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Examination Of Uric Acid Levels And Counseling In Ngaglik Village Batu City, East Java

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Abstract

Background: *Uric acid is a produc of purine metabolism. There are several causes of gout, including changes in diet, consumption of drugs, and alcohol consumption. The purpose of implementing this community service activity is to provide education to the community in Ngaglik Village and to check uric acid levels. Based on the team's observations on several residents in Ngaglik Village, it was found that most residents did not have sufficient knowledge about gout and did not carry out routine health checks.* ***Methods:*** *In order to increase awareness and understanding of residents about health care efforts, especially preventing gout, the team coordinated with the urban village to carry out community service activities in Ngaglik Village, Batu City, East Java. The target in implementing this program is all residents in the Ngaglik Village, Batu City. Community service activities were carried out on April 6, 2021, attended by the village head and also village officials and babinsa.* ***Results:*** *The result that has been achieved in this service is that all of the people present have undergone examination and counseling.* ***Conclusion:*** *After carrying out the activity, it is hoped that the community can follow up on the results of the examination and improve the behavior of efforts to prevent gout.*

Keywords: *counseling; examination; uric acid levels*

1. INTRODUCTION

Uric acid or gout is a product of purine metabolism (Barsoum & El-Khatib, 2017). It is known that hyperuricemia, defined as high uric acid levels in the blood, is a major etiological factor for gout (Jin et al., 2012). Hyperuricemia and gout are a consequence or cause of the related condition. Treatment of gout includes lifestyle changes, nutrition, and adjunct therapy as well as different drug classes approved for lowering uric levels (Pasalic, Marinkovic, & Feher-Turkovic, 2012) (Engel, Just, Bleckwenn, & Weckbecker, 2017) (Vedder et al. al., 2019). There are several causes of gout, including changes in diet, consumption of drugs, and alcohol consumption. Several research results suggest that consumption of meat, fructose (mostly contained in food and beverage products), and beer, can increase the risk of gouty arthritis.

Foods that can reduce the risk of gout include low-fat foods and vitamin C (Jakše, Boštjan & Pajek, 2019) (Kakutani-Hatayama et al., 2017). Facts that are found in society today show an increase in risky behavior that can trigger gout, such as frequent consumption of canned drinks, packaged fruit juice, instant food, consumption of foods that contain lots of oil and fat, lack of intake of fruits containing vitamin C, and limitations. Knowledge about high-purine and low-purine foods which are one of the causes of gout (Harrold et al., 2012) (Alqarni & Hassan, 2018). What is understood by most people is the myth that the joint pain you feel is a symptom of gout. With these conditions, the public needs to be given a correct understanding that not all complaints of joint pain are caused by gout. In addition, people think that the solution to avoid gout is to not eat green vegetables and nuts.

This is certainly wrong because it is not scientifically proven. An effort is needed to provide a correct understanding of the wrong perception of society by providing health education or counseling and to provide assurance to the public whether or not the uric acid level is normal by examining uric acid levels. Community service is carried out in Ngaglik Village, Batu City, because based on the results of observations in the area, many people do not understand about gout and lack of public awareness to have their health checked regularly. In other that, the majority complained of pain in the joints, the body often felt sore, and sore. Based on the description above, the author is interested in conducting health examination and education activities related to Uric Acid to residents in Ngaglik Village.

2. LITERATURE REVIEW

Uric acid is a waste product found in the blood. These products are made when the body breaks down chemicals called purines. Most uric acid dissolves in the blood, passes through the kidneys and leaves the body through urine. Foods and drinks that are high in purines also increase uric acid levels (Anothaisintawee et al., 2017). These foods and drinks, among others:

a. Seafood (especially salmon, shrimp, lobster and sardines)
b. Red meat
c. Parts of internal organs such as the liver
d. Foods and drinks with high fructose corn syrup, and alcohol (especially beer, including non-alcoholic beer)

If too much uric acid is left in the body, a condition called hyperuricemia will develop. Hyperuricemia can lead to the formation of uric acid (or uric) crystals. These crystals can settle in the joints and cause gout, a type of arthritis that can have very painful effects. These crystals can also settle in the kidneys and form kidney stones (Jakše, Boštjan & Pajek, 2019).

If left untreated, high uric acid levels can eventually lead to permanent bone, joint and tissue damage, kidney disease and heart disease. Research has also shown a link between high uric acid levels and type 2 diabetes, high blood pressure, and fatty liver disease (Vedder et al., 2019).

3. METHODS

Extension activities was held on Tuesday, April 6, 2021 at the Ngaglik Urban Village office, Batu City. The target of this activity is residents in Ngaglik Village. The method used in this activity is checking uric acid levels followed by counseling. The counseling materials provided include:

a. Understanding Uric Acid
b. Causative factors
c. Signs and symptoms
d. As a result of disease
e. Preventive measures
f. Management
g. Traditional Medicine

Counseling is done using media leaflets that are done once during the activity. The implementation of the activity begins with a pre-test, then continues with the provision of health education, and ends with a post-test measurement. The pre-test and post-test were carried out by implementing a health protocol with discipline. The

evaluation is carried out with the aim of assessing the success of this activity, namely by looking at the enthusiasm of the community through the questions asked during the counseling process and understanding the community which is known through question and answer with the counselor.

4. RESULTS

The result that has been achieved in this service is that all people present have been subjected to examinations and counseling by applying strict health protocols. The results of the evaluation of the achievement of the activity preparation stage can be seen in the following table.

Table 1. Results of the evaluation of the achievement of the activity preparation stage

Activity	100% Achievement	
	Done	**Not done yet**
Survey of the location of the activity	100 %	-
Administrative arrangements and location permits for community service	100 %	-
Preparation of tools and materials for the implementation of activities and leaflet material	100 %	-
The achievement of the activity preparation stage	100 %	-

In the implementation of this activity, it received a good response from the Ngaglik Village and the entire community present. All planned community service activities can be carried out 100% in this activity. The percentage of community knowledge during the pre-test showed that 15 people (30%) had good knowledge, and the remaining 35 people (70%) had poor knowledge. Post-test results obtained 38 people (75%) have good knowledge, the rest, as many as 12 people (25%) still have poor of knowledge.

5. DISCUSSION

The implementation stage of community service activities on checking uric acid levels and counseling the community in Ngaglik Village, Batu City, includes:

a. Team Preparation Arriving at the location, the team coordinated with the urban village.
b. Health Check Process, The activity was carried out at 09.00-16.00 WIB, starting with registration and an initial assessment followed by an examination of uric acid levels. The results of the examination were recorded on a sheet of paper which was given to the residents accompanied by an explanation of the normal uric acid levels.

Figure 1. Initial Assessment Process

Figure 2. The process of examining gout

c. Counseling Process, After examining the residents, the next step is providing counseling regarding the results of examining uric acid levels. The counseling provided includes the definition of gout, causative factors, signs and symptoms, consequences of disease, prevention efforts, management, and traditional treatment.

Figure 3. Counseling Process

The implementation of community service activities can run well and smoothly. Through these activities, it was found that after counseling was carried out, public awareness to carry out routine health checks increased. The team coordinates with the urban village to carry out continuous monitoring of residents to follow up on the results of the examination that have been obtained by residents through this community service activity. Previous research has shown that education through nutritional counseling in respondents who are willing to participate, although from some samples have not seen a significant decrease in uric acid or below the upper limit of uric acid levels of men or women but showed a strong influence in the provision of counseling to changes in food intake high in purines and uric acid levels in the blood.

Counseling conducted in the research process had an impact in decreasing purine conusmtion in respondents. Counseling provided is applied by respondents, such as types of foodstuffs that are high in purines have been limited to be consumed by respondents so that this also has an impact on the uric acid levels of respondents. Counseling is a very important part of disease prevention and health improvement because through counseling, individuals are taught to think about their own problems, knowing what can be done by their own efforts so as not to get sick (Tamboto et al., 2016).

6. CONCLUSIONS AND SUGGESTIONS

Community service activities that have been carried out in the form of examining uric acid levels and providing counseling can be carried out well and smoothly seen from the number of people who participate and the enthusiasm of the community during the activities. It is hoped that through this service activity carried out can increase understanding of gout and public awareness to routinely carry out health checks and avoid behaviors that can be bad for their health.

Suggestions from the implementation of this community service activity are that after partners receive counseling and know their uric acid levels, it can be followed up by taking medication at the nearest health center.

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