

THE RELATIONSHIP BETWEEN RISK FACTORS AND THE PREVALENCE OF STROKE IN CIAMIS REGENCY IN 2023

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ABSTRACT

Stroke is the disease that caused the first record in the world. The number of strokes increases from year to year. The results of Riskesdas in 2018 showed that there was an increase in the incidence of stroke from 2017. Some factors that are predicted to cause stroke include age, blood sugar levels, blood cholesterol levels, smoking habits, high blood pressure and physical activity. This study aims to determine the relationship between risk factors and the prevalence of stroke with the population of Mekarjadi Village community selected based on age criteria of more than 35 years as 30 people. This research instrument uses the Stroke Risk Score Card. Data analysis was carried out using linear regression. The results showed no association between risk factors and stroke prevalence (p -value = 0.633). While the older the age has a tendency to stroke by 3.8 times, normal blood sugar has a tendency to have a stroke by 0.82 times, smoking habits have a contribution of 3.6 times, high blood pressure triggers stroke by 4.62 times and physical activity has a contribution of 0.8 times the occurrence of stroke. Advice to the public to remain aware of these risk factors by continuing to carry out regular health checks and maintaining a healthy lifestyle by exercising regularly

Keywords: risk factors, stroke

INTRODUCTION

Stroke is a functional disorder of the brain in the form of nerve paralysis (neurological deficit) due to obstruction of blood flow to the brain. In simple terms, stroke can be defined as a brain disease due to the cessation of blood supply to the brain due to blockage (ischemic stroke) or bleeding (hemorrhagic stroke) (Junaidi, 2018). According to Basic Health Research (Riskesdas) data in 2018, stroke is in the top ten most non-communicable diseases in Indonesia. The prevalence of stroke in Indonesia based on the diagnosis of health workers is found to be 7.0‰ and based on the diagnosis of health workers or symptoms is 12.1‰. This shows that as many as 57.9% of strokes have been diagnosed by health workers. The prevalence of stroke in West Java in 2019 based on the diagnosis of health workers is 6.6‰. Meanwhile, the prevalence of stroke in West Java based on the diagnosis of health workers and symptoms is 12.0‰ (Ministry of Health RI, 2019).

METHODE

This type of research is quantitative descriptive with correlational design and cross sectional approach. The population of this study was 223 Mekarjadi Village communities and 30 people were sampled according to the criteria as age over 35 years and domicile of Mekarjadi Village. During the study, the team examined respondents' data, blood pressure, blood sugar levels, cholesterol levels and interviews with smoking habits as well as activity interviews.

RESULTS AND DISCUSSION

The results showed that there was no relationship between risk factors and the prevalence of stroke in Mekarjadi Village, Sadananya District, with a p -value of 0.633. The odd ratio of

the age factor is 3.8 which means that the older the age, the tendency to stroke by 3.8 times. Odd Ratio of blood sugar levels of 0.82 with the meaning that normal blood sugar has a tendency to have a stroke of 0.82 times. The odd ratio of smoking habit factor of 3.6 means that smoking habits have a contribution of 3.6 times to the occurrence of stroke. Odd ratio of blood pressure of 4.62 means that high blood pressure triggers stroke by 4.62 times compared to normal blood pressure and odd ratio of physical activity of 0.86 means that physical activity has a contribution.

Table 1. Correlation between risk factors and prevalence of Stroke

No	Risk factor	Stroke		No Stroke		OR	<i>p value</i>
		f	%	f	%		
1	Age						
	High Risk	3	10	5	16,7	3,8	0,633
	Medium Risk	0	0	19	63,3		
	Low Risk	0	0	3	10		
2	Blood sugar						
	High Risk	0	0	9	30	0,82	0,633
	Medium Risk	3	10	18	60		
	Low Risk	0	0	0	0		
3	Habit smoking						
	High Risk	2	6,7	7	23,3	3,6	0,633
	Medium Risk	0	0	3	10		
	Low Risk	1	3,3	18	60		
4	cholesterol						
	High Risk	3	10	6	20	1,8	0,633
	Medium Risk	0	0	15	50		
	Low Risk	0	0	6	20		
5	Hypertension						
	High Risk	3	10	21	70	4,62	0,633
	Medium Risk	0	0	5	16,3		
	Low Risk	0	0	1	3,4		
6	Phycal activity						
	High Risk	3	10	19	63,3	0.86	

Medium Risk	0	0	9	26,7
Low Risk	0	0	0	0

The results showed no association between risk factors (p -value = 0.633). This can happen because of the low incidence of stroke in the people of Mekarjadi Village, Sadananya District. The incidence of stroke in the community is low because the people of Mekarjadi Village have a moderate risk of factors that are considered to be trigger factors for stroke such as age, blood pressure, blood sugar levels, blood cholesterol levels and activities. This is in line with the results of research by Guzik and Bushnell (2017) which said that factors that are expected to trigger stroke at this time are airway obstruction during sleep, use of electronic cigarettes and increased lipoprotein in the blood.

Lipoprotein or cholesterol, increased cholesterol in the blood can cause blockage in arteries including in the brain. This blockage can cause nerve damage by decreasing blood supply to the brain due to blockage in the arteries in the brain. Smeltzer and Bare (2017) say that occlusion of a brain artery will cause reduction of an area where the surrounding normal brain tissue that still has good bleeding tries to help blood supply through existing anastomosis pathways.

The initial changes that occur in the cortex due to vascular occlusion are the darkening of the color of venous blood, decreased speed of blood flow and slight dilatation of arteries and arterioles. Furthermore, edema will occur in this area. During this event, autoregulation is no longer functioning so that blood flow passively follows all changes in arterial blood pressure. Reduced cerebral blood flow to a certain threshold will initiate a series of impaired neural functions and permanent tissue damage.

Mekarjadi Village communities have a risk of activity factors, Strenuous physical activity in individuals who have high blood pressure (hypertension) makes the risk of stroke greater.

LIMITATION OF THE STUDY

small samples

CONCLUSIONS AND SUGGESTIONS

There is no relationship between risk factors and stroke prevalence (p -value = 0.633) in Ciamis Regency then Risk factors for stroke in Mekarjadi Village community are interpreted as medium risk with The prevalence of stroke in the village community is in the low category (10%). It is recommended to the public to remain aware of these risk factors by continuing to carry out regular health checks and maintain a healthy lifestyle by exercising regularly.

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