



MEDICINAL PLANTS IN THE PREVENTION OF GOUT ARTHRITIS

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ABSTRACT

The use of medicinal plants for healing is the oldest form of medicine in the world. Medicinal plants such as ginger, lemongrass, and turmeric have been clinically tested and proven effective in reducing muscle pain, stiffness, and difficulty moving the knee in patients. Medicinal plants are the types of choice that are efficacious as drugs with easy maintenance and relatively low costs. Medicinal plants are a safe alternative to family medicine because they rarely cause side effects and are easy to process and consume to prevent gout arthritis. Some efficacious herbal plants to reduce pain caused by arthritis are ginger, lemongrass, turmeric, thyme (mint), garlic, green tea, and cinnamon. These plants, based on research, have properties as anti-inflammatory or anti-inflammatory in reducing muscle pain and stiffness in gout arthritis.

Keywords: medicinal plants, gout arthritis.



INTRODUCTION

Arthritis is a medical term used to describe all disease conditions involving the musculoskeletal system, namely joints, muscles, connective tissue, and soft tissues around joints and bones, caused by several factors including metabolic disorders, nutritional factors, inflammation, etc autoimmune, trauma, and idiopathic causes. Although abnormalities occur in the joints, bones, and muscles, arthritis can also affect extra-articular tissues.¹ Arthritis is a general term for inflammation (inflammation) and swelling in the joint area. There are more than 100 types of diseases that affect the area around the joints, and the most common is osteoarthritis (OA), gouty arthritis (gout), rheumatoid arthritis (AR), and fibromyalgia. Gout arthritis is a metabolic disease characterized by recurrent episodes of acute arthritis due to the deposition of monosodium urate crystals in the joints and surrounding tissues.^{2,3} This disease usually occurs due to increased uric acid levels in the blood to above normal (hyperuricemia). Indonesia is a country with a high prevalence of excess uric acid (hyperuricemia).

The prevalence of hyperuricemia has continued to increase rapidly in recent decades and is the most common cause of inflammatory arthritis in men over 40 years of age and women over 60 years of age. Increased uric acid levels, which are indirectly related to gout, increase the risk of hypertension, obesity, stroke, and premature death.⁴ Serum uric acid levels are on average 0.5 to 1.0 mg/dL higher in men than women. Lower serum urate levels in women are associated with estrogen, which is thought to have an anti-hyperuricemic role. In Indonesia, based on the Health Survey in 2005, about 10-20% of postmenopausal men and women have higher uric acid levels than normal people.⁵

Efforts to reduce blood uric acid levels can be done by reducing the production of uric acid or increasing the excretion of uric acid by the kidneys. Allopurinol is an example of a drug that works to inhibit the formation of uric acid by inhibiting the activity of the enzyme xanthine oxidase, and probenecid is an example of a uricosuric drug that can increase the excretion of uric acid by inhibiting its reabsorption in the renal tubules.^{2,3}

The use of herbs for healing is the oldest form of medicine in the world. Every culture in the world has a unique traditional treatment system, and in each region, there are various types of plants that can be used as medicine. Medicinal plants such as ginger, lemongrass, and turmeric have been clinically tested and proven effective in reducing muscle pain, stiffness, and difficulty moving the knee in patients with arthritis with minimal side effects. Therefore, ginger extract is recommended as a safe drug to relieve symptoms in these patients.⁶ Ginger, lemongrass, and turmeric can be used as healthy drinks that can be consumed daily cooked together with brown sugar known as wedang jahe. Ginger is easy to obtain, but the public does not widely know the use of ginger in the treatment of arthritis.



DISCUSSION

The high prevalence of gout arthritis will have implications for increasing health costs, medical costs, other medical support measures, and costs due to decreased work productivity. Another problem that arises is the side effects of using gout arthritis drugs. Drug side effects are unwanted drug reactions that occur at therapeutic doses. Drug side effects problems often occur in conventional medicine using synthetic drugs to treat diseases such as arthritis. The drugs of the first choice for the treatment of gout arthritis are oral analgesics (paracetamol and tramadol) and non-steroidal anti-inflammatory drugs (NSAIDs) such as acetosal diclofenac, ibuprofen, and others. As for the treatment of gout, allopurinol is given as an anti-uric acid drug. Arthritis patients must take all these drugs in the long term. It causes the risk of drug side effects to be high.⁶

The risk of these side effects can trigger patient non-compliance in taking medication so that the goals of arthritis therapy are suppressing symptoms, reducing joint function loss, and slowing down the destructive process or joint damage are not achieved, and the disease condition will get worse. This triggers the search for drugs that are more effective and safe. One alternative that can be used for arthritis therapy is a medicine from medicinal plants. In addition, the treatment of arthritis using corticosteroids and non-steroidal anti-inflammatory drugs (NSAIDs) often causes gastrointestinal side effects that can trigger gastric ulcers. Drug side effects problems are found in several other diseases, so many people start turning to traditional medicine.⁶

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al plants to reduce pain caused by arthritis are ginger, lemongrass, turmeric, thyme (mint), garlic, green tea, cinnamon, black pepper, willow bark, and aloe vera, temulawak, turmeric, brotowali, aloe vera, red ginger, and others. These plants have properties as anti-inflammatory or anti-inflammatory.

Herbs for health maintenance and disease disorders are currently very much needed and need to be developed, especially with the soaring cost of treatment. With the rise of the return to nature movement, the tendency to use natural/herbal medicinal ingredients worldwide is increasing. Most Indonesian people have used ⁷ In traditional Indonesian medicine, various natural ingredients as traditional medicines for generations (empirical). The diversity of medicinal plants can be used to treat and prevent various types of joint diseases such as gout arthritis.⁷

CONCLUSION

Prevention and treatment of hyperuricemia are done by giving compounds that indicate lowering uric acid levels. The drugs used to treat hyperuricemia, such as allopurinol or natural ingredients (medicinal plants) such as ginger, lemongrass, and turmeric, are efficacious as antihyperuricemia.



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