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The Influence of Soursop Leaf Consumption on the Decrease of Hypertension in Elderly Women in Posyandu Lansia Dupak Surabaya

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ABSTRACT

Hypertension leading cause of death and hig morbidity. It's high prevelance which is likely to increase in the future, can lead to stroke, heart disease, and even death. Control of hipertension using antihypertensive drugs has become an obstacle because of its side effects and exorbitant cost. Hypertension countermeasures is through healthy lifestyle changes and also can use herbs such as soursop leaves (annona muricata lin), in the from which emperically can lower blood pressure. The purpose of this study to determine the effect of decoction of soursop leaves to decrease blood pressure in elderly women in Posyandu Elderly Dupak Surabaya. Design The research that I use is Pre-experimental Design with One Group Pre-Test-Post Test Design approach. Population used sebayak 56 respondents, the sample used sebayak 28 respondents are elderly women with high normal hypertension, hypertension stage I (Light) and hypertension stage II (medium) in Posyandu Elderly Dupak Surabaya, using technique Purposive Sampling. Data collection using blood pressure observation sheet before and after soursop leaf decoction, then performed tabulation and analysis Receiveidusing test wilcoxon sign rank test. The results of this study showed that some respondents had stage II blood pressure (14) (50,0%) respondents before they were decoction of soursop leaves and some respondents had High Normal blood pressure of 12 (42,9%) respondents after they were decoction of soursop leaf . From the statistical test, it can be concluded that there is a significant difference between blood pressure before and after stew of soursop leaves (p-value value is 0,002, because p-value <α (0,05) means effectiveness of soursop leaf decoction in elderly woman in Elderly Posyandu Dupak Surabaya. The conclusion is the decoction of soursop leaves affects the decrease in blood pressure of elderly women. It is recommended for elderly women to regularly eat soursop leaves decoction.

I. INTRODUCTION

Hypertension is systolic and diastolic blood pressure > 140/90 mmHg. The measurement of blood pressure at least is conducted twice in four hours [1]. The classification of mature blood pressure is categorized two kinds such aslow hypertension whose diastolic is 130-139/85-89mmhg, middle hypertension whose diastolic is 140-159/90-99 mmhg, and high hypertension whose diastolic is 160-179/100-109 mmhg [2]. According to WHO, elderly woman is someone whose age is 60 years old up. Elderly woman is a category final phase of life. A group categorized elderly woman will experience aging process. Hypertension on elderly woman is likely or more than a manbecause of the effect of estragon hormone protective decreased. Someone, more than 45 years old, is one of the factors of hypertension [3].

Sour sop is kind of casuarina tree having wide leaves and flowers. The scientific name of those leaves are Annona Muricata. Sor sop leaves contain monotetrahidrofuran asotegenin like anomurisin A and B, gigantetrosin A, annonasin-10-one, muricatosine A and B, annonasin, and goniotalacimine. Sour sop leaves also contain anti-oxidant used to make blood metabolism well, so they are often used to cure hypertension [4].

Our society is generally familiar with these leaves. Formerly, many people utilized sour sop leaves and fruit. Sour sop, having unique shape, has sweet, soup, and fresh taste when consumed. Traditionally, sour sop leaves are used to cure any diseases like hypertension, rheumatic, diabetes, stomach ache, fever, cough, cancer, asthma, digestion disorder, and reduce stress. Sour sop leaves are long round and short sharp on the top. When the leaves are ripe, they are dark green, while young, they are yeloowish green. Sour sop leaves contain useful active substance, such as annocatalin, gigantetronin, linoleic acid, and muricapentocin. So far, sour sop leaves are detected their benefit traditionally like to cure many kind diseases. The contain of sour sop curing hypertension is anti-oxidant [5].

The result of survey data of WHO in 2014 stated that cardiovascular is the main murder in the world specially for those 45 years old up, and it was predicted more than 12 million people died because of it each year. Globally, it is estimated that hypertension causes 7,e million death approximately 12,8% ofthe whole death. The whole prevalency of hypertension on mature, > 25 years old, is around 40% in 2008. In Indonesia, prevalency hypertension increases from 7.6% in 2007 up to 9.5% in 2013 [6]. In 2015, elderly women experiencing hypertension were 9.413 patients from 13.703 targeted (data from health minister of Surabaya city). Based on the previous study conducted in public health center of Dukuh Kupang Surabaya from August 12 to October 12, 2017 was found that elderly women were 2.244 people while having hypertension 70 patients. It was taken 5 respondents to measure their blood pressure. It was called hypertension if categorized into high normal hypertension (130-139//85-89 mmhg), stadium I (140-159/90-99 mmhg), and stadium II (160-179/100-110 mmhg). Based on the measurement of blood pressure above, they were given boiled sour sop leaves when on elderly medical service. Complication experienced on elderly women, based on the data of medical service for elderly, was the blood pressure decreased after they consumed boiled sour sop leaves for 3 days regularly.

The micro effect of hypertension is other degenerative diseases like heart attack coroner, stroke, heart failure, periphery vena disorder, kidney disorder, bleeding, even temporary blind. The macro effect of hypertension is low patient's life standard, and the worst possibility is death because of their hypertension complication [7]. Principally, there are two kinds of therapy solutions of it such as pharmacology and non-pharmacology therapy. Non-pharmacology therapy means that patients modify their life style by having healthy life style and they come back to nature. Concerning on back to nature concept, this concept utilizes the goods around (natural food) like boiled sour sop leaves, boiled coriander, and juice of celery [7].

II. METHODS

The research method uses pre-experimental design, one group pre-test and post-test design where to show the correlation between cause and effect by involving a subject. Subject group is observed before interfered then re observed after interfered [8,9]. The populations of this research were the whole hypertension elderly women in integrated medical service of elderly women of Dukuh Kupang public health center area. The populations were 56 respondents while the samples were 28 respondents. The sampling technique used non-probability sampling by purposive sampling where in determining samples by certain consideration or specific selection [9]. The research instruments were tansy meter and observation sheet. The data analyses used logically regression with the margin error 5% (@=0.05).

III. RESULT AND DISCUSSION

RESPONDENT CATEGORY

Tabel 1 Distributing respondent frequency was based on age and the category of elderly women hypertension in integrated medical service of Dupak, Surabaya city on March 2018.

No	Respondent Category	∑	%
1	**Age**	13	46,4
	60-65 years old	15	53,6
	66-75 years old		
2	**Blood pressure**	3	10,7
	low		
	(130-139/85-89 mmhg)	11	39,3
	middle		
	(140-159/90-99mmhg)	14	50,0
	high		
	(160-179/100-109mmhg)		

Tabel 2 Cross tabulation affected by boiled sour sop leaves to hypertension decrease on elderly women in integrated medical service of Dupak, Surabaya city

category	Blood pressure before consuming boiled sour sop leaves		Blood pressure after consuming boiled sour sop leaves	
	∑	%	∑	%
low	3	10,7	12	42,9
middle	11	39,3	7	25,0
high	14	50,0	9	32,1
Total	28	100	28	100

Tabel 3 Result of statistic test

Statistic Test

	post test - pre test
Z	-3.116[a]
Asymp. Sig. (2-tailed)	.002

IV. DISCUSSION

Blood pressure on hypertension elderly women before consuming boiled sour sop leavesin integrated medical service of Dupak, Surabaya city.

Blood pressure on hypertension elderly womenbefore consuming boiled sour sop leaves can be inferred that some respondents with high hypertension were 14 respondents (50.0%) before consuming boiled sour sop leaves.

According to researcher, hypertension on respondents before consuming boiled sour sop leaves can be caused general respondents factor, viewed all respondents were women. It is affected very much because the older someone, the bigger risk to be sick like hypertension. Lack activity or sport, uncontrolled dietary concept, and being lazy in consuming medicine because of being addicted can increase blood pressure.

Blood pressure on hypertension elderly women after consuming boiled sour sop leaves in integrated medical service of Dupak, Surabaya city

Blood pressure on hypertension elderly women after consuming boiled sour sop leaves can be inferred that some respondents with high hypertension were 12 respondents (42.9%) before consuming boiled sour sop leaves.

According to researcher, hypertension on respondents after consuming boiled sour sop leaves decreased because they drank that water, medicine regularly, kept dietary concept and enough sport. In this research, conducted for 3 days, it was found that respondent's blood pressure increased after given boiled sour sop leaves. It happened because on the second day, patient just drank 125 ml, and she did not keep dietary concept on the second and third day [12].

This idea was supported by previous research conducted by student of medical faculty of Airlangga University of Surabaya and Kristen Maranta University of Bandung. It was found that the decrease of blood pressure after consuming boiled sour sop leaves because sor sop leaves contains anti-oxidant and ion calium decreasing blood pressure [13].

The effect of consuming boiled sour sop leaves in decreasing hypertension to elderly women in integrated medical service of Dupak, Surabaya city.

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Based on Wilcoxon test, it is gotten that p value is 0.002 because p value α(0.05), so H0 is rejectedwhile H1 is accepted. It means that there is an effect of consuming boiled sour sop leaves in decreasing hypertension to elderly women in integrated medical service of Dupak, Surabaya city. The test result is Negative rank. It means that respondent's blood pressure decreased before and after consuming boiled sour sop leaves. Ties is also found in this research namely respondent's blood pressure decreased before and after consuming boiled sour sop leaves but it is still in the same category. Many effort doen to cure hypertension such as by herbal product, sour sop leaves. Sour soup

leaves has been used for traditional medicine useful to decrease hypertension. This kind of tree contains monotetrahidrofuran asetogenin like anomurisin A and B, gigantetrosin A, annonasin-10-one, muricatosine A and B, annonasin, and goniotalacimine and nutrition one of them is anti-oxidant to decrease hypertension [10].

The procedures of making boiled sour sop leaves in order to be able to consume are as follow, 250 ml water and drunk twice a day, 125 ml in the morning, and 125 ml at night, and consumed for 3 days regularly. In this process, we have to take 15 pieces of the ripe leaves because they contain nutrition such as calorie 65 grams, protein 1 gram, fat 0.95 gram, carbohydrate 16.5 gram, fiber 3.2 grams, calcium 14 mg, phosphor 27 mg, iron 0.64 mg, B1 vitamin 0.007 mg, A vitamin 10 si, cilium 8 mg, riboflavin 0.06 mg, niacin 1.3 mg, tryptophan 11 mg, metionin 8 mg, lysine 60 mg, mitionin 8 mg, anti-oxidant 78 mg. the essence of sour sop leaves which can decrease blood pressure is anti-oxidant [10,11].

V. CONCLUSION

Before consuming boiled sour sop leaves, it can be inferred that most respondents experiencing high hypertension were 14 respondents (50%). After consuming boiled sour sop leaves, it can be inferred that other respondents experiencing low blood pressure were 112 respondents (42,9%). The result of statistic test was found that p value = 0.002., smaller than @ score0.05 (p=0.02 < @=0.05). it means that there is an effect of consuming boiled sour sop leaves to the decrease of hypertension.

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