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The Effect of Warm Ginger Compress Toward Pain Level of Arthritis Gout Sufferer in Waimital Village, Kairatu Subdistrict, West of Seram Regency

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ABSTRACT

Arthritis gout is an inflammation process due to inflammation on cristal sour tendon in tissue around the joint. The disease engenders many lamentations such as pain of foot, waist, arm neck and other joints. Non pharmacology action for the patients of Arthritis Gout is warm ginger compress. Compress is stand of action by a nurse in order to decrease the pain. The objective of the research is to find out the influence of compress ginger warm toward decrease of pain Arthritis Gout sufferer in Waimital village, Kairatu subdistrict, West of Seram Regency 2016. The kind of research was a pre-experimental design (one group pre-post test design) and the sample was taken using random sampling technique. The data was analyzed using Wilcoxon test. Based on Wilcoxon test it was obtained p-value = 0.000. Thus, H₀ was rejected. It means there was a significant correlation between warm ginger compress with the decreasing of Arthritis Gout sufferer in Waimital village, Kairatu subdistrict, West of Seram Regency 2016.

Keywords: Pain scale, Warm ginger compress, Gout arthritis

INTRODUCTION

During Hippocrates's time there was a widespread disease called gout which was often referred to "the illness of kings and kings of disease" because it often appeared in groups of people with high socioeconomic abilities. As is known, high economic groups often consume meat (ie, the royal family in ancient times), resulting in extreme pain. The ancient belief states that this disease is caused by falling drops after drops into the joints⁽¹⁾.

Gout arthritis is a disease that is often found and spread throughout the world. Gout is a group of heterogeneous diseases as a result of the deposition of monosodium urate crystals in the tissues or due to super saturation of uric acid in extracellular fluid. The metabolic disorder that bases gout is hyperuricemia which is defined as an elevation of uric acid levels of more than 7.0 ml / dl and 6.0 mg / dl⁽²⁾.

The prevalence of Gout arthritis in the United States doubled in population over 75 years between 1990 and 1999, from 21 per 1000 to 41 per 1000. In the second study, the prevalence of gout arthritis in the adult population in the UK was estimated at 1.4%, with peak of more than 7% in men aged 75 years⁽³⁾.

The Ministry of Health of the Republic of Indonesia (2013) also explained that WHO recorded patients with Arthritis Gout in Indonesia reached 81% of the population, only 24% went to doctors, while 71% tended to directly take pain-relieving drugs that were sold freely. This figure places Indonesia as the highest country suffering from Arthritis Gout when compared to other Asian countries such as Hong Kong, Malaysia, Singapore and Taiwan. Arthritis Gout nationally based on interview prevalence of 30.3% and prevalence based on diagnosis of health workers is 14%⁽⁴⁾.

Arthritis Gout is an inflammatory process that occurs due to deposition of uric acid crystals in tissues around the joints. Gout arthritis occurs as a result of prolonged hyperuricemia (increased serum uric acid) caused by purine buildup or less uric acid excretion from the kidneys. While the frequent symptoms are pain, swollen joints, reddish to purple skin, tight, slippery and warm⁽⁵⁾.

Pain is a sensation of discomfort manifested as a patient caused by a real mental perception, a threat, referring to the theory of international pain associations, understanding pain is more focused on pain is a physical event, which of course for pain management focuses on physical manipulation. Pain is introduced as an emotional experience whose management is not just physical management, but it is also important to do psychological manipulation to deal with pain⁽⁶⁾.

Handling patients with Gout Arthritis is focused on how to control pain, reduce joint damage, and improve or maintain function and quality of life. Handling for Gout Arthritis includes pharmacological and non-

pharmacological therapies. Non-pharmacological actions for patients with Arthritis Gout include warm ginger compresses. Compress is an independent action of nurses in an effort to reduce body temperature⁽⁷⁾.

Warm ginger compresses can reduce pain of arthritis Gout. It is a traditional treatment or alternative therapy to reduce pain Gout Arthritis. It contains cyclo-oxygenation enzymes which can reduce inflammation in patients with Arthritis Gout, besides ginger also has a pharmacological effect of burning sensation and spicy, where this heat can relieve pain, stiffness and muscle spasm or the occurrence of vascular vasodilation, maximum benefits will be achieved within 20 minutes after heat application⁽⁸⁾.

The objective of this research is to figure out the effect of warm ginger compress toward pain scale on gout arthritis patients in Waimital hamlet, Waimital village, Kairatu subdistrict, West of Seram Regency, 2016.

METHODS

This study used One Group Pre-Post Test design. Subject groups were observed before intervention then it is observed again after intervention. For example, this study, before warm ginger compresses (pre-test), pain scales of arthritis gout patients were measured. Then the ginger warm compresses by the researchers for 20 minutes. Afterwards, the patient's pain scale was measured again. Then it was compared between pain pre-test and post-test.

This research was carried out in Waimital hamlet, Waimital village, Kairatu subdistrict, West Seram regency. The population in this study was all arthritis patients amounted to 30 people. The samples were 28 people, selected by random sampling method.

The steps for collecting data were as follows:

1. Taking a sample / respondent with 28 people by random sampling.
2. Explaining about research, objectives, benefits and steps of research and signing of informed consent.
3. Prior to pre-test and post-test, researcher measured the pain scale of gout arthritis in respondents.
4. Measuring arthritis gout pain scale before warm ginger compresses (pre-test).
5. Giving warm ginger compresses every morning and evening for 11 days to get optimal results.
6. Measuring gout arthritis pain scale after a warm ginger compress (post-test).

Data processing procedures are carried out as follows:

1. Editing
It was activity to check the contents of the observation sheet.
2. Coding
Encode the data that had been edited, as an effort to simplify the data, namely for the gender category, by giving the number 1 mark for the male sex and the number 2 for the female.
3. Data Grouping (Tabulating) was grouping data into a specific table according to the nature of its own in accordance with the research objective.
4. Processing
It was a processing data that is done by entering data from observations using a computer device.
5. Cleaning
Re-check the data that has been entered whether there is an error or not.

Bivariate analysis in this study was used to check significant differences between two groups of data (comparative) namely the dependent variable (arthritis gout pain scale) before warm ginger compresses and dependent variable (arthritis gout pain scale) after warm ginger compresses. The data was analyzed using Wilcoxon test, because the data distribution was not normal.

RESULTS

The intervention was carried out 2 times a day for 11 days. Before being given the intervention the pain scale of the respondent was measured, then measured again after being given intervention. Table 1 explained that of the 28 respondents who experienced mild pain was 3.6% and who experienced medium pain was 42.9%. Whereas those who experienced severe pain were 46.4% and those who experienced very severe pain were 7.1%.

Table 1. Pre-Test Pain Scale

No	Pain scale	n	(%)
1	No pain	-	-
2	Mild	1	3.6
3	Medium	12	42.9
4	Severe	13	46.4
5	Very severe	2	7.1
Total		28	100

Table 2. Post-Test Pain Scale

No	Pain scale	n	(%)
1	No pain	6	21.4
2	Mild	16	57.1
3	Medium	6	21.4
4	Severe	-	-
5	Very severe	-	-
Total		28	100

Based on table 2, it can be shown that out of 28 respondents who experienced no pain were 21.4%, mild pain were 57.1%, and medium pain were 21.4%.

Table 5. The Results of Effect of Warm Ginger Compress

Pain scale	n	Mean Rank	Sum rank	P value
Pre-test	28	14.50	406	
Post test	28	0.00	0.00	0.000

The table shows that the results of statistical analysis using the Wilcoxon statistical test obtained a significance of p value = 0.000. Thus, H₀ was rejected, it means that there was a significant influence of Warm Ginger Compresses on Pain Scale in Gout Arthritis Patients in Waimital Village, Waimital Village, Kairatu District, West of Seram Regency.

DISCUSSION

Pain Scale before Performing Warm Ginger Compress (pre-test)

Non-pharmacological techniques that can be used to reduce pain in patients with gouty arthritis include using warm compresses of ginger which can provide pharmacological effects namely heat can overcome and eliminate the sensation of pain, this technique also provides physiological reactions including increasing the inflammatory response, increasing blood flow in the tissue and increase edema formation besides this action can also be used as first aid when pain attacks⁽⁶⁾.

Based on the results of the study it is found that before performing the warm ginger compress the highest pain scale of the respondents is 46.4% with a severe pain category of 13 people. And those who experienced medium pain scale are 42.9% totaling 12 people.

Pain Scale after Warm Ginger Compression (Post-Test)

Warm compresses of ginger can reduce arthritis gout pain. Ginger compress is a traditional treatment or alternative therapy to reduce gouty arthritis pain. Warm ginger compresses contain cyclo oxygenation enzymes which can reduce inflammation in gouty arthritis of sufferers. Besides, ginger also has a pharmacological effect of hot and spicy taste, where this heat can relieve pain, stiffness, and muscle spasms or vascular vasodilation. Maximum benefits will be achieved within 20 minutes after the heat application⁽⁸⁾.

Based on the results of the study that after a warm compress of ginger from 28 respondents, it can be known the average pain scale is 57.1% with a total of 16 people. Respondents experienced a decrease in pain scale after warm ginger compresses.

Effect of Ginger Warm Compress on Gout Arthritis

The results of the bivariate analysis shows that 28 respondents before doing warm ginger compresses pain scale 46.4% with a severe pain category totaling 13 people. And after doing warm ginger compresses the pain scale of the respondent is 57.1% with a category of mild pain totaling 16 people. Based on the statistical results of the Wilcoxon test obtained the significant effect between warm ginger compresses on gouty arthritis pain scale.

Based on the data above, there is a decrease in pain scale. This decrease can be seen that after warm compresses of ginger on average respondents experienced a mild pain scale. This shows that there is an effect of ginger warm compress with a decrease in pain scale in gouty arthritis patients.

The results of this study are in line with the research of Devi Susanti in West Sumatra Bukit Tinggi (2014) on the Effect of Warm Ginger Compresses on Decreasing the Pain Scale of Rheumatoid Arthritis in the Elderly in PSTW Kasih Sayang Ibu Batu Sangkar, showing that there is a significant relationship between pain scale levels

before and after giving warm ginger compresses with a p-value of 0.000. In the pre and post treatment data obtained a decrease in pain scale from severe to medium, from medium to mild and did not experience from low to medium or high. There is a significant difference in the level of pain before and after the performing warm compresses of ginger stew in the elderly with rheumatoid arthritis⁽⁸⁾.

According to the researchers' assumption there is a significant effect between warm ginger compresses and a decrease in pain scale in gouty arthritis patients. This is consistent with one of the non-pharmacological interventions that nurses can do independently in reducing the pain scale of cutaneous stimulation, namely by doing warm compresses of ginger on respondents to reduce gouty arthritis pain scale.

A warm compress is part of the cutaneous stimulation technique which is one of the non-pharmacological interventions in pain management. Cutaneous stimulation techniques can overcome pain due to decreased perception by pain stimulation transmitted to the brain⁽⁹⁾.

Arthritis Gout is a syndrome that is caused by an inflammatory response to monosodium urate crystal deposition wherein the joint lining becomes inflamed causing pain, stiffness, weakness, redness, swelling and heat, this disease occurs between the ages of 20-50 years. Arthritis Gout is one of the most common diseases in the community and is one of the groups of diseases that are always found in the practice of general practitioners, some of these diseases attack the joints and some only attack the tissues around the joints⁽¹⁰⁾.

According to researchers' assumption the decrease in pain scale in patients given warm compresses of ginger depends on each respondent. Respondents who are able to respond well to warm ginger compresses will experience a higher decline compared to those who are unable. This is in accordance with the *gate control mechanism*, where the lack of concentration causes the gate to transmit is pain, so that until a cutaneous simulation the pain to the brain should be reduced due to ginger compress.

CONCLUSION

There is an effect of warm ginger compresses on pain scale in gouty arthritis patients in Waimital hamlet, Waimital village, Kairatu subdistrict, West of Seram Regency. In order to give warm compresses of ginger as a non-pharmacological therapy can reduce gouty arthritis pain scale.

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