

EARLY DETECTION OF URIC ACID LEVELS IN THE RW 14 COMMUNITY GROUP, BOJONGGEDE VILLAGE, BOGOR REGENCY

Mutiara Candra Kirana¹, Ratih Fatimah²

Universitas Ibn Khaldun

¹ mutiaracandra124@gmail.com, ² ratih.fatimah@uika-bogor.ac.id

Abstract

Over time the number of gout sufferers is increasing and can be found all over the world, regardless of human race. Several risk factors that can cause a person to develop gout are age, lack of physical activity, and obesity (obesity). In a pandemic situation like now, it requires people to be at home more often, activities are reduced and there is an increase in the tendency of an unfavorable lifestyle. Therefore, by holding a health check that aims to at least help provide services for the community to still be able to check uric acid levels in the hope that people can pay more attention to their lifestyle in order to keep uric acid levels from increasing. This activity was held on September 26, 2021 at the Baiturrahman Mosque Hall, and the results showed that of the 20 participants, 16 (80%) had normal uric acid levels and 4 (20%) had high uric acid levels.

Keywords : Gout, Age, Physical Activity.

INTRODUCTION

Health is one of the most important things in life, so life expectancy is an indicator that is always used in the human development index. Individually, the impact of the aging process causes various problems both physically, mentally, biologically or socio-economically. At the present time, non-communicable diseases (NCDs) have several similarities with several other names, such as degenerative diseases (Bustan, 2007; Hariyani, & Satria, 2015). It is called a degenerative disease because its incidence is related to the process of degeneration or decline in old age that takes place according to time and age (Irianto, 2014). Generally, degenerative diseases attack the nervous system, muscles, blood vessels, and bones of humans. One of the most common diseases is gout. Gout is a metabolic disorder characterized by increased levels of uric acid (hyperuricemia).

Gout is one of the degenerative diseases that often attacks the joints, and is most often found in the community, especially experienced by the elderly (elderly). But not a few of these diseases can be found in the elderly (Damayanti, 2012).

Uric acid is the end product of purine metabolism, which is a component of nucleic acids found in the nucleus of body cells. Increased levels of uric acid in the blood is called hyperuricemia. Hyperuricemia can be caused by two things, namely due to excessive uric acid formation or due to decreased excretion of uric acid by the kidneys. Hiperurisemia yang tidak ditangani dapat menyebabkan asam urat dalam darah berlebihan sehingga mengakibatkan terjadinya penumpukan kristal asam urat. If these crystals are in the joint fluid, it will cause gout (Putra, 2007). Besides being able to cause gout, hyperuricemia can also cause kidney

disorders, heart disease, stroke, bone inflammation, tofi around the joints, and urinary stones. (Diantari & Candra, 2013)

Based on research conducted by the World Health Organization (WHO) in 2013, as many as 81% of gout sufferers in Indonesia who went to the doctor only 24%, meanwhile as many as 71% tended to directly consume pain relievers that are sold freely in the market without using pain relievers. doctor's prescription. According to the results of research conducted by the Ministry of Health (2013) explains that joint diseases in Indonesia are diagnosed by health workers as much as 11.9% and based on diagnosis and symptoms of 24.7%, Meanwhile, based on the highest area according to the diagnosis of health workers, namely in East Nusa Tenggara 33.1%, followed by West Java at 32.1% and Bali 30%.

Over time, the number of gout sufferers is increasing. Gout can be found all over the world, regardless of human race. The prevalence of uric acid is increasingly entering a young age, namely productive age which will later affect a decrease in work productivity (Sholihah, 2014). The prevalence of gout in Indonesia occurs at the age of under 34 years by 32% and over 34 years by 68% (WHO, 2015). Meanwhile, according to Riskesdas data in 2018, the prevalence of gout when viewed from age characteristics, the prevalence is high at the age of 75 years by 54.8%.

Risk factors that can cause a person to develop gout are age, lack of physical activity, obesity (obesity), excessive alcohol consumption, excessive intake of purine compounds, heart disease, impaired kidney function and hypertension, as well as certain drugs, especially diuretics. Based on a study, increased levels of uric acid in the blood, besides being able to cause gout, one of the strong predictors of death is cardiovascular damage. This can be influenced by the lack of public awareness in paying attention to their health as there are still many people who consume food without paying attention to the content of the food (Jaliana, et al., 2018). Diet and composition of food ingredients affect uric acid levels in the blood.

Excessive activity factors can also worsen and support the complications of gout. Activities carried out by a person are related to the levels of uric acid in the blood. Physical activity such as exercise or physical movement will reduce the excretion of uric acid and increase the production of lactic acid in the body. The heavier the physical activity that is carried out and lasts long term, the more lactic acid is produced. (Jaliana, et al., 2018).

In a pandemic situation like now, it requires people to be at home more often, activities are reduced and there is an increase in the tendency of poor eating patterns. Therefore, we held a health check with the aim of helping a little to provide services for the community to still be able to check uric acid levels in the hope that people can pay more attention to their lifestyle in order to keep uric acid levels from continuing to increase.

METHODOLOGY

Considering the COVID'19 pandemic situation which is still ongoing today, Health Counseling and Examination activities are carried out with community representatives, namely each RT sends 5 people where RW 14 has 12 RTs, so the total participants were 60 people and it was held in the Baiturrahman Mosque Hall. Each participant can only choose 1 of the blood sugar, uric acid, and cholesterol test options, and in the uric acid examination there are only 20 participants out of 25 strips, the remaining 5 strips have errors so they cannot be used.

This inspection is carried out in groups of 2 officers and by keeping a distance at each examination table so as to minimize the accumulation of people. Officers and the public who take part in this inspection activity are required to wear masks, and carry out inspections in a short time.

The examination is carried out using a GCU Meter or a digital uric acid level examination tool and the results are recorded manually in the table provided. Blood samples were taken using a disposable lancet for each community that was examined and measured using a digital GCU Meter. After the inspection is carried out, the results will be notified to each community.

RESULTS AND DISCUSSION

The implementation of Health Counseling and Examination activities in RW 14 Bojonggede Village, Bogor Regency which was held on September 26, 2021 in the Baiturrahman mosque hall went well as planned. The activity was carried out for 3 hours starting at 09.00 WIB until 12.00 WIB and was attended by community representatives where each RT sent as many as 5 people and RW 14 had 12 RTs, so the total participants who came to the location were 60 people, but because some were unable to attend. attended so that there were as many as 54 participants who attended. This activity continues to comply with health protocols where it is still mandatory to wear masks and maintain distance as an anticipatory measure against the spread of COVID'19.

The results of this examination showed that 20 people had uric acid levels between 3.0 – 9.4 mg/dl with an average value of 5.2 mg/dl. Where normal levels are at 2.0 – 7.5 mg/dl for men, and 2.0 – 6.5 for women (WHO, 2014). Another finding in this examination was that quite a lot of participants had fairly high blood pressure with an average of 130/90 mmHg, where when viewed from the results of the examination of 20 participants as many as 12 participants were included in the prehypertension category.

There are studies that find that hypertension is quite related to high uric acid levels. The higher a person's blood pressure, the risk of increasing uric acid levels will also be greater. Not much different, when a person's uric acid level is too high, the risk of rising blood pressure becomes greater, so that it can lead to hypertension. One of the research studies conducted by Umami (2015) on the relationship between increased blood uric acid levels and the incidence of hypertension in Sukoharjo Hospital found that 26 samples with hypertension experienced an increase in blood uric acid levels (100%).

Table 1. Results of Examination of Uric Acid Levels and Blood Pressure

| | Results of Uric Acid Levels | Blood Pressure Results |
|------------------------|-----------------------------|------------------------|
| Normal | 16 | 4 |
| High / PreHypertension | 4 | 16 |
| Amount | 20 | 20 |

From the table above, it was found that from 20 participants who had normal uric acid levels as many as 16 participants (80%), while 4 other participants (20%) had high uric acid

levels. Although the results in Table 1 cannot be used as a basis for making a diagnosis of someone having gout or not, at least it can be used as an illustration of the state of uric acid levels as a prevention effort.

For the prevention of hyperuricemia, doctors usually recommend a low-purine diet and give drugs such as anti-inflammatory drugs and allopurinol. An effective diet is very important to avoid complications and reduce treatment costs, diet settings should also be carried out when uric acid levels exceed 7.0 mg/dl. In addition to the prevention of hyperuricemia can be done by not taking drugs that contain aspirin, If you need medicine for pain relief, you can choose Ibuprofen and other types of drugs. Patients with hyperuricemia are also advised to drink more water, especially for those who have kidney disease to remove uric acid crystals in the body, eat foods that contain high potassium such as those in fruits containing vitamin C (oranges, strawberries, etc.), vegetables, milk, yogurt, potatoes, and can also consume natural products such as green tea, black seed, sidaguri, and brotowali (Ahmad, 2011)

CONCLUSION

Health Counseling and Examination Activities will be held on September 26, 2021, at 09.00 WIB to 12.00 WIB, which is located in the Baiturrahman Mosque Hall. This activity was attended by 54 participants from representatives of each RT 01 – RT 12. From the results of the uric acid examination which was attended by 20 participants, it was found that as many as 16 (80%) participants had normal uric acid levels, while 4 others (20%) had normal uric acid levels. fairly high veins. From this health check, it is hoped that it can be used as an early detection and the community will maintain uric acid levels by maintaining their lifestyle.

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