

The Influence of Gout Sufferers' Uric Acid Levels On Boiled Water Soursop Leaves (*Annona Muricata*)

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ABSTRACT

This study sought to ascertain the impact of administering cooked water Soursop leaves (*Annona muricata*) to gout patients in the village of Plososari Mojokerto on their uric acid levels. This study's design was not experimental. All of the 20 plososari mojokerto individuals with gout made up the study's population. Total sampling is the sample method used in this study. According to the findings of statistical testing, there was a drop in uric acid levels before and after, with 20 (100%) of the respondents having high levels before, 10 (50%) after, and 10 (50%) of the remaining respondents having normal levels. One that results from their excessive consumption of purine-rich foods.

Keyword: *Gout arthritis, Soursop Leaves (Annona Muricata), Boiled water*

INTRODUCTION

Gout or gout arthritis is a metabolic disease that usually affects elderly men and postmenopausal women. Unhealthy eating patterns can be a factor that causes a person to get gout because usually they don't pay much attention to the intake of food that enters their body which can cause various diseases, one of which is foods that contain lots of high purines (Zou et al., 2021). Most people assume that the pain felt in the body is caused by fatigue not because of high uric acid, so usually a person does not realize that he already has high uric acid levels. Provision of non-pharmacological therapy using soursop leaf decoction can reduce uric acid levels because soursop leaf decoction contains flavonoids whose content is almost the same as allopurinol (Gromova et al., 2020).

According to data from the World Health Organization (WHO) in 2017, there are 34.2% of gout sufferers in the world (Mattiuzzi & Lippi, 2020). Based on the results of basic health research (Ministry of Health of Indonesia, 2018) states that gout sufferers in Indonesia occur in 8.5% of elderly women and 6.1% of elderly men. The prevalence of joint disease occurs at the age of 35-44 years by 6.3%, the age of 45-54 years as much as 11.1%, the age of 55-64 years as much as 15.5%, the age of 65-74 years as much as 18.6% and 75+ as much as 18.9%. The results of the study (Irfa & Suwandi, 2016) showed that respondents who suffered from gouty arthritis were put into a treatment group by being given boiled

water of Soursop leaves (*Annona muricata*), a dose of 1 cup or equivalent to 200 ml of boiled water of Soursop leaves (*Annona muricata*) was given 2x/day for 7 days. The results of the study (Nela Nursoleha, Ahmad Yani, 2019) showed that the number of gout sufferers in women (87.1%) was higher than men (12.9%). The average uric acid level of outpatients at the beginning of the pretest was 7.16 with a standard deviation of 1.25, while the average uric acid level of outpatients after receiving treatment with boiled water of Soursop leaves (*Annona muricata*) was 200 ml for 7 days (posttest).) is 7.15 with a standard deviation of 1.18.

Based on the results of a preliminary study conducted on Kendalsari Plososari Village Puri Mojokerto by conducting house visits and conducting interviews and measuring blood uric acid levels in 4 people with acid reflux. uric acid levels, namely 2 women and 2 men, the results showed that women had uric acid levels of 6.0 mg/dL and 8.2 mg/dL. Meanwhile, men have uric acid levels of 7.8 mg/dL and 9.5 mg/dL, mostly due to having an unhealthy diet and consuming excessively high-purine foods.

Factors that affect high uric acid levels include age, obesity and consuming foods high in purines such as organ meats, nuts, seafood, meat and alcoholic beverages. Uric acid that exceeds its solubility in the blood can lead to precipitation of monosodium urate which will form crystals that accumulate in the joints and eventually appear typical symptoms of gout such as complaints of pain at night and when you wake up, swelling and signs of inflammation in the joints. metatarsal-phalangeal big toe (Alonso & Sovell, 2010). Treatment of gout consists of pharmacological and non-pharmacological treatment. Pharmacological gout treatment has two main functions, namely overcoming painful arthritis and controlling uric acid levels so that they remain stable (Kanbara et al., 2012).

Non-pharmacological treatment can be done by providing complementary therapy by utilizing Soursop leaves (*Annona muricata*) which have many benefits. Soursop leaves (*Annona muricata*) contain flavonoids where the flavonoid content in Soursop leaves (*Annona muricata*) will bind to xanthin oxidase whose structure is almost similar to xanthin (Damayanti et al., 2019). The flavonoid-xanthin oxidase bond will be more than the xanthin-xanthin oxidase bond in the blood so that the more oxidized by xanthine oxidase are flavonoids where later the flavonoid concentration will increase causing the concentration of xanthine that is not oxidized to be soluble so that it will be more easily excreted through urine. and will make uric acid levels in uric acid decrease. Giving soursop leaf decoction will be given for 7 weeks 1x a day (Gani et al., 2021a).

To prevent an increase in uric acid levels, a person must begin to reduce consuming foods that are high in purines. It is permissible to eat foods that contain purines but must be in accordance with the needs so that purines in the body are not excessive. From the above background, the researcher wants to know more about "the effect of giving soursop leaf boiled water on uric acid levels in gout sufferers Plososari village, Puri district, Mojokerto regency.

METHOD

This study uses a pre-experimental analytical research design using a one-group pre-post test design approach (Nyklicek, 2000a). Pre-experiment is a research design that aims to determine the relationship/influence by using one/two sample groups. One group pre-post test design is to reveal a causal relationship consisting of one group of subjects. Subjects were observed before the intervention and then observed again after the intervention. The population is a collection of research objects that have met certain criteria so that they can be a source of data from research (Drs. Syahrurum & Drs. Salim, 2014). The population in this study were all gout sufferers aged over 30 years, as many as 20 people in Kendalsari, Plossari Village, Mojokerto Regency. Sampling is the process of selecting objects from the population so that they can obtain samples that truly match the subject research (Eyler, 2020). The sampling technique in this study used a total sampling technique, namely a sampling technique by taking random samples by giving the population the same opportunity to be sampled (Nyklicek, 2000b). The sample is part of the population taken as a data source that can represent the entire population (Nursalam, 2015). The sample in the study was gout sufferers aged over 30 years, totaling 20 people in Rt.01/Rw.02, Kendalsari Hamlet, Plossari Village, Puri District, Mojokerto Regency. The independent variable in this study was the provision of soursop leaf boiled water. The dependent variable of this study was uric acid levels in gout sufferers.

Data collection techniques in this study consisted of two kinds, namely primary and secondary data. Primary data were obtained from direct interviews with respondents, measuring uric acid levels in the blood and providing therapy with soursop leaf decoction. Secondary data in this study obtained data from the Puri Public Health Center, Mojokerto Regency. . The instrument in this study was uric acid levels using an observation sheet used to measure uric acid levels in respondents using the Glucose, cholesterol, uric acid (GCU) tool before and after being given boiled water from Soursop leaves (*Annona muricata*). This research was conducted in, Plososari village, Puri sub-district, Mojokerto district.

FINDING AND DISCUSSION

Description of the research location, Kendalsari Hamlet, Plososari Village, RT.01/RW.02, Puri District, Mojokerto Regency. In the north, the village of Plososari is bordered by the village of Kintelan, to the south by the village of Tampungrejo, to the west by the village of Domas, to the district of Trowulan and to the east by the village of Sambilawang, to the district of Dlanggu. The plososari village consists of 7 hamlets, namely: kendalsari, timim, geger, east rejosari, west rejosari, pesantren and interwoven villages. The majority of the population is Muslim and the average population works as a farmer and opens a business at home.

This research was conducted from May 31 to June 9 with a total of 20 respondents. On May 31 – June 1, 2022, researchers collected data and measured uric acid levels (pretest) by door to door. Then on June 2 - June 8, 2022 the researchers gave a decoction of Soursop leaves (*Annona muricata*) door to door. Researchers made a decoction of Soursop leaves (*Annona muricata*) starting at 06.00-10.00 am and then distributed it to respondents'

homes at 11.00 – 12.30. On June 9, 2022, researchers conducted the last measurement of uric acid levels (posttest).

GENERAL DATA

Characteristics of Respondents Based on Age

Table 4.1 Frequency Distribution of Respondents by Age Plososari Village Puri District Mojokerto Regency On 31 May – 9 June 2022.

No`	Age	Frequency	Percentage
1	30 – 39 years old	10	50.0
2	40 – 49 years old	3	15.0
3	50 – 69 years	7	35.0
Total		20	100

Source: Primary data for 2022

Based on table 4.1 shows that most of the respondents are aged 30-39 years as many as 10 respondents (50.0%).

Characteristics of Respondents by Gender

Table 4.2 Frequency Distribution of Respondents by Gender in Kendalsari Plososari Village Puri District Mojokerto Regency On May 31 – June 9, 2022.

No	Gender	Frequency	Percentage
1	Man	9	45
2	Woman	11	55
Total		20	100

Source: Primary data for 2022

Based on table 4.2 shows that most of the respondents are female, as many as 11 respondents (55%).

Characteristics of Respondents Based on Occupation

Table 4.3 Frequency Distribution of Respondents by Occupation in Kendalsari Plososari Village Puri District Mojokerto Regency On May 31 – June 9, 2022.

No	Work	Frequency	Percentage
1	Entrepreneur	10	50.0
2	Civil servant	1	5.0
3	Housewife	7	35.0
4	Midwife	2	10.0
Total		20	100

Source: Primary data for 2022

Based on table 4.3 shows that most of the respondents are working as self-employed as many as 10 respondents (50.0%).

Characteristics of Respondents Based on Education Level

Table 4.4 Frequency Distribution by Education Level in Kendalsari Plososari Village Puri District Mojokerto Regency On May 31-9 June 2022.

No	Level of education	Frequency	Percentage
1	Elementary	3	15.0
2	Junior high school	2	10.0
3	Senior high school	13	65.0
4	University	2	10.0
Total		20	100

Source: Primary data for 2022

Based on table 4.4 shows that most of the respondents have a high school education level as many as 13 respondents (65.0%).

Characteristics of Respondents Based on Marital Status

Table 4.5 Distribution of Frequency Based on Marital Status in Kendalsari Plososari Village Puri District Mojokerto Regency On May 31-9 June 2022.

No	Marital status	Frequency	Percentage
1	Single	4	20.0
2	Married	13	65.0
3	widow	3	15.0
Total		20	100

Source: Primary data for 2022

Based on table 4.5 shows that most of the respondents are married as many as 13 respondents (65%).

Characteristics of Respondents Based on Diet

Table 4.6 Distribution of Frequency Based on Diet in Kendalsari Plososari Village Puri District Mojokerto Regency on 31 May-9 June 2022.

No	Dietary	Frequency	Percentage
1	No diet purine	16	80
2	In diet purine	4	20
Amount		20	100

Source: primary data for 2022

Based on table 4.6 shows that most of the respondents do not diet purine as many as 16 respondents (80%).

SPECIFIC DATA

Identification of Respondents Characteristics Based on Uric Acid Levels Before being given boiled water Soursop leaves (*Annona muricata*).

Table 4.7 Characteristics of Respondents Based on Uric Acid Levels Before Giving Soursop Leaf Boiled Water In Plososari Village, Puri District, Mojokerto Regency.

No	Uric acid level	Frequency	Percentage
1	High	20	100
2	Low	0	0
3	Normal	0	0
Total		20	100

Source: Primary data for 2022

Based on table 4.7, it shows that uric acid levels before being given boiled water of Soursop leaves (*Annona muricata*) all respondents had high uric acid levels, namely as many as 20 respondents (100%).

Identification of Characteristics of Respondents Based on Uric Acid Levels After being given boiled water of Soursop leaves (*Annona muricata*).

Table 4.8 Characteristics of Respondents based on uric acid levels after being given boiled water from Soursop leaves (*Annona muricata*) in Kendalsari Plososari Village, Puri District, Mojokerto Regency.

No	Uric acid level	Frequency	Percentage
1	High	20	50
2	Low	0	0
3	Normal	0	50
Total		20	100

Source: Primary data for 2022

Based on table 4.8 shows that uric acid levels after being given boiled water of Soursop leaves (*Annona muricata*) it is known that some respondents have high uric acid levels as many as 10 respondents (50%) and some have normal uric acid levels as many as 10 respondents (50%).

Analysis of the Effect of Soursop Leaf Boiling Water on Uric Acid Levels in RT.01/RW.02 Hamlet Kendalsari, Plososari Village, Puri District, Mojokerto Regency.

Table 4.9 Effect of Soursop Leaf Boiled Water on Uric Acid Levels in Kendalsari Plososari Village, Puri District, Mojokerto Regency On 31 May-9 June 2022.

No	Uric acid level	Before		After	
		Frequency	Percentage	Frequency	Percentage
1	High	20	100	20	50
2	Low	0	0	0	0
3	Normal	0	0	0	50

Total	20	100	20	100
Wilcoxon signed ranks test	Value of p value = 0.002			

Source: Primary data for 2022

Based on table 4.9 above, it was obtained data on uric acid levels in gout sufferers in hamlet Kendalsari Plososari village before being given boiled water Soursop leaves (*Annona muricata*) known high uric acid levels as many as 20 respondents (100%) and after being given boiled water Soursop leaf is known that some respondents have high uric acid levels as many as 10 respondents (50%) and some respondents have normal uric acid levels as many as 10 respondents (50%).

Based on the results of *statistical testing* using the *Wilcoxon signed ranks test* with the help of SPSS, a significance level of $\alpha = 0.05$ was obtained and the results were $p = 0.002$, which means $p < 0.05$, namely H_0 is rejected and H_1 is accepted, which means that there is an effect of soursop leaf boiled water on uric acid levels in gout sufferers in Hamlet, Plossari Village, Puri District, Mojokerto Regency.

Identification of Uric Acid Levels Before Giving Leaf Boiled Water Soursop

Based on table 4.7, it shows that most of the respondents before being given boiled water therapy of Soursop leaves (*Annona muricata*) had high uric acid levels, namely as many as 20 respondents (100%). According to the researchers, before being given boiled water, all of the respondents had high uric acid levels and most of the respondents complained that their bodies often felt aches and pains, pain in different parts such as pain in the fingers, knees and waist. There are several factors that affect high uric acid levels, namely age, sex and dietary factors. Based on table 4.1 shows that some respondents aged 30-39 years as many as 10 respondents (50%), ages 40-49 years as many as 3 respondents (15%) and ages 50-60 years as many as 7 respondents (35%).

According to research (Feng et al., 2013) age can cause an increase in uric acid levels, where increasing age will experience changes both physically, mentally and psychologically. Physiological changes such as decreased kidney function resulting in increased levels of uric acid because the kidneys are not able to excrete purines properly, resulting in purine deposition.

According to the researcher, from the results of the study, it was found that most of the respondents who had high uric acid levels were aged over 30 years. Because increasing age is one of the factors that cause gout. Age over 30 years usually has experienced various physical and psychological changes in the body. Physiological changes that occur in the body such as decreased kidney function. Kidneys that have decreased function will experience problems in removing purines. If the purines that accumulate in the body are more and more, it will make the kidneys work even harder in removing purines through the urine so that it will cause an increase in blood uric acid levels. In addition, urokinase disorders are caused by the aging process so that the process of removing uric

acid will be constrained and make uric acid levels in the blood increase. Based on table 4.2 shows that most of the respondents are female as many as 11 respondents (55%).

According to (Nishio et al., 2018) naturally men over 30 years old are more susceptible to gout. The reason is, uric acid levels in men are quite high. Meanwhile, uric acid levels in women are generally low and only increase after menopause.

According to research (Dai et al., 2021) women when approaching menopause (premenopause) will experience a decrease in ovarian function naturally. The reduced estrogen hormone in postmenopausal women will worsen bone mass and interfere with the function of removing uric acid from the blood into the urine, thereby increasing uric acid levels in the blood. Uric acid levels in the blood of postmenopausal women increase close to uric acid levels in men

According to the researchers, the results showed that uric acid was more common in women than men. This is because most of the respondents who are female have entered menopause, namely as many as 5 respondents, someone who has entered the menopause will experience a decrease in the hormone estrogen in the body so that only a small amount of estrogen is left which will help remove uric acid through urine and can cause excretion. uric acid becomes uncontrolled. Meanwhile, for women who have not menopause, increased uric acid can be caused by heredity (genetic), drugs, etc. Based on table 4.6, it shows that most of the respondents were not on a purine diet, as many as 16 respondents (80%) and 4 respondents (20%) were on a purine diet for 7 days.

This is in line with research (Ayoub-Charette et al., 2021) which states that one of the factors that can affect gout is the food consumed, generally unbalanced foods (protein intake containing too high purines), everyone has uric acid in the body, because In every normal metabolism, uric acid is produced. While the trigger is food and other compounds that contain lots of purines such as meat, offal, sardines, nuts, melinjo chips are factors that cause high uric acid levels.

According to the researchers, based on the results of the study, most of the respondents did not go on a purine diet. so they have uric acid levels that tend to be higher than respondents who follow a purine diet. Respondents who are not on a purine diet say they are used to and like to consume foods that are high in purines in excess. This will cause an excessive buildup of purines in the body so that the kidneys will have problems removing purines through urine because the concentration of purines is too high in the body. Therefore, maintaining a diet is very important to keep uric acid levels within normal limits.

Based on the above discussion, age, gender and diet are factors that can increase uric acid levels in the blood. In Kendalsari hamlet, almost all respondents do not take uric acid-lowering drugs such as allopurinol, so that by giving soursop leaf boiled water therapy is expected to reduce uric acid levels in respondents.

Soursop leaves (*Annona muricata*) can be used as a non-pharmacological treatment that can reduce uric acid levels. Soursop leaves (*Annona muricata*) have properties to treat several diseases such as: cancer, gout, tumors, hypertension, DM, ulcers, diarrhea and itching. Soursop leaves (*Annona muricata*) contain compounds of tannins, resins, *crystalizable magostine* and *flavonoids* (Balderrama-Carmona et al., 2020).

Identification of Uric Acid Levels After Giving Soursop Leaf Decoction Water Therapy

The results of the study after being given soursop leaf boiled water therapy for 7 days showed that most of the respondents had high uric acid levels, namely 10 respondents (50%) and some had normal uric acid levels, namely 10 respondents (50%). However, from the results of the study, it was found that there were 10 respondents whose uric acid levels were still high, namely 9 respondents who did not do a purine diet for 7 days and there was 1 respondent who did a purine diet but there was no decrease in uric acid levels so that their uric acid levels were still in the high category. tall.

According to research (Sah et al., 2016) Unhealthy people's diet by consuming high protein foods, especially animal protein containing high purine levels causes the incidence of hyperuricemia to increase. Consuming foods high in purines will increase uric acid levels in the blood, which predisposes to gout arthritis and kidney stones.

High purine content is mainly found in offal, shellfish, crab, and anchovies. Eating habits are important factors that affect a person's health status and physical abilities. The number of high-purine foods consumed will further increase the risk of developing gout. The risk of gout will increase if it is accompanied by an unbalanced diet. There are various factors that can cause excess uric acid in the blood, but the intake of purines has the greatest influence.

According to the researcher, from the results of the study, it was found that there were 9 respondents whose uric acid levels were still high. One of the 9 respondents whose uric acid levels were still high was respondent number 15 who had a uric acid level of 8.1 mg/dl and after being given a decoction of Soursop leaves (*Annona muricata*) there was a decrease in uric acid levels of 7.9 mg/dl. This is because the respondents did not do a purine diet, so that when given therapy of soursop leaf boiled water for 7 days there was a decrease in uric acid levels but the decrease was still not optimal because respondents still consumed offal, meat and nuts in excess, causing an increase in synthesis. purines in the body which results in the accumulation of crystals in uric acid in the joint space where the more often you eat foods that contain high purines, the higher the value of uric acid in the blood.

In addition, there is 1 respondent who has been on a purine diet for 7 days but his uric acid level did not decrease because the respondent was obese.

According to (Orlando et al., 2018) Individuals who are obese have lower renal excretion, and may also experience increased production of uric acid. Increased uric acid levels in obesity will certainly increase the risk of cardiovascular diseases that can occur, especially in obese individuals. In children and adolescents, many studies indicate that hyperuricemia and obesity have a positive relationship and it is associated with cardiometabolic complications, such as hypertension, atherosclerosis and metabolic syndrome. independent on the development of arterial hypertension, as well as on the mechanisms leading to the development of hypertension in obesity.

According to the researcher, based on the results of research, respondent number 11 who was obese had a uric acid level of 7.3 mg/dl and after being given boiled water from

Soursop leaves (*Annona muricata*), the uric acid level did not decrease, which was still 7.3 mg/dl. The absence of a decrease in respondents was due to obesity so that the body produces more insulin where excessive levels of insulin in the body can inhibit the work of the kidneys in removing uric acid levels. uric acid levels that accumulate too much and are not wasted will form crystals in the joints and keep uric acid levels high. In addition, excess fat tissue will produce proinflammatory cytokines, where these cytokines will irreversibly convert *endothelial xanthine dehydrogenase* to its active form, namely *xanthine oxidase*. *Xanthin oxidase* will eventually convert xanthin into uric acid.

Treatment of gout can be done in two ways, namely pharmacological treatment, namely by consuming pain relievers such as allopurinol and non-pharmacological treatment using boiled water from Soursop leaves (*Annona muricata*). Where in the water content of soursop leaf decoction there are compounds of *acetogenin*, tannins, resins, *crystalizable magostine* and *flavonoids* that can reduce uric acid levels. The content of *flavonoids* can facilitate the disposal of excessive purines through the urine so that it can reduce uric acid levels.

This is supported by the theory which states that the *acetogenic content* in Soursop leaves (*Annona muricata*) has antioxidant properties that can reduce the formation of uric acid through inhibition of the enzyme *xanthine oxidase*. Meanwhile, tannins, resins and *crystallizable magostine compounds* are able to overcome joint pain in gout and the content of *flavonoid compounds* in Soursop leaves (*Annona muricata*) is almost the same as allopurinol which can inhibit *xanthine* into *xanthine oxidase* which will become uric acid (Ta'adi et al., 2019). This is also in line with research (Haro et al., 2014) entitled the effect of soursop leaf decoction on reducing blood uric acid levels in Takisung Village, Takisung District, Tanah Laut Regency, which states that giving soursop leaf boiled water can reduce uric acid levels.

Analysis of the Effect Before and After Giving Soursop Leaf Boiled Water on Uric Acid Levels in RT.01/RW.02 Hamlet Kendalsari Plososari Village Puri District Mojokerto Regency.

Based on table 4.9, it shows that before giving soursop leaf boiled water, 20 respondents (100%) had high uric acid levels. After being given boiled water from Soursop leaves (*Annona muricata*), it was found that the number of gout sufferers in the high category was 10 respondents (50%) and 10 respondents (50%) in the normal category. From the data above, it can be seen that before giving soursop leaf boiled water, all respondents had high uric acid levels and after giving soursop leaf boiled water, some respondents had decreased uric acid levels but uric acid levels were still in the high category and some had low uric acid levels. within normal limits.

Researchers analyzed data using the Wilcoxon signed ranks test with the help of SPSS, a significance level of $\alpha = 0.05$ was obtained and the results were p value (0.002), which means $p < 0.05$, namely H_0 is rejected and H_1 is accepted, which means that there is an effect of leaf boiled water. Soursop on uric acid levels in gout sufferers in Kendalsari,

Plososari Village, Puri District, Mojokerto Regency. Based on the analysis of researchers for seven days, the results showed that there was a decrease in uric acid levels, namely some had decreased in uric acid levels but uric acid levels were still in the high category and some were within normal limits.

The results of this study are in line with research (Gani et al., 2021b) giving a decoction of Soursop leaves (*Annona muricata*) (*Annona muricata* linn) reduces pain in patients with gout arthritis. The results of the analysis with the Wilcoxon Signed Ranks Test statistical test obtained a significant value = 0.000 meaning $p < 0.05$ then H_1 is accepted, meaning that there is an effect giving soursop leaf decoction to reduce pain in patients with Gout Arthritis.

The results of this study are also in line with the results of research (A. Makuasa & Ningsih, 2020) giving soursop leaf boiled water to reduce gout pain in patients with gout arthritis in the working area of the Deli Tua Health Center in 2020 that the pre sig value is 0.008 and the post sig value is 0.016, the data obtained The researchers found that the distribution was normal because < 0.05 , which means that there was an effect of giving soursop leaf boiled water on reducing gout pain in the elderly.

According to the researchers, the decrease in uric acid levels in the normal category in 10 (50%) respondents after being given boiled water of Soursop leaves (*Annona muricata*) occurred because of the high flavonoid content in soursop leaf boiled water so that it could inhibit xanthine into xanthine oxidase and it would become uric acid. The content of flavonoids can reduce uric acid levels in the blood by facilitating the disposal of uric acid through urine. While in 10 (50%) other respondents there was a decrease in uric acid levels but still in the high category. This happens because 9 out of 10 respondents still often consume foods high in purines in excess so that as long as they are given boiled water, Soursop leaves (*Annona muricata*) do not decrease optimally. While the other 1 respondent occurred because the respondent was obese.

CONCLUSION

Based on the results of research that has been carried out in Kendalsari, Plososari village, Puri sub-district, Mojokerto district, it can be concluded that before being given boiled water Soursop leaves (*Annona muricata*) all respondents had high uric acid levels as many as 20 people (100%). And after being given boiled water for Soursop leaves (*Annona muricata*) for 7 days, some respondents had high uric acid levels, namely 10 people (50%) and some had normal uric acid levels, as many as 10 people (50%). Based on the analysis, the results showed that there was an effect of giving soursop leaf boiled water on uric acid levels in gout sufferers in, Kendalsari Hamlet, Plossari Village, Puri District, Mojokerto Regency.

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