



ORIGINAL RESEARCH PAPER

Ayurveda

A DRUG REVIEW ON ADATHODAI RASAYANAM FOR SOOLIKANAM (CHILDHOOD ASTHMA)

KEY WORDS: Asthma, Soolikanam, Adathodai rasayanam, Siddha system.

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ABSTRACT Childhood asthma is most common chronic disease in infants and children. Siddha system contains effective medicine or management of childhood asthma. The present review will highlight the phytochemical and pharmacological activities of each ingredient of Adathodai rasayanam.

INTRODUCTION:

Asthma is a common long-term inflammatory disease of the airways of the lungs. It is characterized by variable and recurring symptoms, reversible airflow obstruction and bronchospasm. Siddha literature describes a total of 4448 disease which occur for man and animals. Among 4448, 108 diseases occur in childhood age period. Siddha system categorizes Kanam, a respiratory disease into 24 types. In this 24 types the Soolikanam nearly correlates with the symptoms of childhood asthma, which is explained in siddha literature Kuzhandhai Maruthuvam-Balavagadam ^[1]. The drug Adathodai rasayanam is indicated for Soolikanam.

MATERIALS AND METHODS ^[2]

INGREDIENTS OF ADATHODAI RASAYANAM:

- 1. Adathodai (*Justicia adathoda*) - 105ml
- 2. Thoodhuvilai (*Solanum trilobatum*) - 105 ml
- 3. Kandakathiri (*Solanum xanthocarpum*) - 105 ml
- 4. Karuppu poonai kanchori (*Mucuna pruriens*) - 105 ml
- 5. Thippili (*Piper longum*) - 6.96 gm
- 6. Aanai thippili (*Scindapsus officinalis*) - 6.96 gm
- 7. Kadukkai (*Terminalia chebula*) - 6.96 gm
- 8. Adhimadhuram (*Glycyrrhiza glabra*) - 6.96 gm
- 9. Chitharathai (*Alpinia officinarum*) - 6.96 gm
- 10. Perarathai (*Alpinia galanga*) - 6.96 gm
- 11. Chukku (*Zingiber officinale*) - 6.96 gm
- 12. Agragaram (*Anacyclus pyrethrum*) - 6.96 gm
- 13. Honey

PURIFICATION ^[3]

Adathodai:

The plant was purified by cleaning it with clean cloth. Then the petiole and veins of leaves were removed.

Thoodhuvilai:

The plant was purified by cleaning it with clean cloth and then the petiole and veins of leaves were removed.

Kandankathiri:

The plant was purified by cleaning it with clean cloth. Then the petiole and veins of leaves were removed.

Karuppu poonai kanchori:

The plant was purified by cleaning it with clean cloth. Then the petiole and veins of leaves were removed.

Thippili: The drug was purified by soaking it in lemon juice and dried.

Aanai thippili:

The drug was purified by soaking it in vinegar for 3 hours and then dried.

Kadukkai:

Kadukkai was purified by soaking it in rice water. Then the seed was removed and dried.

Adhimadhuram:

The drug was washed with clean water, the outer skin is removed. Then it was cut into small pieces and dried.

Aarathai:

The outer layer was removed. Then it was cut into small pieces and dried.

Chukku:

The drug was soaked in limestone water. Then the outer layer was removed and dried.

Agragaram:

The outer layer was removed.

METHOD OF PREPARATION ^[4]

All the above ingredients were purified. Juice (saaru) was taken from the above first four ingredients (Adathoda, Thoodhuvilai, Kandakathiri and Karuppu poonai kanchori). Honey with the equal quantity of plant juice (saaru) was mixed. Then it was kept in stove with mild flame. The other ingredients were fine powdered and mixed with the above mixture. Then it was slowly stirred till it comes to rasayanam texture (veralalunthum patham). Then it was preserved in dried glass container.

DOSAGE:

- 3-4 years - 170mg (tds), After food.
- 5-7 years - 500mg (tds), After food.

DURATION OF TREATMENT: 45 days

S.NO	PLANTS	BOTANICAL NAME	FAMILY	PARTSUSED
1	Adathoda	Justicia adathoda	Acanthaceae	Juice

2	Thoodhuvelai	Solanum trilobatum	Solanaceae	Juice
3	Kandankathiri	Solanum xanthocarpum	Solanaceae	Juice
4	Karuppu poonai kanjori	Mucuna pruriens	Fabaceae	Juice
5	Thippili	Piper longum	Piperaceae	Fruit
6	Aanai Thippili	Scindapsus officinalis	Araceae	Fruit
7	Kadukkai	Terminalia chebula	combretaceae	Fruit
8	Adhimadhuram	Glycyrrhiza glabra	Fabaceae	Root
9	Chitharathai	Alpinia officinarum	zingiberaceae	Root
10	Perrarathai	Alpinia galanga	zingiberaceae	Root
11	Chukku	Zingiber officinale	Zingiberaceae	Tuber
12	Aragaram	Anacyclus pyrethrum	zingiberaceae	Root

S.NO	BOTANICAL NAME	PHYTOCHEMICALS	PHARMACOLOGICAL ACTIVITY
1	Justicia adathoda	Antraquinone, saponins, flavonoids, quinazoline, vasicine ^[4] .	Antitussive, antimicrobial, anti-inflammatory ^[4] .
2	Solanum trilobatum	Soladunalinidine, tomatidine, sobatum, solasodine, saponins ^[5] .	Anti-inflammatory, immunomodulatory and anti-microbial ^[5] .
3	Solanum xanthocarpum	Stigmasterol, cholesterol, carpasterol, apigenin, oleic acid, solasodine ^[6] .	Anti-inflammatory, anti-allergic and Anti-asthmatic activity ^[7] .
4	Mucuna pruriens.	-sitosterol, gallic acid, ascorbic acid, 5-hydroxytryptophan, glutathione, palmitic acid, stearic acid ^[8] .	Anti-microbial, neuroprotective ^[8] .
5	Piper longum	Palmitic acid, desmethoxycurcumin, bisdemethoxycurcumin, 1, 2-benzenedicarboxylic acid, sesamin and piperine ^[9] .	Immunomodulatory, Anti-microbial, Anti-inflammatory, anti-fungal activity ^[9] .
6	Scindapsus officinalis	Scindapsin A and B, scindapsinsinidine A and B, fructose ^[10] .	Anti-inflammatory, anti-microbial and anti-asthmatic activity ^[10] .
7	Terminalia chebula	-sitosterol, ethyl ester of gallic acid, chebulic acid, anthraquinones, terpinenes, pyrogallol ^[11] .	Anti-viral, immune modulatory ^[11] .
8	Glycyrrhiza glabra	Liquirtin, glychiomide-, hispaglabridin, anethole, eugenol, glabrolide ^[12] .	Anti-bacterial, anti-inflammatory ^[12] .
9	Alpinia officinarum	Benzyl acetone, 1,7-diphenyl-5-hydroxy-3-heptanone, guaiacyl acetone, benzene propanal and galangin ^[13] .	Anti-bacterial, anti-fungal, anti-inflammatory ^[13] .
10	Alpinia galanga	Benzene propanal, guaiacyl acetone, benzyl acetone, kaemperol, kaempferide, quercetin and galangin ^[14] .	Anti-bacterial, anti-viral, anti-fungal, anti-inflammatory and immunomodulatory ^[14] .
11	Zingiber officinale	Zingiberine, -bisabalone, phellandrene, carnphene, cineolic acid, citral and borneal, 1-hydroxy-[6]-paradol ^[15] .	Anti-inflammatory and anti-microbial ^[15] .
12	Anacyclus pyrethrum	Isobutylamide, anacycline, inulin, caryophyllene oxide, -biotol, spathulenol ^[16] .	Immuno-modulatory, anti-inflammatory, anti-bacterial ^[17,18,19] .

DISCUSSION AND CONCLUSION:

The ingredients of Adathodai rasayanam having anti-tussive, anti-microbial, anti-inflammatory, immunomodulatory, anti-platelet, antiviral and antibacterial activity. So, it will be correcting respiratory disease. Justicia adathoda has anti-inflammatory, antimicrobial and antitussive activity which helps to cure cold, cough and asthma. Solanum trilobatum is extensively studied for its pharmacological activities of anti-inflammatory and anti-microbial. Clinical studies have revealed the efficacy of this plant in the treatment of bronchial asthma in children (Clark et al,2010, Dahanukar et al,1984). Solanum xanthocarpum, Anacyclus pyrethrum, Alpinia galanga and Terminalia chebula possess immunomodulatory effect which helps to regulate immune functions and helps to prevent against allergic reactions on destruction of immune effectors. As a whole the ingredients of Adathodai rasayanam helps to prevent against allergic reactions, regulates immune functions and controls respiratory infections. Hence, it is useful in the management of Soolikanam (childhood asthma).

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