



Nursing Intervention of Red Ginger Warm Compress To Reduce Pain Levels In The Elderly

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ABSTRACTS

Background: Gout arthritis or often known by the public as uric acid is a degenerative problem that attacks the joints and is most often found in society, especially in the elderly. Often found complaints of joint pain in gout sufferers, the way to deal with pain is by warm compresses of red ginger. The goal is to reduce pain and improve blood circulation. **Methods:** Case study by providing nursing care to Mrs.S who is 60 years old with complaints of joint pain. **Results:** Based on a case study conducted by the author for 7 days, joint pain due to increased uric acid was reduced from pain scale 5 to scale 1. **Conclusion:** Giving red ginger warm compresses regularly can inhibit prostaglandin synthesis so as to reduce joint pain or tension muscle because it contains olerasin, namely gingerol, zingeron and shogaol.

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1. INTRODUCTION

Elderly is a closing period in a person's life span, namely a period when a person has moved from a more useful and productive time. The age of 60 is usually seen as the dividing line between middle age and old age. In addition, the age of 60 years is also used as a retirement age for someone and as a sign of the start of old age. With increasing age, physiological function decreases due to the aging process so that joint disease appears in the elderly. One of the joint diseases in the elderly is gout arthritis (Triningtyas, 2018).

Gout arthritis or often known to the public as uric acid is a degenerative problem that attacks the joints and is most often found in the community, especially in the elderly, gout arthritis spreads in all places caused by complications from hyperuricemia. Increased uric acid in the blood if it is more than 7.0 mg/dl for men and 6.0 mg/dl for women and is hyperuricemia which is defined as a metabolic disorder of gout arthritis (Naviri, 2019). The typical symptom that often occurs in people with gout arthritis is pain in the joints that can interfere with daily activities. Joint inflammation in gout arthritis can occur in all joints of the body so that it can cause swelling, stiffness in the joints, joints feel hot and painful (Noviyanti, 2015).

According to WHO (World Health Organization) in 2016, there are 335 million people in the world who experience arthritis. The prevalence of gout arthritis is 0.5% - 1% of a population. Geographically, the spread of gout arthritis is uneven and experienced by many people with the female sex. The age range that often experiences this disease is usually at the age of 45-65 years. According to Riskesdas data (2018), the incidence of joint disease reaches 11.9% of the total population in Indonesia. Another high prevalence was also obtained from Riskesdas in Banten Province, the prevalence of chronic systemic inflammatory disease in the joints as one of the signs of hyperuricemia in the age group 45-54 years was 36.1% and in the age group 55-64 years was 43.7%. .

Non-pharmacological measures for gout arthritis sufferers include giving red ginger warm compresses. Where warm compresses will cause a sensation of heat, so that the body's response physiologically includes reducing pain, relaxing muscles, balancing tissue metabolism, increasing tissue permeability, growing a sense of comfort and reducing anxiety (Syamsu, 2017). Red ginger is a natural ingredient that is suitable for causing a warm sensation because it contains various components such as starch (52.0%), essential oils (3.9%) and essence mixed in alcohol (9.93%) more than elephant ginger. and emprit ginger. Red ginger is bitter, spicy and aromatic which comes from olerasin, namely gingerol, zingeron and shogaol.

There is also an anti-inflammatory from olesarin, a strong anti-oxidant and anti-pain, so that olesarin or zingeron is useful for inhibiting prostaglandin synthesis so that it can reduce joint pain or muscle tension (Syamsu, 2017).

According to Rahmawati's research (2021) said that ginger has many properties, one of which can reduce pain in joint pain or gout. Giving red ginger warm compresses can improve blood circulation in the body and can reduce pain. This is because the body's response to heat causes dilation of blood vessels, reduces muscle tension and increases tissue metabolism. In addition, warm water compresses are also one of several complementary non-pharmacological therapies to reduce pain intensity, hot temperatures are known to minimize muscle tension. After the muscles relax, the pain will gradually disappear.

This is in line with research conducted by Samsudin, et al (2016) which states that compresses are external therapy without any adverse effects on clients. Ginger is a medicinal plant that is easily found in any area and is believed to be able to cure several kinds of diseases, red ginger can also be used as a mixture of medicines. This is due to the pharmacological effects of red ginger which can strengthen the efficacy of other ingredients mixed as herbal ingredients.

The part of the ginger plant used for the treatment of gout is the rhizomes. Red ginger warm compresses can be done once or twice a day for 1 to 2 weeks for maximum results with a duration of 15 to 20 minutes, using 3 to 5 red ginger rhizomes or about 200 to 500 grams with a water temperature of 40°C (Amalia, et al, 2021).

Based on this description, gout is a health problem in pre-elderly aged 45-54 years and elderly aged 55-64 years, in line with the health problems experienced by Mrs. S who complained of pain in her right arm and knee with a pain scale of 5, it is necessary to take non-pharmacological measures to reduce joint pain caused by increased uric acid levels. Therefore, the authors will carry out nursing care for the elderly with warm red ginger compresses to reduce the pain felt due to uric acid (gout).

2. METHODS

Patient Information

Mrs. S, 60 years old, female, Islamic religion, marital status, high school graduate education, housewife occupation. Family assessment history obtained the following data: Mrs. S has a husband, namely Mr. S who is 60 years old, currently Mr. S is not working, Mrs. S has 2

children, the first child is a girl aged 24 years and is married, the second child is a boy who is 2 years old and still lives at home with Mrs.S and Mr.S. Assessment of the history of current health status Mrs.S said she felt pain in her right wrist and knee, pain was felt when Mrs.S got up from her seat and when she woke up, the pain did not spread, the pain felt like being stabbed and the pain scale felt was 5 , when she felt sick Mrs. S took medicine (Allopurinol 100 mg). Ny.S's past health status said that she had never been hospitalized and Mrs.S did not have hereditary diseases. Mrs. S's biological condition said that she did not have food and drug allergies. Mrs.S eats 1 portion 3 times a day, Mrs.S does not know what foods are allowed and not allowed or prohibited to eat, Mrs.S eats without the help of others.

Clinical Findings

The results of the health assessment obtained subjective data found on Mrs.S, namely Mrs.S said she had gout for a long time and currently feels pain in the right wrist and knee, P: pain due to gout is felt during activities, Q: pain is felt like being stabbed, R: pain in the right wrist and both knees, pain does not radiate, S: pain felt on a scale of 5, T: pain felt intermittent. Objective data obtained from TTV examination, namely: BP 160/100 mmHg, pulse 91 x/min, respiration 22 x/m, temperature 36.80C and uric acid level 7.3 mg/dl, height 155 cm and weight 65 kg (excess weight). From the results of the persystem assessment on Mrs.S, the general condition was obtained: Mrs.S experienced fatigue, was able to perform ADLs independently, Mrs.S's appearance looked clean, her clothes were neat, her nails looked clean, her hair did not look tangled.

The functional status assessment was assessed using the Katz Index. The katz index value for Ny.S is A because the level of independence in daily activities such as eating, continence, moving, going to the restroom, dressing and bathing is done independently. From the results of the assessment of cognitive and affective status using the Short Portable Mental Questionnaire (SPMSQ) format, Mrs.S experienced good intellectual functioning because, out of the 10 questions asked, Mrs.S answered 9 questions correctly and 1 question that could not be answered correctly. . From the results of the examination of cognitive function using the Minimental-state examination (MMSE) the result was 28, which means there was no cognitive change. From the assessment of the risk of falling, Ny.S gets a value of 4, which means that the risk of falling for Mrs.S is low.

Assessment of the psychological and social condition of Mrs. S has a good emotional state such as not being easily offended or angry with other people, has good family support

because Mrs. S's family really cares about her, has good family relationships with other families often visiting Mrs. S and vice versa and relations with other people are also good because Mrs. S often talks with neighbors, both those who are the same age as her and those who are younger than her. Ny.S's spiritual assessment found that Mrs.S was diligent in praying, Mrs.S also still attended monthly recitations at the mosque, therefore Mrs.S said she was confident about her health that Mrs.S would be fine and healthy as before.

Diagnostic Assessment

Based on the above study, the first diagnosis was obtained, namely acute pain in Ny.S (SDKI, 2017). When the study was carried out, Mrs. S said that pain had been felt in her right wrist and knee since 3 days ago, pain was felt when Mrs. S got up from her seat and when she woke up, the pain did not spread, the pain felt like stabbing, the scale of pain felt was 5 and when the pain was felt Mrs.S was taking uric acid medication (allopurinol 100 mg), Mrs.S said she rarely did sports when at home and now the pain has recurred frequently.

For the next problem, a second diagnosis was obtained, namely a knowledge deficit about pain management in Ny.S (IDHS, 2017). When the study was carried out, Mrs. S said that she did not know information about her disease, did not know how to do it at home to reduce the pain, when the pain was felt, Mrs. S only took medicine, did not have regular health checks and sometimes still often consumed foods high in purines. like nuts and spinach and rarely exercise.

Therapeutic Intervention

The innovative intervention provided according to a research journal conducted by Rahmawati (2021) said that giving red ginger warm compresses can improve blood circulation in the body and can reduce pain. This is because the body's response to heat causes dilation of blood vessels, reduces muscle tension and increases tissue metabolism. Innovative interventions according to the journal Amalia, et al (2021) say that the part of the ginger plant used for the treatment of gout is the rhizomes. Warm red ginger compresses can be done once or twice a day for 1 to 2 weeks for maximum results with a duration of 15 to 20 minutes, using 3 to 5 red ginger rhizomes or about 200 to 500 grams at 40°C water temperature.

3. RESULTS AND DISCUSSION

During the implementation visit on the first day, at the first priority diagnosis (acute pain), namely on Friday 9 July 2021, the author conveyed the intent and purpose of the first visit to managed patients, the author conducted an elderly assessment on Mrs. S, then carried out warm compress therapy red ginger for 15-20 minutes. Before carrying out the red ginger warm compress therapy, the uric acid value was checked and the pain scale measured using the Numeric Rating Scale (NRS) method first and after the red ginger warm compress therapy was also checked again for the uric acid value and pain scale on the 7th day.

This nursing care is in line with research conducted by Lexy Oktora (2020) entitled *Ginger Warm Compress Against Pain Changes in the Elderly with Arthritis Gout* explaining that pharmacological treatment of uric acid is with Non-Steroid Anti-Inflammatory Drugs (NSAIDs) such as ibuprofen, naproxen and allopurinol . Another supporting effort to treat gout pain is non-pharmacological treatment, namely by utilizing herbal ingredients that are known to be efficacious in reducing pain, one of which is ginger. The results obtained in this study were that of 15 elderly respondents, a small proportion had pretest pain level 5 then experienced a change in posttest pain to level 2, namely 3 respondents (20.0%). It was also shown that a small proportion of respondents had pretest pain 7 and then experienced a change in posttest pain to 2, namely 3 respondents (20.0%), thus meaning that there was an effect of warm ginger compresses on changes in pain in the elderly with gout arthritis.

Meanwhile, according to research conducted by Ilham (2020) entitled *The Effect of Warm Compresses Using Red Ginger on Reducing the Pain Scale in Gout Arthritis Sufferers*, it says that a non-pharmacological method that can be used to reduce joint pain is therapy using red ginger. Red ginger is a relaxation technique that can be used to reduce pain because of its pharmacological effects, namely a hot and spicy feeling which can relieve pain, stiffness and muscle spasm or cause vasodilation of blood vessels, maximum benefits will be achieved within 20 minutes after application of heat . This study was conducted on 20 respondents aged 36-65 years with the lowest pain scale score of 4 and the highest 10, the results showed that there was an effect of warm red ginger compresses on reducing the pain scale in gout arthritis sufferers.

In line with the research above, the authors obtained results that after implementing red ginger warm compresses on Mrs.S who had gout health problems. On Friday 9 July 2021 at 09.00 WIB, a red ginger warm compress was carried out with an evaluation result, namely

Mrs. S said the pain was still on a scale of 5. On Saturday 10 July 2021 at 09.30 WIB, a red ginger warm compress was again implemented with an evaluation result, namely Mrs. S said that after applying warm red ginger compresses, he still felt scale 4 pain. On Sunday 11 July 2021 at 11.00 WIB, the implementation of red ginger warm compresses was again carried out with evaluation results, namely Mrs. S said that after warm compresses red ginger still felt pain scale 4. On Monday 12 July 2021 at 10.30 WIB, the implementation of red ginger warm compresses was again carried out with the evaluation results, namely Mrs. S said that after applying warm red ginger compresses the pain reduced to a scale of 3. On Tuesday 13 July 2021 at 11.30 WIB again implemented compresses warm red ginger with evaluation results, namely Mrs. S said that after the warm compress of red ginger, Ny ri is still on a scale of 3. On Wednesday at 15.00 WIB, the implementation of red ginger warm compresses was again carried out with the evaluation results, namely Mrs. S said that after applying warm red ginger compresses the pain reduced to scale 2. On Thursday at 13.00 WIB also implemented ginger warm compresses red with the results of the evaluation, namely Mrs. S said that after applying warm red ginger compresses the pain was reduced to a scale of 1 and she no longer felt pain.

This decrease in pain level is due to the significant effect of warm red ginger compresses on reducing pain as the body's response to heat which causes dilation of blood vessels, reduces muscle tension and increases tissue metabolism. However, more holistic management is needed in the form of daily lifestyle changes, including proper dietary patterns and physical activity, so that the body's metabolism can return to normal uric acid levels.

Based on the data above, the implementation of red ginger warm compresses on Ny.S can be concluded that red ginger warm compresses can affect the reduction of joint pain due to increased uric acid levels in Mrs.S from pain scale 5 to scale 1 and can be used as a non-pharmacological measure which is easy to do. During the implementation visit on the first day of the second priority diagnosis (knowledge deficit about pain management), namely on Friday 9 July 2021, the author conveyed the intent and purpose of the first visit to managed patients, the author conducted an elderly assessment on Mrs.S, then by providing health education regarding pain management with non-pharmacological therapy. The author provides health education to Mrs.S with poster media. Before starting to provide health education, the author first asked Mrs.S about knowledge of hypertension and gout and non-

pharmacological actions that can be taken to reduce joint pain, after that the author began to explain and provide health education to Mrs.S and teach and practice the correct way of making red ginger warm compresses.

Based on research conducted by Fatmawati (2020) with the title Health Education for Stroke and Gout Prevention in the Elderly, it is said that with this health education it is hoped that the elderly will know about gout prevention, this community service activity uses media that suits the needs of the respondents, can use leaflets or posters. From interviews with respondents who experienced high uric acid caused by consuming a lot of foods with high uric acid levels such as offal, beef, chicken or goat, rarely exercising so uric acid levels cannot be burned into energy, triggered by age and also usually food is not Healthy foods contain high fat and cholesterol. High uric acid triggers due to chemical compounds breaking down into fat and uric acid substances so that if unhealthy food is consumed in excess, it is not good for the body. The results obtained from this study were that the elderly who attended began to understand and understand about gout.

In line with the research above, the authors get the result that after implementing health education which includes understanding, risk factors, prevention, causes of hypertension and gout and how to make red ginger warm compresses to reduce pain using poster media, on July 9 2021 at 10.00 WIB the evaluation results obtained Mrs.S said that Mrs.S did not know the risk factors for hypertension and gout, rarely checked her health condition, wanted to know the causes of high uric acid and causes of hypertension and could not demonstrate herself how to make red ginger warm compresses to reduce pain. On July 10, 2021 at 10.00 a.m. the implementation of health education was carried out, the evaluation results obtained Mrs. S understood the risk factors for gout and hypertension, understood the causes of high uric acid and the causes of hypertension, wanted to check her health condition regularly and was able to demonstrate herself how to make a warm compress red ginger to reduce pain. Based on the data above, the implementation of health education in Mrs.S can be concluded that health education can have an effect as an action that can reduce the risk of hypertension and increase uric acid levels in Mrs.S.

4. CONCLUSION

Based on the discussion from Nursing Care of the Elderly in Patients with Increased Uric Acid Levels through Intervention of Warm Red Ginger Compresses to Reduce Pain Levels, it

can be concluded that implementation of warm red ginger compresses for 7 days can be concluded that the effectiveness of red ginger warm compresses can be done independently at home as a non-pharmacological measure and can reduce joint pain due to increased uric acid levels from scale 5 to scale 1. The implementation of health education using poster media for 2 days also can affect the increase in knowledge about gout in the elderly as an action that can be taken to reduce the risk of increased uric acid levels.

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