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THE CORRELATION BETWEEN HEMODIALISA DURATION AND APPETITE TO PATIENTS WITH CHRONIC KIDNEY FAILURE (CKD) AT PUBLIC HOSPITAL OF dr. SOEKARDJO TASIKMALAYA CITY

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ABSTRACT

Chronic Kidney Failure (CKD) is a condition where the kidneys do not function properly, occurring for or more than 3 months. CKD patients require prolonged renal replacement therapy to survive, one of which is hemodialysis. The problem often faced by patients undergoing hemodialysis is decreased appetite. The aim of this research is to determine the relationship between the duration of hemodialysis and appetite in CKD sufferers at Public Hospital of dr. Soekardjo, Tasikmalaya City. The method used is quantitative correlational with a cross sectional approach. The population in this study were all hemodialysis patients at Public Hospital of dr. Soekardjo Tasikmalaya City numbered 97 people using total sampling techniques. Data collection on appetite was obtained using the SNAQ (Simplified Nutritional Appetite Questionnaire) questionnaire, duration of hemodialysis using a characteristic data collection sheet and analyzed using the chi square test. The results showed that most of the respondents' hemodialysis duration was ≤1 year (28.9%) and most of the respondents' appetite was poor (50.5%). The results of statistical tests on the correlation between duration of hemodialysis and appetite in chronic kidney failure sufferers obtained p value = 0.003 < 0.05. So, it can be concluded that there is a correlation between hemodialysis duration and appetite to patients CKD at Public Hospital of dr. Soekardjo, Tasikmalaya City. It is recommended that nurses provide education to families in dealing with appetite complaints by providing attractive foods according to dietary recommendations.

Keywords: *CKD, hemodialysis duration, appetite*

INTRODUCTION

The prevalence of Chronic Kidney Failure (CKD) in the world continues to increase so that it is often said to be a global health case. Based on data from WHO, the prevalence of CKD sufferers was 697.5 million in 2020, with data on 1.2 million patients dying (WHO,

2020). The spread of CKD disease not only occurs in developed countries but has also spread widely in developing countries (Syara et al., 2020).

In Indonesia itself, based on data from the United State Renal Data System, the rate of CKD sufferers has increased from 2,997,680 people to 3,091,240 people (Prabowo & Huwae, 2022). The results of the Global Burden of Disease research reveal that CKD continues to be the 27th cause of death in the world in 1990 and increased to eighteenth in 2010 (Ministry of Health, 2017).

The number of CKD sufferers in West Java reached 131,846 people and is the province with the highest prevalence of CKD sufferers in Indonesia (Ministry of Health, 2019). In Tasikmalaya City itself, GGK ranks 3rd out of the top 10 inpatient diseases at Public Hoaspital of dr. Seokardjo throughout 2020 there were 522 cases (Open Data Kota Tasik, 2020). Meanwhile, in 2021, the number of CKD sufferers at Public Hospital of dr. Soekardjo as many as 1,536 with hemodialysis patients as many as 645.

Then in 2022, the number of CKD patients at Public Hospital of dr. Soekardjo Tasikmalaya City increased to 2,217 with the number of hemodialysis patients as many as 1,164. This shows a significant increase compared to the previous 2 years.

CKD or what is often called Chronic Kidney Failure is a kidney condition that does not function properly and occurs for or more than 3 months. In CKD, the structure and function of the kidneys become abnormal, usually accompanied by a decrease in the Glomerular Filtration Rate (GFR), which is described as kidney damage (Gde et al., 2023). CKD causes the kidneys to experience decreased function, causing several health impacts in the form of urine not being able to be produced and excreted, the accumulation of toxins, increased blood pressure and disturbed fluid balance, resulting in complaints such as swelling in the limbs, shortness of breath and the risk of anemia (Rahayu, F ., Ramlis, R., & Fernando, 2018).

CKD causes kidney function to decrease so that CKD sufferers need kidney function replacement therapy called hemodialysis (Rahmawati, R, 2017). Hemodialysis is a therapy that aims to replace the kidneys in removing toxins and waste substances from the body's metabolism when the kidneys are unable to carry out their function and is carried out 2 to 3 times a week, for 4 to 5 hours (Effendi Zulfan, Muhammad, I., Islami, Z. R. , & Yusnisman, 2020).

Patients with CKD require kidney replacement therapy to survive. Kidney replacement therapy can include hemodialysis, peritoneal dialysis and kidney transplantation (Yulianti et al., 2015). Hemodialysis is one of the most frequently used therapies and the number continues to increase from year to year. The Indonesian Nephrology Association stated that there was an increase in hemodialysis patients by 5.2% from 2148 people to 2260 people (Puspasari & Nggobe, 2018).

CKD patients must undergo hemodialysis therapy for life, so that over a long period of time it can cause physical and psychological problems (Tartum et al., 2016). One of the physical problems often faced by patients undergoing hemodialysis is a decrease in appetite (Effendi Zulfan, Muhammad, I., Islami, Z. R., & Yusnisman, 2020). This is because prolonged hemodialysis sometimes causes an increase in acid in the stomach so that appetite decreases (Suharyanto & Madjid, 2013). The trigger is because there is an increase in products normally excreted by the kidneys in the blood, one of which is gastrin which can stimulate gastric acid secretion (Satti et al., 2021). Hemodialysis is not able to eliminate these

products completely so that in the long term it can cause an increase in acid in the stomach which triggers a decrease in appetite (Satti et al., 2021). Apart from that, during the hemodialysis process, substances that the body still needs are removed, such as water-soluble vitamins, one of which is Vitamin B1 (Insani et al., 2019). Vitamin B1 has the function of restoring contractions in the stomach which plays a role in the secretion of digestive juices and plays an important role in appetite (Hartoyo et al., 2015).

Paying attention to this, nurses have an important role in regularly monitoring the patient's appetite to prevent malnutrition which can worsen the patient's condition (Satti et al., 2021). This is because CKD patients undergoing hemodialysis have a higher risk of death if they have poor appetite (Gde et al., 2023). The actions that nurse need to take for CKD patients with decreased appetite are to recommend eating high calories, low protein, low sodium, low potassium and low glucose (Sari, N. H. C. & Bahri, 2022)

METHOD

The type of research used was quantitative research with a correlational method to determine the correlation between the duration of hemodialysis and appetite to patient with CKD at Public Hospital of dr. Soekardjo, Tasikmalaya City. This is in line with Arikunto's (2013) explanation. The population in this study were all CKD sufferers who underwent hemodialysis in February 2023 at the Hemodialysis Unit at Public Hoapital of dr. Soekardjo, numbering 97 people. The sampling technique in this research is total sampling, that is, the entire population is taken as a sample because it is less than 100 (Notoatmodjo, 2018).

RESULT AND DISCUSSION

Finding

Univariate Analysis

1. Gender

Distribution of Hemodialysis Characteristics According to Gender at Public Hospital of dr.Soekardjo, Tasikmalaya City

Type of Gender	Total	Percentage
Male	54	55,7%
Female	43	44,3%
Total	**97**	**100%**

Based on the table above, it shows that the majority of hemodialysis patients at Public Hospital of dr. Soekardjo, Tasikmalaya City, is 54 men (55.7%) and a small portion is female, 43 people (44.3%).

2. Age

Distribution of Hemodialysis Characteristics According to Respondent Age at Public Hospital of dr. Soekardjo, Tasikmalaya City

Age	Total	Percentage
Adult (19-45 years old)	32	33%
Elderly (>45 years old)	65	67%
Total	**97**	**100%**

Based on the table above, it shows that hemodialysis patients at Public Hospital of dr. Soekardjo in Tasikmalaya City is mostly elderly (> 45 years) as many as 65 people (67%) and a small number are adults (> 60 years) as many as 32 people (33%).

3. Duration of Hemodialysis

Frequency Distribution of Duration of Hemodialysis in Hemodialysis patient at Public Hospital of dr. Soekardjo, Tasikmalaya City

Duration of Hemodialysis	Total	Percentage
Short-Time (≤ 1 year)	28	28,9%
Long-Time (> 1 year)	69	71,1%
Total	**97**	**100%**

Based on this table, it shows that the majority of hemodialysis patients at Public Hospital of dr. Soekardjo Tasikmalaya City has been undergoing hemodialysis for a long time (> 1 year) as many as 69 people (71.1%) and a small number of patients have only recently undergone hemodialysis (≤ 1 year) as many as 28 people (28.9%).

4. Appetite

Frequency Distribution of Appetite in Hemodialysis Patients at Public Hospital of dr. Soekardjo, Tasikmalaya City

Appetite	Total	Percentage
Less Appetite	49	50,5%
Good Appetite	48	49,5%
Total	**97**	**100%**

Primary source (2023)

Based on the table, it shows that the majority of respondents had a poor appetite, 49 people (50.5%) and a small percentage of respondents had a good appetite, 48 people (49.5%).

5. Bivariate Analysis

The Correlation between Duration of Hemodialysis and Appetite in CKD Patients at Public Hospital of dr. Soekardjo, Tasikmalaya City

Duration of Haemodialysis	Appetite				Total		P *value*	OR
	Less		Good					
	F	%	F	%	Total	%		
Short-Time (≤ 1year)	7	25	21	75	28	100		
Long-Time (> 1year)	42	60,9	27	39,1	69	100	0,003	0,214
Total	49	50,5	48	49,5	97	100		

Primary source (2023)

Based on the data in table 5.5, it shows that the majority of respondents who have just undergone hemodialysis (≤ 1 year), or as many as 21 people (75%) have good appetite and a small portion or 7 people (25%) have poor appetite. The majority of respondents who had undergone hemodialysis for a long time (> 1 year), or 42 people (60.9%) had poor appetite and a small portion or 27 people (39.1%) had good appetite. The results of statistical tests using the chi square test obtained a p value = 0.003. This value is smaller than $\alpha = 0.05$ so Ho is rejected and Ha is accepted, meaning that there is a relationship between the duration of hemodialysis and appetite in chronic kidney failure (CKD) sufferers at Public Hospital of dr. Soekardjo, Tasikmalaya City. Based on the OR value, it shows that patients who have

undergone hemodialysis for a long time (> 1 year) have a 0.2 times chance of experiencing a decrease in appetite.

Discussion

Based on the research results, it shows that the majority of respondents who have just undergone hemodialysis (≤ 1 year), or as many as 21 people (75%) have a good appetite and a small portion or 7 people (25%) have a poor appetite. Most of the respondents who had undergone hemodialysis (> 1 year) or 42 people (60.9%) had poor appetite and a small portion or 27 people (39.1%) had good appetite. This is clarified by the results of statistical tests which show a p value of 0.003 < 0.05, thus Ho is rejected and Ha is accepted, which means there is a relationship between the duration of hemodialysis and appetite in CKD sufferers at Public Hospital of dr. Soekradjo Tasikmalaya City.

The results of this study are in line with the results of research by Rohkmah et al (2017), Suharyanto & Madjid (2013) and Syara et al (2020) which state that there is a relationship between the duration of hemodialysis and appetite in CKD sufferers with the statistical test results of the three studies having a p value. value < 0.05, so it is said that there is a relationship between the duration of hemodialysis and appetite in CKD sufferers. Different research results were found in Andriyani's (2019) research, which stated that poorer appetite was found at the start of patients undergoing hemodialysis. The difference in results may lie in the smaller number of samples so that they are not able to represent respondents' answers.

The mechanism causing decreased appetite in CKD sufferers undergoing hemodialysis is basically not known for certain, but some experts state that levels of the hormones leptin, ghrelin and neuropeptide Y are considered to be things that can influence appetite (Satti et al., 2021). According to Suharyanto & Madjid (2013), prolonged hemodialysis results in increased acid in the stomach so that CKD patients experience a decrease in appetite and even experience significant loss of body weight. In CKD patients who undergo hemodialysis, changes occur in the ability of the kidneys of CKD sufferers which cause disruption in the body's release of metabolic products, so that metabolic waste accumulates and causes clinical symptoms such as gastrointestinal disorders which are common, for example nausea and the elimination of substances that the body still needs during the hemodialysis process. such as glucose, protein, and water-soluble vitamins, namely vitamins B and C (Thamrin 2017; Santoso 2016; Insani et al., 2019)

Vitamin B, one of which is vitamin B1, has the function of restoring contractions in the stomach which plays a role in the secretion of digestive juices and plays an important role in appetite (Hartoyo et al., 2015). If the loss of these substances continues, symptoms of weakness, decreased appetite and nausea can occur (Pratiwi, 2018).

Based on the description above, researchers assume that patients who have undergone hemodialysis for a long time may experience a decrease in appetite because there is continuous elimination of substances that the body still needs, such as vitamin B1, which functions to restore contractions in the stomach which plays a role in the secretion of digestive juices and plays an important role. in appetite.

CONCLUSION

Based on the results of data analysis, the researchers concluded as follows: 1) Most of the hemodialysis patients at Public Hospital of dr. Soekardjo in Tasikmalaya City is 54 people

(55.7%) male and most of them are elderly (>45 years) 65 people (67%); 2) Most of the hemodialysis patients at Public Hospital of dr. Soekardjo, Tasikmalaya City, has been undergoing hemodialysis for a long time (> 1 year) as many as 69 people (71.1%); 3) Appetite of hemodialysis patients at Public Hospital of dr. Soekardjo, Tasikmalaya City, mostly has a poor appetite, 49 people (50%); 4) The results of statistical tests using the chi square test obtained a p value = 0.003. This value is smaller than α = 0.05 so Ho is rejected, and Ha is accepted, meaning that there is a relationship between the duration of hemodialysis and appetite in CKD sufferers at Public Hospital of dr. Soekardjo, Tasikmalaya City.

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