International Journal of Allied Medical Sciences and Clinical Research (IJAMSCR)

ISSN:2347-6567

IJAMSCR |Volume 7 | Issue 3 | Jul - Sep - 2019
www.ijamscr.com

Research article *Medical research*

Effectiveness of leaves moringa (moringa oleifera) on blood lipid fertile age women with hypertension

Despita Sari[1], Noor Pramono[2], Imam Djamaluddin[3]

Poltekkes Kemenkes Semarang / Semarang, Indonesia
RSUP Dokter Karyadi Semarang / Semarang, Semarang
Universitas Islam Sultan Agung / Semarang, Indonesia
***Corresponding Author**: **Despita Sari**

ABSTRACT

Background

Hypertension in women of childbearing age related to pregnancy. Women of childbearing age who have hypertension before pregnancy risk causing preeclampsia-eclampsia and hemorrhage. Figures pre eclampsia in Indonesia 3.4% - 8.5%. Pre-eclampsia can lead to maternal death. Hypertension is the leading cause of maternal death 2 nd after bleeding.

Purpose

Knowing the effectiveness of Moringa leaf powder 0.5 grams (cookies) 2 x daily for 14 days against blood lipid at women of childbearing age with hypertension.

Method

Penelitian used is an experimental type of quasy experiment with Pre-test and post test equivalent control group design. This research analyzes conducted univariate and bivariate using paired t-test, and abnormal data using Wilcoxon.

Results

Cholesterol levels there is a significant difference (p = 0.924), triglyceride levels there is a significant difference (p = 0.432), and the levels of HDL and LDL there is a significant difference from the value (HDL p = 0.001, and LDL p = 0.026).

Conclusion

Provision of Moringa leaf flour (cookies) with 0.5 g of captopril 12.5 mg 2 x 1 day for 14 days, effective terhadaap decrease LDL and increase HDL levels in women of childbearing age with hypertension.

INTRODUCTION

Hypertension is often called the "silent killer" because people do not feel and realize the specific signs and symptoms when it occurs complications such as heart disease, stroke, or kidney damage. [1]

According to the WHO in 2014 the prevalence of hypertension in the world that occurred in more than 18 years of age in men 24% and women 20.5%. [2] Based on data Riskesdas 2018, the prevalence of hypertension in Indonesia ranks first

non-communicable chronic diseases experienced by adults, that is 36.9% female and 31.1% male. [3]

The prevalence of hypertension in Indonesia tends to increase with age, the prevalence of hypertension in the age group 18-24 years 13.2%, 25-34 years 20.1%, 35-44 years 31.6%, 45-54 the year of 45.3%, 65-74 years amounted to 63.2% and the age group> 75 years 69.5%. [3] Based on Bengkulu health profile data 2018, data showed women with hypertension sebesar15, 3% and men with hypertension by 3.4%.

Hypertension in women of childbearing age will accelerate the emergence of cardiovascular complications (such as stroke, heart attack, heart failure and chronic kidney damage) and may accelerate the decline in a person's cognitive function. The impact of hypertension in women of childbearing age is related to pregnancy. Women of childbearing age who have hypertension before pregnancy risk causing preeclampsia-eclampsia and hemorrhage. Figures pre eclampsia in Indonesia 3.4% -8.5%. Pre-eclampsia can lead to maternal death. Based on previous research states that mothers with a history of hypertension before pregnancy risk of preeclampsia 4,125 times. [4]

Handling cases of hypertension has been done is by giving pharmacological and non-pharmacological therapy.Antihypertensive drugs commonly used in the community one captopril 12.5 mg or prescription from a doctor. In the analysis described pharmaceutical literature regarding clinical studies in which captopril was given to patients with milder forms of hypertension that by using doses much less than that employed in the initial efficacy test. [5]

Some studiesprovethat Indonesia has much potential as a growth and development of drug ingredients for the world community. One of the plants is a plant known to many benefits of Moringa. Moringa is a nutritious source of nutrition which implies unconventional medicine wombplant in general. Essential nutrients needed someone who suffers from high blood pressure is found naturally in plant Moringa. [6]

Moringa plant can survive in the long dry season and grows well in areas with an annual rainfall ranges from 250-1500 mm. Although it prefers dry sandy loam soil or clay, but can live in a land dominated by clay. In general, environmental parameters moringa plants need to grow well is tropical or sub-tropical, the height of 0-2000 meters above sea level, the temperature of 25-35 ° C, soil pH 5-9 [7]

Moringa leaves are widely processing has not been done. Ordinary people use the leaves of Moringa as a supplement in daily cooking.In the further use necessary hygienic processing moringa leaves. There are several ways of processing such as extracts of Moringa leaf, Moringa leaf powder and flour. [8]

Peanekaragaman food to the leaves of Moringa needs to be improved in order to serve as a source of nutrition in food products. One effort that can be done is in the manufacture of cookies that can be functional with the addition of Moringa leaves that can have positive effects on health . [9, 10]

Moringa also contains potassium and sodium is a mineral that dissolves in the blood and other body fluids. Potassium is an important mineral called electrolytes play an important role in the body makes the liquid remains constant and controlling blood pressure. Moringa is rich in potassium, contained 1,324 mg potassium / 100 grams of dried leaves and 259 mg / 100 g fresh leaf. Potassium content in Moringa 15 times more than bananas, 3.5 times more than milk, and 9 times more than eggs. [6]

In general causes of hypertension were age, gender, behavior and physical activity, and high levels of blood cholesterol. Lipids are also an important issue in influencing the incidence of hypertension. [14]

Resultresearch further states that there is the effect of **extract** Moringa leaves with a dose of 0.30 g / kg body weight to the decrease in blood pressure, LDL, HDL, and triglycerides in hypertensive patients with hypercholesterolemia. [15]

RESEARCH PURPOSES

General purpose

Proving that Moringa leaf powder effect on blood lipid changes in women of childbearing age with hypertension.

Special purpose

- Knowing the changes in cholesterol, LDL, HDL, and triglycerides before and after moringa leaf powder.
- Knowing the difference cholesterol, LDL, HDL, and triglycerides in

METHOD

This type of research is an experimental type of quasy experiment with Pre-test and post test equivalent control group design. This study identifies the influence of flour Moringa leaves 0.5 grams (cookies) 2x a day for 14 days to changes in lipids in women of childbearing age with hypertension

RESEARCH RESULT

Univariate analysis

1.Karakteristik respondents

Table 4.1 The frequency distribution

characteristics	Group		* ρ
	Intervention	Control	
	Mean ± SD	Mean ± SD	
Age (years)	41.77 ± 5.89	43.44 ± 5.87	0,526
family history	1:33 ± 0:48	1:50 ± 0:51	0,154
nutritional intake			
Potassium	2139.87 ± 547.10	1468.15 ± 309.79	0.078
sodium	1676.89 ± 247.93	1577.08 ± 316.01	.595
	N (%)	N (%)	
Work			
Work	6 (33.3)	12 (66.7)	
Does not work	12 (66.7)	6 (33.3)	1,000
Education			
SD	3 (16.7)	11 (61.1)	
SMP	3 (16.7)	6 (33.3)	0077
High School	8 (44.4)	1 (5.6)	
College	4 (22.2)	4 (22.2)	

** Homogeneity test*

Based on the above table in mind the average p value characteristics of respondents p> 0.05, the characteristics of respondents homogeneous.

Bivariate analysis

Table 4.7 Normality Test

variables	Group	*ρ-value*
pre Cholesterol_	Intervention	.545
	Control	0,001
Cholesterol_ post	Intervention	0,544
	Control	0.043
pre HDL_	Intervention	0,125
	Control	0.151
HDL_post	Intervention	0,014

	Control	.104
pre LDL_	Intervention	.536
	Control	0.052
LDL_post	Intervention	.310
	Control	0,006
pre Trigliserida_	Intervention	0,001
	control	0,118
Trigliserida_post	Intervention	0,146
	control	0,154

**** Shapiro Wilk***

According to the table, the data pre- and post-cholesterol, HDL pre, pre and post LDL, and triglycerides post in the intervention group (ρ> 0.05), meaning that normal distribution of data. While HDL post, pre triglycerides, abnormal distribution data (ρ <0.05).

In the control group the data pre HDL, triglycerides pre and post (ρ> 0.05), normal distribution of data. While data pre- and post-cholesterol, HDL post distribution data is not normal (ρ <0.05).

Table 4.8 Average Cholesterol, HDL, LDL and Triglycerides

variables	**pre Mean ± SD**	**Post Mean ± SD**	**mean difference**	***P-value***
Kole				
Intervention	209.94 ± 44.37	196.17 ± 43.63	13.77	0008 *
Control	205.78 ± 34.49	199.06 ± 26.13	6.72	0.038 **
HDL				
Intervention	72.76 ± 20.74	55.61 ± 13.05	17.15	0.001 **
Control	74.17 ± 20.02	76.78 ± 16.43	-2.64	0.401 *
LDL				
Intervention	84.50 ± 28.16	72.00 ± 20.32	12.5	0.001 **
Control	87.28 ± 19.91	83.72 ± 16.47	3.56	0.228 *
triglycerides				
Intervention	134.59 ± 94.17	90.56 ± 45.38	29.59	0.133 **
Control	101.17 ± 39.71	80.11 ± 32.36	21.06	0,038 *

- ***Paired Sample Test***
- ***** Wilcoxon***

In the intervention group and control cholesterol levels, there were significant differences. HDL levels in the intervention group, there was a significant difference (p = 0.001). Whereas in the control group, there was no significant difference (p = 0.401).

LDL levels in the intervention group, there was a significant difference (p = 0.001) in the control group there was no significant difference (p = 0.228). Triglyceride levels in the intervention group, there was no significant difference (p = 0.133), in the control group no significant difference (p = 0.038). Can be presented in graphic form as follows:

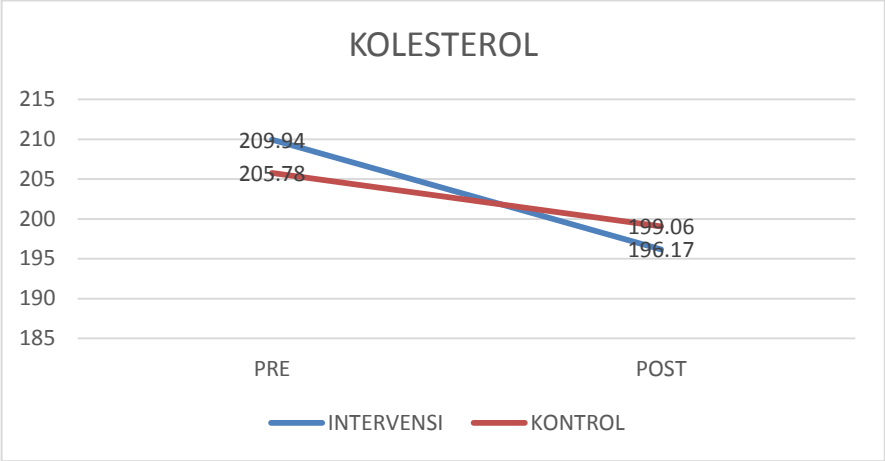

Chart 4.3 Description of cholesterol in the intervention and control

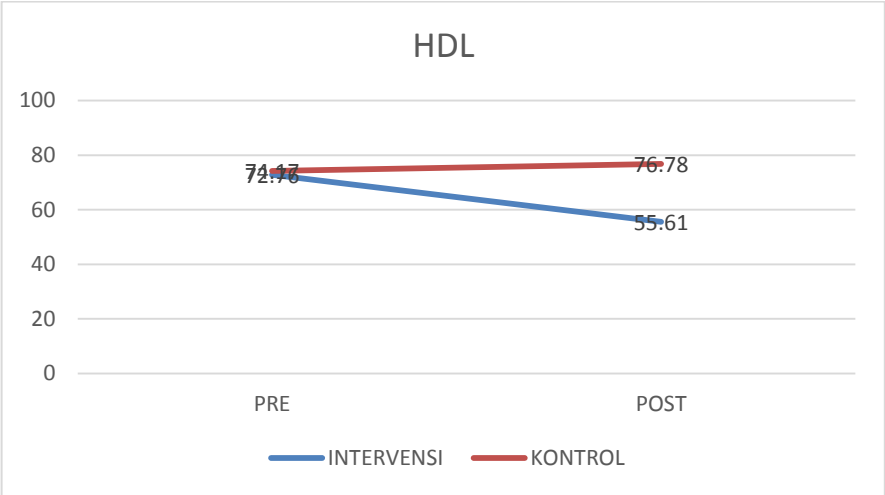

Chart 4.4 Overview of HDL levels in the intervention and control

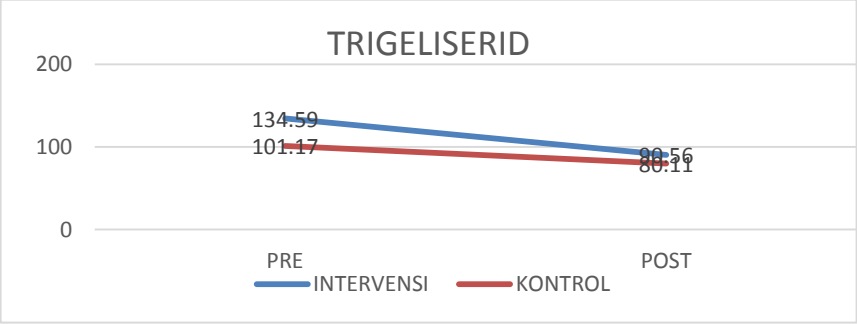

Chart 4.5 Overview levels of triglycerides in the intervention and control

Blood Lipids Test unpaired

Table 4.9 Differential test cholesterol, HDL, LDL, and triglycerides

variables	mean	SD	Min	Max	p-value
Cholesterol					
Post	197.61	35.48	269	126	0.924 **
HDL					
Post	66.19	18,14	124	38	0.001 **

LDL					
Post	80.97	24.13	162	48	0,026 **
triglycerides					
Post	85.33	39.20	187	33	0.432 *

*** Independent T test**

***** Mann Whitney***

According to the table, HDL and LDL showed no significant difference (p = 0.001 HDL, LDL p = 0.026). While cholesterol and triglyceride levels, there was no significant difference (cholesterol, (p = 0.924), triglycerides p = 0.432).

Relative Risk Reduction (RRR), Absolute Risk Reduction (ARR), and Number of Needed (NNT)

Cholesterol

variables		cholesterol levels				Total	ARR	RRR	NNT
		Normal		Anomalous					
		N	(%)	N	(%)				
Cholesterol	intervention	10	55.6	8	44.4	18	0.05	0.14	18
	Control	11	61.1	7	38.9	18			

Value RRR = -0.14, meaning lowering cholesterol levels. Value ARR = -0.05, mean difference in reduction of cholesterol levels in the intervention group than the control group by 50%. Value NNT = -18, which means that it takes 18 respondents to be able to prevent one respondent from hypertension.

HDL

variables		HDL				Total	ARR	RRR	NNT
		Normal		Anomalous					
		N	(%)	N	(%)				
HDL	intervention	13	72.2	5	27.8	18	0.61	0.68	1.61
	Control	3	16.7	15	83.3	18			

Value RRR = 0.688, has the potential to increase HDL levels by as much as 68.8% compared to the control group. Value ARR = 0.61, mean difference in levels of HDL in the intervention group than the control group by 61%. Value NNT = 1.6 rounded to two respondents, it only takes 2 respondents to prevent one respondent from hypertension.

LDL

variables		levels of LDL				Total	ARR	RRR	NNT
		Normal		Anomalous					
		N	(%)	N	(%)				
LDL	intervention	16	88.9	2	0.1	18	0.11	0.50	9
	Control	14	77.8	4	22.2	18			

Value RRR = 0.50, has the potential to lower LDL levels by 50% compared to the control group. Value ARR = 0.11, significant difference in levels of LDL in the intervention group than the control group by 11%. Value NNT = 9, it only takes 9 respondents in order to prevent one respondent from hypertension.

triglycerides

variables		triglyceride levels				Total	ARR	RRR	NNT
		Normal		Anomalous					
		N	(%)	N	(%)				
triglycerides	intervention	18	100	0	0	18	0.611	0,687	1.63
	Control	17	94.4	1	5.6	18			

Value RRR = 0.688, has the potential to raise triglyceride levels as much as 68.8% compared to the control group. Value ARR = 0.61, mean difference in levels of HDL in the intervention group than the control group by 61%. Value NNT = 1.6 rounded to two respondents, it only takes 2 respondents to prevent one respondent from hypertension.

DISCUSSION

The results of statistical tests on the characteristics of the respondents indicated that there was no significant difference between the two groups. The second data homogeneous group. This means that the characteristics of the respondents did not affect these results.

Age

The results of research related to age showed the intervention and control groups showed a variant of data homogeneous p = 0.526 This shows that age does not affect the results.

Age affects the occurrence of hypertension. Hypertension incidence with advancing age, caused by changes in the structure of the large blood vessels, so that blood vessels become narrower and the walls of the large blood vessels, so that blood vessels become stiff, as a result, is increasing systolic blood pressure. The results of this study do not contradict previous studies which stated that the respondents aged ≥ 40 years have the opportunity to have hypertension as much as 2.97 times compared to respondents aged 15-39 years.

Education

The data collected shows the characteristics of respondents education in the intervention group and the control shows the data variance homogeneous p = 0.077 This shows that education does not affect the results.

Education is an indicator of the level of human ability to understand access to information obtained from the outside and in this regard to hypertension, level of education only makes it easy to receive and understand information on health and able to manage the resources to prevent hypertension.

Work

According to the research the characteristics of respondents work in the intervention and control groups showed a variant of data homogeneous p = 1.000. This shows that education does not affect the results.

Similar studies showed that respondents who do not work have a higher proportion of hypertension in women who do not work than work that is as much as 25.1%.

family history

Based on the research family history characteristics of respondents in the intervention group and the control shows the data variance homogeneous p = 0.154. This suggests that family history does not affect the results.

A study showed that a family history of hypertension on proved to be a risk factor for hypertension. The possibility of hypertension in those who have a family history of hypertension is

equal to 3.216 times than those who do not have a family history of hypertension.

Other studies suggest that the frequency distribution is based on a family history of hypertension by 67% of patients with hypertension have a family history of hypertension

Intake of sodium and potassium.

The results of research related to the intake of sodium and potassium in the intervention group and the control group showed homogeneous the data on sodium intake (p = 0.595), and potassium (p = 0.078). This shows that nutrition does not affect the results.

Effect of Moringa leaf powder (Cookies) on blood lipids (cholesterol, HDL, LDL, and triglycerides).

Test paired blood lipid intervention group 209.94 cholesterol before treatment, after treatment 196.17 (p = 0.008). 72.76 HDL levels before treatment, after treatment 55.61 (p = 0.001). 84.50 LDL levels before treatment, after treatment 72.00 (p = 0.001), indicating the levels of cholesterol, HDL and LDL was no significant difference before and after treatment, the hypothesis is accepted. Trigeliserid 134.59 levels before treatment, after treatment 90.56 (p = 0133), meaning there is no significant difference before and after treatment, the hypothesis is rejected.

Test paired control group blood lipid cholesterol levels before treatment 205.78, 199.06 after treatment (p = 0.038). Trigeliserid 101.17 levels before treatment, after treatment 80.11 (p = 0.038), indicating the trigeliserid cholesterol levels and no significant difference before and after treatment, the hypothesis is accepted. 74.17 HDL levels before treatment, after treatment 76.78 (p = 0.401). 87.28 LDL levels before treatment, after treatment 83.72 (p = 0.228), meaning there is no significant difference before and after treatment, the hypothesis is rejected.

Unpaired test the intervention and control, cholesterol levels no significant difference (p-value 0.924), HDL was no significant difference (p-value 0.001), LDL levels significantly different (p = 0.026), triglyceride levels are not significantly different (p-value 0.432).

Abnormal blood lipids are cholesterol rise, trigeliserida, LDL, HDL or decreased. Cholesterol levels, LDL and high trigeliserida and prolonged can cause thickening of the blood vessels with the risk of narrowing of blood vessels so that blood pressure increases, but not always of high blood pressure followed by trigeliserida high levels.

Cholesterol is a natural substance with physical properties such as fat, which will run normally when the amount of cholesterol in the blood ends meet and not exceed the normal limits are needed. Moringa leaf cookies provide an alternative to lower cholesterol levels in the body proved to be effective. In addition to lack the high fiber in Moringa leaves also are antioxidants such as plavonoid. Flavonoids are active active substances that have an influence on lipid profile with how to enable multi-enzyme system such as citocrome p-450 and b5 which has the function of binding cholesterol and bile that is excreted.

Consuming high Moringa leaf cookies will flavonoid, which flavonoids can lower cholesterol by inhibiting the absorption of cholesterol in the intestine and increases the formation reaction of bile acids from cholesterol to be excreted through the feces.

Trigeliserid is a kind of fat stored in the body as it is established in the heart. This type of fat obtained from the intake of foods containing high fat and simple carbohydrates the excess so that the rest are not needed by the body is stored under the skin tissue in the fat cells. Unlike the commonly found dipembuluh cholesterol blood and liver as well as serve as a builder of hormones and cells, trigeliserida stored in the fatty tissue of skin serves as a backup energy in the body. However, the higher the number trigeliserid then the thicker the fat tissue resulting in obesity and a variety of risks that follow.

This study is in line with research conducted by M.affan (2018) which states Moringa leaf extract of 0.30 mg / day can lower high blood pressure, LDL cholesterol and raise HDL after being given treatment for 14 days.

This study is not in line with research conducted Seriki, et al (2015)research has been done to humans by using flour (powder) Moringa leaves with a dose of 0.3 g / kg and 0.7 g / kg for 14 days have not shown significant results on the reduction of blood pressure, and lipid profiles. [13]

Results of research conducted by Onyekwere, et al (2014) states that the alkaloids and saponins in the leaves of Moringa has the function to treat hypertension, as saponin prevent excessive intestinal absorption of cholesterol, thereby

reducing the risk of cardiovascular disease such as hypertension.

Components that influence the decrease in total cholesterol levels are flavonoids and vitamin C. Flavonoids lowering plasma cholesterol levels by inhibiting the absorption of cholesterol in the intestine and increases the formation reaction of bile acids from cholesterol to be excreted through the feces.

This is consistent with previous studies that there is no significant correlation between the levels of cholesterol in the blood pressure.

Not in line with other studies that show a significant association between cholesterol levels with hypertension (total cholesterol p <0.05; OR = 2.40,).[96] In addition, research by Heni Maryati (2017) showed that no significant relationship between cholesterol levels and hypertension with a correlation coefficient of 0.668 indicates a high correlation between the levels of cholesterol in the blood pressure in patients with hypertension in the hamlet Sidomulyo Rejoagung village.

In this study, the statistical result triglycerides showed no significant difference with p = 0.432. This means that the hypothesis is rejected.

This is not in line with previous studies that show there is a significant difference between the levels of triglycerides normotensive people with hypertension. The test results of chi-square statistics also show a significant association between triglyceride levels and the incidence of hypertension and triglycerides, a risk factor for hypertension of 2.49 times.

The results are consistent with Fitriyanti study (2017) showed no association between triglyceride levels with the level of hypertension (p value: 0.701).

In this study, the statistical result of HDL and LDL cholesterol levels showed a significant difference to the value (p = 0.001 HDL, and LDL p = 0.026). This means that the hypothesis is accepted.

This is in line with research Nadya (2013) that there is a relationship LDL levels were statistically significant against the control of blood pressure and LDL cholesterol are risk factors of blood pressure control. Results of other studies showed higher levels of total cholesterol (p = 0.000), LDL (p = 0.000), HDL (p = 0.000) effect on the degree of hypertension.

Another study therapy line that is red guava fruit juice at a dose of 650 mg / kg per 200 ml of red guava juice can lower LDL cholesterol significantly with the average before and after treatment equal to 21.96%.

Vitamin C plays an important role in preventing asterosklerosis that have a relationship with the metabolism of cholesterol. Vitamin C increases the rate of cholesterol is removed in the form of bile acids and increase HDL levels thus decreasing the risk of developing atherosclerotic disease.

knot

a. Flour Moringa leaves 0.5 grams (cookies) 2x a day for 14 days :
   1) Lowering LDL levels by 50%, and has a 2 times the risk of lowering LDL in women of childbearing age with hypertension.
   2) Increase HDL levels by as much as 68.8% with 1.45 times the risk of increasing LDL in women of childbearing age with hypertension.
b. Giving flour Moringa leaves 0.5 grams (cookies) 2x a day for 14 days there was no significant difference in lowering cholesterol and triglyceride levels in women of childbearing age with hypertension.

SUGGESTION

for Scientific

We hope this research into a reference in the development of midwifery to improve the quality of obstetric care provision of obstetric services in particular on women of childbearing age with hypertension.

For the profession of midwifery

The results of this study prove flour Moringa leaves 0.5 grams (cookies) 2x a day for 14 days have a potential effect on changes in blood lipid levels.

REFERENCES

[1]. Triyanto E. Pelayanan keperawatan bagi penderita hipertensi secara terpadu. Yogyakarta: Graha Ilmu; 2014.
[2]. Organization WH. World Health Statistics 2015.
[3]. Kemenkes R. Riskesdas 2018. 2018.

[4]. Imelia i. Faktor risiko hipertensi pada wanita usia subur di wilayah kerja Puskesmas Andalas Kota Padang Tahun 2016: Universitas Andalas; 2017.
[5]. Frohlich Eea. Review ofthe Overall Experience ofCaptopril in Hypertension. 2012.
[6]. Krisnadi AD. kelor super nutrisi. 2015.
[7]. al Me. Processing of Moringa oleifera Leaves for Human Consumption. 2(1), 2012.
[8]. Azizah N. Kajian Perbandingan Tepung Mocaf (Modified Cassava Flour) Yang Disubstitusi Tepunh Kacang Koro Pedang Dan Lama Pemanggangan Dalam Pembuatan Cookies. Jurusan Teknologi Pangan, Fakultas Teknik, Universitas Pasundan, Bandung 2013.
[9]. Wulandari FK, Setiani BE, Susanti S. Analisis Kandungan Gizi, Nilai Energi, dan Uji Organoleptik Cookies Tepung Beras dengan Substitusi Tepung Sukun. Jurnal Aplikasi Teknologi Pangan 5, 2016.
[10]. Restu Restiani M, Ike Yulia W. Efek Antihipertensi Ekstrak Etanol Daun Kelor(Moringa oleifera Lmk.) pada Tikus Putih Jantan Galur Sprague-Dawley. 2008.
[11]. Sari RI. Uji teratogenik serbuk daun kelor (Moringa Oleifera) terhadap tikus (Rattus Norvegicus) Bunting.2016.13. Seriki SA, Omolaso B, Adegbite OA, Audu AI. Effect of Moringa oleifera on lipid profile, blood pressure and body mass index in human. European Journal of Pharmaceutical and Medical Research 2, 2015, 94-9.
[12]. HA L. Studi prevalensi dandeterminan hipertensi di provinsi kepulauan bangka belitung. 2009.
[13]. Affan M. Pengaruh ekstrak daun kelor (moringa oleifera) terhadap tekanan darah, HDL,LDL dan trigliserida pada pasien hipertensi dengan hiperkolesterolemia.; 2018.
[14]. Kemenkes R. Infodatin Hipertensi. 2019.
[15]. Meltzer SC, & Bare B. G. . Buku Ajar Keperawatan Medikal Bedah Brunner & Suddarth Jakarta: EGC; 1(8), 2009.
[16]. Gofir A. Definisi Stroke, Anatomi Vaskularisasi Otak dan Patofisiologi Stroke. Dalam: Indera, Noer A, Utomo AB(Ed) Manajemen stroke, evidence based medicine Jakarta 2009.
[17]. Tugasworo D. Prevensi Sekunder Stroke. Management of post stroke Neurology up date Temu Regional Neurologi XIX Semarang: Badan Penerbit Diponegoro 2002, 37-67.
[18]. Hanifa A. Prevalensi Hipertensi Sebagai Penyebab Penyakit Ginjal Kronik Di Unit Hemodialisis RSUP H. Adam Malik Medan Tahun 2009.

How to cite this article: Despita Sari, Noor Pramono, Imam Djamaluddin. Effectiveness of leaves moringa (moringa oleifera) on blood lipid fertile age women with hypertension. Int J of Allied Med Sci and Clin Res 2019; 7(3): 955-964.
Source of Support: Nil. **Conflict of Interest:** None declared.