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An Overview of Hypertension Complication Prevention in Elderly Patients at Nirwana Wreda Health Center, Blitar

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ABSTRACT

Hypertension is a major risk factor for cardiovascular diseases, leading to various organ damage and multiple comorbidities, requiring complex treatment in the elderly. This study aimed to explore the efforts made to prevent complications among hypertensive patients at the Nirwana Wreda Elderly Posyandu. A descriptive research design was employed, involving 75 respondents selected through purposive sampling. The study population consisted of elderly individuals with hypertension attending the Nirwana Wreda Elderly Posyandu. Data collection took place from February 12 to 29, 2024, using a structured interview tool comprising eight preventive behavior indicators. The findings revealed that all respondents (100%) reported not consuming alcohol, 67 individuals (89%) did not smoke, 53 (71%) practiced effective stress management, and 50 (66%) maintained a healthy sleep pattern. Additionally, 47 respondents (62%) engaged in regular physical activity, 45 (60%) attended routine health check-ups, 44 (58%) followed a balanced diet, and 30 respondents (40%) consistently took prescribed medications. Based on these results, it can be concluded that the majority of participants demonstrated inadequate prevention of hypertension complications. Therefore, efforts to enhance preventive practices are strongly encouraged. This study offers valuable insights for hypertensive individuals, educational institutions, and future researchers to strengthen strategies aimed at preventing complications associated with hypertension.

Keyword: Hypertension, Complication Prevention, Elderly.

ABSTRAK

Hipertensi merupakan faktor risiko utama penyakit kardiovaskular yang dapat menyebabkan kerusakan organ dan berbagai komorbiditas, serta memerlukan penanganan yang kompleks pada lansia. Penelitian ini bertujuan untuk mengeksplorasi upaya yang dilakukan dalam mencegah komplikasi pada pasien hipertensi di Posyandu Lansia Nirwana Wreda. Desain penelitian yang digunakan adalah deskriptif, dengan melibatkan 75 responden yang dipilih melalui teknik purposive sampling. Populasi penelitian terdiri dari lansia penderita hipertensi di Posyandu Lansia Nirwana Wreda. Pengumpulan data dilakukan pada tanggal 12 hingga 29 Februari 2024, menggunakan alat wawancara terstruktur yang mencakup delapan indikator perilaku pencegahan.
Hasil penelitian menunjukkan bahwa seluruh responden (100%) tidak mengonsumsi alkohol, 67 orang (89%) tidak merokok, 53 orang (71%) melakukan manajemen stres secara efektif, dan 50 orang (66%) menjaga pola tidur yang sehat. Selain itu, 47 responden (62%) melakukan aktivitas fisik secara teratur, 45 orang (60%) rutin melakukan pemeriksaan kesehatan, 44 orang (58%) menerapkan pola makan seimbang, dan 30 responden (40%) secara konsisten mengonsumsi obat sesuai resep.
Disimpulkan bahwa sebagian besar responden belum optimal dalam melakukan pencegahan komplikasi hipertensi. Oleh karena itu, Disarankan untuk meningkatkan strategi pencegahan komplikasi terutama melakukan aktivitas fisik dan pengobatan secara teratur.

Kata Kunci: Hipertensi, pencegahan komplikasi, lansia

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Introduction:

Hypertension is a disease caused by an increase in blood pressure above the normal limit, which exceeds 140 mmHg / 90 mmHg (Ansari et al., 2020). This disease is often known as a silent killer because it is often encountered without symptoms and the patient does not know that he has hypertension before checking (Amalia, 2021). Usually, the signs and symptoms that often appear are dizziness, fatigue, blurred vision, palpitations, and ringing in the ears (Lestari, 2022). Many factors cause hypertension, and those factors can be divided into two, the factors that cannot be changed, for example, age, gender, and genetics. While the risk factors that can be changed include smoking, stress, obesity, physical inactivity, excessive salt consumption, and a high-fat diet (Delfriana, 2022).

According to data from WHO 2015 shows that people with hypertension in the world are around 1.13 billion. Every year the number of people with hypertension will continue to increase and it is estimated that by 2025 hypertension cases will increase to 1.5 billion people. Based on Riskesdas 2018 data, the prevalence of hypertension in Indonesia is 34.1%, an increase compared to the previous data of 25.8% (Mala Rizqiya, 2023). According to Carey et al (2018) and Lionakis et al (2019) the prevalence of hypertension increases with age, reaching 31%, which means that approximately 1.4 billion adults are affected by hypertension."

Complications are conditions that arise as a result of prolonged, uncontrolled high blood pressure, and if left untreated, can lead to damage in other organs, ultimately reducing life expectancy (Lilis Hadiyati, 2022). Hypertension complications are the result of uncontrolled blood pressure. This often occurs when patients are non-compliant and do not follow a proper healthy lifestyle, leading to persistently high blood pressure (Kuzzairi, 2023). Uncontrolled hypertension can cause various complications: if it affects the heart, it may lead to heart failure; if it affects the brain, it may result in stroke; if it affects the kidneys, it may cause chronic kidney failure; and if it affects the eyes, it may result in hypertensive retinopathy (Lestari, 2022). These complications from hypertension are responsible for approximately 45% of deaths due to cardiovascular problems and 51% of deaths due to stroke. "Therefore, as the incidence of hypertension and its complications continues to increase, it is necessary to implement control and prevention efforts to avoid more severe organ damage, death, and disability (Carey et al, 2018; Yamazaki et al., 2018). There are two ways, namely nonpharmacological therapy and pharmacological therapy. Nonpharmacological therapy can be through lifestyle modifications such as dietary salt intake, and regular blood pressure control. While pharmacological therapy by given anti-hypertensive drugs that are taken regularly or obedient during treatment (Lestari, 2022).

Based on the description above, it can be explained that prevention is needed to control complications due to hypertension. Therefore, the authors are interested in researching the description of complication prevention carried out in patients with hypertension.

Methods:

The research design in this study is descriptive. The population in this study consisted of hypertensive patients at Posyandu Nirwana Werda, Rembang Village, Sananwetan District. The total population was 296 people. The sample in this study comprised 75 hypertensive patients selected using a purposive sampling technique who met the inclusion criteria, namely, patients diagnosed with hypertension without complications for more than 5 months. The location and time of this research were at Posyandu Lansia Nirwana Wreda, Rembang Village, Sananwetan District, Blitar City, from February 12-29, 2024, after obtaining research permission from the Blitar City Health Department with the number 440/084/410.102.8/2024. The variable in this study was the prevention of complications in patients with hypertension. Data collection in this study used a structured interview sheet with 8 aspects of questions.

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Results:

Table 1 Characteristics of Hypertension Patients at Elderly Posyandu Nirwana Wreda February 2024

Characteristics		F	%
Age	40-50 years old	3	4
	51-60 years old	29	39
	61 - 70	28	37
	>71	15	20
Gender	Man	11	15
	Woman	64	85
Last education	No School	3	4
	SD	19	25
	SMP	25	33
	SMA	26	35
	College	2	3
Job	Not working	8	11
	Housewife	31	41
	Trader	9	12
	Farmer	11	15
	Retired	2	3
	Self employed	9	12
	Laborer	5	7
TOTAL		75	100

Based on Table 1, it can be interpreted that the age of respondents is mostly between the ages of 51-60 years as many as 29 people (39%), the gender is mostly female as many as 64 people (85%), the highest level of education at the high school level (SMA) as many as 26 people (35%), the most respondent's job is a housewife as many as 31 people (41%).

Table 2 Prevention of Complications Based on Routine Health Checks at Elderly Posyandu Nirwana Wreda February 2024

Regular Health Checks	F	%
1x/month	35	47
> 1x/month	10	13
No health check	30	40
TOTAL	75	100

Based on Table 2, it can be interpreted that hypertensive patients do health checks 1x / month as many as 45 people (60%).

Table 3 Prevention of Complications Based on Smoking Habits at Elderly Posyandu Nirwana Wreda February 2024.

Smoke	F	%
Light	7	9
Currently	1	1
Heavy	0	0
Do not smoke	67	89
TOTAL	75	100

Based on Table 3, it can be interpreted that hypertensive patients do not smoke as many as 67 respondents (89%).

Table 4 Prevention of Complications Based on Alcohol Drinking Habits at Elderly Posyandu Nirwana Wreda February 2024

Alcohol	F	%
Don't drink alcohol	75	100
TOTAL	75	100

Based on Table 4.4, it can be interpreted that 75 respondents in the elderly Nirwana Wreda posyandu do not have the habit of drinking alcohol.

Table 5 Prevention of Complications Based on Physical Activity at Elderly Posyandu Nirwana Wreda February 2024

Physical activity	F	%
Light	33	44
Currently	10	13
Heavy	4	5
No Activity	28	37
TOTAL	75	100

Based on Table 5, it can be interpreted that hypertensive patients who do physical activity are 47 people (62%). With most doing light physical activity as many as 33 people (44%).

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Table 6 Prevention of Complications Based on Routine Treatment at The Elderly Posyandu Nirwana Wreda in February 2024

Treatment	F	%
Routine	30	40
Not routine	45	60
TOTAL	75	100

Based on Table 6, it can be interpreted that hypertensive patients do not take routine medication as many as 45 people (60%).

Table 7 Prevention of Complications Based on A Balanced Diet at Elderly Posyandu Nirwana Wreda February 2024

Category		F	%
Salt	<1 spoon	45	60
	>1 spoon	30	40
Coconut milk	<3x/week	28	37
	>3x/week	47	63
Meat	<2x/week	51	68
	>2x/week	24	32
Vegetable	Good	50	67
	Not enough	25	33
Fruit	Good	44	59
	Not enough	31	41

Based on Table 7, it can be interpreted that hypertensive patients consume salt <1 spoon as many as 45 people (60%), hypertensive patients who consume coconut milk >3x / week as many as 47 people (63%), hypertensive patients who consume meat <2x / week as many as 51 people (68%), hypertensive patients who consume vegetables regularly as many as 50 people (67%), hypertensive patients who consume good fruit as many as 44 people (59%).

Table 8 Prevention of Complications Based on Adequate Rest at Elderly Posyandu Nirwana Wreda February 2024

Rest	F	%
Good	10	13
Enough	40	53
Not enough	25	33
TOTAL	75	100

Table 8 can be interpreted that hypertensive patients who fulfill their sleep needs are 50 people (66%).

Table 9 Prevention of Complications Based on Managing Stress in the Elderly Posyandu Nirwana Wreda February 2024

Manage stress	F	%
Yes	53	71
No	22	29
TOTAL	75	100

Based on Table 9, it can be interpreted that hypertensive patients who can manage stress are 53 people (71%).

Table 10 Preventive Measures Taken at The Elderly Posyandu Nirwana Wreda February 2024

Complication Prevention	F	%
Don't drink alcohol	75	100
Do not smoke	67	89
Manage stress	53	71
Get enough rest	50	66
Physical activity	47	62
Regular health checks	45	60
Balanced diet	44	58
Routine treatment	30	40

Based on Table 10, it can be interpreted that the prevention that has been carried out by hypertensive patients in the elderly Nirwana Wreda posyandu in Rembang village from the most done is not drinking alcohol as many as 75

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people (100%), not smoking as many as 67 people (89%), can manage stress as many as 53 people (71%), have adequate and good rest patterns as many as 50 people (66%), does physical activity as many as 47 people (62%), do routine health checks as many as 45 people (60%), do a balanced diet as many as 44 people (58%), do routine medication as many as 30 people (40%).

Discussion:

Prevention of complications based on alcohol drinking habits

The research results show that 100% of respondents do not have a habit of drinking alcohol. According to Delfriana Ayu, (2022) consuming alcohol can cause hypertension because alcohol has a similar effect to carbon dioxide, which can increase blood acidity, causing the blood to become thicker and forcing the heart to pump harder, eventually leading to hypertension. Increased alcohol consumption in the long term will affect the increase of cortisol levels in the blood, thereby increasing the activity of the renin-angiotensin-aldosterone system (RAAS). Increased RAAS activity will enhance the reabsorption of sodium and water, retain sodium and water in the kidneys, and cause vasoconstriction of blood vessels, which eventually leads to hypertension. This is in line with the study by Jayanti et al., (2017), which stated that there is a relationship between the type of alcohol consumed and hypertension, and that the more alcohol consumed (>29 ml/day), the higher the risk of hypertension. This is also supported by Cecchini et al.,(2024) research, which found a relationship between alcohol consumption and the risk of hypertension, especially when consumed in amounts greater than 12 grams per day. Similarly, Algharably et al., (2024) stated that the risk of hypertension increases in men and women who consume 1–2 glasses of alcohol per day (10–20 grams of alcohol per day), and the risk decreases with reduced alcohol consumption or cessation, as it leads to a decrease in systolic blood pressure (SBP) by 3.3 mmHg and diastolic blood pressure (DBP) by 2 mmHg. This proves that avoiding alcohol consumption reduces the risk of hypertension and serves as a strategy for preventing hypertension.

Prevention of complications based on smoking habits

According to the research results, 89% of respondents with hypertension did not have a smoking habit, and only 9% were light smokers. Smoking is a major risk factor for cardiovascular disease, and quitting smoking is one of the most effective steps in preventing various types of cardiovascular conditions. Smoking can cause endothelial dysfunction, increase arterial stiffness, induce inflammation, and trigger the formation of atherosclerotic plaques. In addition, nicotine in cigarettes stimulates the sympathetic nervous system to release the hormones epinephrine and norepinephrine, leading to an increased heart rate and vasoconstriction of blood vessels, which over time results in elevated blood pressure (Rahmatika, 2022; Wagai et al., 2023). This is consistent with research by Dilla dkk., (2024), which states that smoking increases the risk of hypertension in the productive age group, as shown by the fact that 83% of the 24 respondents who smoked experienced hypertension. This is also supported by Nurhaeni dkk., (2022) who stated that the longer a person smokes, the higher their risk of developing hypertension. In addition to smoking duration, the number of cigarettes smoked per day also increases the risk of hypertension. A person who smokes more than one pack per day is twice as likely to develop hypertension compared to non-smokers. Each cigarette smoked can raise systolic blood pressure by 10–25 mmHg and increase heart rate by 5–20 beats per minute (Rahmatika, 2022).

Prevention of complications based on managing stress

According to the research results, 83% of individuals with hypertension are able to manage stress. Stress is a physiological and psychological response that occurs in a person. During stress, the body releases the hormones adrenaline and cortisol into the bloodstream. These hormones accelerate heart activity. Prolonged stress can cause blood vessel constriction and increased

heart workload, which in turn can elevate blood pressure (Fatmawati, 2021).

Individuals who do not manage stress well have a higher risk of developing hypertension compared to those who are able to manage stress effectively. This is supported by Darmatatya dkk., (2023), who found that good stress management can help control blood pressure to a normal level. Likewise, various non-pharmacological therapies for managing stress have been proven effective in reducing blood pressure and preventing the progression of hypertension.

In contrast, individuals who do not manage stress may experience repeated increases in blood pressure due to stimulation of the sympathetic nervous system, which results in the release of large amounts of hormones (adrenaline, thyroxine, cortisol). These hormones prepare the body for a "fight or flight" response, activating the sympathetic nerves and causing increased heart rate and blood vessel constriction. If stress persists over a long period of time, it can damage the body's health, including leading to hypertension (Delavera dkk., 2021).

Additionally, many people experiencing stress tend to turn to smoking, drinking alcohol, or overeating as a way to cope. These habits further increase the risk of hypertension (Wulan Sari dkk., 2024). Therefore, stress management is essential in preventing hypertension.

Prevention of complications based on adequate rest

According to the results of the study, 66% of respondents with hypertension have taken preventive measures against complications by fulfilling their need for rest, averaging 6–7 hours of sleep per day. Adequate and quality sleep is one of the essential aspects of hypertension management that is often overlooked. Getting sufficient nighttime rest (7–9 hours) has a significant physiological impact on the cardiovascular system, especially in patients with hypertension (Darmatatya dkk., 2023).

Adequate rest helps reduce the activation of the sympathetic nervous system, thereby lowering the release of stress hormones such as cortisol and norepinephrine, which can cause vasoconstriction (narrowing of blood vessels) and an increase in blood pressure. This mechanism helps maintain blood pressure within a normal range. On the other hand, sleep deprivation increases sympathetic nervous system activity and stress hormone levels, which over time can accelerate the onset of hypertension-related complications such as stroke, kidney failure, and coronary heart disease (Carey, Muntner & Bosworth, 2018). This statement is supported by Iqbal (2023) and Unger et al., (2020), who stated that insufficient rest or sleep disturbances are among the risk factors that worsen essential hypertension by disrupting blood pressure regulation through the neurohormonal system. Therefore, preventive efforts through lifestyle modifications, including adequate rest, are essential.

Moreover, chronic sleep deprivation can also lead to increased resistance to hypertension medication, requiring higher doses to achieve blood pressure control (Carey, Muntner, & Bosworth, 2018). This is further supported by a study conducted by Rusdiana dkk., (2019), which found a significant relationship between poor sleep quality and elevated blood pressure among hypertensive patients in Indonesia. These findings indicate that sleep quality plays a crucial role in preventing hypertension complications, even within the local context.

Prevention of complications based on physical activity

Based on research findings, 57% of individuals with hypertension have taken steps to prevent complications through light physical activity. Hypertension, or high blood pressure, is one of the main risk factors for various cardiovascular complications such as stroke, coronary heart disease, heart failure, and chronic kidney disease. Physical activity has been proven to be one of the main pillars in the prevention and control strategy for hypertension (Barone Gibbs et al., 2021). According to Diaz & Shimbo, (2013), regular physical activity plays an important role in preventing the development of primary hypertension, as well as reducing the risk of complications that may arise if hypertension is not properly managed. Physical activity increases cardiac efficiency, directly lowers blood pressure, and improves insulin sensitivity and lipid profiles.

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In addition, physical activity that is performed actively and regularly enhances blood vessel elasticity, making the heart work more efficiently, reducing cardiac output, and ultimately lowering blood pressure. Physical activity should be carried out for at least 15–30 minutes per day to reduce the risk of increasing blood pressure and to help maintain the body's balance and coordination (Indriani, 2023). Strengthening this, Carey et al., (2018) in the JACC Health Promotion Series stated that moderate-intensity aerobic exercise such as brisk walking, cycling, or swimming for a minimum of 150 minutes per week can lower average blood pressure by 5–8 mmHg, reduce body weight and help maintain a healthy weight, improve vascular flexibility, reduce peripheral resistance, and decrease psychological stress that can trigger blood pressure spikes, ultimately significantly reducing the risk of complications such as stroke and heart attack.

Furthermore, Barone Gibbs et al., (2021) emphasized that physical activity should be treated as a core component of early treatment for individuals with high blood pressure or elevated cholesterol levels. Exercise can provide benefits equal to or even greater than mild pharmacological treatment in reducing systolic and diastolic blood pressure, as well as improving endothelial function in blood vessels. Even individuals who have already experienced complications are advised to continue engaging in physical activity to improve long-term prognosis and reduce the risk of recurrence.

In contrast, individuals with hypertension who lack physical activity tend to experience weight gain, causing the heart to work harder to pump blood throughout the body, leading to an increase in blood pressure. This lack of physical activity also contributes to the hardening of arterial blood vessels, which, if persistent, can lead to plaque formation that blocks the arteries, resulting in complications such as stroke or other heart diseases (Diaz & Shimbo, 2013). According to research by Indriani, (2023), people with hypertension who only engage in light physical activity have a 30–50% higher risk of complications compared to those who engage in moderate or vigorous activity. This is supported by Kifle et al., (2022), who found that individuals with hypertension who engage in sedentary physical activity have a 4 times greater risk of developing complications compared to those who engage in vigorous physical activity (AOR = 4.049). Therefore, physical activity plays a vital role in the management and prevention of hypertension and its complications.

Prevention of complications based on regular health checks

Based on research findings, 60% of individuals with hypertension have taken preventive measures against complications by undergoing routine health checks once a month. Routine health checks are essential for individuals with hypertension to detect the risk of complications and to monitor their health condition regularly, enabling them to be more vigilant (Lamuke, 2022). According to Lei et al., (2022), regular health examinations are significantly associated with better control of cardiovascular risk factors. These examinations have been proven to help maintain blood pressure, blood glucose levels, and lipid profiles within normal ranges, all of which are crucial components in preventing hypertension-related complications.

Putri dkk., (2021) added that early detection of hypertension complications through screening or routine check-ups can prevent the progression of more serious complications. Early detection enables quicker intervention, whether through pharmacological treatment or lifestyle modifications. Research by Angriawan et al., (2024) also shows that public education about hypertension, combined with routine health checks, significantly improves public knowledge and awareness regarding the risks of complications, particularly stroke. This is further supported by Carey et al., (2021), who emphasize that in the management of hypertension, routine check-ups are not only a part of clinical monitoring but also serve as a means for education, medical consultation, evaluation of therapy effectiveness, patient adherence to treatment, and adjustments to lifestyle interventions. Therefore, with support from healthcare professionals and increased public

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participation in routine health checks, complications from hypertension can be more effectively prevented.

Prevention of complications based on a balanced diet

Based on research findings, 40% of hypertensive patients consumed less than 1 teaspoon of salt, 63% consumed coconut milk-based dishes more than 3 times a week, 32% ate meat more than twice a week, 33% had insufficient vegetable intake, and 41% consumed inadequate fruit. This indicates that hypertensive patients have not fully implemented prevention strategies through a balanced diet. A balanced diet is a crucial pillar in preventing hypertension complications.

The recommended dietary pattern for hypertensive individuals is the DASH diet (Dietary Approaches to Stop Hypertension). The DASH diet is a lifestyle modification that emphasizes the consumption of fruits, vegetables, low-fat or fat-free dairy products. It also recommends limiting the intake of salt, sugar, sweetened foods, fats, and red meat. The recommended salt intake for hypertensive patients is 5 grams per day, equivalent to one teaspoon. This diet also focuses on reducing the consumption of saturated fats, trans fats, and cholesterol while increasing the intake of nutrients such as potassium, magnesium, calcium, protein, and fiber, all of which help lower blood pressure. Implementing the DASH diet can reduce systolic blood pressure by 8–14 mmHg (Eliza, 2022).

This is supported by Carey et al. (2018 & 2021), who stated that comprehensive hypertension management includes lifestyle changes such as adopting a healthy diet, notably the DASH diet, which has been proven effective in significantly lowering both systolic and diastolic blood pressure. This diet also helps maintain electrolyte balance and improves vascular function, thereby reducing blood pressure and preventing long-term complications. Lei et al., (2022) stated that controlling cardiovascular risk factors, including blood pressure and lipid levels, greatly depends on consistent healthy lifestyle habits, particularly a proper diet. A balanced diet helps regulate cholesterol and blood sugar levels—two key components that, if uncontrolled, can accelerate vascular damage in hypertensive patients. Putri dkk., (2021) added that early detection and education regarding the importance of dietary management can reduce the risk of complications, as patients become more aware of how food affects their blood pressure. This aligns with Angriawan et al., (2024), who emphasized that increasing public knowledge about hypertension—including the importance of a balanced diet—plays a major role in preventing complications, especially stroke.

Therefore, a balanced diet is a vital strategy in preventing hypertension-related complications. By limiting the intake of salt and saturated fats, and increasing consumption of foods rich in fiber, potassium, and antioxidants, hypertensive patients can control their blood pressure and reduce the risk of organ damage.

Prevention of complications based on routine treatment

Based on research, 60% of individuals with hypertension do not prevent complications by adhering to regular treatment. One of the key aspects in preventing hypertension complications is discipline in undergoing routine treatment, both pharmacological and non-pharmacological. Regular and consistent treatment must continue even when no symptoms appear in patients.

According to Carey et al, (2018 & 2021),guideline-driven approaches in hypertension treatment are crucial in reducing the incidence of complications. Timely and regularly administered antihypertensive therapy has been proven effective in controlling blood pressure and preventing target organ damage such as the heart, brain, and kidneys. Routine treatment not only involves taking medication daily but also includes regular monitoring by healthcare professionals, evaluation of medication effectiveness, and dose adjustments if needed.

This is supported by Lei et al., (2022), who stated that control of cardiovascular risk factors greatly depends on adherence to treatment and regular medical follow-ups. Putri dkk., (2021) explained that early detection of complications and prompt

management through medication can prevent the progression of more severe conditions. Regular consumption of antihypertensive drugs has been proven to lower blood pressure and maintain it within the normal range, which is essential to prevent organ damage. Many patients stop taking their medication once symptoms improve, even though hypertension often presents without symptoms (the "silent killer"), and discontinuing treatment can actually increase the risk of complications such as stroke or heart attack (Angriawan et al., 2024). Therefore, routine treatment is one of the most crucial components in preventing hypertension complications. Regular medication intake, accompanied by medical monitoring and continuous education, can effectively control blood pressure, prevent target organ damage, and significantly reduce the risk of serious complications such as stroke, heart failure, and kidney disease.

Conclusions:

Based on the results of research conducted on the description of the prevention of complications in hypertensive patients at the Nirwana Wreda Elderly Posyandu, Rembang Village, Sananwetan Sub-district, Blitar City, the majority of those with hypertension are female, aged 51-60 years, with a high school education, and work as housewives. Regarding the prevention of complications among the 75 respondents with hypertension, the findings are as follows: 75 respondents (100%) do not consume alcohol, 67 respondents (89%) do not smoke, 53 respondents (71%) manage stress effectively, 50 respondents (66%) have a good rest pattern, 47 respondents (62%) engage in physical activity, 45 respondents (60%) undergo routine health checks, 44 respondents (58%) maintain a balanced diet, and 30 respondents (40%) take routine medication. This study concludes that most people with hypertension exhibit insufficient prevention of hypertension complications. It is recommended to further improve preventive measures to avoid complications.

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