



## Review Article

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### EFFICACY OF SWASAKUDORI MATHIRAI - A SIDDHA HERBAL FORMULATION FOR THE MANAGEMENT OF SUVASAKAASAM: A REVIEW

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#### ABSTRACT

Siddha medicine is a classical system of medicine. When the three humours (vatham, pitham, kabam) are in an appropriate balance, the person experiences good health. Any imbalances of the three humours lead to disease. Eraippu noi is otherwise called Ezhuppu noi or Swasakaasam. Eraippu noi is characterized by the tightness of the chest, difficulty breathing in which expiratory breathing sounds resemble musical instruments like flute, loot, or veena, and cold with or without expectoration during cough. The symptoms of Eraippu noi can be correlated with bronchial asthma. Asthma is a chronic inflammatory disease characterized by airway obstruction and airway hyperresponsiveness manifesting as wheezing, cough, shortness of breath, and chest tightness. The exact aetiology of asthma remains unclear and appears to be multifactorial. The risk factors include animals, mites, mould, other allergens, and air pollutants. Siddha literature described many formulations that are indicated for Suvasakaasam. Swasakudori Mathirai is one of them. Swasakudori mathirai is purely an herbal formulation indicated for Suvasakasam/Eraippu noi. The ingredients of Swasakudori mathirai are vellerukkam poo and milagu. The ingredients of this drug mostly have anti-asthmatic activity, anti-inflammatory activity, and antimicrobial activity. It is easily prepared and safe for all age groups, especially paediatric ones, to manage bronchial asthma. This review further concentrates on enhancing the research on Siddha herbal medicines.

**Keywords:** Bronchial asthma, Swasakudori mathirai, Anti-inflammatory activity, Suvasakaasam, Anti-asthmatic activity.

#### INTRODUCTION

Traditional Siddha Medicine, one of our land's great patrimonies, is a comprehensive medicine with therapeutic and prophylactic properties. Siddhar defined 96 principles as the constituents of human beings. They comprise a person's physical, physiological, mental, and intellectual mechanisms. 96 Thathuvams consist of panchaboothas, mukkunam, five kosam, 3 uyirathukkal, 6 adharangal, and 7 udalathukkal. Siddha's system trusts that all objects in the universe, including the human body, are combined with five essential primordial elements: earth, water, fire, air, and space. Alteration of the three vital humours, Vali, Azhal, and Iyam, leads to disease manifestation.

Eraippu noi is otherwise called Ezhuppu noi or Swasakaasam. Eraippu noi is characterized by the tightness of the chest, difficulty breathing in which expiratory sounds resemble musical instruments like flute, loot, or veena, and cold with or without expectoration during cough, according to the Siddha literature. The causative factors of Eraippu noi include dietary factors (intake of cold food items), allergic exposure to any particular substance, i.e.) pollen grains, house mites, dust, smoke, cold, etc., which may cause derangement of Iya humour or Kabam. Rhinitis, sneezing appears at first when exposed to cold or any other particular allergic substance, followed by chest tightness, dyspnoea, and chest wall retraction due to shortness of breathing and sweating. The symptoms of Eraippu noi can be correlated with bronchial asthma.

Asthma is a chronic disease in which the bronchial airways in the lungs become narrowed and swollen, making it difficult to breathe. Symptoms include wheezing, coughing, tightness in the chest, shortness of breath, and rapid breathing. The exact aetiology of asthma remains unclear and appears to be multifactorial. The risk factors include animals, mites, mould, other allergens, and air pollutants. Increasing ambient air pollution due to rapid urbanization and industrial growth also adversely affects the pulmonary health of children with asthma. Studies conducted to estimate the prevalence of asthma among children in India have reported a varied prevalence (2-18.2%). The prevalence of asthma in urban, rural, and mixed areas was 7.9%, 6.8%, and 7.6% in India. The pooled prevalence of asthma among boys and girls in school-based studies was 8.0% and 5.9%, respectively. Globally, about 30-35% of children suffer from allergic disorders, and the prevalence of these illnesses has been rising in recent years.

The prevalence of childhood asthma is still on the rise in developing countries and poses a substantial disease burden. In recent years, developing countries have experienced rapid economic development. Furthermore, the tremendous changes that have occurred in people's living environments and ways, resulting in the prevalence of asthma, have increased each year. The Swasakudori mathirai is a specific medicine indicated for Suvasakaasam. The main ingredients of Swasakudori mathirai are vellerukkam poo and milagu. The ingredients of this drug mostly have anti-asthmatic activity, anti-inflammatory activity, and antimicrobial activity. All the ingredients of the formulation are

pure herbs only. It is easily prepared and safe for all age groups to manage bronchial asthma.

### Ingredients of Swasakudori mathirai

"Vellerukkampoo milagu vendi sarinerayait  
Thallaa tharaithu thanikunri- vilondru  
Thalisapathiri kudineer thaakachu vaasamudan  
Kolirumal kasamilai kooru"  
-Siddha VaithiyaThirattu

- 1.Vellerukkam poo (*Calotropis procera*)
- 2.Milagu (*Piper nigrum*)<sup>1</sup>

### Purification of Raw Drugs

1. Vellerukkam poo: The flower is purified by removing the stem and stigma of the flower.
2. Milagu: The drug is purified by soaking it in sour buttermilk.

### Method of Preparation

The Ingredients are purified well, equal quantities of milagu and vellerukkam poo will be taken and ground well, make a 130 mg size tablet, and dry it. Then, it is preserved in an airtight container.

### Dosage

Kunri size (130 mg)

**Adjuvant:** Thalispapathiri kudineer

### 1. Vellerukkam poo

Botanical name: *Calotropis procera*  
Family: Asclepiadaceae  
English name: Crown flower  
Parts used: Flower

### Botanical description

It is a shrub or small tree, ten to twenty feet high. The stem is covered with a hairy pubescence. Flowers are borne on terminal panicles. Petals are white on the upper side, silvery on the lower side, and the juice extremely acrid.<sup>2</sup>



### Organoleptic characters

Taste: Bitter, Pungent, Sweet  
Character: Hot  
Division: Pungent<sup>7</sup>

### Chemical constituents

- Queretin-3-ratioside
- Sterol
- Flavonoids
- Calactin
- Calotoxin
- Calotropagenin
- Calotropin
- Polysaccharids with D-arabinose
- Glucose
- Glucosamine
- L-rhambose

- Lupeol
- Uscharin
- Procerosid
- Proceragenin
- Syriogenin
- Uscharidin
- Uzarigeninvoruscharin a-calotropeol<sup>2</sup>

### Pharmacological activity

- Antimicrobial activity
- Anti-cancer activity
- Anti-inflammatory
- Anti-pyretic
- Anti-analgesic
- Anti-helminthic activity.
- Mast cell stabilizing activity.
- Bronchodilator activity.<sup>3-5</sup>

### Medicinal uses

- The petal combines with pepper used in the case of asthma.
- Flowers are considered as digestive stomachic, tonic and useful in cough, catarrh and loss of appetite.<sup>2</sup>

### 2. Milagu

Botanical name: *Piper nigrum*  
Family: Piperaceae  
English name: Black pepper  
Parts used: Seed

### Botanical description

It is native to Malabar, a region on the Western Coast of South India. Stems are stout climbing and very flexible. Leaves are elliptical to orbicular-ovate, younger leaves are cordate, and all are palmately veined with 5-7 veins. Flowers are small and borne on long pendulous spikes from each node. The flowers are not showy. The berries first turn green, then red, and finally turn black.<sup>2</sup>



### Organoleptic characters

Taste: Bitter, Pungent,  
Character: Hot  
Division: Pungent<sup>7</sup>

### Action

- Carminative
- Anti-periodic
- Stimulant
- Antidote
- Expectorant.
- Rubefacient
- Antivatha<sup>7</sup>

### Chemical constituents

- Pyrrolidinealkamide
- Isopiperolein B
- Retrofractamide A
- Pipericide
- Piperchamide A

- Pellitorin
- Dehydropiperonaline
- Trachyone
- Pergumidiene
- Isopiperolein B <sup>2</sup>

#### Pharmacological activity

- Anti -depressant
- Anti-cancer activity
- Anti-inflammatory
- Antioxidant
- Anti-asthmatic
- Antihistaminic activity
- Anti-HVB (Hepatitis B)
- Anti-fungal.
- Mast cell stabilizing activity.
- Antimicrobial activity. <sup>6,8,9</sup>

#### Medicinal uses

Fruit helps treat asthma, chronic indigestion, obesity, sinus congestion, fever, worms and sore throat.

### 3. Thalispathiri

Botanical name: *Abies webbiana*

Family: Pinaceae

English name: Indian silver fir, Himalayan silver fir

Parts used: Leaf

#### Botanical description

This lofty fir is widely distributed on higher ranges of the Himalayas region from Kashmir to Assam states in India. A tall evergreen coniferous tree grows up to 60 m with strong horizontally spreading branches and young shoots covered with short brown hair. Leaves are simple, densely covering the twigs extending in all directions, each leaf 1.5-2.3 cm long. The cones are bluish, and the seed is winged. Leaves are aromatic and shiny, midrib in the upper surface channelled down the middle but raised beneath; with two faint white lines on either side of the midrib beneath, petiole very short, greyish brown, terebinthine such as odour and astringent taste.



#### Organoleptic characters

Taste: Pungent

Character: Hot

Division: Pungent<sup>7</sup>

#### Action

- Stomachic
- Carminative
- Expectorant
- Tonic <sup>7</sup>

#### Chemical constituents

- Triterpenoid
- Flavonoids
- Lignans
- Carbohydrates
- Seven alpha-methoxy-dehydroabietic acid

- Abita-7, 13-diene-12alpha-methoxy-18-oic acid
- Diterpenoids
- Sesquiterpenoid <sup>11</sup>

#### Pharmacological activity

- Antimicrobial activity
- Antispasmodic activity
- Anti-inflammatory
- Anti-tumour activity
- Antitussive
- Mast cell stabilizing<sup>10,11</sup>

#### Medicinal uses

Gargling the leaf powder decoction for throat pain and mouth ulcers is also used as a tooth powder for tooth pain. It is used for chronic cough, wheezing, fever, tuberculosis, vomiting, indigestion, gastritis, and bone fever. <sup>11</sup>

#### CONCLUSION

Based on various Siddha text reviews, the ingredients of Swasakudori mathirai are commonly used in treating the Kaba disease. The ingredients' pharmacological activities are mostly antimicrobial activity, Anti-inflammatory, and Anti asthmatic activity. Therefore, the formulation could effectively manage Suvasakaasam (Bronchial asthma). The drug is easy to prepare, cost-effective, and safer treatment for bronchial asthma. Further clinical studies help in exploring this herbal Siddha formulation.

#### REFERENCES

1. K.N. Kuppasamy Muthaliyar, Siddha Vaithiya Thirattu, 2<sup>nd</sup> edition, Chennai, Directorate of Indian Medicine and Homeopathy, 2009, P 61
2. S. Sankaranarayanan, Medical Taxonomy of angiosperms, Recent trends in medical uses and chemical constituents, October 2009, first edition, p 554,721
3. Ali Esmail Al-Snafi, The constituents and pharmacological properties of *Calotropis procera*- An overview, International Journal of Review and Research, 2015;5(4):259-275.
4. Chandrakant Rathod, Mahavir H. Ghante, Pharmacological screening of mast cell stabilizing, anti-inflammatory and antioxidant activity of *Calotropis procera* extracts, Turkish Journal of Computer and Mathematics Education, 2021;12 (14):4338-4352
5. Dinesh Kumar, Zulfiqar Ali Bhat, Ishtiaq Ahmad Chashoo, Ramesh S, Satish C *et al.*, Bronchodilator Activity in Traditional Medicines, August 2011; 171-190. DOI: <http://dx.doi.org/10.13140/2.1.1846.3528>
6. A.Thahirabanu, M.Aswini, Role of *Piper nigrum* in functional food and nutraceuticals, December 2022, DOI: <https://doi.org/10.1016/B978-0-323-90794-1.00019-3>
7. K.N. Kuppasamy mudhaliyar, Gunapadam-Mooligai, 1<sup>st</sup> edition, Chennai, Directorate of Indian medicine and homeopathy, 1936, p 153,510,760
8. Krishna Prasad *et al.*, Comparative study of mast cell stabilizing effect of extract of selected plants with proven h1 antagonist activity, World Journal of Pharmaceutical Research, 2015; 4(11): 981-993.
9. SK Shiva Rani, Necti Saxena and Uday Sree, Antimicrobial Activity of Black Pepper (*Piper nigrum* L.), Global Journal of Pharmacology 2013;7 (1): 87-90
10. Kavita Gulati Pankaj *et al.*, Role of nutraceuticals in respiratory and allied diseases, January 2021, second edition, p 101-115

11. Rajalakshmi. P *et al.*, Pharmacognostic evaluation of *Abies webbiana* leaf, A Siddha herbal ingredient, Asian Journal of Pharmaceutical and Clinical Research, 2016; 9(4): 214-219.

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