


The relationship of compliance with a low purine diet with recursion of gout athritis disease in the elderly in the working area of the Banda Sakti health center Lhokseumawe city

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Article Info	ABSTRACT
<p>Keywords: Compliance, Recurrence, (Gout Arthritis) Elderly</p>	<p>According to WHO, the incidence of gouty arthritis has increased by around 1.2% over the last 20 years. The prevalence in the last 5 years is estimated at 2.69%, rising to as high as 25% among the elderly of the world's population who have been attacked by gout (Gouty arthritis), where 5-10% are those aged 5-20 years and 20% are those aged over 55 year. The aim of this study was to identify the relationship between low diet adherence and recurrence of gouty arthritis in the elderly in the Banda Sakti Health Center area, Lhokseumawe City. The research was conducted on August 1, 2023. This research is correlational in nature. The research population was 58 respondents. The sampling technique used a total population of 58 respondents. Data collection by distributing questionnaires. Next, the data is processed with the help of a computerized system through the stages of editing, scoring, tabulating, coding, processing and cleaning. The results of the study showed that compliance with a low purine diet in the Banda Sakti Health Center Working Area, Lhokseumawe City was in the compliant category, namely 35 respondents (60.3%). Recurrence of Gout Athritis in the Banda Sakti Health Center Working Area, Lhokseumawe City was in the non-recurrence category, namely 31 respondents (53.4%). Meanwhile, statistical analysis using the Chi Square test shows that the p value = 0.000 < α = 0.05, so H_a is accepted and H_o is rejected, which means there is a relationship between adherence to a low purine diet and recurrence of gouty arthritis in the elderly in the Banda Sakti Health Center area, Lhokseumawe City. It is hoped that the elderly can increase their compliance regarding low-purine diet compliance with recurrence of gouty arthritis in the elderly.</p>
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INTRODUCTION

The life cycle of the elderly is characterized by a gradual decline in the functions of various body organs, which makes the body increasingly vulnerable to various diseases. As a result of the degenerative process (aging), non-communicable diseases often appear in old age.

The relationship of compliance with a low purine diet with recursion of gout athritis disease in the elderly in the working area of the Banda Sakti health center

Lhokseumawe city— Hernita et.al

The changes that occur in the elderly include physical, social and psychological changes so that they are vulnerable to infectious disease infections, therefore the elderly are often said to be a risk group (Maryam, 2020). The musculoskeletal system, as we age, causes the fluid in the bones to decrease, causing the bones to become brittle (osteoporosis), hunchback (kyphosis), joints to enlarge and become stiff (muscle atrophy). Furthermore, changes in the genitourinary system where the function of the glomerulus and renal tubules decreases, causing kidney damage and is one of the causes of Gout Arthritis. (Pusdatin Kemenkes RI, 2019).

The prevalence of gout in the United States is estimated at 8 million individuals, with an increase of approximately 1.2% over the last 20 years. Prevalence In New Zealand, the last 5 years is estimated at 2.69%, rising as high as 25% in elderly men. Data from NHANES (National Health and Nutrition Examination Survey) from 2017 to 2019 in the United States shows that gouty arthritis affects more than 3 million men aged 40 years or older, and 1.7 million women aged 40 years or older. Meanwhile, in 2019 to 2020, gouty arthritis sufferers increased to 8.3 million sufferers, of which the number of gouty arthritis sufferers in men was 6.1 million sufferers and women sufferers (WHO, 2020). Riskesdas data (2018) states that the second largest non-communicable disease is joint disease, which occurs due to the buildup of uric acid crystals in connective tissue, the prevalence of which reaches 24.7%. For example, in the knee area, base of the arms, wrists and feet and areas with joints. In Indonesia, the 6 provinces with the highest prevalence of joint disease are East Nusa Tenggara (NTT) at 33.1%, West Java at 32.1%, and Bali at 30.0%, East Java 28.5% and West Sumatra 28.2% and Aceh 13.3%. Based on data obtained from the Aceh Provincial Health Service, there was an increase in the number of elderly people from 18 million people (7.56%) in 2010 to 25.9 million people (97%) in 2019. Aceh Province is in the 2nd highest position for Gout Arthritis with frequency 18.36%. Aceh Province has an elderly population of 7.25 million, with men representing 6.77 and women representing 7.73. Divided into three groups, namely young elderly aged 60-69 years (67.64%), middle elderly aged 70-79 years (26.85%), and elderly aged 80 years (5.82%). This disease is grouped into special diseases and occupies the first priority with the largest number of 10 other priority diseases. One part of this inflammatory arthritis is gouty arthritis (Dinkes Provinsi Aceh, 2021).

Gout, or in medical terms, gout or gout, is a joint disease caused by high levels of uric acid in the blood. High uric acid levels in the blood exceed normal limits causing a buildup of uric acid in the joints and other body organs. This buildup makes the joints sore, sore and inflamed. In severe cases, sufferers of this disease cannot walk, the joints feel very painful when moving, experience joint damage, and become disabled. This penchant for delicious food high in purine really triggers an increase in uric acid levels (gouty arthritis) because delicious food usually has a high fat content (Sutanto, 2020). Prevent gouty arthritis by avoiding consuming foods that are high in purines such as: offal, preserved foods, goose meat. So it is very important for the elderly to know what kind of diet to eat to prevent or anticipate more serious problems (Fitriana, 2021).

The relationship of compliance with a low purine diet with recursion of gout athritis disease in the elderly in the working area of the Banda Sakti health center

Lhokseumawe city— Hernita et.al

Consuming foods containing purines is one of the factors that influence the incidence of gouty arthritis, high consumption of meat and seafood is associated with increased serum uric acid levels, and the habit of consuming meat and seafood is closely associated with the incidence of gout in individuals who have no history of gout (Zhang, 2019). Purines are molecules found in cells in the form of nucleotides and play a wide role in various biochemical processes in the body. Humans are able to synthesize purine nucleotides to meet the need for nucleic acid formation. Uric acid is the end result of purine metabolism, both purines originating from food and from the breakdown of purines in the body's nucleic acids. If the level of sodium urate in the serum exceeds its solubility, the serum becomes very saturated (hyperuricemia) and can stimulate the formation of sodium urate crystals which can deposit, one of which is in the joints and cause arthritis or gouty arthritis (Krisnatuti D, 2021).

From the results of interviews in the Banda Sakti Community Health Center Work Area on April 12 2023 with 12 people, 4 elderly people said they did not adhere to a low purine diet as a result of which gouty arthritis often recurred, 5 people said they often relapsed with gouty arthritis after eating meat because they did not eat it regularly. low purine diet, and 3 other people said they did not have a recurrence of gouty arthritis even though they did not follow a low purine diet. Therefore, it is necessary to provide health education about the gout diet towards knowledge of gout arthritis.

Based on the description above, the author is interested in researching "The Relationship between Adherence to a Low Purine Diet and Recurrence of Gout Athritis in the Elderly in the Working Area of the Banda Sakti Health Center, Lhokseumawe City".

METHOD

This type of research is analytical research, with a cross sectional study design approach. This research was conducted in the Banda Sakti Health Center work area, Lhokseumawe City. The population in this study was all 58 elderly people. The sampling technique in this research is Total Population, namely the entire population that meets the sample requirements with the criteria of being able to read and write, willing to be respondents and aged 45-59 years. The instrument in this research uses a questionnaire. Univariate analysis was carried out on each variable from the research results. This analysis only produces the distribution and presentation of each variable. The bivariate analysis used was the chi square technique using the SPSS version 20.0 program.

RESULTS AND DISCUSSION

The majority of purine diet adherents were in the adherent category, namely 35 people (60.3%). Based on the researchers' assumptions, one of the factors that influence patient diet compliance is education, the majority of whom have a high school education, namely 20 people (34.5%), generally have been frequently exposed to information so that the level of compliance can be better. The majority of jobs are civil servants, namely 18 (31.0%) also greatly influence a person's level of compliance with the treatment of their illness, and the

The relationship of compliance with a low purine diet with recursion of gout athritis disease in the elderly in the working area of the Banda Sakti health center

Lhokseumawe city— Hernita et.al

majority of health information is obtained from the family, numbering 47 respondents (81.0%). According to Andirana (2021), that education can increase compliance, as long as the education is active education such as the patient's independent use of books and tapes. Education influences a person's understanding and mindset. The higher the education, the more the understanding and thinking patterns will develop, so that the knowledge gained will get better. The attitude or motivation to recover and want to maintain health is very influential on factors related to the sufferer's behavior in controlling the disease, experience and the duration of an illness make sufferers more sensitive to information about their illness and emotional support from relatives, friends, time and money can be achieved. affect patient compliance. The patient's surrounding environment can help eliminate the temptation to non-compliance and they can often be a support group to achieve compliance. Information obtained from family members is very important for the sufferer regarding the current condition, what causes it and what to do when such a condition occurs.

According to Dai (2020) Sufferers' knowledge and beliefs about their illness, motivation to administer treatment, and hopes for the sufferer's recovery can influence sufferers' compliance behavior. Meanwhile, sufferer factors that influence compliance itself are: Forgetfulness, psychosocial stress, anxiety, about the situation, which is worse, low motivation, lack of knowledge and inability to manage disease symptoms and treatment, misunderstanding and non-acceptance of the disease, distrust of the diagnosis. , misunderstanding of the treatment instructor, low expectations of treatment, lack of control over treatment, no hope and negative feelings, frustration with health workers, anxiety about the complexity of the treatment regimen and feeling stigmatized by the disease.

The majority of Gout Arthritis recurrences were in the non-recurrence category, namely 31 people (53.4%). Based on the researcher's assumption, the majority of respondents do not experience a recurrence of gouty arthritis. This greatly influences the understanding and needs of sufferers for the disease they will experience in accordance with demographic data. The length of time they have suffered from the disease, the majority is >2 years totaling 43 respondents (74.1%), the majority have a family history of gouty arthritis. Yes, there are 37 respondents (63.8%), the majority of drug consumption. Yes, there are 43 respondents (74.1%), making sufferers understand the body's needs and response to gouty arthritis much better. According to Wahyudi (2021) Recurrence of gouty arthritis can occur repeatedly and cause pain around the hands, feet and other parts of the body. The cause of relapse is life behavior, namely eating patterns and physical activity. Meanwhile, according to Charlish (2020) Risk factors that cause people to develop gout are genetics/family history, excessive intake of purine compounds, excessive alcohol consumption, overweight (obesity), hypertension, impaired kidney function and certain medications (especially diuretics). These factors can increase uric acid levels, if there is an increase in uric acid levels and signs of rheumatic pain in the joints, pain, tenderness, redness and swelling, this condition is known as gout.

The results of statistical analysis using the Pearson chi square value showed that the p-value was $0.000 < \alpha 0.05$, meaning that H_a was accepted. This shows that there is a relationship between adherence to a low purine diet and recurrence of gouty arthritis in the elderly in the Banda Sakti Health Center Working Area, Lhokseumawe City.

According to the researchers' assumptions, the better the understanding of compliance with a low purine diet in elderly gouty arthritis sufferers, the better the sufferer's condition will be so that they will not experience a recurrence of the disease. A person's good health tends to be the result of good compliance and a person's poor health tends to be the result of poor compliance.

According to Sibella (2019) Uric acid is the result of purine metabolism in the body. In fact, uric acid is a natural substance in the body, but it becomes unnatural when uric acid rises and exceeds normal limits. Excessive uric acid will not be completely accommodated and metabolized by the body, so there will be an increase in uric acid levels in the blood which is known as hyperuricemia. Factors that cause gout include diet factors, obesity factors, age factors, and others. The diagnosis of gout can be made based on the typical symptoms and the discovery of high uric acid levels in the blood. Gouty arthritis is a disease that can be controlled although it cannot be cured, but if left alone this condition can develop into crippling arthritis.

CONCLUTION

Respondents' compliance with patient diets in the Banda Sakti Health Center working area, Lhokseumawe City was mostly in the compliant category. Recurrence of disease (gouty arthritis) in the elderly in the Banda Sakti Health Center working area, Lhokseumawe City is mostly in the non-recurrence category. There is a relationship between adherence to a low purine diet and recurrence of gouty arthritis in the elderly in the working area of the Banda Sakti Health Center, Lhokseumawe City.

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The relationship of compliance with a low purine diet with recursion of gout athritis disease in the elderly in the working area of the Banda Sakti health center

Lhokseumawe city— Hernita et.al

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