%)	27 (79,4%)	34 (100,0%)	

Based on Table 3, it shows that the results of the bivariate analysis that was carried out using the chi-square test obtained bivariate test results for respondents who experienced nausea and vomiting in the severe category (6.9%) and less than half had nausea and vomiting in the bad category (93, 1%), almost all respondents (93.1%) who experienced poor oral care were found to have bad nausea and vomiting.

Based on the results of the bivariate analysis that was carried out using the chi-square test, a p-value of 0.000 was obtained, so H_0 was rejected and H_a was accepted, meaning that there was a relationship between oral care and nausea and vomiting in breast cancer patients undergoing chemotherapy (p-value = 0.000; $\alpha = 0.005$).

The results showed that those who experienced nausea and vomiting in the severe category (6.9%) and less than half had nausea and vomiting in the bad category (93.1%), almost all respondents (93.1%) who experienced poor oral care were nausea. bad vomit. Research conducted by Peres, M.A., (Lukman, 2020) stated that taking care of the mouth is an important part of cancer treatment, because too often this aspect is neglected, oral problems arise. It can also cause serious clinical distress and discomfort.

The National Institute states that in overcoming oral problems, namely seeing a dentist once every 4 weeks before carrying out cancer treatment (chemotherapy) (Association, 2019). According to (Kline et al., 2018) stated that it is important to maintain oral health during cancer treatment, this will help prevent and treat oral problems, gums and teeth are kept clean during and after cancer treatment and can also help reduce complications such as cavities, canker sores and infections. Daily oral care that must be carried out by the patient independently includes keeping the mouth clean.

This research is in line with research conducted by García-Chías, B., (Figuro et al., 2019) which shows that less than half (30.1%) of patients are in the good oral care category, more than half (58.3%) have regular oral health and a small proportion (11.7%) of respondents with dental and oral health the bad one. Having good oral health and maintaining good oral hygiene has been associated with a lower risk of developing chemotherapy side effects and vice versa if you have poor

oral health habits you will have a higher risk of chemotherapy effects.

Nausea and vomiting caused by chemotherapy (CINV) which is one of the side effects of chemotherapy treatment in breast cancer patients (Gupta et al., 2021) The impact of nausea and vomiting itself can cause appetite disturbances, and can reduce the health status of sufferers (Molfini et al., 2022).

The worst incidence of nausea and vomiting in this study was breast cancer patients undergoing chemotherapy who had nausea and vomiting above a score of 32 on the index for nausea, vomiting and reching (INVR) questionnaire. With three indicators, namely anticipatory nausea, vomiting, acute nausea, vomiting and delayed nausea and vomiting. The results of this study were obtained by researchers during the study that most patients who were undergoing chemotherapy had problems with signs of symptoms of side effects of chemotherapy

The results of this study are in line with research conducted by (Escobar et al., 2015), An increase in the percentage of patients with significant nausea from 9.4 to 21.7% and vomiting from 9.2 to 16.5% was observed from the delayed phase. In general, nausea was controlled worse than vomiting, the results of this study also showed that the late phase was better controlled than the acute phase in all variables.

Based on the results of observations during the study, patients were more lazy to do independent oral care such as brushing their teeth, using mouthwash, at home because they would feel nauseous when brushing their teeth..

CONCLUSION

Breast cancer patients undergoing chemotherapy have side effects from monitoring chemotherapy, one of which is nausea and vomiting. Having good oral health and maintaining good oral hygiene has been associated with a lower risk of developing side effects of chemotherapy, one of which is nausea and vomiting.

Breast cancer patients undergoing chemotherapy need to be emphasized to always clean their mouths to minimize nausea and vomiting. In monitoring the management of nausea and vomiting due to chemotherapy, the patient's response before, during and after chemotherapy, as well as evaluating the effectiveness of oral care measures performed by patients and their families. Families and patients are encouraged to be able to continue to carry out counseling about mouth care and how to deal with nausea and vomiting to health workers on an ongoing basis

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