

# The Effectiveness of Lebrage Compress on Pain Reduction Rheumatoid Arthritis in the Elderly in the Region Lubuk Buaya Padang Health Center Work Year 2020

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## ABSTRACT

**Background:** Rheumatoid arthritis tends to cause functional impairment and cause permanent disability in the joints. **Objective:** This study was conducted to determine the effectiveness of lemongrass compresses on the rheumatoid arthritis pain scale in the elderly. **Method:** quasi-experimental research design with one group pretest and posttest design. The sample is 16 elderly people, taken using purposive sampling. The instrument used was through interviews with the measurement results using the Numerical Rating Scale (NRS) and through observations with the measurement results using the Wong Barker scale (face scale). **Results and Discussion:** Univariate results show the average pain scale before lemongrass compresses is 5.62 and after lemongrass compresses is 3.25 and there is an effect of giving lemongrass compresses on the rheumatoid arthritis pain scale in the elderly with a p value of 0.0001. **Conclusion:** There is an effect of lemongrass compress on reducing rheumatoid arthritis pain scale in the elderly. **Suggestion:** It is hoped that the Puskesmas, so that it can be socialized to the community, especially in the elderly who suffer from rheumatoid arthritis in reducing the rheumatoid arthritis pain scale in the elderly.

**Keywords:** Rheumatoid arthritis, pain scale, elderly, lemongrass compress

## 1. INTRODUCTION

Aging is a part of the process of human growth and development that causes the aging process of anatomical, physiological, and biochemical changes in the body so that it will affect what occurs in various organ systems. The changes that occur cause a decrease in body function to carry out activities[1]

People in developed countries are ready to face the increasing elderly population with various challenges that are different from developing countries, including Indonesia, starting to face the same phenomenon. This phenomenon clearly brings a number of consequences, including physical, mental, social problems and the need for health and nursing

services, especially degenerative disorders[2]. Data and Information Center of the Indonesian Ministry of Health (2013) the highest health complaints of the elderly are complaints which are the effects of chronic diseases such as gout, hypertension, diabetes mellitus and especially rheumatoid arthritis[3].

According to Nugroho (2008) almost 8% of people aged 50 years experience complaints in their joints, especially rheumatic pain, aches, and sometimes it feels very painful. The affected areas are usually the joints of the fingers, spine, weight-bearing joints (knees and hips). The elderly often experience pain in the joints, which is caused by the degenerative process of cells so that it interferes with daily activities. Besides that, experiencing pain can

interfere with comfort, and the main therapy is shown to deal with pain[4].

Traditional medicine that is usually used to reduce pain in patients with rheumatoid arthritis is lemongrass, which comes from nature so that it is natural, lemongrass plants are easy to get because they can be grown alone, the processing is simple like lemongrass compresses. This method is an alternative that can be done independently and has a lower risk, because the lemongrass plant contains cyclo-oxygenated enzymes as anti-inflammatory (anti-inflammatory) which is absorbed through the skin in the inflamed area. In addition to lemongrass, it also has a pharmacological effect that stimulates the receptor system so that it emits signals that will result in peripheral vasodilation which causes dilation of blood vessels, increasing blood flow to joints, especially those with inflammation, resulting in a decrease in joint pain in inflamed tissues[5].

Based on Riskesdas data (2018), it shows that the prevalence of rheumatoid arthritis in Indonesia has increased by 28.5% in the elderly in 2018 while in 2013 rheumatoid arthritis sufferers were 24.7%[6].

This type of research is a quasi-experimental with the One group pretest-posttest design method. The population in this study was the elderly who

**Table 1.** The Effectiveness of Giving Lemongrass Compress Against Rheumatoid Arthritis Pain Scale Pretest and Posttest in the Elderly in the Work Area Lubuk Buaya Padang

<b>Pain Scale</b>	<b>Mean</b>	<b>n</b>	<b>SD</b>	<b>Std Error Mean</b>	<b>P value</b>
Pain Scale Pretest and Posttest given Lemongrass Compress	2,37	16	1,08	0,27	0,001

**4. DISCUSSION**

The results showed that the average difference between giving lemongrass compresses to the rheumatoid arthritis pain scale in the elderly before (pretest) and after (posttest) being given lemongrass compresses was 2.37 with a standard deviation of 0.27. The results of the statistical test obtained p value of 0.001 which means that there is an effectiveness of giving lemongrass compresses on the rheumatoid arthritis pain scale in the elderly in the Lubuk Buaya Public Health Center, Padang

The results of this study support the research conducted by Suleman. A (2018) about the effect of

experienced rheumatoid arthritis as many as 136 elderly people using a sample of 16 respondents who matched the inclusion criteria in one treatment group, the reserve for this study was 10% of 16 respondents, namely 2 respondents. The analysis in this study is univariate and bivariate analysis and data processing using the dependent T-test

**2. MATERIAL AND METHODS**

Quasi-experimental research design with one group pretest and posttest design. The sample is 16 elderly people, taken using purposive sampling. The instrument used is through interviews with the measurement results using the Numerical Rating Scale (NRS) and through observations with the measurement results using the Wong Barker scale (face scale).

**3. RESULTS**

The results showed the effectiveness of giving lemongrass compresses on the rheumatoid arthritis pain scale in the elderly in the control and intervention group in the following table

lemongrass warm compresses on pain intensity in the elderly with rheumatoid arthritis in the Sipatana Health Center Work Area, Gorontalo City, where this study said that there was an effect of lemongrass compresses on reducing pain in the elderly and it was proven that the p value was 0.002 (p 0, 05)[7]

Lemongrass has chemical compounds in the form of essential oils, kariofilen, citral, citronellal, flavonoids, geraniol, mircen, polyphenols, and nerol which are bio-active components that are useful for the body. Lemongrass plants contain analgesic compounds that help relieve aches or pains such as muscle aches and joint pain, pegalinu due to

rheumatoid arthritis or anti-rheumatism. In addition, it is also useful as an anti-oxidant that can prevent cancer, in lemongrass there are anti-microbial and anti-bacterial substances that are useful as infection drugS[8]

## **5. CONCLUSION**

The results showed that the average difference between giving lemongrass compresses to the rheumatoid arthritis pain scale in the elderly before (pretest) and after (posttest) being given lemongrass

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