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Management of Herbal Drink Processing Lime Leaf Mistletoe

Puput Mulyono [1*], Singgih Purnomo [2]
[1,2] Universitas Duta Bangsa Surakarta, Indonesia
Email : puput_mulyono@udb.ac.id *

Abstract., *Indonesia is one of the countries that utilize plants as alternative medicine to address illnesses experienced by individuals. This research method is qualitative research, where this method is expected to produce meaning and clarity from the approach through speech, description and behavior in groups of people and institutions in the process of collecting data in the field. Herbal drinks are drinks made from natural ingredients or spices and have many health benefits for the body. Orange mistletoe leaves are often brewed into tea, which is a popular way to consume them and get their health benefits. Herbal drinks from orange mistletoe leaves are a good choice to improve health naturally. With the various benefits it offers, including antioxidant activity and antimicrobial properties, this drink can be a valuable addition to a healthy diet.*

Keywords; *management, health, herbal*

1. INTRODUCTION

The treatment uses a herbal drink from orange mistletoe leaves which has been tested by research. Don't choose treatment carelessly. Even if you choose alternative medicine, it is only complementary or complementary, for example herbal drinks to warm you up, that's okay. But still undergoing medical treatment. Indonesia is among the countries that utilize plants as alternative medicine for treating various diseases that affect individuals. The aim of this research is to develop management for processing orange leaf mistletoe herbal drinks for health. The purpose of this study was to investigate the advantages of the lime leaf mistletoe herbal drink.The technique used in this study is qualitative.

The findings from this research are that lime leaf mistletoe contains active compounds, namely lectins, viscotoxin which are used to treat cancer, as well as certain alkaloids, flavonoids and terpenoids. The compounds contained in lime leaf mistletoe extract which can act as anti-microbials are alkaloids, flavonoids, polyphenols, steroids and quinones.

2. LITERATURE REVIEW

Many studies have been carried out on the health benefits of lime leaf mistletoe. This research strengthens previous research. The novel aspect of this research is the management of processing orange leaf mistletoe into herbal drinks. Management of the use of traditional medicine, in this case the orange mistletoe herbal drink, can be carried out in five stages, namely determining, obtaining, using, storing and disposing of (Hernowo, 2022).

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One of the compounds that can be derived from plants is antioxidants.Antioxidants are essential compounds that play a vital role in neutralizing free radicals within the body. Natural antioxidants are more preferable compared to synthetic ones, as they tend to cause fewer side effects. Orange mistletoe, a parasitic plant, has long been utilized in traditional Indonesian medicine (Wahyu, Saputra, Cahyaningsih, & Agung, 2023). Orange leaf mistletoe herbs contain antioxidants. Restrictions on the use of synthetic antioxidants in various countries have prompted the worldwide community to transition to employing natural antioxidants.One source of natural antioxidants is mistletoe leaves (Loranthus ferrugineus Roxb). The occurrence of parasites in a specific location and their relationship with the host is a crucial factor to consider when aiming to obtain the most effective antioxidants.The antioxidant activity of mistletoe leaves is significantly influenced by altitude and the type of host. Mistletoe leaves on citrus hosts in the lowlands and midlands displayed the lowest antioxidant activity, measuring at 155. 94 μg/mL and 156. 25 μg/mL, falling into the weak antioxidant category. These leaves also boasted the highest phytochemical content, including flavonoids, alkaloids, tannins, saponins, and steroids (Seswita, Ardi, & Syarif, 2024).

Mistletoe leaves depend on a host to thrive and flourish. Mistletoe leaves have been traditionally utilized for various health conditions, including coughs, cancer, inflammation, bacterial infections, and wounds.The clinical effects of mistletoe leaves are believed to be attributed to the presence of amino acids, carbohydrates, saponins, tannins, and flavonoids. These compounds have the ability to counteract the effects of toxic substances.Antioxidants from orange mistletoe leaf extract.(Dendrophthoe glabrescens (Blakely) Barlow). It is known that orange mistletoe leaf extract has a very potent antioxidant activity.The IC50 values acquired from orange mistletoe leaf extract using 70%, 80%, and 96% ethanol solvents were as follows:- 6,782 ppm for 70% ethanol- 11,965 ppm for 80% ethanol and- 6,544 ppm for 96% ethanol (Kadek W, Mia AA, Agung A, Wahyu U, & Agung AK, 2024).

Free radicals are harmful substances produced during aerobic metabolism. They have the potential to cause oxidative harm and dysfunction in tissues. Antioxidants can help counteract extra free radicals in the body by capturing them and stopping chain reactions. Orange leaf mistletoe is known to be rich in flavonoids and anthocyanins, which function as powerful antioxidants (Wahyu U, Ganis W, Trisna M, & Ary ABP, 2024).

Lime mistletoe leaves are rich in various active compounds, some of which possess antibacterial properties (Diba, Laeto, Purnamasari, & Inggarsih, 2021). Management for the development of orange mistletoe leaf herbal drink is as follows: a. Better provision of production raw materials, b. Increasing the production skills of human resources, c. Implementation of independent business bookkeeping, d. Diversification of production packaging e. Increasing the marketing area for production products (Wijoyo, Aswan, Adilase, & Octafian, 2022).

3. METHODS

This research method is qualitative research, where this method is expected to produce meaning and clarity from the approach through speech, descriptions and behavior in groups of people and institutions in the process of collecting data in the field. Then the method used in collecting information was an in-depth interview process carried out by the author with the participants involved in this research. Meanwhile, the research approach used by the author is a descriptive analysis approach. The data collection methods used to support this research are: 1. Interview, 2. Observation, 3. Documentation (Aristawati P & Rahman, 2024).

4. RESULTS

Antioxidants are molecules that can prevent the oxidation of other molecules.Antioxidants are able to shield the skin from a range of cell damage caused by UV radiation, offering anti-aging benefits, and safeguarding against ROS (Haerani, Chaerunisa, & Subarnas, 2020). Antioxidants are divided into two types, namely natural antioxidants (fruits and plants) and artificial antioxidants (Rahmi, 2017). Antioxidants are essential to ward off oxidative stress, a crucial factor in the development of degenerative diseases (Werdhasari, 2020).

Antioxidant activity testing methods include CUPRAC, DPPH, FRAP, HPLC, ORACFL, CAA, amperometry, voltammetry, ABTS methods. Antioxidant testing using the DPPH method is the most widely used method because the measurement process is fast, simple and affordable in measuring antioxidant activity (Nugraheni, et al., 2024). Orange leaf mistletoe contains antioxidants that inhibit or prevent cell damage due to free radical oxidation (Artanti, 2020).

Herbal drinks are beverages crafted from natural ingredients or spices and offer numerous health benefits (Elfariyanti, Zarwinda, Hardiana, & Safrida, 2022). Herbal drinks are beverages crafted from plant components that offer advantages to our bodies.One of the plants rich in nutrients that can be turned into herbal beverages is the orange mistletoe leaves (Sutarto, Puspita, Utama, & Indrayani, 2022).

5. DISCUSSION

The use of traditional medicine among the community as an alternative treatment is increasing. States that around 80% of the world's population utilizes traditional medicines extracted from plants. Indonesia has an abundance of plants boasting medicinal properties, yet they have not undergone scientific research. Plants utilized in traditional medicine require backing from scientific research to confirm their effectiveness and gather scientific data on the active components present in the plant ingredients.Generally, the effectiveness of medicinal plants stems from the chemicals they possess. Even though not much is known about it in detail, the pharmacological approach provides insights into the uses of medicinal plants.

In the process of making traditional medicines, the raw materials used must meet quality requirements, both specific and non-specific parameters. Standardization is a series of parameters, procedures and measurement methods whose results are related elements such as a quality paradigm that meets standards and guarantees product stability. Standardization is carried out so that the plants that will be used as raw materials for traditional medicine have good quality in accordance with the requirements. Lime (Citrus aurantifolia S) is a plant that is widely used and loved by the public, both as a cooking spice as a food acidifier, so its function is like vinegar. As a traditional medicine, lime juice can be used as a cough medicine. Apart from that, it is also used as a cold and warm lime drink. This plant has a very wide distribution and can change continuously throughout the year. Among the 1,300 types of oranges, limes or in Latin Citrus aurantifolia S have the most benefits.

Lime mistletoe leaves contain, among other things, essential oils, citral, limonene, lemon camphor, fellandrena, geranyl acetate, kadinene, linaline acetate, 7-7.6% citric acid, resin, minerals, vitamin B1 and vitamin C. Lime mistletoe leaves It has medicinal properties for coughs, dysentery, diarrhea, hemorrhoids and acne. The active antibacterial compounds in lime leaf essential oil are terpene compounds. The part that is used as medicine besides the fruit, the leaves are also commonly used as a medicine for high blood pressure (hypertension). Where

the chemical contents contained in the leaves of lime mistletoe (Citrus aurantifolia S) are alkaloids, polysaccharides, flavonoids, tannins and essential oils.

Processing orange leaf mistletoe into a herbal drink.Turning orange leaf mistletoe into a soothing herbal beverage. The herbal drink of orange mistletoe leaves possesses anti-inflammatory properties that aid in lessening inflammation and shielding cells from damage. Nevertheless,the United States Food and Drug Administration (FDA) has not sanctioned the use of mistletoe as a treatment for cancer or other medical conditions. Herbal drinks from orange mistletoe leaves have various health benefits. Research shows that this leaf extract has strong antioxidant activity, as well as anti-inflammatory and antimicrobial properties. Apart from that, orange mistletoe leaves are also rich in flavonoids, which contribute to health. The herbal drink extract of orange mistletoe leaves contains antioxidants to fight free radicals, which helps prevent cell damage.

The herbal drink extracted from mistletoe leaves possesses anti-inflammatory properties that can aid in decreasing inflammation throughout the body, a quality that proves advantageous in managing different health issues. Orange mistletoe leaves are antimicrobial and have the potential to fight pathogenic microorganisms, so they can support the immune system. The high levels of flavonoids in lime leaf mistletoe are useful for treating chronic diseases. Lime leaf mistletoe is used in traditional medicine for a variety of ailments, including digestive problems and infections.

6. CONCLUSION

Orange mistletoe leaves are often brewed into a tea, which is a popular way to consume them and gain their health benefits. Herbal drinks from orange mistletoe leaves are a good choice to improve health naturally. With the various benefits it offers, including antioxidant activity and antimicrobial properties, this drink can be a valuable addition to a healthy diet.

7. LIMITATION

The limitation in this research is that the herbal drink extract of orange mistletoe leaves must be drunk that day. So it doesn't last long, so it needs to be developed into a powder or powder to make it more durable and practical for storage. The United States The Food and Drug Administration (FDA) has not given its approval for the use of mistletoe as a treatment for cancer or any other medical conditions.

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