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THE EFFECT OF GIVING BOILED WATER OF MAHKOTA DEWA FRUIT ON URIC ACID LEVELS IN MENOPAUSAL WOMEN

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ABSTRACT

Menopause is a normal change that occurs in a woman's life when her menstrual period stops. The average age reaches 48-60 years. A woman has reached menopause if she has not had her periods for 12 consecutive months, and there are no other reasons for the changes that occur during menopause. The number of follicles experiencing atresia is increasing, until one day there are no longer enough follicles, the production of estrogen decreases and menstruation does not occur again which ends with menopause. The purpose of this study was to determine the effect of giving boiled water of Mahkota Dewa fruit on uric acid levels in menopausal women at the Tamalanrea Jaya Public Health Center Makassar. This research is quantitative with a pre-experimental design using the One Group Prettest-Posttest Design. The population in this study were 57 respondents with a sample of 20 respondents. In this study using the Paired Sample T Test. The results showed that the average level of uric acid before and after being given boiled water from the crown of the god was 4,000, Std. Deviation 6.459, S.td Error Mean 2.103 with 95% CI = 1.785-12,215 with p value = 0.000. The conclusion of this study is that there is an effect of giving boiled water of the crown of the gods on uric acid levels in postmenopausal women at the Tamalanrea Jaya Health Center Makassar. It is recommended to the Tamalanrea Jaya Makassar Public Health Center to be used as a reference for further researchers about the benefits of boiled water from the crown of the god on uric acid levels in postmenopausal women.

Keywords: Mahkota Dewa Fruit, Uric Acid Levels

1. INTRODUCTION

Menopause is a normal change that occurs in a woman's life when her menstrual period stops. The average age reaches 48-60 years. A woman has reached menopause if she has not had her periods for 12 consecutive months, and there are no other reasons for the changes that occur during menopause. The number of follicles experiencing

atresia is increasing, until one day there are no longer enough follicles to reduce estrogen production and menstruation does not occur again which ends with menopause. (Mansur 2017).

According to the World Health Organization (WHO) showing that there will be an increase in menopause in the coming years is very difficult to stem. WHO

estimates that in 2030 there will be 1.2 billion women aged 50 years.

Based on data from the Central Bureau of Statistics (BPS) For population projections in 2020, it is estimated that the number of women living in menopause age in Indonesia is around 30.3 million people. Menopausal women are susceptible to various diseases, one of the consequences of the decrease in estrogen at menopause is the increased buildup of uric acid in the body (Baziad, 2017).

According to data from the Makassar City Health Office (2019) in South Sulawesi province, there are about 300 thousand menopausal women. Meanwhile, in the city of Makassar, it was recorded as much as 11% of the number of provincial menopause or as many as 33 thousand menopausal women.

In Indonesia, gout is more common in menopausal women, the incidence of gout in menopausal women is a disturbing thing because every menopausal woman wants herself to remain in good health without any diseases such as gout. For that they made various efforts to overcome the disease, one of them by consuming herbal ingredients for the development of medicinal plants which are currently growing rapidly, especially in terms of pharmacology and phytochemicals, namely the Mahkota Dewa plant has the potential as an anti-inflammatory, antihistamine.

Based on research conducted by Ni Nengah (2018). The study

was conducted on 229 postmenopausal women. The sample used is 30 people. After being given boiled water, 27 people (90%) of respondents experienced a decrease in uric acid and 3 respondents (10%) still did not experience a decrease. These results indicate that giving boiled water of the god crown can reduce blood uric acid levels in postmenopausal women. The results of this study are in line with previous research conducted by (Ika, and Erni, 2017).

Based on the results of an initial survey conducted at the Tamalanrea Jaya Health Center Makassar by interviewing 16 menopausal women (aged 48-60 years) and from 16 menopause, 6 people said that they had high uric acid levels, then 7 menopausal women experienced high blood pressure (hypertension), and 3 postmenopausal people had diabetes. Of the 6 menopausal people who experienced high uric acid said it was difficult to carry out normal daily activities because of difficulty walking due to disturbing pain. They said that to overcome the pain they only used drugs from the puskesmas that were prescribed by doctors such as allopurinol, febuxostat, probenecid and other drugs.

Therefore, high blood pressure/hypertension can be lowered by consuming traditional medicines, namely one of the traditional medicines that can be used and believed for a long time and is able to reduce hypertension

is noni. Noni is a plant that has long been used as a medicine for both the body and its roots. Noni can also treat various diseases such as headache disorders, diabetes skin disease, kidney failure, heart disease, and hypertension.

2. METHOD

This research is a pre-experimental research using One Group Prettest-Posttest Design. This research was conducted at the Tamalanrea Jaya Health Center Makassar, Tamalarea District,

Makassar City Regency. The sample in this study were menopausal women in the Tamalanrea Jaya Makassar Health Center as many as 20 people with purposive sampling method. The instruments used in this study were observation sheets and POCT (Easy Touch Uric Acid Test Strips). Analysis of the data used in this study used the Pair Sample T test to determine the effect of giving boiled water from the crown of the gods on uric acid levels in postmenopausal women.

3. RESULT

Table 1. Distribution of Age, Education and Employment in Menopause Women at the Tamalanrea Jaya Health Center Makassar in 2021

	Kategori	Frekuensi	Percent
Ege	46- 53 Years	15	75,0
	54- 60 Years	5	25,0
Total		20	100,0
Education	SD	11	55,0
	SMP	7	35,0
	SMA	2	10,0
Total		20	100,0
Employ ment	IRT	16	80,0
	Entrepreneur	3	15,0
	civil servant	1	5,0
		20	100,0

Table 1 It can be seen that the majority of respondents aged 46-53 years were 15 people (75.0%), and the minority aged 54-60 years were 5 people (25.0%). In education, the majority of respondents have elementary education as many as 11 people (55.0%) and the minority of respondents have high school education as many as 2 people (10.0%) while the minority of respondents who work as household workers are 16 people (80.0%), and the minority are civil servants. as many as 1 person (5.0%).

Table 2. Normality test

Variable	Intervention	N	p-value	Conclusion
Uric Acid Level	Before given	20	0,061	Normal
	After being given	20	0,076	Normal

The results of the normality test using Saphiro Wilk as presented in table 2 showed that the p-value for uric acid levels before being given boiled water of Mahkota Dewa fruit was 0.061 and uric acid levels after being given boiled water of Mahkota Dewa fruit was 0.076. Because both p-values are smaller than > (0.05), it can be concluded that the data can be declared normally distributed. Thus the test is carried out using the Paired Sample T Test.

Table 3. Distribution of Average Uric Acid Levels in Menopausal Women at the Tamalanrea Jaya Makassar Health Center in 2021

Variable	Intervention	Mean	S.td Dev	S.td EM
Uric Acid Level	Before given	2.300	4.657	2.147
	After being given	4.310	7.470	3.105

Table 4. Paired T Test

	Paired Differences					
	Mean	Std.Dev	Std.EM	95% CI		P
				Lower	Upper	
Before and After being given boiled water of Mahkota Dewa fruit	4.000	6.459	2.103	1.785	12.215	0,000

Based on table 4. it can be seen that the average level of uric acid before and after being given boiled water of the Mahkota Dewa fruit is 4,000, Std. Deviation 6.459, S.td Error Mean 2.103 with 95% CI = 1.785-12,215 with p value = 0.000. From the results of the Paired Sample T Test above, it can be concluded that there is an effect of giving boiled water of the crown of the gods on uric acid levels in postmenopausal women at the Tamalanrea Jaya Health Center Makassar.

4. DISCUSSION

Uric acid is a manifestation of the metabolism of purine substances in the form of crystals. We can find these purines in the foods we eat, both from animals and plants. We can find these purines in the foods we eat, both from animals and from uric acid. Normal uric acid crystals in women 6 mg/dl. Factors that cause high uric acid levels are age, hormones, and decreased kidney function in the body. In postmenopausal women, a decrease in the hormone

estrogen and a decrease in kidney function greatly affects uric acid levels in the body. There is a continuous deposition of uric acid in the body so that the kidneys are not able to excrete uric acid properly (Mulyani, 2017).

The results of this study showed that all respondents experienced high uric acid levels. According to another study conducted that there are several risk factors for the occurrence of high uric acid (hyperuricemia), namely a history of age, foods

containing high purine substances, heredity. Where most of the respondents prefer to consume foods that are high in purine substances.

This agrees with (ika 2017) which says that hyperuricemia is caused by dietary factors. In addition to food factors, most of them are also caused by heredity and family factors which also have an impact on the lack of concern for body health.

the results of interviews conducted before being given boiled water therapy for the crown of the gods, respondents often complain of pain in the joints, fatigue and feel pain in the joints every day. After being given boiled water of Dewa's crown fruit boiled with 600 ml of water for a period of 7 consecutive days, the menopause experienced high uric acid levels, and several complaints such as joint pain, difficulty sleeping and tiredness began to reduce.

According to Lisdawati (2017) Mahkota Dewa contains alkaloids, saponins and polyphenols (lignans). The skin of the fruit contains alkaloids, saponins, polyphenols and flavonoids (Dalimartha, 2015). The seed shell and flesh contain flavonoids, phenols, tannins, saponins and sterols or terpenes and a group of polyphenols with cytotoxic lignan structures. Based on empirical experience, the Mahkota Dewa fruit is very effective for curing gout. In addition, the plant is also used to treat various diseases, namely liver, cancer,

diabetes, lowering cholesterol and high blood pressure.

From the results of research conducted by researchers that before being given boiled water of Dewa's crown fruit, gout sufferers still do not understand and know the steps to prevent gout, but after being given boiled water of Mahkota Dewa fruit, gout sufferers know and understand efforts to prevent acid reflux. In this case, the researcher considers that giving boiled water of the Mahkota Dewa fruit needs to be given to gout sufferers in order to maintain health (Suriana, 2017).

Research conducted by Yulianingsih (2020) found that the distribution based on uric acid levels before giving the crown of the god fruit at the Tilango Health Center, Gorontalo Regency in 2018 was uric acid with an excessive category of 30 people (100%), based on uric acid levels before offering the crown of gods, namely uric acid levels in the normal category as many as 27 people (90%) and uric acid levels in the category of more than 3 people (10%), Mc Nemar test results obtained p value = 0.000 meaning p value < 0.05 . This study is in line with research conducted by researchers who stated that there was an effect of boiled water from the crown of the god on decreasing uric acid levels in postmenopausal women at Tilango Health Center, Gorontalo Regency.

5. CONCLUSION

The results of the statistical test using the Paired Sample T Test

showed that there was an effect of giving boiled water of the Mahkota Dewa fruit on uric acid levels in postmenopausal women at the Tamalanrea Jaya Makassar Public Health Center with a p value of 0.000 (< 0.05).

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