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Identify Characteristics Patient Chronic Kidney Failure at Dr. R. Soetijono Hospital Blora

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ABSTRACT

Background research based on the Global Burden of Disease (GBD) study shows that chronic kidney failure has been shown to be the main cause of death in the world. Kidney failure is one of the four diseases that can cause a high financial burden. Purposes is to know description of a case of chronic renal failureat Dr. R. Soetijono Hospital Blora for the period January 2021 to December 2022. Research methods used is the Retrospective Descriptive method using secondary data in the form of medical records / patient status stored in the Medical Records section of Dr. R. Soetijono Hospital Blora, period January 2021 to December 2022. Research result in the period January 2021 to December 2022, there were 221 cases of Chronic Kidney Failure, most of whom were adults and seniors, the gender was predominantly female, which is suspected to be the influence of kidney estrogen, as for the factors causing Chronic Kidney Failure, most of the patients had a history of Diabetes Mellitus with Hemodialysis therapy, and There was an increase in the number of cases by 27% from 2021 to 2022. Implications: The increase in the number of cases of Chronic Kidney Failure will have an impact on the readiness of health services in preparing facilities, resources, costs and technology to overcome problems that occur in CKF patients. Conclusion research that promotive and preventive efforts are very necessary in dealing with cases of Chronic Kidney Failure in adults with a history of Diabetes Mellitus.

Keywords: *Characteristics, Patient, Chronic Kidney Failure*

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INTRODUCTION

Chronic kidney failure (CKD) is one of the main causes of death in patients today. The incidence of chronic kidney failure cases tends to increase with the presence of risk factors including obesity and diabetes mellitus. Based on the Global Burden of Disease (GBD) study, chronic kidney failure has been shown to be the main cause of death in the world. The number of chronic kidney failure sufferers worldwide was around 843.6 million people in 2017 (Kovesdy, 2022).

Chronic kidney failure has varying degrees of seriousness, although treatment has been shown to slow the progression of the disease to worse. In the United States, 15% of adults suffer from chronic kidney failure, which is approximately 37 million people. Kidney failure which is treated with dialysis and kidney transplantation is a condition of end-stage kidney disease (CDC, 2022).

Many cases of kidney disease do not show symptoms or signs of problems that appear in their health. Kidney failure greatly disrupts the function of other body organs and can develop into end-stage kidney failure and can have fatal consequences if dialysis treatment and kidney transplantation are not carried out. About 7,000 end-stage kidney failure patients in Hong Kong are undergoing dialysis treatment or kidney transplants, a figure 90% higher than ten years ago (Kumar, 2016).

In the last three decades, there has been a change in disease patterns, from infectious diseases to non-communicable diseases. Non-communicable diseases account for 2 million deaths including diabetes and chronic kidney disease due to diabetes (Ministry of Health, 2022).

Basic Health Research in 2018 shows that the total number of cases of non-communicable diseases has increased compared to Basic Health Research in 2013, including chronic kidney disease increasing from 2 per million to 3.8 per million (Ministry of Health of the Republic of Indonesia, 2021).

Overcoming current health problems, the Ministry of Health is committed to transforming the health system by realizing six pillars of transformation to support health. transformation of referral services to ensure that every city in Indonesia has a referral hospital to treat catastrophic diseases which are the main cause of death and are the most expensive. Kidney failure is one of the four diseases that can cause a high financial burden (Ministry of Health of the Republic of Indonesia, 2015).

Based on the problems and description above, the author is interested in conducting research with the titleIdentification of Chronic Kidney Failure CasesAt Dr. Hospital R. Soetijono Blora Period from January 2021 to December 2022.

METHODS

The research method used is the Retrospective Descriptive method using secondary data in the form of medical records/patient status stored in the Medical Records section of Dr. R. Soetijono Hospital Blora. The population used is all research subjects Medical Records / Patient status. The sample used is the medical record / status of patients with a medical diagnosis of Chronic Kidney Failure and receiving treatment at Dr. R. Soetijono Hospital Blora for the period January 2021 to

December 2022. The research was conducted in the Medical Records section of Dr. R. Soetijono Hospital Blora. Data collected from medical records includes age, gender, time, history of illness, and treatment given, then data processing, data analysis is carried out, and presented in the form of a research report. The research was carried out after obtaining permission from Kesbanglimaspol Blora Regency to conduct research, the author then coordinated with the Medical Records section of Dr, R. Soetijono Hospital Blora by explaining the purpose and objectives of the research and guaranteeing the confidentiality of documents and data used in the research. The research was conducted from September 2023 to December 2023.

RESULTS

This chapter explains the results of research onidentification of cases of chronic renal failureat Dr. R. Soetijono Hospital Blora for the period January 2021 to December 2022. In carrying out this research, enumerators were involved in collecting data from medical records including age, gender, time, history of illness, and treatment given. The research was conducted from September 2023 to December 2023 with a total of 221 cases that met the criteria.

1. Respondent Age Characteristics

Table 1. Age Characteristics of Respondents

Age	Frequency	Percent
17-25	4	1.8
26-35	23	10.4
36-45	36	16.3
46-55	75	33.9
56-65	60	27.1
>65	23	10.4
Total	221	100.0

This research revealed 221 cases with Chronic Kidney Failure, most of whom were aged 46 – 55 years (33.9%).

2. Respondent Gender Characteristics

Table 2. Gender Characteristics of Respondents

Gender	Frequency	Percent
Man	101	45.7
Woman	120	54.3
Total	221	100.0

This research revealed 221 cases with Chronic Kidney Failure, the majority of which were female (54.3%).

3. Year of Treatment Characteristics

Table 3. Year of Treatment Characteristics

Year of Treatment	Frequency	Percent
2021	91	43.9
2022	124	56.1
Total	221	100.0

This research revealed 221 cases of Chronic Kidney Failure, the majority of which occurred in 2022 (56.1%).

4. Characteristics of Respondents' Disease History

Table 4. Characteristics of Respondents' Disease History

Disease History	Frequency	Percent
Diabetes mellitus	79	35.7
Glomerulonephritis	40	18.1
Hypertension	55	24.9
Kidney stones	26	11.8
Urinary tract infection	4	1.8
Other Causes	17	7.7
Total	221	100.0

This research revealed 221 cases with Chronic Kidney Failure, the majority of which had a history of Diabetes Mellitus (35.7%).

5.Characteristics of Treatment by Respondents

Table 4. Characteristics of Treatment by Respondents

Treatment	Frequency	Percent
Hemodialysis	115	52.0
Drug	105	47.5
Other Therapies	1	0.5
Total	221	100.0

This study revealed 221 cases with Chronic Kidney Failure, the majority of which underwent Hemodialysis therapy (52%).

DISCUSSION

The research results showed that there were 221 cases with Chronic Kidney Failure, most of whom were aged 46 – 55 years (33.9%) with a history of Diabetes Mellitus (38.7%). In cases with Chronic Kidney Failure, the majority were found in the early adult to senior age group, the results of this study are in accordance with statistical data that Chronic Kidney Failure occurs in adults in the United States, it is stated that 1 in 7 adults in the United States or around 35, 5 million people (14%) suffer from chronic kidney failure and as many as 9 out of 10 adults suffering from chronic

kidney failure do not know that they have chronic kidney failure. Chronic Kidney Failure in the United States based on age is more common in people aged 65 years or older (34%) than in people aged 45 – 64 years (12%) or 18 – 44 years (6%) (Stats, 2023).

The same results were also found that the majority of Chronic Kidney Failure patients were in the 46 - 55 year age group with a total of 28 people (35%). Kidney function decreases with increasing age, which can lead to kidney disorders which are supported by certain risk factors which cause Chronic Kidney Failure (Hasanah et al., 2023).

The results of this study showed that there were 221 cases with Chronic Kidney Failure, the majority of which had a history of Diabetes Mellitus (35.7%) and were mostly experienced by patients aged 56 - 65 years with 38 cases (63.3%). The next disease history in cases of Chronic Kidney Failure that was found was that patients suffered from High Blood Pressure in 18 cases (50%) which occurred at the age of 36 - 45 years. The results of this study are in accordance with cases that occurred in the United States, that Diabetes and High Blood Pressure are the causes of Chronic Kidney Failure and occur more often in adults. Around 1 in 3 adults suffer from Diabetes and 1 in 5 adults experience High Blood Pressure, so managing blood sugar and blood pressure can help maintain Kidney Health (Stats, 2023).

Of the 221 cases with Chronic Kidney Failure that were found, the majority were female (54.3%), this data is in accordance with research conducted in Brazil that cases of Chronic Kidney Failure occurred more often in women, around 60% of patients underwent dialysis therapy. Several studies show the effects of estrogen on the kidneys. Women begin dialysis with a lower glomerular filtration rate and are on average 1 – 2 years older than men (Kirsztajn et al., 2023).The characteristics of Chronic Kidney Failure cases which were found to be predominantly female, this result is in accordance with research conducted at Dr. Hospital. Soedarso Pontianak in the 2017 – 2018 period, the majority of patients with Chronic Kidney Failure were female, 29 people (52.73%) (Pralisa et al., 2021). The results of a similar study were carried out at six outpatient clinics in Auatria in 2019 with the results that Chronic Kidney Failure was more common in women in Austria than men, however more male patients received outpatient services at the Nephrology clinic (Lewandowski et al., 2023).

The research results showed that there were 221 cases with Chronic Kidney Failure in 2021, 97 cases (43.9%) and in 2022, 124 cases (56.1%), based on the number of Chronic Kidney Failure cases found at dr. R. Soetijono Hospital Blora from 2021 to 2022 experienced an increase in the number of cases by 27%. The increase in the number of cases is caused by many factors, including obesity and smoking which have been linked to the development of Chronic Kidney Failure, apart from that, metabolic factors such as insulin resistance, dyslipidemia and hyperuricemia are also involved in the development of Chronic Kidney Failure (Vaidya & Aeddula, 2024). Based on research conducted by Fahrul Rozi, et al at Gatot Soebroto Hospital, Jakarta, it was found that the incidence of Chronic Kidney Failure is influenced by a person's habits or lifestyle, including smoking habits which can increase the risk of Chronic Kidney Failure (Rozi et al., 2023).

The research results revealed 221 cases with Chronic Kidney Failure, the majority of which underwent Hemodialysis therapy (52%) with a history of Diabetes Mellitus (35.7%). Dialysis is a

form of kidney replacement therapy which plays a role in filtering the blood and removing excess fluid, dissolved substances and toxins. Dialysis ensures the maintenance of hemeostasis (stable internal environment) in people experiencing rapid loss of kidney function known as acute kidney injury, or slow and prolonged loss of kidney function known as chronic kidney disease. There are three main types of dialysis, namely Hemodialysis, Peritonial Dialysis, and Hemofiltration, this therapy is a mainstay therapy in the management of end-stage kidney disease with kidney conditions that have an increased workload, especially caused by Diabetes Mellitus. (Murdeshwar & Anjum, 2023). Hemodialysis is one of the best actions for patients with Chronic Kidney Failure to improve quality of life (Marianna & Astutik, 2020).

CONCLUSIONS

The research results showed that there were 221 cases of Chronic Kidney Failure with more females than males and dominated by the age range 46 - 55 years, most of whom had a history of Diabetes Mellitus and received Hemodialysis therapy. There has been an increase in the number of Chronic Kidney Failure cases by 27% in the period 2021 to 2022.

Promotive and preventive efforts are needed in efforts to control non-communicable diseases, especially the history of diseases that cause Chronic Kidney Failure. It is necessary to improve hemodialysis services both in quality.

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