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Ginger-infused warm compresses: A natural remedy for easing gout arthritis pain

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Abstract
Gout arthritis, a metabolic disorder marked by acute inflammatory joint deformities, results from the crystallization of uric acid in the joints, causing severe pain, swelling, and redness. This condition predominantly affects men aged 40-50 and women nearing menopause, with joint pain being the primary complaint. Arthritis, the inflammation of one or more joints, can affect individuals of all ages and is often accompanied by significant pain—a distressing sensation stemming from actual or potential tissue damage. This case study aims to explore the effectiveness of warm ginger compresses as a natural pain relief method for gout arthritis patients. Data collection involved observing the patient's pain scale before and after applying grated ginger compresses, following the Standard Operating Procedure for pain assessment. Ginger, an easily cultivated plant, offers a cost-effective and accessible option for complementary therapy. Over three days, warm ginger compresses were applied for 15-20 minutes daily. The results were promising, showing a significant reduction in pain—from a pain scale of 5 to 2. This case study demonstrates that warm ginger compresses can be an effective natural remedy for alleviating pain in patients with gout arthritis.

Keywords: Community nursing; ginger therapy; pain; gout arthritis; complementary therapy

Introduction
Gout arthritis is a condition characterized by sudden and recurrent attacks caused by the formation of uric acid crystals in the joints, resulting from high levels of uric acid in the blood (hyperuricemia) (Ragab, Elshahaly, & Bardin, 2017). This metabolic disorder leads to acute inflammatory arthritis, manifesting as extreme pain, swelling, and redness in the affected joints (Parisa, Kamaluddin, Saleh, & Sinaga, 2023). Gouty arthritis commonly affects men between the ages of 40 and 50, and women typically experience it closer to menopause (Singh, 2013). According to the World Health Organization (WHO), the global prevalence of gouty arthritis is 34.2% (Han, Chen, Qiu, & Wang, 2024). The condition is prevalent in developed countries such as the United States, where it affects 26.3% of the population (Singh, Lingala, & Mithal, 2019). However, the incidence of gouty arthritis is also rising in developing countries, including Indonesia. In Indonesia, it is estimated that gout affects 840 individuals per 100.000 people, with 32% under the age of 34 and 68% over 34 years old. The primary complaint among sufferers is joint pain (Abhishek, Roddy, & Doherty, 2017). To manage this pain, pharmacological treatments such as NSAIDs (non-steroidal anti-inflammatory drugs) like ibuprofen and diclofenac sodium are commonly used (van Durme et al., 2021). However, long-term use of these medications can lead to significant side effects, including gastritis and stomach ulcers, due to the irritating effects of the active ingredients on the stomach lining. A study investigated the reduction of joint pain in the elderly. On August 3, 2021, the study involved Mrs. S, a 60-year-old female with a one-year history of joint pain. Her pain, which was aggravated by activity, was described as sharp and localized to the knee. Her vital signs included a blood pressure of 160/90 mmHg, a respiratory rate of 21 breaths per minute, a pulse rate of 98 beats per minute, and a temperature of 36.5°C. Before receiving pain management interventions, her pain was rated at 4 on the Numerical Rating Scale (NRS). There is a need to use a supportive medicine for reducing complaints of the patient.

This led researchers to explore the use of red ginger compresses as a potential remedy for reducing pain in elderly patients with gout arthritis. The study involved applying ginger compresses for 15-20 minutes over three sessions. Given that ginger is an easily cultivated plant and its compresses are both affordable and simple to use, this research aims to determine if significant pain relief can be achieved for elderly individuals suffering from gout arthritis. The use of red ginger compresses presents a promising alternative remedy for alleviating pain in elderly patients with gout arthritis. Gout arthritis, characterized by severe joint pain, swelling, and redness due to uric acid crystal deposits, can significantly impact the quality of life for affected individuals (Coburn & Mikuls, 2016). Traditional treatments often involve long-term use of NSAIDs, which come with potential side effects like gastritis and stomach ulcers. Red ginger, a plant known for its anti-inflammatory and analgesic properties, offers a natural and cost-effective solution (Ballester et al., 2022). Applying warm red ginger compresses to the affected joints may help reduce pain by leveraging ginger's

ability to improve blood circulation, decrease inflammation, and provide soothing relief. This approach not only minimizes the reliance on pharmacological interventions but also aligns with holistic and accessible methods of pain management. With integrating red ginger compresses into treatment regimens, healthcare providers can offer elderly patients a complementary therapy that is easy to administer and potentially effective in managing the discomfort associated with gout arthritis. Therefore, the study aimed to evaluate the benefits of ginger-infused warm compresses to reduce pain in patient with gout arthritis.

Case Description

In this case study, the author managed one patient with gouty arthritis according to specific criteria. The patient, Mrs. S, reported experiencing knee pain for several months, with pain intensifying during movement and restlessness due to the discomfort. The patient described the pain as stabbing, localized in the knee, and rated it a 5 on the pain scale, with occasional relief. Upon examination, the client was grimacing, with vital signs showing blood pressure at 160/100 mmHg, a pulse rate of 98 beats per minute, a temperature of 37°C, a respiratory rate of 21 breaths per minute, and uric acid levels at 7.3 mg/dl. Based on these findings, the author diagnosed acute pain related to the family's inability to recognize health problems. Mrs. S complained of pain during movement, reluctance to move, and anxiety about moving. Objective data showed stiff joints and limited movement, leading to a diagnosis of physical mobility impairment related to the same underlying issue. Mrs. S also expressed that she had never received education about gout, its causes, prevention, symptoms, and management. She admitted to not maintaining her diet, appearing confused, and asking questions about gout. This led to a third diagnosis of knowledge deficit, also related to the family's inability to recognize health problems. From the data analysis, three diagnoses were identified: acute pain with a score of 5, physical mobility impairment with a score of 4, and knowledge deficit with a score of 3 2/3.

The nursing plan for acute pain involved a 3-day home visit, each lasting 30 minutes, with the goal of enabling the family to recognize the characteristics of gout. Outcome criteria included a reduction in pain complaints, decreased grimacing, and reduced anxiety. Interventions were conducted according to the Indonesian Nursing Diagnosis Standards (IDHS), including identifying family knowledge of the disease, assessing pain characteristics, and encouraging non-pharmacological pain management techniques such as warm ginger compresses. The family and patient were educated on the causes, triggers, and management of pain, with collaboration in providing analgesics if necessary. For impaired physical mobility, the nursing plan also involved a 3-day home visit, with the aim of increasing the client's ability to perform physical movements independently. Interventions included assessing physical tolerance for movement, facilitating movement from bed to the bathroom, and teaching simple mobilization techniques. To address the knowledge deficit, the nursing plan aimed to optimize the family's ability to manage health problems. The interventions included identifying health needs, discussing consequences of inaction, assessing family resources, providing educational materials, and explaining the causes, risk factors, and pathophysiology of gout. The implementation of interventions for acute pain included applying warm grated ginger compresses for 15-20 minutes daily over 3 days. For physical mobility impairment, Mrs. S was taught simple mobilization exercises, such as moving from bed to chair. To address the knowledge deficit, health education was provided on gout arthritis, its causes, and non-pharmacological management methods. After 3 days of intervention, the pain scale decreased from 5 to 2.

Discussion

In this case study, the author focused on one patient with gouty arthritis. Joint pain is the primary complaint among patients with this condition. The study involved Mrs. S, who used warm compresses of grated ginger to alleviate her pain. The results were significant, showing a noticeable reduction in Mrs. S's pain levels over three days. Initially, Mrs. S experienced moderate pain, but by the third day, her pain had decreased to a mild level, indicating that the warm ginger compresses effectively reduced her discomfort. Specifically, her pain scale decreased from 5 on the first day to 4 on the second day, and finally to 2 on the third day. The study, conducted on August 3, 2021, involved Mrs. S, a 60-year-old female who had been experiencing joint pain for a year. Her pain was described as cutting and was particularly intense during activities, with a pain scale of 4 before any intervention. Vital signs showed blood pressure at 160/90 mmHg, a respiratory rate of 21 breaths per minute, a pulse rate of 98 beats per minute, and a temperature of 36.5°C. Given the positive outcomes, the researchers were motivated to further explore the application of red ginger compresses for reducing pain levels in elderly individuals with gout arthritis. The intervention, carried out over three sessions lasting 15-20 minutes each, proved effective. Ginger, being easy to cultivate, makes ginger compresses a simple and cost-effective treatment option. The researchers hope that this study will contribute to the growing evidence supporting the use of ginger compresses to reduce gout arthritis pain in the elderly.

Healthcare professionals play a crucial role in the administration of ginger compresses as a complementary therapy for pain management in patients with gout. Their involvement begins with a thorough assessment of the patient's condition, including a detailed evaluation of pain levels, the patient's medical history, and any potential contraindications for using ginger compresses (Mashhadi et al., 2013). This assessment is critical in determining whether ginger compresses are an appropriate and safe option for the patient. Healthcare professionals must also educate patients about the nature of gout, the potential benefits of ginger compresses, and how this treatment can be

integrated into their overall pain management plan (Anh et al., 2023). This education empowers patients and their families, fostering a better understanding of how alternative therapies like ginger compresses can complement traditional medical treatments (Ballester et al., 2022). Once a healthcare professional has determined that ginger compresses are suitable for the patient, they are responsible for the proper preparation and application of the compresses. This involves sourcing high-quality ginger, preparing it correctly, and ensuring that the compress is applied at the appropriate temperature and for the right duration (Szymczak, Grygiel-Górniak, & Cielecka-Piontek, 2024). The healthcare professional must also monitor the patient closely during and after the application to assess the effectiveness of the treatment and to ensure there are no adverse reactions (Rondanelli et al., 2020). This step is vital, as the efficacy of the compress can vary depending on factors such as the severity of the gout flare-up, the patient's skin sensitivity, and the consistency in the application method. Continuous monitoring allows the healthcare professional to adjust the treatment as necessary, ensuring optimal results while maintaining patient safety. Beyond the direct application of ginger compresses, healthcare professionals have a broader role in advocating for and integrating such complementary therapies within the healthcare system. They can work to develop standardized protocols for the use of ginger compresses, ensuring that this treatment is accessible to a wider range of patients (Funk et al., 2016). Additionally, healthcare professionals can contribute to research and clinical studies that further validate the efficacy of ginger compresses in pain management for gout patients (Zhou et al., 2022). With advocating for evidence-based complementary therapies, they help to broaden the scope of pain management strategies available to patients, ultimately improving patient outcomes and quality of life.

Conclusion

The study highlights the potential benefits of using ginger compresses as a complementary therapy for managing pain in patients with gout. The findings indicate that ginger compresses can significantly reduce pain levels, providing a natural and accessible option for patients seeking alternative treatments. While the results are promising, further research with a larger sample size is recommended to validate these findings and establish standardized guidelines for the application of ginger compresses in clinical practice. Overall, this study contributes to the growing body of evidence supporting the integration of complementary therapies into conventional healthcare to enhance patient outcomes and improve quality of life. For future studies, it is recommended to expand the research to include a larger and more diverse patient population to ensure the generalizability of the findings. Additionally, exploring the long-term effects of ginger compresses on pain management in gout patients could provide valuable insights into their sustained efficacy. Comparative studies involving other complementary therapies or combining ginger compresses with pharmacological treatments could also help determine the most effective pain management strategies. Finally, investigating the biochemical mechanisms behind ginger's anti-inflammatory properties may deepen our understanding of how this natural remedy alleviates pain, thereby guiding more precise clinical applications.

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