



OVERVIEW OF KNOWLEDGE AND DIET PATIENTS OF GOUT ARTHRITIS

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Abstract, Background: The disease that occurs due to an unfavorable lifestyle is gout arthritis. Gout arthritis occurs is influenced by several factors. Knowledge and poor diet are factors that cause gout arthritis in the community and this occurs in West Gunungsitoli with a total of 40 people with gout arthritis. Prevention of Gout Arthritis can be done by adjusting a good diet by regulating the amount and type of food to maintain health, nutritional status, prevent or help cure disease. This study aims to analyze the description of knowledge and eating patterns of patients with Gout Arthritis in the Work Area of the West Gungsitoli Public Health Center.

Method: The research design used in this research is descriptive. Sampling in this study using a total sampling technique, with the number of respondents as many as 40 people. Data was collected by using a questionnaire and analyzed descriptively.

Results: The results of the study obtained enough knowledge as many as 18 people (45%) and bad eating patterns as many as 21 people (52.5%).

Conclusion: Gout Arthritis disease can be caused by several factors, one of which is poor diet and knowledge, therefore it is expected that the people of West Gungsitoli will further improve their healthy diet and good knowledge in dealing with Gout Arthritis disease and routinely conduct health checks to health services.

Keywords: Knowledge, Pattern Spots, Gout Arthritis

Background

Everyone has gout arthritis in the body, but it should not exceed normal levels. The level of gout arthritis in each person is different. For normal gout arthritis levels in men ranged from 3.5-7 mg/dl, and in women 2.6-6 mg/dl, whereas in the usual technique the maximum normal gout arthritis level was < 7.2 mg/dl, abnormal > 7.2 mg/dl. The net excretion of total gout arthritis in normal humans is on average 400-600 mg/24 hours [1].

Lifestyle changes can affect the health status of individuals and bring about changes in disease patterns, especially diseases related to lifestyle. These conditions change the pattern of disease which was initially only dominated by infectious diseases, but now shifts to degenerative and metabolic diseases which are increasing. One of the degenerative diseases that often occurs is gout arthritis, where there is an excessive buildup of gouty arthritis in the body [2].

Gout arthritis is an inflammatory joint disease that can cause pain, heat, swelling, and stiffness in the joints caused by excess content of gout arthritis in the blood, resulting in the accumulation of gout arthritis crystals in joints and other soft tissues (Syamsyiah, 2017). Gout arthritis is a metabolic disease caused by excess levels of gouty arthritis compounds in the body, either due to excess production, insufficient elimination, or increased purine intake. The clinical picture of gout is a joint disease that has to do with metabolism, sudden onset, in the joints of the hands and feet and, often occurs at night [3].

The prevalence of gouty arthritis in the world according to the World Health Organization (2017), has increased by 1370 (33.3%) gout arthritis often occurs in developed countries such as America with a prevalence of gout arthritis of 26.3% of the total population. the prevalence of gout arthritis based on the diagnosis of health workers in Indonesia is 11.9% and based on the diagnosis or symptoms 24.7% when viewed from the age characteristics, the prevalence is high at the

age of 75 years (54.8%), female sufferers are also more (8, 46%) compared to men (6.13%). The incidence of gout arthritis in Central Java is 26.4%, which is 24.3% in men and 11.7% in women [4]. The prevalence of gouty arthritis sufferers in the Gunungsitoli sub-district based on data from the health department is 11% of the total population of 136,017.

Based on the results of the initial data survey in the Working Area of the Tumori Village Health Center, Gunungsitoli Barat, it was found that the population was 1117 with a total of 316 family cards. There are 40 people with gout arthritis in the Working Area of the West Gunungsitoli Village Health Center who have carried out examinations starting from the beginning of 2021.

Gout arthritis is a disease caused by purine metabolism disorders characterized by hyperuricemia and repeated attacks of acute synovitis [5]. Controlling the levels of gout arthritis requires a good knowledge about prevention, treatment, and lifestyle that must be applied. Knowledge is everything that is in our heads, so we can know something based on the experience we have. In addition to experience, we also become aware because we are told by others and can also be obtained from tradition. Knowledge or cognition is a very important domain with all forms of one's actions [6].

Factors that can affect gout arthritis is the lack of public knowledge about joint pain because not all complaints of joint pain are caused by gout arthritis. There are many types of rheumatic diseases, to be sure it is necessary to have a laboratory examination. Prevention of disease will be paid more attention by someone to the object through the senses it has (eyes, nose, ears, and soon) knowledge is very influential on health behavior [7].

Knowledge is a result of curiosity through sensory processes, especially in the eyes and ears of certain objects. Knowledge is also the most important domain in the formation of behavior. Prevention of disease will be paid more attention to by someone who has knowledge and knowledge can be obtained from various sources of information including through counseling and health education [3].

A person's level of knowledge of an object has a different intensity or level. Broadly speaking, it is divided into 6 levels of knowledge, namely: knowing, understanding, application, analysis, synthesis, and evaluation. Knowledge of health is very important in living daily life, especially the experience of a low-purine diet [8]

According to Pipit et al 2010 in [7] several factors influence knowledge, namely education, information, and economics because from experience and research it turns out that behavior based on knowledge will be more lasting than behavior that is not based on knowledge. Knowledge is closely related to several factors, the first is education. Education is an effort to develop personality and abilities. People with higher education will also broaden their knowledge but someone with low education does not mean absolutely low knowledge, the second is mass media or information, information obtained from both formal and non-formal education can have a short-term effect resulting in changes and increases in knowledge.

Another major factor that can affect the occurrence of gouty arthritis is diet. Diet is a way or effort in regulating the amount and type of food with a specific purpose such as maintaining health, nutritional status, preventing or helping cure disease (Ramayulis in [9]. Uncontrolled eating patterns and frequent consumption of foods that are high in purines can cause gout arthritis levels in the blood to increase [2]. The types of foods that contain high purine content include offal, beef, sardines, duck meat, sea fish, shellfish, chicken, shrimp, beans, tempeh, mushrooms, *tapai*, tofu, as well as some vegetables such as *melinjo*, cassava leaves, kale, cauliflower, and spinach [10]. This can be proven in research [11], that from 64 samples it was found that each sample had a habit of consuming foods containing purine intake, causing increased levels of gout arthritis in the body.

The habit of eating foods that contain purines can increase arthritis in the blood so that it can cause gout arthritis. Eating too many foods that are high in purine content such as sardines, kale, offal, and spinach will increase the production of gout arthritis. Conversely, reducing consumption of foods with high purine content and increasing consumption of foods with low purine content will reduce the risk of gout/ gout arthritis. One of the efforts to reduce protein buildup is a good and correct gout arthritis diet therapy [12].

Diet is a way or effort in regulating the amount and type of food with a specific purpose such as maintaining health, nutritional status, preventing or helping cure disease [13] The main function of food for human life is to maintain body processes in growth/development and replace damaged body tissues, obtain energy to carry out daily activities [13].

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If not treated quickly, gouty arthritis will cause several complications including the appearance of tophi around the inflamed area due to the accumulation of crystals due to increased levels of excessive gout arthritis in the joints, permanent joint damage due to ongoing inflammation, and tophi in the joints, which damage the cartilage and bones of the joints themselves, and kidney stones due to the deposition of gouty arthritis mixed with calcium in the kidneys [2].

Management and management of gout arthritis are very necessary in reducing the occurrence of complications in gouty arthritis by avoiding foods that contain high purines with high biological values such as liver, gizzard, kidney, offal, and yeast extract, in addition to food regulation, adequate water consumption also reduces the risk of gout attacks, drinking water intake >2 liters per day is recommended in the case of gout with urolithiasis, and during a gout attack, it is recommended to increase drinking water intake to at least 8-16 glasses per day (Hainer BL, et al in [14].

The best prevention is to eat in moderation. If you already suffer from gout arthritis, you should limit yourself to things that can make things worse, for example by limiting foods that are high in purines and choosing foods that are low in purines. Adopting a healthy lifestyle and maintaining a good diet, avoiding foods that trigger gout arthritis will reduce the incidence of gout in the elderly [13].

Management of gout arthritis also requires good knowledge. Knowledge is the individual attention that can give curiosity to an object as well as a very important domain for the formation of a person's actions, good knowledge makes them limit foods that are high in purines and know what symptoms can be caused by gout arthritis such as pain in the joints, and know about any foods that affect gout arthritis, for example, offal and alcohol [7].

Based on the increasing prevalence of gouty arthritis sufferers, which is also influenced by knowledge and eating patterns that are associated with the incidence of gouty arthritis, from the above background, the researcher is interested in researching on Overview of Knowledge and Diet of Gout Arthritis Patients in the Working Area of the West Gunungsitoli Health Center 2021.

Method

This type of research is descriptive research where descriptive research, describes

(explain) important events in the present. The population in this study were all people in West Gunungsitoli who had received treatment and had been diagnosed with gout arthritis in the working area of the Gunungsitoli Barat Health Center with a total of 40 people. The sampling technique used in this research is a total sampling technique with a total of 40 respondents. The research instrument was using a questionnaire. Statistical analysis was performed univariately.

Result

Table 1. Characteristics of Respondents in the Working Area of the West Gunungsitoli Health Center in 2021

Characteristics	F	%
Age		
36-45 Years	3	7.5
46-55 Years	13	32.5
56-65 Years	14	35.0
>65 Years	10	25.0
Total	40	100
Gender		
Man	12	30.0
Woman	28	70.0
Total	40	100
Education		
No school	2	5.0
SD	9	22.5
junior high school	13	32.5
senior High School	8	20.0
Diploma/Bachelor	8	20.0
Total	40	100

The results of the study showed that of the 40 respondents with gout arthritis, the most were in the age range of 56-65 years as many as 14 respondents (35%) and the least in the age range 34-45 years as many as 3 respondents (7.5%), aged 46-55 years as many as 13 respondents (32.5%), and age >65 years as many as 10 respondents (25%). The results of the research on the characteristics of respondents based on gender were 28 women (70%) and the lowest was 12 men (30%). The results of the research on the characteristics of respondents based on the highest level of education had junior high school education as many as 13 respondents (32.5%) and the lowest with elementary school education, Diploma/bachelor degrees respectively 8 respondents (20%) and 2 respondents (5%) did not attend school.

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Table 2. Knowledge of Gout Arthritis in the Working Area of the West Gunungsitoli Health Center in 2021

Category	Frequency (f)	Percent (%)
Well	9	22.5
Enough	18	45
Not enough	13	32.5
Total	40	100

The results showed that of the 40 respondents with gout arthritis, the most had sufficient knowledge of 18 people (45%), lack of knowledge as many as 13 people (32.5%), and good knowledge as many as 9 people (22.5%).

Table 3. Dietary Habit About Gout Arthritis in the Working Area of the West Gunungsitoli Health Center in 2021

Category	Frequency (f)	Percent (%)
Well	5	12.5
Enough	14	35
Not good	21	52.5
Total	40	100

The results showed that of the 40 respondents who suffered from Gout Arthritis the most had a bad diet as many as 21 people (52.5%), an inadequate diet as many as 14 (35%), and a good diet as many as 5 people (12.5%).

Discussion

Knowledge about Gout Arthritis in the Working Area of the Tumori Village Health Center, West Gunungsitoli District in 2021

Based on the results of research conducted on 40 respondents regarding knowledge about gout arthritis in the Working Area of the Gunungsitoli Barat District Health Center. It shows that the level of knowledge of gout arthritis is more in the sufficient category as many as 18 respondents (45%), less knowledge as many as 13 (32.5%), and good knowledge as many as 9 people (22.5%).

Researchers assume that the knowledge of respondents about gout arthritis is sufficient as many as 18 respondents (45%) because the level of knowledge of each respondent is different, where one of the factors that influence knowledge is the level of education where the higher the education, the easier it will be to receive the information obtained. Another factor that can affect a person's level of knowledge is the experience of the disease he is suffering from. As the results of the study, it was found that most of the respondents knew that gout arthritis was

caused by increased levels of gouty arthritis in the blood, knew the signs and symptoms of gouty arthritis, such as swelling and pain in the joints, knew that healthy food is food that contains nutrients in its composition balanced.

The results of the research above are supported by research [15] the results study regarding the level of knowledge of the elderly with gout arthritis were in the sufficient category as many as 20 people (57.1%). This is because in this study it is known that a person's level of knowledge can be influenced by several factors so that a person's knowledge is different. In this study, respondents lacked awareness in maintaining health.

In line with research [3] it was found that the majority of respondents had sufficient knowledge, this shows that respondents who have extensive knowledge about gout arthritis may not necessarily be able to apply this knowledge into action so that it affects the behavior of respondents in carrying out various disease prevention efforts.

Gout is a disease caused by a purine metabolism disorder characterized by hyperuricemia and repeated attacks of acute synovitis [5]. Controlling the levels of gout arthritis requires a good knowledge about prevention, treatment, and lifestyle that must be applied. Knowledge is everything that is in our heads, so we can know something based on the experience we have. In addition to experience, we also become aware because we are told by others and can also be obtained from tradition. Knowledge of cognition is a very important domain with all forms of one's actions [7].

A person's level of knowledge of an object has a different intensity or level. Broadly speaking, it is divided into 6 levels of knowledge, namely: knowing, understanding, application, analysis, synthesis, and evaluation. Many factors affect knowledge, one of which is education. The higher the education, the easier it is for someone to receive information. Most human knowledge is obtained through education, the experience of others, the mass media, and the environment. Knowledge of health is very important in living daily life, especially the experience of a low-purine diet [8].

While respondents have less knowledge as many as 13 respondents (32.5%) according to the researcher's assumptions, this is because some respondents are unable to identify foods that contain purines such as offal, sardines, cassava leaf vegetables, and kale.

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Lack of information obtained about gouty arthritis.

In line with research [16] where the level of knowledge is lacking due to a lack of education, the knowledge is reduced. In this study, one of the factors that influence behavior is knowledge, therefore with good knowledge, the respondent's behavior towards running a low-purine diet is also good, respondents are more obedient in running a low-purine diet.

While respondents who have good knowledge are 9 respondents (22.5%), according to the researcher's assumption, this is because most of the respondents have good knowledge about gout arthritis, such as the cause of gouty arthritis, which is caused by increased levels of gout arthritis in the blood, signs, and symptoms of gout arthritis such as swelling and pain in the joints, as well as knowing that a healthy diet contains nutrients in a balanced composition. This can happen because people with gout arthritis gain knowledge both in the experience of the disease they suffer from and information from other people or the mass media.

In line with research [17] which stated that the respondents who had good knowledge, respondents stated that they obtained knowledge from health workers when checking themselves at the health center, neighbors, family, and mass media such as radio and television. So that they begin to understand gouty arthritis and the causes of gouty arthritis.

Based on the discussion above, the researcher concludes that health knowledge is very important, including in the prevention of increasing levels of gout arthritis. Knowledge can be obtained from experience about the purine diet, information obtained from the mass media and other people, so that with this knowledge individuals can maintain a diet or run a low-purine diet so that they can avoid foods that contain purines so that the levels of gout arthritis in the blood remain at the same level normal limit.

Diet for Gout Arthritis Patients in the Working Area of the West Gunungsitoli Health Center in 2021

The results showed that of the 40 respondents who suffered from Gout Arthritis, the most respondents had a bad diet as 21 people (52.5%), a poor diet as many as 13 people (32.5%), and a good diet as many as 5 people. (12.5%).

Researchers assume that respondents have a bad diet because most of the respondents eat foods that have a high purine content including cassava, kale, *melinjo*, chips, offal, seafood, avocado and consume coffee 3 times a week so that there is an increase in gout arthritis levels in the body.

This is in line with research [3] that of the 93 respondents, most of them have a bad diet with a total of 71 people (76.3%), which is illustrated from the results of the study where most respondents consume foods such as meat, tofu, tempeh and kale in a day can be >70gr meat, >150gr tofu tempeh, and so on and in a week >3 times consuming these foods. This shows that a diet with high purine intake can increase the risk of developing gouty arthritis

Supported by research [11] from 64 samples of patients with Gout Arthritis, it was found that each sample had a habit of consuming foods containing purine intake, causing increased levels of gout arthritis in the body.

Uncontrolled eating patterns and frequent consumption of foods high in purines can result in increased blood levels of gout arthritis [2]. The types of foods that contain high purine content include offal, beef, sardines, duck meat, sea fish, shellfish, chicken, shrimp, beans, tempeh, mushrooms, *tapai*, tofu, as well as some vegetables such as *melinjo*, cassava leaves, kale, cauliflower, and spinach [13].

In respondents who have a poor diet as many as 14 people (35.5%), researchers assume this is because respondents have a habit of consuming foods that contain purines but not often or 3 times a week.

This is in line with research [110]. What was done in Limran Village of 34 respondents who suffered from Gout Arthritis the most eating pattern was a poor diet 31 people (91.1%) and the least was a good diet as many as 3 people (8.8%).

While respondents who have a good diet are 5 respondents (12.5%) researchers assume that respondents consume foods containing purines within normal limits or 3x a week and some even never eat some foods containing purines such as chips *melinjo*, and coffee.

In line with research [19] 29 people (65.9%) of good eating patterns found in the elderly who avoid high gout arthritis dietary restrictions are internal organs (liver, tongue, and intestines) because they can increase gout arthritis levels.

It can be concluded that one of the causes of gout Arthritis is caused by a bad diet, namely consuming foods that contain high purines in excess or not within normal limits, thereby increasing the levels of gout arthritis in the body.

Conclusion

Based on the results of research conducted by researchers on Knowledge about Gout Arthritis in the Work Area of the West Gunungsitoli Health Center in 2021 it can be concluded that knowledge of gout arthritis in the working area of the West Gunungsitoli Public Health Center is sufficient for 18 respondents (45%), the diet of patients with gout arthritis in the working area of the West Gunungsitoli Public Health Center was not good as many as 21 people (52.5%). The health center should routinely provide health promotion to patients with Gout Arthritis related to a diet containing high purine intake to reduce the incidence of Gout Arthritis.

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