

CHARACTERISTICS OF PATIENTS OF GOUT ARTHRITIS IN THE WORK AREA OF TUMORI VILLAGE WEST GUNUNGSITOLI VILLAGE IN 2021

Mei Frans Syah Putra Harapan Hati Hulu

Program Studi Keperawatan, Sekolah Tinggi Ilmu Kesehatan Santa Elisabeth, Medan, Indonesia

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Email :

meifranssyahputrahulu16@gmail.com

ABSTRACT

Gout arthritis is a metabolic disease caused by excess levels of uric acid compounds in the body, either due to excess production, insufficient elimination, or increased purine intake. Method: This type of research is descriptive with a total sampling technique of sampling, the number of samples is 40 people. The instrument used in this study was a questionnaire which was distributed to respondents who suffered from Gout Arthritis. Results: The results showed that there were more patients with Gout Arthritis in the 56-65 years age group (35.0%). The majority of Gout Arthritis sufferers are female (70.0 %). Most patients with Gout Arthritis have a junior high school education/equivalent (32.5%). Patients with Gout Arthritis who have a history of family/genetic disease (65.0%).

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1. INTRODUCTION

Changes in lifestyle 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 uric acid in the body (Anies, 2018). Gout arthritis is an inflammatory joint disease that can cause pain, heat, swelling, and stiffness in the joints caused by excessive uric acid content in the blood, resulting in the accumulation of uric acid crystals in joints and other soft tissues (Syamsyah, 2017).

Patients with gouty arthritis have different characteristics from other diseases seen from the symptoms that appear such as experiencing pain, swelling that looks reddish to purplish and warm in the joints, swelling caused by gout arthritis usually attacks the feet, big toes, ankles, knees, hands, wrists, elbows and even soft tissues such as ears and can cause lumps, if the lump is broken a chalky mass will come out, lumps in some parts of the joints of the body can cause excessive pain so that they experience movement disorders in carrying out activities. (Syamsyah, 2017).

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 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 in Central Java is 26.4%, which is 24.3% in men and 11.7% in women. (Ministry of Health RI, 2018). The prevalence of gouty arthritis sufferers in Gunungsutoli sub-district based on data from the health department is 11% of the total population of 136,017.

Gout arthritis if not treated quickly it 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 uric acid 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 uric acid mixed with calcium in the kidneys (Anies, 2018).

Management and management of gout arthritis is 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 risk of gout attacks, drinking water intake >2 liters per day is recommended in a state 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 Sumariyono, & Alwi, 2018).

2. METHOD

The design in this study is a descriptive study where descriptive research aims to describe (describe) important events in the present (Nursalam, 2020). The design of this study was to describe the characteristics of gout arthritis sufferers in the Working Area of the West Gunungsitoli Village Health Center in 2021.

3. RESULTS AND DISCUSSION

3.1 Characteristics of Respondents by Age

Table 1. Frequency distribution of Age of Gout Arthritis Patients in Tumori Village, West Gunungsitoli District in 2021 (n=40)

Age	Frequency (f)	Percentage (%)
Late Adulthood (36-45)	3	7.5
Early Elderly (46-55)	13	32.5
Late Elderly (56-65)	14	35
Seniors (>65)	10	25
Total	40	100

Table 1. shows that of the 40 respondents with Gout Arthritis, the most were in the age range of 56-65 years as many as 14 people (35%) and the least in the age range of 34-45 years (7.5%), 46-55 years as many as 13 (32.5 %), age >65 years as many as 10 people (25%) and age 36-45 years as many as 3 people (7.5%),

3.2 Characteristics of Respondents by Gender

Table 2. Frequency distribution of Gout Arthritis patients in Tumori Village, West Gunungsitoli District in 2021 (n=40)

Gender	Frequency (f)	Percentage (%)
Man	12	30
Woman	28	70
Total	40	100

Table 5.2 shows that of the 40 respondents with Gout Arthritis the most were female as many as 28 people (70%) and the lowest was male as many as 12 people (30%).

3.3 Characteristics of Respondents Based on Education Level

Table 3. Distribution of the frequency of education of patients with Gout Arthritis in the Village Tumori in West Gunungsitoli District in 2021 (n=40)

Education	Frequency (f)	percent %
No school	2	5
SD	9	22.5

JUNIOR SCHOOL	HIGH	13	32.5
SENIOR SCHOOL	HIGH	8	20
Diploma/Bachelor		8	20
Total		40	100

Table 3 shows that of the 40 respondents who suffered from Gout Arthritis, it was found that the highest respondent had a junior high school education as many as 13 respondents (32.5%) and the lowest had an elementary education, Diploma/bachelor each 8 respondents (20%) and 2 respondents did not attend school (5%).

3.4 Characteristics of Respondents Based on Family Illness History

Table 4 Frequency distribution of family history of patients with Gout Arthritis in Tumori Village, West Gunungsitoli District in 2021 (n=40)

Family history of illness	Frequency (f)	Percent (%)
There are families who suffer from Gout Arthritis		
Yes	26	65
Not	14	35
Total	40	100

Table 4 shows that of the 40 respondents who suffer from Gout Arthritis who have family members who suffer from Gout Arthritis as many as 26 people (65.5%) and who do not have family members who suffer from Gout Arthritis as many as 14 respondents (35%).

3.5 Characteristics of Respondents Based on Diet

Table 5. Frequency distribution of Gout Arthritis sufferers based on diet in Tumori Village, West Gunungsitoli District in 2021 (n=40)

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

Table 5 shows that of the 40 respondents who suffered from Gout Arthritis, the most respondents had a bad diet as many as 21 people (52.5%). Researchers assume that respondents have a bad diet because most of the respondents consume foods that have a high purine content including cassava, kale, empling melinjo, offal, seafood, avocado and consuming coffee so that there is an increase in uric acid levels in the body.

3.6 Discussion of Research Results

Characteristics by Age

Based on 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 people (35.0%), 46-55 years as many as 13 (32.5%), age >65 years as many as 10 people (25.0%) and at least in the age range of 36-45 years as many as 3 people (7.5%)

From the results obtained, researchers assume that Gout Arthritis is vulnerable at the age of 56-65 years because the immunological system in the elderly decreases so that the immune system

decreases along with the aging process, and all organ functions experience a decrease in ability, so they are very vulnerable to various diseases.

This is in line with research Songgigilan & Kundre (2019) conducted at the Ranotana Weru Health Center of 93 respondents who suffered from Gout Arthritis, the majority of respondents from the 55-65 year age group were 48 (51.6%). This is because in the elderly there has been a decrease in metabolism. It is also supported by research conducted by Ox et al (2018) stated that of the 48 respondents who suffered from Gout Arthritis the most were in the age range of 56-65 years with a total of 18 respondents (37.5%). Generally, those who are often attacked by Gout Arthritis are an elderly person because the disease in the elderly comes from within the body (endogenous), while in adults it comes from outside the body (exogenous). This is because in the elderly there has been a decrease in the function of various organs of the body due to damage to cells due to the aging process so that the production of hormones, enzymes and substances needed for immunity is reduced so that the elderly will be more susceptible to infection (Maryam et al in Nasir, 2017).

In line with increasing age, the decrease in metabolic function also decreases, especially at the age that has entered the elderly category due to decreased organ function due to damage to cells with age this can also lead to the emergence of various diseases, one of which is Gout Arthritis which attacks the joints in sufferers. This is also in accordance with research conducted in Tumori Village, West Gunungsitoli, where patients with Gout Arthritis are more vulnerable at age 56-65 who have entered the late elderly category. It can be concluded that one of the causes of gout arthritis is age with the final elderly category. This is because with increasing age the decline in organ function decreases so that various diseases are more susceptible to disease, one of which is joint disease, namely gout arthritis.

Characteristics by Gender

From the research results obtained that of the 40 respondents with Gout Arthritis the majority were female as many as 28 people (70.0%) and the lowest was male as many as 12 people (30.0%). From the results obtained, the researcher assumes that Gout Arthritis is more prone to be affected in women compared to men because in women who have entered menopause there is a decrease in the hormone estrogen which functions to help excrete uric acid through the kidneys, while in men it increases during puberty. until adulthood and can also be linked to the results of the study where the results of the study found that the majority of respondents were women > 40 years and had entered menopause.

This is in line with research Aliyang (2018) where in his research stated that women suffer from Gout Arthritis more than men where the results obtained from 40 female respondents were 35 people (87.5%) and 5 men (12.5%). Women will be prone to gout arthritis if they have entered menopause because during menopause the estrogen hormone decreases.

Supported by research Yankusuma & Putri (2016) entitled the effect of giving boiled bay leaves on reducing uric acid levels in the village of Malanggaten, Kebakkramat District with a sample of 20 people with the majority being female, namely 13 people (66.7%) while the respondents were female. men as many as 7 people (33.3%).

Gender also affects the occurrence of Gout Arthritis, especially in women who have entered the post-menopausal period because during menopause the estrogen hormone in women decreases (Maryam et al. Nasir, 2017). Uric acid levels in men increase during puberty to adulthood, however, postmenopausal women have a higher risk of gout arthritis than men, this is due to a decrease in the hormone estrogen. High uric acid levels are more commonly found in women this is because men do not have the hormone estrogen which functions as a uricosuric agent, which is a chemical that helps the excretion of uric acid through the kidneys. (Desverisca et al., 2019).

Based on the above discussion, women are more at risk of suffering from gout arthritis than men, this is because women will experience menopause which causes the hormone estrogen to decrease which is where the function of the estrogen hormone is to help excrete uric acid through the kidneys so that women are more at risk of suffering from gout arthritis.

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Characteristics Based on Education

The results showed that of the 40 respondents who suffered from Gout Arthritis, it was found that the highest respondents had junior high school education as many as 13 respondents (32.5%) and the least educated were elementary school, diploma/bachelor each 8 respondents (20.0%) and 2 respondents did not go to school (5.0%).

From the results obtained, the researcher assumes that Gout Arthritis is also susceptible to people with low education due to lack of knowledge about Gout Arthritis disease and can be related to the results of research, which majority have junior high school education. This is in line with Amalia's research (2017) which says that low education is related to the incidence of Gout Arthritis, where in her research it was found that out of 60 respondents, 39 respondents (65.0%) had junior high school education at most and 1 Diploma education at least. people (1.7%)

Supported by research Songgigilan & Kundre (2019) from the results of his research, it was found that from 93 respondents, most of the respondents had an elementary - junior high school education level as many as 51 people (54.8%). Education can affect the learning process, the higher a person's education, the easier it is for that person to receive information, both from other people and from the mass media. A person's level of education will affect lifestyle, behavior, and attitudes in performing health care, overcoming health problems, and choosing appropriate actions suitable for dealing with health problems. The higher a person's education, the higher his awareness and concern for health, for example seeking treatment and care related to health problems experienced. It can be concluded that one of the causes of gout arthritis is the level of education, this is because the lower the level of education a person will have a low attitude and knowledge in performing health care and in overcoming health problems. Conversely, the higher a person's education, the easier it is to receive and seek information about treatment and care related to health problems.

Characteristics Based on Family History

The results showed that of the 40 respondents who suffered from Gout Arthritis, the majority of respondents who had family members who suffered from Gout Arthritis were 26 people (65.5%) and those who did not have family members who suffered from Gout Arthritis were 14 people (35.0%). From the results of the research obtained, researchers assume that gout arthritis sufferers are more dominant in having families who suffer from gouty arthritis because gout arthritis can be inherited from the genes of the patient's family. This is supported by research Abiyoga (2017) Based on the results of research in the working area of the Situraja Health Center, from 34 respondents, 30 respondents (88.2%) had families suffering from Gout Arthritis and 4 people (11.8%) did not have families suffering from Gout Arthritis. The data above shows that the majority of Gout Arthritis sufferers have a family history of Gout Arthritis

Family history or genetics are traits that are passed down to the next generation or traits that have been inherited from previous living things, people with a genetic history / heredity who have gout arthritis have a 1-2 times risk compared to patients who do not have a genetic history / ancestry (Villegas et al, in Desverisca et al., 2019). From the discussion above, the researcher concludes that family history is one of the causes of gout arthritis, this is due to genes or traits that are inherited by gouty arthritis sufferers so that family members with a history of gouty arthritis sufferers will be more at risk of reducing the disease than patients without a family history.

Characteristics Based on Diet

The results showed that of the 40 respondents who suffered from Gout Arthritis the most respondents had a bad diet as many as 21 people (52.5%) and the minority had a poor diet as many as 14 respondents (35.5%) and a good diet by 5 respondents (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 3x a week so that there is an increase in uric acid levels in the body. This is in line with research (Songgigilan & Kundre, 2019) 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,

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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 Ridhoputrie et al (2019) From 64 samples of patients with Gout Arthritis, it was found that each sample had a habit of consuming foods containing purine intake, causing an increase in uric acid levels in the body. Uncontrolled eating patterns and frequent consumption of foods high in purines can cause uric acid levels in the blood to increase (Anies, 2018). 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 Dewi and Ashinda (2016). 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 Fanani, S. & Dewi et al (2018) 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 (Ramli et al., 2020) 29 people (65.9%) good eating patterns found in the elderly who avoid high uric acid dietary restrictions are internal organs (liver, tongue and intestines) because they can increase uric acid levels. It can be concluded that one of the causes of gout arthritis is due to a bad diet, namely consuming foods that contain high purines in excess or not within normal limits, thereby increasing uric acid levels in the body.

4. CONCLUSION

From the results of research conducted with a sample of 40 respondents regarding the Characteristics of Patients with Gout Arthritis in the Working Area of the Tumori Village Health Center, Gunungsitoli Barat in 2021, it can be concluded that Most patients with Gout Arthritis are in the age range of 56-65 years as many as 14 people (35.0%) Most Gout Arthritis sufferers are female as many as 28 people (70%) Most Gout Arthritis sufferers have junior high school education, namely 13 people (32.5%). Patients with Gout Arthritis at most have a family history of 26 people (65.0%). Sufferers Gout Arthritis, which amounted to 40 people, had a bad diet as many as 21 people (52.5%).

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