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The Effect of Profopol In Prevention of Postoperative Nause And Vomiting (Ponv) in Post-Operating Patients With General Anesthesia at The Islamic Hospital (Rsi) Siti Rahmah Padang

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***Abstrak*:** *The incidence of postoperative nausea and vomiting is around 20-30% in patients undergoing general surgery and 70-80% in patients classified as high risk. The aim is to determine the effect of administering profopol in preventing Postoperative Nausea and Vomiting (PONV) in post-operative patients under general anesthesia. Data collection was carried out on 19 February 2024 - 22 March 2024. This type of quantitative research used a Quasi-experimental method with a Post Test Only Non-Equivalent Control Group research design. Using purposive sampling technique with 40 respondents, divided into 20 control groups and 20 intervention groups. Data analysis used the Mann-Whitney statistical test. The results of the intervention group research: 1 (5%) of 20 respondents experienced nausea and vomiting, 19 (95%) of 20 respondents did not experience nausea and vomiting, while in the control group 16 (80%) of 20 respondents experienced nausea and vomiting, 4 (20%) Of the 20 respondents, nausea and vomiting did not occur. The results of the Mann-Whitney statistical test showed a significant value of p 0.000 (p<0.005). Based on the conclusions from the research results, there is an effect of giving PROFOL in preventing PONV in post-operative patients under general anesthesia*
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Keywords : Nause1, Vomiting2, General anesthesia3

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INTRODUCTION

Postoperative nausea and vomiting (PONV) or nausea and vomiting after surgery is the feeling of nausea and vomiting experienced by patients after anesthesia and surgery in the first 24 hours after surgery (White et al., 2020). PONV can occur in 20-40% of surgical patients, and the risk percentage increases in high-risk patients to 80% (Samwel Boniface & Rebecca, 2019). PONV risk factors can be divided into three, namely patient factors, anesthesia risk factors and surgical risk factors (Safiya Imtiaz Syaikh et al.,

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2016). Patient risk factors consist of gender, age, history of PONV and/or history of motion sickness, history of smoking (Pierre & Whelan, 2017). Risk factors associated with anesthesia include duration of anesthesia, anesthesia technique, use of volatile agents, and use of opioids (Gan et al., 2020). Risk factors associated with surgery consist of the duration of surgery and type of surgery (Cao et al., 2017). PONV is usually mild and rarely causes serious consequences, but if it occurs continuously it can cause complications in patients, including severe throat pain, esophageal rupture, abdominal suture rupture, intraocular bleeding, and airway obstruction (Jangra & Grover, 2017).

The risk of PONV can be minimized with several actions, namely using regional anesthesia rather than general anesthesia, using propofol in general anesthesia, avoiding the use of volatile/inhalation anesthetics, reducing the use of opioids, and adequate hydration (Gan, 2020). PONV may be mild and rarely fatal, but in persistent cases it can have detrimental effects on the patient. Persistent vomiting can cause complications such as surgical sutures reopening and increasing the risk of pulmonary aspiration (Samwel Boniface & Rebecca, 2019). Nausea and vomiting can also cause distress, hinder patient mobility, and limit patient oral intake after surgery. Research by Myles & Wengritzky (2012) found that 884 (12.4%) patients out of a total of 7112 patients experienced severe PONV. Patients with severe PONV have worse Quality of Recovery (QoR) scores than those who do not experience PONV. The study also found that severe PONV was associated with the incidence of postoperative fever. As a result, PONV can prolong the patient's recovery process, lengthen the time they stay in the recovery room, increase the length of treatment, and increase medical costs. One episode of vomiting can delay the patient's time out of the recovery room by around 20 minutes. are interested in seeing the effect of administering propofol in preventing Postoperative Nausea and Vomiting (PONV) in post-operative patients with general anesthesia at the Islamic Hospital (RSI) Siti Rahmah Padang.

METODOLOGI

This research was designed as a quantitative research using a Quasi-experimental method with a Post Test Only Non-Equivalent Control Group research design. This research design compared control and intervention groups but in the process of selecting the two groups did not use randomization techniques. The intervention group was given treatment with the drug Propofol, and the control group was not given the drug Propofol. This research was carried out in the operating room at RSI Siti Rahmah Padang from April 2023 to June 2024. The presence of loading in this research allows researchers to test the changes that occur after the experiment. The population in this study were all patients who underwent surgery using anesthesia techniques general with ETT and LMA intubation in the RSI Siti Rahmah operating room. The results of a preliminary study conducted in January 2024 included 145 patients under general anesthesia. Patients used ETT and LMA intubation techniques 100 and patients with TIVA 45 patients.

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RESULTS AND DISCUSSION

Univariate Analysis

Table 1 Frequency Distribution of Characteristics of Respondents in the Intervention Group and Control Group at Padang Islamic Hospital, February-March 2024

Variables		Intervention Group		Control group	
		(f)	(%)	*(f)*	(%)
Age					
1	17-25	6	30	3	15
	26-35	4	20	7	35
	36-45	3	15	2	10
	46-64	7	35	8	40
Gender					
2	Female	10	50	12	60
	Male	10	50	8	40
ASA					
3	ASA I	5	25	7	35
	ASA II	15	75	13	65
long operation					
4	<90 minute	10	50	13	65
	>90 minute	10	50	7	35
	Total	20	100	20	100

Source: Data Processing

Table 1 shows that more than half of the respondents in the intervention group were aged 46-64 years (Late Elderly) (35%), male and female were equally distributed (50%), based on the frequency distribution the majority of respondents had ASA II physical status. (75%), and the operation time >90 minutes and <90 minutes are the same (50%). Meanwhile, in the control group, more than half were aged 46-64 years (late elderly) (40%), more than half were female (60%), based on the frequency distribution of respondents, more than half had ASA II physical status (65%) , and operation time <90 minutes by (65%)

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Frequency distribution of propofol administration in preventing PONV in the intervention group.
Table 2 occurrence of nausea and vomiting in the intervention group

No	Characteristics (PONV)	Intervention Group	
		F	%
1	Nausea and vomiting occur	1	5
2	No nausea and vomiting occurs	19	95
	TOTAL	20	100

Source: Data Processing

The data obtained from Table 2 shows that nausea and vomiting occurred in the intervention group in 1 respondent (5%) and 19 respondents (95%) did not experience nausea and vomiting.

Frequency distribution of PONV in the control group Table 3 occurrence of nausea and vomiting in the Control group

No	Characteristics (PONV)	Control group	
		F	%
1	Nausea and vomiting occur	16	80
2	No nausea and vomiting occurs	4	20
TOTAL	20		100

Source: Data Processing

Data obtained from Table 3 shows that nausea and vomiting occurred in the control group as many as 16 respondents (80%) and nausea and vomiting did not occur in 4 respondents (20%).

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Bivariate Analysis

Normality Test

Group	Shapiro-wilk		
	statistic	*df*	*sig*
Intervention	.236	20	.000
Control	.495	20	.000

Source: Data Processing

Table 4 shows the data normality level test using the Shapiro-Wilk normality test which will determine the appropriate method for data analysis. Based on the results of the normality test for the control group and the intervention group, it was obtained that p=0.000 with the same group results, it can be concluded that p<0.05, which means the data is not normally distributed, so the appropriate data analysis method is using the Maan-Whitney non-parametric statistical test.

Table 5 Effect of administering propofol in preventing Postoperative Nausea and Vomiting (PONV) after general anesthesia at RSI Siti Rahmah Padang

Group Category	N	*Mean Rank*	Δ	*Sum of ranks*	*Z*	*Asymp.sig.(2-tailed)*
Intervention Group	20	28.0	15	560.000	-4.737	.000
Control Group	20	13.0		260.000	-4.737	.000

Source: Data Procssing

Data in table 5 shows the effect of administering propofol as measured using the Mann Whitney statistical test for the intervention group and the control group. sig (2-tailed) is 0.000 (p<0.005). So there is an effect of administering propofol in preventing postoperative nausea and vomiting (PONV) in post-operative patients under general anesthesia at the Siti Rahmah Islamic Hospital (RSI) Padang.

Respondent Characteristics

The results of this study were obtained from respondents who underwent surgery with general anesthesia in the intervention group aged 17-25 years as many as 6 people (30%), aged 26 - 35 years as many as 4 people (20%), aged 36-45 years as many as 3 people (15%), aged 46-64 years as many as 7 people (35%). Meanwhile, the control group aged 16 -25 years was 3 people (15%), aged 26-35 years was 7 people (35%), aged 36 - 45 years was 2 people (10%), aged 46-64 years was 8 people (40%). In line with research by David (2016) at Haji Adam Malik General

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Hospital, Medan, which stated that the highest incidence of PONV occurred at the age of 46-55 years, where as many as 7 respondents (20%) experienced PONV. n contrast to research conducted by (Anisa et al, 2024) regarding the description of the incidence of post-operative nausea and vomiting with general anesthesia at the Islamic Hospital, it was found that most patients were aged 17 - 25 years, namely 35%. It is also different from Hayati's (2019) research at RSD Mardi Waluyo which stated that the majority of respondents who experienced PONV were aged >35 years, namely 4 respondents (57.1%). It can be seen from the research that most patients are aged 46-64 years. The patient's age can influence the incidence of PONV, where the older you are, the more protective you are against PONV so that the incidence of PONV is lower.In accordance with the opinion of Sizemore et al (2021), the elderly are more protective against PONV. This is possible because elderly patients find it easier to control nausea and vomiting than younger patients. In younger patients there is a tendency towards acute dystonic reactions. Hendro et al (2018) stated that the influence of age factors on PONV is classified as moderate risk level because research results show different results and the mechanism of age's influence on the incidence of PONV is not yet known for certain. In adult patients, several studies show that propofol can provide protection against PONV after surgery, especially in patients who are at high risk of experiencing it. However, in some studies, the effect of propofol on PONV in adult patients is not very clear and may vary depending on factors such as the dose administered, type of surgery, and individual risk factors.

Research by Hijazi et al in 2018 found that the incidence of PONV tends to occur in patients under 60 years of age. Lewaleba (2018) added that age can also influence the occurrence of PONV and depends on the type of anesthesia given, where PONV incidents occur more often at young ages. This high incidence in young patients may be due to the fact that they are more likely to complain of PONV than older patients. It is also possible that younger patients may have higher autonomic tone and respond worse to anesthetic and analgesic agents including opioids. PONV can be caused by various kinds of stimuli, namely chemicals and movement. In younger patients, afferent neurons are more sensitive to this stimulus and signals from this stimulus will be transmitted to the vomiting center in the brain stem where nausea and vomiting will occur. So young patients have a lower nausea and vomiting threshold and the risk of PONV will be higher compared to older patients. Tinsley (2012) added that the incidence of postoperative nausea and vomiting decreases after the age of 50 years in adult patients. For pediatric patients, age increases the risk of post-operative vomiting, children over 3 years old have a higher risk of nausea and vomiting compared to children under 3 years old, so patients between the ages of 3 and 50 are most at risk of experiencing nausea and vomiting. post operation. The effect of propofol on POVN in adolescent pediatric patients is still poorly understood. Some studies suggest that propofol may have a beneficial effect in reducing the risk of PONV in this population, but the evidence is limited and requires further research.

Based on these results, the researcher's conclusion about this study is that in the intervention group the majority of patients were aged 46 - 64 years. Meanwhile, the control group was aged 46-64 years. Age in adult patients is the level of risk of post-operative vomiting, where

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this age is a mature age in providing protection in overcoming PONV. In this case, there needs to be a role for the anesthetist in anticipating the incidence of PONV in post-operative patients by assessing the characteristics of respondents who will undergo surgery. The results of this study showed that respondents who underwent surgery with general anesthesia in the intervention group had more than two genders who had the same results - 20 men (50%), 20 women (50%), while more than half of the control group were of the same sex. 12 people (60%) were female, 8 people (40%) were male.

These results are comparable to research conducted by Millizia et al (2021) regarding factors related to the incidence of Postoperative Nausea and Vomiting in general anesthesia patients at the Cut Meutia General Hospital, North Aceh, finding that the majority of respondents were more female, 46 respondents (53.5%). These results are also comparable to research conducted by Karnina & Salaman (2022) regarding the relationship between age, gender, length of operation and ASA status with the incidence of PONV in post-digestive surgery laparotomy patients. These results are similar to the results of Fitrah (2019) Dr. RSUP. M. Djamil Padang said that the majority of Post Operative Nause Vomiting (PONV) patients were women.It can be seen from gender that there are more women than men. Gender is the most patient-specific predictor. Women have a three times higher chance of experiencing postoperative nausea and vomiting than men. (Milizia et al, 2021). The increased incidence of PONV may occur due to increased concentrations of fillicle stimulating hormone (FSH) and estrogen in sensitization of the vomiting center (Kurdi et al.). However, it shows that there is no relationship between female hormones and the incidence of PONV.

Kurdi's research (2018) Kurdi (2018) found that the incidence of nausea and vomiting was caused by changes in the concentration of follicle stimulating hormone (FSH) and higher estrogen so that it easily sensitized the chemoreceptor trigger zone (CTZ) or vomiting center. According to Sweis (2013), the high risk of nausea and vomiting in women is influenced by the frequency of hormone levels with the highest risk in the third and fourth weeks of the menstrual cycle and the fourth and fifth days of the menstrual period. During the menstrual phase and prolapse phase of the menstrual cycle, exposure to follice stimulating hormone (FSH), progesterone, and estrogen in the Chemoreceptor Triger Zone (CTZ) and vomiting center can result in nausea and vomiting. Based on the results of the research and presentation above, according to the researchers' analysis, women experience more nausea and vomiting because women have the hormone estrogen, which makes it easy to sensitize the Chemoreceptor Triger Zone (CTZ) and the vomiting center. So it can be concluded that gender is related to the risk of nausea and vomiting.

Research by Liana et al (2016) also found that the incidence of PONV is high in women who are influenced by increased hormone levels, with the highest risk occurring in the third and fourth weeks of the menstrual cycle. During the menstrual phase, exposure to follicle stimulating hormone (FSH), progesterone and estrogen in CTZ can result in PONV.

In line with Noviani's (2022) opinion, gender is the strongest specific predictor. Women have three times the chance of experiencing nausea and vomiting compared to men. This is caused by changes in the concentration of follicle stimulating hormone (FSH) and estrogen in the

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sensitization of the chemoreceptor trigger zone or vomiting center. It can be concluded that the frequency of patients experiencing PONV based on gender is found to be greater in women than the incidence of PONV in men. Based on the results of the study, in the intervention group, 10 women who were given propofol did not experience PONV, while in the control group, 12 women experienced PONV, women had a higher risk of PONV than men. This occurs due to changes in the concentration of follicle stimulating hormone (FSH) and estrogen in the sensitization of the chemoreceptor trigger zone or vomiting center, causing a higher risk of nausea and vomiting in female patients.

The results of this research were obtained from respondents who underwent surgery where there were two results, ASA I and ASA II. In this study, the intervention group of ASA I respondents had 5 respondents with a result of 25%, ASA II respondents had 15 respondents with a result of 75%, while in the control group of ASA I respondents there were 7 respondents with a result of 35%, in the ASA II respondent selected 13 respondents with a result of 65%. In line with research conducted by Suyuthi et al (2024) regarding the analysis of the physical status of the American Society of Anesthesiologists (ASA) on the incidence of Post Operative Nausea And Vomiting (PONV) in patients with general anesthesia, it was found that most patients with ASA II physical status were as much as 47.5%. In ASA III, of the 7 respondents with PONV, 4 (57%) had severe PONV with higher PONV rates compared to ASA I and II. Another study conducted at the University Hospital of Lausanne, Switzerland in 2016, showed that patients with ASA status had PONV of 12.8%, patients with ASA status I had PONV of 61.7%, patients with ASA status II had PONV amounting to 61.7%. PONV of 25.5%. In a study conducted by Sherif et al (2015) showing a similar incident in India, there was a PONV incidence of 42% of 150 ASA and I patients who underwent surgery under general anesthesia. ASA physical status is a guide for identifying high-risk patients who will benefit from anesthetic evaluation before the day of surgery (Mikhail & Morgan, 2013). Therefore, perioperative ASA physical status in adults is universally applicable to pediatric patients undergoing general anesthesia, although it is rare in children with a history of systemic health conditions) indicating a similar occurrence (Leahy et al, 2019).

The ASA division status is divided into ASA I – ASA VI status, but in this study ASA status is categorized into two, namely ASA I and ASA II. This division is because the ASA IV – ASA VI status categories include patients with severe systemic disease that cannot be helped without surgery, up to brain stem death. ASA status classification is related to the risk of PONV events, where patients classified as ASA status I and ASA II have better physical status, more often experiencing PONV events than patients who have comorbidities (Resiana et al, 2019). Karnina & Ismah (2021) added that the ASA physical status classification may be related to the risk of PONV events, where patients who have better physical status may experience PONV events compared to patients with comorbidities and poor physical condition. Patients with comorbidities, one example of which is uncontrolled DM. In uncontrolled diabetes, autonomic neuropathy can occur so that the afferent nerves receiving nausea and vomiting stimuli become unresponsive, resulting in disruption of signal transmission from stimulation to the brain, the vomiting center in the brain stem. Therefore, patients with severe systemic disease often have a better threshold for

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nausea and vomiting than healthy patients. The risk of PONV in these patients is also lower than in healthy patients without comorbidities. Therefore, patients who have severe systemic disease usually have a better threshold for nausea and vomiting than healthy patients. The risk of PONV in these patients is lower than in patients who are healthy and do not have comorbidities (Zamali, 2022). For example, in patients with uncontrolled DM, autonomic nerve neuropathy can occur, this can cause the afferent nerves that receive nausea and vomiting stimulation to become insensitive so that there is a disruption in the signal delivery from the stimulus to the vomiting center in the brain stem. Therefore, patients who have severe systemic disease usually have a better threshold for nausea and vomiting than healthy patients. The risk of PONV in these patients is lower than in patients who are healthy and do not have systemic disease (Karnina & Ismah, 2021).

Based on this, the researchers' conclusion of this study was that it was found that most patients had ASA II physical status. An American Society of Anesthesiologists (ASA) physical status assessment is essential for the anesthesiologist. Anesthesia procedures are not differentiated based on the size of the surgery, but considering that the choice of anesthesia technique to be performed on a patient is very complex and complete because all types of anesthesia have risk factors that can cause life-threatening complications. Be patient. where a higher ASA is said to be in poor physical condition and conversely, a lower ASA is said to be in normal physical condition. According to previous research, ASA I and ASA II status experienced PONV events more often than patients who did not have comorbidities. This is because patients with a higher ASA physical status have a better threshold for nausea and vomiting than healthy patients. The risk of PONV in these patients is lower than in healthy patients.

The results of this study show that of the patients who experienced PONV in the intervention group, there were patients with an operating time of <90 minutes (50%) with 10 respondents, patients with a duration of >90 minutes (50%) with 10 respondents. Meanwhile, in the control group, patients with an operating time of <90 minutes (65%) had 13 respondents, patients with a duration of >90 minutes (35%) had 7 respondents. In line with research conducted by Ananda et al, 2020) regarding the relationship between the length of surgery and the incidence of Post Operative Nausea Vomiting (PONV) at the Panembahan Senopati Hospital, Bantul, it was found that the most patients with a long operation in the medium category or 1 - 2 hours were 24 respondents, Also in line with research conducted by Mude, (2022) regarding the relationship between the length of surgery and the incidence of post operative nausea vomiting in post general anesthesia at RSU Kertha Usada, found that the incidence of PONV in Post General Anesthesia in operations with operation time > 60 minutes, 29 respondents experienced PONV from 33 respondents.

The length of time the operation lasts influences the occurrence of PONV, where long surgical procedures result in PONV more often than shorter operations. This may be because the working period of the anesthetic drug which has the effect of suppressing nausea and vomiting is almost over, the more complications and surgical manipulations are carried out (Nazim et al, 2016). The length of time the operation lasts affects PONV, an operation duration of more than one hour will increase the risk of PONV compared to an operation lasting under one hour, this is

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because the longer the duration of the operation, the longer the patient's contact with anesthetic gases such as sevoflurane and isoflurane which also is a factor causing postoperative nausea and vomiting. Operation time of more than 1 hour is a predictor of nausea and vomiting. (Al-Ghanem et al, 2019).

Noviani (2022) added that the duration of the operation was more than 1 hour because the working period of the anesthetic drug which has the effect of suppressing the nausea and vomiting center was almost over, the more complications and surgical manipulations were carried out. The relationship between the length or duration of surgery and the incidence of post-operative nausea and vomiting states that the longer the operation time, the greater the accumulation of anesthetic agents in the body (Noviani, 2022). Ahmed (2020) said that the length of surgery is related to post-operative nausea and vomiting because a long operation of more than 1 hour will result in hypotension which leads to intestinal hypoperfusion. Collins (2011) added that the length of surgery can increase the risk of PONV because the patient cannot position himself due to anesthesia and neuromuscular blockade occurs. Lack of movement can cause pooling of blood and a sensation of dizziness that can stimulate vestibular disequilibrium. This equilibrium can lead to further activation of the CTZ with the vestibular nerve thereby triggering PONV. According to Chatterjee, Rudra, and Sangupta (2011), extending the duration of surgery by 30 minutes could possibly increase the risk of PONV by 60%. In line with research conducted by Pirre (2012), it was found that a long operation of more than 60 minutes would increase the risk of PONV in patients, because the longer the operation is carried out, the longer the patient is exposed to volatile gases which can cause stimulation.

Based on this, the researcher's conclusion from this study is that the intervention group, operation time <90 minutes and >90 minutes, had the same results, while the control group, operation time <90 minutes, had greater results. The duration of surgery is related to post-operative nausea and vomiting of more than 1 hour, which will affect intestinal hypoperfusion, which causes nausea and vomiting. The longer the operation time, the greater the accumulation of anesthetic agent in the body. Anesthetic gas will affect the incidence of postoperative nausea and vomiting. Effect of Giving Profopol as Prevention of Postoperative Nausea and Vomiting (PONV) in Postoperative Patients Under General Anesthesia

The statistical test results of this research using the Mann Whitney test based on table 5.4 showed Pvalue = 0.000 (p=<0.05). It can be concluded that the intervention group given profopol as a prevention of PONV in post-operative patients with general anesthesia had a good effect on experiencing nausea and vomiting. . Meanwhile, the majority of the control group who were not given profopol to prevent PONV experienced nausea and vomiting. It has been proven in research that administering profopol can prevent PONV in post-operative patients under general anesthesia. This is influenced by the antiemetic effect of propofol so that it can overcome nausea and vomiting in post general anesthesia patients.

In accordance with the opinion of Ahmad et al (2013) that propofol is an intravenous anesthetic drug that has a relatively shorter initial onset of action and duration of action, and has an antiemetic effect so it is considered an ideal anesthetic for both induction of anesthesia and

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maintenance. Since 1986, propofol has become increasingly popular in clinical use with the first product known as Diprivan (Ahmad et al., 2013). Propofol is difficult to dissolve in water, so propofol is formulated in oil-water form (Katzung, 2014). It is a thick, milky white liquid and has a pH of 7 to 8.5 with a propofol concentration of 1% (10 mg/mL) or 2% (20 mg/mL) (Ratnasari, 2016). Danu (2015) added that propofol causes anesthesia at the same rate as intravenous barbiturates, but recovery is faster. Propofol has anitemetic properties. This drug does not cause cumulative effects or delays waking up after long-term use. Administration of propofol as part of the general anesthesia protocol provides significant benefits in preventing PONV in postoperative patients. Propofol is not only effective as an anesthesia induction and maintenance agent, but also has a strong antimetic effect, making it an ideal choice especially for patients at high risk of PONV. Integration of propofol in the anesthesia plan may improve patient comfort and overall postoperative outcomes.

The mechanism of action of propofol is the strengthening of chloride currents mediated by the Gamma Aminobuctyric Acid (GABAA) complex which is the mechanism of action of propofol. One of the inhibitory neurotransmitters in the Central Nervous System is GABAA. GABAA receptors that interact with propofol cause a decrease and inhibit the synapse of neurotransmitters, thereby closing calcium channels and increasing the duration of opening of activated GABAA through increasing chloride channel conduction, resulting in hyperpolarization in the post-synaptic cell membrane (Morgan, 2017). Propofol is also thought to induce potentiation of glycine receptors at the spinal level thereby inhibiting N-methyl-D-aspartate (NMDA) receptor function and the 5-HT3 antagonist effect in the posterema area makes propofol potentially useful for the treatment of nausea and vomiting. (Ratnasari, 2016).

Based on the results of research on intervention patients, 19 people did not experience PONV because they were given propofol because propofol inhibits the neurotransmitter in the central nervous system, namely GABAA. GABAA receptors that interact with propofol cause a decrease and inhibit the synapse of neurotransmitters, thereby closing calcium channels and increasing the duration of opening of activated GABAA through increasing chloride channel conduction, resulting in hyperpolarization in the post-synaptic cell membrane. Meanwhile, 16 control group patients experienced PONV because they were not given propofol.

CONCLUSIONS

Based on the results of research on the effect of administering propofol in preventing Postoperative Nausea and Vomiting (PONV) in post-operative patients with general anesthesia at the Siti Rahmah Islamic Hospital (RSI) Padang, the following conclusions can be drawn:

1. Characteristics of respondents who underwent surgery under general anesthesia at the Siti Rahmah Padang Islamic Hospital, most of whom were in the age range 46-64 years, male and female respondents, physical status ASA II, and surgical duration <90 minutes.
2. In the control group that was not given propofol, more than half of the respondents experienced Postoperative Nausea and Vomiting.

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3. In the intervention group given propofol, the incidence of Postoperative Nausea and Vomiting experienced by respondents was nausea and vomiting and did not occur in 19 respondents.
4. There is an effect of administering propofol in preventing Postoperative Nausea and Vomiting (PONV) in post-operative patients with general anesthesia at the Siti Rahmah Islamic Hospital (RSI) Padang

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