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## AWAR – AWAR PLANTS (FICUS SEPTICA BURM) AS TRADITIONAL MEDICINES IN USADHA TARU PRAMANA'S LONTAR

By:

### I Nyoman Subagia<sup>1</sup>, I Made Suta<sup>2</sup>

Universitas Hindu Negeri I Gusti Bagus Sugriwa Denpasar E-mail: <sup>1</sup>nyomansubagia@uhnsugriwa.ac.id, <sup>2</sup>madesuta@uhnsugriwa.ac.id

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### **Abstract**

This study discusses the Awar-Awar Plant (*Ficus Septica Burm*) as Traditional Medicine in Usadha Taru Pramana Lontar. The method used is a quantitative approach with Gravimetry, *Semimikrokjeldahl*, and *Soxhlet* methods. The research results obtained include: Chemical Content and Benefits of the Awar-Awar Plant (*Ficus Septica Burm*), namely; (1), 2-Demethoxytylophorine (2), Isotylocrebine (3), Tylocrebine (4), Tylophorine (5), 10S,13aR-anofine N-oxide (6), Dehydrotylophorine (7), and Ficuseptine A (8), flavonoid content in the form of kaempferitrin (9) and genistin (10), (11) and coumarin compounds. Its benefits are as a remedy for skin diseases, appendicitis, overcoming ulcers, overcoming venomous snake bites and shortness of breath.

**Keywords:** Awar-Awar Plant (Ficus Septica Burm), Traditional Medicine

### I. INTRODUCTION

Balinese people have many manuscripts of Pustaka lontar containing various kinds of knowledge: most of them are stored in Gedong Kirtya Singaraja (3000 pieces), at the Lontar Library Institute, Faculty of Letters, Udayana University (800 pieces), at the Bali Museum and other. Among the many lontar manuscripts, many have been worked on. But there are many more that have not received attention. In fact, the ancestral heritage, which is in the form of lontar manuscripts, harbors many cultural and scientific values, which if excavated are likely to be of great benefit to the advancement of science in various fields (Subagia et al., 2020)

Science in general has developed rapidly, especially in the fields of health or medicine. However, this does not mean that all medical problems in the health sector can be overcome (Jacoeb, 2010). Health problems are still piling up, which results in a lot of human suffering in the health sector that cannot be overcome (Hesti Mulyani, 2016).

One of the small efforts to overcome the suffering of mankind is to expand the suffering of mankind by expanding the horizons of view in the field of health. By studying the ancestral heritage in the form of written manuscripts contained in the papyrus library. Means to open a new horizon again the horizon of health.

The people of Indonesia, especially Bali, are people who are very strong custodians of traditions. However, herbal medicine users are expected to be patient in doing therapy, both when choosing ingredients and using them. Until now, herbal treatment for diseases with the use of herbal medicines, better known as jamu, continues to be preserved by modern society (Arisandi, 2011). Traditional medicine was originally a hereditary tradition that was passed on orally from one generation to the next. Along with the introduction of the written tradition in Indonesia, traditional medicine, which was originally an oral tradition, was finally written down. Until now, these ancient writings by the ancestors of the Indonesian people are stored in museums and libraries in Indonesia and abroad. These writings are known as manuscripts or manuscripts. In relation to the health development goals stated in the GBHN, it is written that "to increase the ability to live a healthy life and be able to overcome simple health problems, especially through prevention efforts and efforts to increase the distribution of health services". This is done with the intention of making it affordable for the community to remote rural areas, so traditional medicine is an appropriate alternative as a companion to modern medicine (Zulki li, 2004). Law Number 9 of 1960 concerning Health Principles article 2 paragraph 4 which reads: Traditional medicine efforts based on science or other methods than medical science are supervised by government so as not to endanger community. Furthermore, Article 47 of the Health Law Number 23 of 1992 states that traditional medicine includes methods, drugs, and treatment or treatment in other ways that can be accounted for (Inventory of Indonesian Medicinal Plants. Second Edition, Jakarta, Ministry of Health, 1991).

In life from ancient times until now known ways of treatment. The method of treatment that has been carried out among the community, namely the way of eastern medicine which is an alternative called traditional medicine. The method of treatment aims to improve the immune system, inhibit disease growth, reduce user complaints, and improve body functions (Zulki li, 2004). Furthermore, it was written that traditional medicine is expected to develop together with modern medicine so that they can support each other in providing optimal health services to the community.

Traditional medicine stored in the manuscript of Usadha Taru Pramana's Lontar was deliberately because it contains researched information for the life of today's society. Traditional medicine is one of the ancestral or ancestral heritage which is used from generation to generation in the process of preventing, reducing, eliminating or curing diseases, injuries and mental illness in humans or animals. As an ancestral heritage that is used for generations, it needs to be developed and researched so that it can be medically accounted for. Therefore, in this paper, we will review the chemical content, benefits, and products of Awar-Awar (Ficus Septica Burm) leaves as traditional medicine in Usadha Taru Pramana's Lontar.

### II. METHOD

The research design used a qualitative and quantitative approach with experimental methods. The experiment was carried out at the Agricultural Technology Laboratory of Udayana University. The sample in this study was awarawar leaves (Ficus Septica Burm) as a traditional medicine in Lontar Usadha.

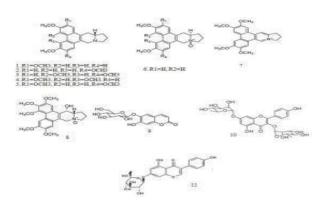
# III. RESULTS AND DISCUSSION Active Ingredients of Awar Awar Plant (Ficus Septica Burm)

The chemical constituents of the leaves, fruit, and roots of Ficus Septica are saponins and lavonoids, besides that the fruit contains alkaloids and tannins, while the roots contain polyphenolic compounds. In addition, awarawar leaves (Ficus septica Burm F) also contain flavonoid compounds genistin and kaempferitrin, coumarins, phenolic compounds, pyrimidines and anthofin alkaloids, 10S, 13aR-antofinN-oxide, dehydrotylophorinficuseptin A, tylophorin, 2 Demetoxytylophorin, 14 oxide, triterpenoid saponins, sterols.

The fruit contains alkaloids and tannins, while polyphenolic the roots contain active compounds. Saponins are strong surface active compounds and cause foam when shaken in water and at low concentrations can cause hemolysis of red blood cells. Saponins are polar so they are soluble in water and ethanol, but insoluble in ether. Flavonoids, commonly found in plants, are bound to sugars as glycosides and flavonoid aglycones may be present in a single plant in several combinations of flavonoid glycosides, mainly water-soluble compounds. Tannins are a type of plant content that are phenolic, have chelating properties and have the ability to tan the skin. Tannins can be used as plant defenses and inhibit tumor growth. Phenols, and phenolic glycosides of several different types are widely distributed in nature and are found in many classes of natural components having aromatic units. Several classes of important polymeric materials in

plants (lignin, melanin, tannins) are polyphenolic compounds

Ficus septica leaves contain flavonoid compounds genistin and kaempferitrin, coumarins, phenolic compounds, pyrimidines and antofin alkaloids, 10S,13aR-antofin Ndehydrotylophorin, ficuseptin 2-Demethoxytylophorin, tylophorin.  $14\alpha$ hydroxyterpene-oxide, saponin sterols. The roots contain sterols and polyphenols. The alkaloids contained in the stems include fenantroindolisidin (ficuseptin B, ficuseptin C, ficuseptin D, 10R,13aR-tylophorin N-oxide, 10R,13aR-tylocrebrin N-oxide, 10S,13aRtylocrebrin N-oxide, 10S,13aR- isotylocrebrin N-oxide, and 10S,13aS-isotylocrebrin N-oxide. Leaves and roots contain stigmasterol and sitosterol. Leaves and stems contain the alkaloids isotylocrebin and tylocrebin.



Picture. Chemical structure of compounds containing Ficus Septica

The content of alkaloids in the form of antofin compounds (1), 2-Demethoxytylophorine (2), Isotylocrebine (3), Tylocrebine (4), Tylophorine (5), 10S, 13aR-anofine N-oxide (6), Dehydrotylophorine (7), and Ficuseptine A (8), flavonoid content in the form of kaempferitrin (9) and genistin (10), (11) and coumarin compounds.

### Benefits and Uses of Awar-Awar Plants (Ficus Septica Burm)

The benefits of awar-awar leaves for therapy, among others, as a drug for skin diseases, appendicitis, overcoming ulcers, overcoming venomous snake bites and shortness of breath. While the roots are used as an antidote (fish),

asthma control. The sap can be used to treat IV. CONCLUSION swelling and headaches.

The leaves are used to cure skin diseases, appendicitis, treat boils, venomous snake bites and shortness of breath. The roots are used as an antidote to fish poison and asthma control. The juice from the collision of the roots of awar awar and fennel pulowaras can be used to treat poisoning from fish, gadung (Dioscorea hispida dennst) and crabs. If pounded with a handful of reed roots and squeezed the water is a very effective medicine that causes vomiting. The medicine for boils is used for  $\pm$  5 grams of fresh leaves of Ficus septica Burm F, pounded until smooth, then affixed to the boil. The sap is used to treat swelling and headaches, the fruit is used as a laxative.

### Awar-Awar (Ficus Septica Burm) Leaf **Products as Traditional**

Medicine Based on the content and benefits of Awar-Awar (Ficus Septica Burm) leaves, this paper produces two products, namely:

#### Awar-Awar Leaf Herb/Tea (Ficus Septica Burm)



Awar-Awar (Ficus Septica Burm) Leaf Capsules



Some things that can be concluded from this research are:

- 1. Chemical Content and Benefits of the Awar-Awar Plant (Ficus Septica Burm), namely; (1), 2-Demethoxytylophorine (2), Isotylocrebine (3), Tylocrebine (4), Tylophorine (5), 10S,13aR-anofine Noxide (6), Dehydrotylophorine (7), and Ficuseptine A (8), flavonoid content in the form of kaempferitrin (9) and genistin (10), (11) and coumarin compounds. And its benefits are as a medicine for skin diseases, appendicitis, overcoming ulcers, overcoming venomous snake bites and shortness of breath.
- 2. Traditional Medicine Forms of Awar-Awar Plants (Ficus Septica Burm) as Traditional Medicines in Usadha Taru Pramana's Lontar in the form of herbs/tea and capsules.

### Suggestion

Through this research, it can be submitted that the suggestion is to conduct a pre-clinical trial analysis of the results of this study in the form of herbal medicine and capsules of Awar-Awar (Ficus Septica Burm) as Traditional Medicine to further increase the confidence of scientific studies.

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