

**DRUG RESEARCH ON POLY HERBAL SIDDHA DRUG - THIPILLI RASAYANAM****Dr. K. Naga Palani Saraswathi\*<sup>1</sup> and Prof. Dr. M. Thiruthani <sup>2</sup>**<sup>1</sup>PG Scholar, Dept. of Siddha Toxicology, Govt. Siddha Medical College, Palayamkottai.<sup>2</sup>HOD, Dept. of Siddha Toxicology, Govt. Siddha Medical College, Palayamkottai.**\*Corresponding Author: Dr. K. Naga Palani Saraswathi**

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**ABSTARCT**

Nowadays, World health's status also open eyes towards the siddha system of medicine. Because siddha medicine deals with all diseases such as life style disorders and Autoimmune diseases etc. In this view respiratory diseases were common all over in the world. Siddha system of medicine had so many time-tested medicines for respiratory diseases, among these respiratory care medicine this *Thippili Rasayanam* to find out the literature review of research. Research Design: collection of data from siddha authenticated texts and selected texts from botanical, pharmacological and phytochemical aspect and online websites. Finally concluded; Pharmacological Actions were: Carminative- 68.4%, Antipyretic- 42.1%, Stomachic- 42.1%, Digestive- 42.1%, Stimulant- 42.1%, Expectorant- 31.6%, Diuretic- 31.6% and less than 20% of Anti inflammatory, Antibacterial, Alterative, Antioxidant, Antimicrobial, Immunomodulator, Analgesic, Antispasmodic, Tonic, Appetizer Anodyne and Thermogenic found in *Thipili Rasayanam* by the 16 ingredients. *Iyam* aggravated signs and symptoms were: Indigestion, excessive salivation, drowsiness, feel as heaviness of body with pallor and cooling, tiredness of all over the body, difficult to breathing, abdominal distension, cough, etc. therefore carminative, Antipyretic, Stomachic, Digestive, Stimulant, Expectorant and Diuretic helps to cure the complaints. Pungent and bitter tastes also help to cure the *kapha (iyam)*.

**KEYWORDS:** siddha system of medicine, *Thippili Rasayanam*, pharmacological actions, respiratory diseases.**INTRODUCTION**

The science of medicine must have created with the primitive and foremost man as it is of fundamental importance to his happiness, well being and survival and then must have established all along ever since the dawn of civilization. In this manner, Siddha system of medicine which forms the essence of accumulated wisdom of the ancient Dravidian civilization in the science of curing the illness and its one of the 64 Art forms of Tamil culture. This art of healing was preached, practiced and perfected by the Siddhars and hence came to be known as the Siddha System of Medicines.

In siddha system of medicine, the physiological function in the human system is mediated by three substances i) Vatham ii) Pitham iii) Kapam which are made up of the five elements (Bhutas) i) Mann ii) Neer iii) Thee iv) Vayu and Akasam. If food and work are either excessive or deficient, the three things enumerated by medical writers, Vatha, Pitha, Kapha will cause disease. Siddha system of medicine performed in wide range of curation of all age groups such as children, adolescents, teenagers, adult and elders. And all type of diseases condition and Acute or chronic disease condition also.

Nowadays, World health's status also open eyes towards the siddha system of medicine. Because siddha medicine deals with all diseases such as life style disorders and Autoimmune diseases etc. In this view respiratory diseases were common all over the world. Siddha system of medicine had so many time-tested medicines for respiratory diseases, among these respiratory care medicine this *Thipili Rasayanam* to find out the literature review of research.

**METHODOLOGY**

Research type: Literature Review. Research Design: collection of data from siddha authenticated texts and selected texts from botanical, pharmacological and phytochemical aspect and online websites. Reference book was *kunapadam mooligai vaguppu* by the Dr. K. Murugesu mudaliyar, published by Indian Medicine and Homoeopathy Department, Chennai.

In this research used simple descriptive statistics as analysis of results in this research.

## RESULTS

Table 1: Quantity of raw materials of TR.

S.no	Ingredients of drug	Qty.
1	Thippili	10 palam (350g)
2	Chukku	05 palam (175g)
3	Milagu	05 palam (175g)
4	Seeragam	01 palam (35g)
5	Karunjeeragam	01 palam (35g)
6	Arathai	01 palam (35g)
7	Elavangapattai	01 palam (35g)
8	Omam	01 palam (35g)
9	Thalisam	01 palam (35g)
10	Elavanagpathiri	01 palam (35g)
11	Kadukkai	01 palam (35g)
12	Nellikai	01 palam (35g)
13	Thantrikkai	01 palam (35g)
14	Elavangam	01 palam (35g)
15	Elam	01 palam (35g)
16	Chitramoolam	01 palam (35g)

Table 2: Taste of the ingredients.

S.no	Taste of drugs	Number of drugs
1.	Acrid	9
2.	Bitter	7

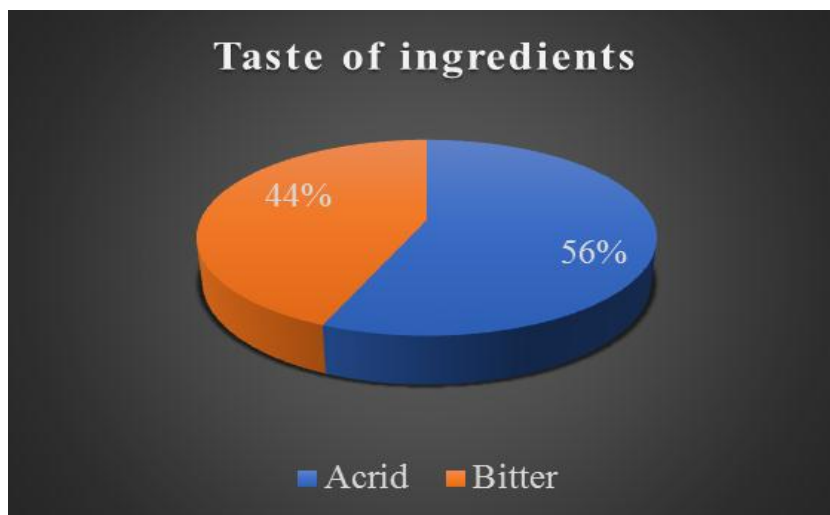
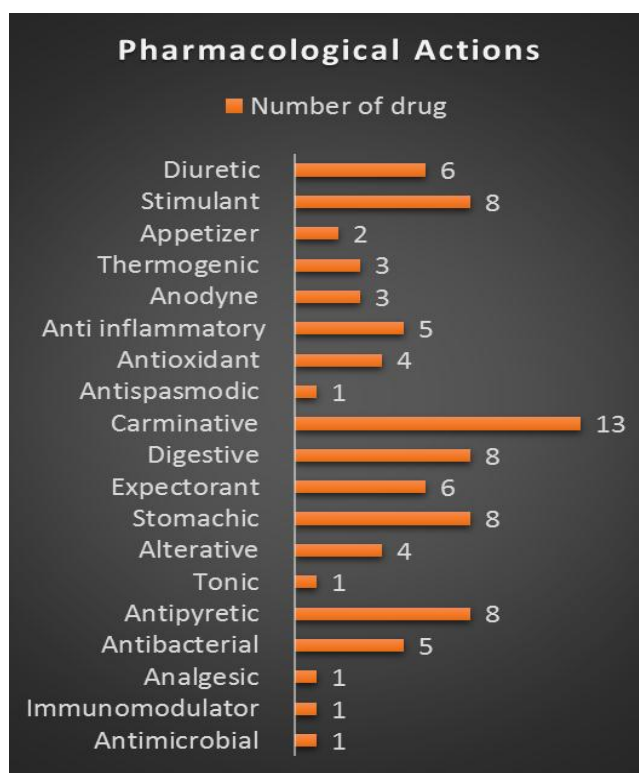


Table 3: Pharmacological actions of the ingredients.

S.no	Pharmacological Action	% of ingredients
1.	Antimicrobial	5.2%
2.	Immunomodulator	5.2%
3.	Analgesic	5.2%
4.	Antibacterial	26.3%
5.	Antipyretic	42.1%
6.	Tonic	5.2%
7.	Alterative	21.0%
8.	Stomachic	42.1%
9.	Expectorant	31.6%

10.	Digestive	42.1%
11.	Carminative	68.4%
12.	Antispasmodic	5.2%
13.	Antioxidant	21.0%
14.	Anti inflammatory	26.3%
15.	Anodyne	15.8%
16.	Thermogenic	15.8%
17.	Appetizer	10.5%
18.	Stimulant	42.1%
19.	Diuretic	31.6%



**Table 4: Ingredients of the Thippili Rasayanam (TR).**

S.No	Plant name	Botanical name	Family	Taste	Chemical constituents	Medicinal properties
1.	Thippili	<i>Piper longum</i>	Piperaceae	Bitter, acrid	Piperlongumine, piperlonguminine, sesamin, piperine, methyl-3,4,5-trimethoxycinnamate	Acrid, aphrodisiac, carminative, digestive, emollient, expectorant, febrifuge, laxative, stomachic
2.	Milagu	<i>Piper nigrum</i>	Piperaceae	Acrid	A-cic-bergamotene & $\beta$ -cis-berg, piperide	Acrid, alexiteric, alternate, aphrodisiac, bitter, carminative, digestive, diuretic, rubefacient, stimulant
3.	Chukku	<i>Zingiber officinale</i>	Zingiberaceae	Acrid, pungent	Essential oil, fibers, proteins, starch, carbohydrates, resin, glutamine, threonin, free amino acids, zingiberol, zingiberin, glutamic acid	Astringent, aphrodisiac, appetizer, aromatic, blood purifier, carminative, digestive, expectorant, febrifuge, stimulant, thermogenic
4.	Seeragam	<i>Cuminum cyminum</i>	Apiaceae	Bitter, acrid	Apigenin-7-0-glucoside, luteolin-7-0-glucoside, essential oil	Acrid, anaphrodisiac, anodyne, anthelmintic, anti inflammatory, astringent, carminative,

						constipating, cooling, depurative, digestive, febrifuge, stomachic, sweet
5.	Karunjeeragam	<i>Nigella sativa</i>	Ranunculaceae	Bitter, acrid	Nigellone, nigellicine, alkaloid, volatile oil, fatty oil, oleic acid	Acrid, anodyne, anthelmintic, anti inflammatory, appetizing, aromatic, bitter, carminative, constipating, digestive, diuretic, expectorant, febrifuge, sudorific, thermogenic
6.	Araththai	<i>Alpinia officinarum</i>	Zingiberaceae	Acrid	pinocembrin, pinocembrin-5-methylether, galangin, galangin-3-methylether, 5-ethoxyl-7-(4-hydroxy-3-methoxy-phenyl)-1-phenyl-3-heptanone, 5-hydroxy-1,7-diphenyl-3-heptanone, (E)-7-(4-hydroxy-3-methoxyphenyl)-1-phenylhept-4-en-3-one, 1,7-diphenyl-3,5-heptanedione, 1,7-diphenyl-4-en-3-heptanone, 5-hydroxy-1,7-diphenyl-4, and 6-trans-dien-3-heptanone.	
7.	Elavangam	<i>Syzygium aromaticum</i>	Myrtaceae	Bitter, acrid	Beta-caryophyllene, eugenol, acetate, methyl salicylate, N-amylcarbinol, Benzyl alcohol, furfural, furfury alcohol, vanillin, eugenitine, eugenon, galactose, glucose, fructose, rhamnose, sucrose, gallotanic acid	Appetizer, aromatic, carminative, stimulant, stomachic
8.	Elavangapattai	<i>Cinnamomum verum</i>	Lauraceae	Bitter, sweet, acrid	Essential oil, cinnamon oil, eugenol, volatile oil, cinnamaldehyde, camphor, cinnzeylamine, tannin & gum	Acrid, alexiteric, aphrodisiac, aromatic, astringent, bitter, carminative, diuretic, expectorant, febrifuge, stimulant, sweet
9.	Elavangapathiri	<i>Cinnamomum tamala</i>	Lauraceae	Sweet, aromatic	Essential oil, eugenol and isoeugenol	Acrid, alexiteric, aphrodisiac, aromatic, astringent, bitter, carminative, diuretic, expextorant, febrifuge, stimulant, sweet
10.	Thaalisam	<i>Taxus wallichiana</i>	Taxaceae	Acrid, bitter	10-deacetylbaaccatin III baccatin III, taxol, cephalomannine, diterpenoids, taxane, abeotaxane, 3,11-cyclo-taxane	
11.	Omam	<i>Trachyspermum ammi</i>	Apiaceae	Acrid	Essential oil, thymol, carvone, limonene, dillapiol, quercetin, kaempferol, oleic acid, linoleic acid	Antioxidant, carminative, anthelmintic, stomachic, stimulant
12.	Elam	<i>Elettaria cardomum</i>	Zingiberaceae	Sweet, acrid	Volatile oil, limonene, borneol, L-terpineol, potassium salts, starch, nitrogenous mucilage, $\alpha$ -pinene, sabiene, myrcene, limonene, cineol, cymane, linalool, linalyl acetate.	Abortifacient, acrid, aromatic, carminative, cooling, digestive, diuretic, sweet, stimulant, stomachic

13.	Kodiveli	<i>Plumbago zeylanica</i>	Plumbaginaceae	Acrid, bitter	Votaline oil, chitranone, alpha & beta-amyrin, lupeol, taraxasterol, fructose, glucose, invertase, protease, chloroplumbagin, droserone, elliptinone, zeylanone, zeylinone, meritone, catechol, tannin, amino acids, plumbagic acid, plumbagin alkaloids	Alterative, anthelmintic, astringent, bitter, carminative, dry, hot, stomachic
14.	Kadukkai	<i>Terminalia chebula</i>	Comberitaceae	Astringent	Tannic acid, gallic acid, chebulinic acid, mucilage, glucoside(anthroquinine), carbohydrates, amino acids, phosphoric acid, succinic acid	Alterative, anthelmintic, antidycentric, carminative, expectorant, heating, stomachic tonic.
15.	Nellikai	<i>Phyllanthus emblica</i>	Phyllanthaceae	Sweet, sour, astringent	Fruit-protein, fats, fibers, carbohydrates, vitamin-C, nicotinic acid, tannins. Dried fruit- gallic acid, ellagic acid, flavin & glucose. Seed-linoleic acid, linolenic acid, oleic acid	Acrid, alterant, anodyne, antipyretic, aphrodisiac, astringent, bitter, carminative, cooling, digestive, diuretic, laxative, sour, stomachic, sweet.
16.	Thantrikkai	<i>Terminalia bellirica</i>	Combrataceae	Astringent, bitter	$\beta$ – sitosterol, gallic acid, ellagic acid, chebulagic acid, galloyl, glucose, many free sugar, manitol, galactose, rhamnase, glucoside.	Acrid, anthelmintic, bitter, digestive, laxative, pungent

### Siddha fundamental describes in siddha text in Tamil Language as

“kaphathinayantri kaasawashan kaanathu”

- Iyam = water + earth

### Tastes

- Sweet = water + earth
- Sour = earth + water
- Salt = water + fire
- Bitter = air + ether
- Pungent = fire + air
- Astringent = earth + air

“vaatha meletaal mathuram puliyuppu  
Sethamuracht sejun cirayam – othakkel  
Kaaran thuvarkasappuk kaatun suwayellam  
Saarap parikaaran saatru”

Pungent, Astringent and Bitter three tastes balanced the vitiated *iyam*



### *Iyam* aggravated signs and symptoms were

Indigestion, excessive salivation, drowsiness, feel as heaviness of body with pallor and cooling, tiredness of

all over the body, difficult to breathing, abdominal distension, cough, over sleepy.

### *Iyam* diminished signs and symptoms were

Giddiness, reduced lubrication into the joints, tiredness of joints, prominent of joints.

### DISCUSSION

According to the research result;

Total 16 ingredients in the *Thipilli Rasayanam* and it has 9 ingredients were pungent (acid) taste and 7 ingredients were Bitter in major taste. Pharmacological Actions were: Antimicrobial- 5.2%, Immunomodulator- 5.2%, Analgesic- 5.2%, Antibacterial - 26.3%, Antipyretic- 42.1%, Tonic- 5.2%, Alterative- 21.0%, Stomachic- 42.1%, Expectorant- 31.6%, Digestive- 42.1%, Carminative- 68.4%, Antispasmodic -5.2%, Antioxidant 21.0%, Anti inflammatory- 26.3%, Anodyne- 15.8%, Thermogenic- 15.8%, Appetizer- 10.5%, Stimulant- 42.1% and Diuretic- 31.6%.

According to the particular phytochemical substance established the specific pharmacological actions of the prepared drug materials. In this manner *Iyam* aggravated signs and symptoms were: Indigestion, excessive salivation, drowsiness, feel as heaviness of body with pallor and cooling, tiredness of all over the body, difficult to breathing, abdominal distension, cough, over sleepy. These conditions corrected by the specific pharmacological actions such as; Carminative, Antipyretic, Stimulant, Stomachic, Expectorant and other actions also. All of these ingredient's pharmacological

actions balance the *iyam* initially and following by three humour of human body and reducing disease condition.

Therefore, *Thipilli Rasayanam* is very good effect to the its indications like *iyam* aggravate conditions.

### CONCLUSION

As per result & discussion of this research, Pharmacological Actions were: Carminative- 68.4%, Antipyretic- 42.1%, Stomachic- 42.1%, Digestive- 42.1%, Stimulant- 42.1%, Expectorant- 31.6%, Diuretic- 31.6% and less than 20% of Anti inflammatory, Antibacterial, Alterative, Antioxidant, Antimicrobial, Immunomodulator, Analgesic, Antispasmodic, Tonic, Appetizer Anodyne and Thermogenic found in *Thipili Rasayanam* by the 16 ingredients. *Iyam* aggravated signs and symptoms were: Indigestion, excessive salivation, drowsiness, feel as heaviness of body with pallor and cooling, tiredness of all over the body, difficult to breathing, abdominal distension, cough, etc. therefore carminative, Antipyretic, Stomachic, Digestive, Stimulant, Expectorant and Diuretic helps to cure the complaints. Pungent and bitter tastes also help to cure the *kapha (iyam)*. Finally concluded as *Thipili Rasayanam* is perfect remedy for *kapha* aggravated conditions by this drug review.

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Nil.

### CONFLICT OF INTEREST

There is no any conflict of interest on this research.

### REFERENCE

1. Anonymous, Indian pharmacopoeia (IP). 1996. Govt. of India, Ministry of Health and Family Welfare. Published by the Controller of Publications, New Delhi, A-47, A-53, A-54.
2. Anonymous, Indian Siddha Pharmacopoea Vol.1, 2010, page no.146, 2.4.24
3. Ansari, S. H. 2006. Essentials of pharmacognosy, 1<sup>st</sup> edition, Birla publications, New Delhi. pp. 357-359, 588-590.
4. Arangarajan. S., B.I.M, Agasthiyar attavanai vagadam 1991 by Saraswathy mahal, tanjore.
5. Ghosh M.N., Fundamentals of Experimental Pharmacology, Third edition, Hilton & Company, Kolkata -700 012.
6. Indian Medicinal Plants, A compendium of 500 Species, Arya Vaidya Sala, Universities press.
7. Kannuswamy pillai C., Kannuswamy Parambarai Vaidhiyam 2006, by Ratna Nayakar & Sons, Chennai-79.
8. Kannuswamy pillai C., Pathartha Gunavilakam (moolavarkkam) at 1998, by ratna nayakar & sons, Chennai-79.
9. Kannuswamy Pillai Sikhitcha Rathna Deepam, Ratna Nayakar & Sons, Chennai-79.
10. Kirtikar K.R. and Basu B.D, Indian Medicinal Plants, volume III at 1993 by Lalit Mohan Basu Publishers, Alahabad.
11. Kokate, C.K. 1994. Practical Pharmacognosy, 4<sup>th</sup> Edition, Vallabh Prakashan, New Delhi. 4-29.
12. Kuppusamy Mudaliyar. K. N., H.P.I.M, Dr. K. S. Uthamarayan, H.P.I.M, siddha vaithiyathirattu, Indian Medicine and Hemoepathy, 3<sup>rd</sup> ed, 2006, pg 2, 25-26,29,39,43- 46,168,189,201.
13. Kuppusamy Mudhaliyar K.N., Uththamarayan K.S., Siddha Vaidya Thirattu, Indian Medicine and Homeopathy, Chennai-600 106.
14. Murugesumudhaliyar. R., Siddha Meteria Medica, Mooligai section (Tamil edition), Translation and publication wing, Dept. of Indian Medicine and Homeopathy, Chennai -106, 1<sup>st</sup> edition, 2008.
15. Nadkarni .K.M, Indian Materia Medica, Volume II, 3<sup>rd</sup> edition Bombay popular prakashan Pvt. Ltd, 1976.
16. Nadkarni. K.M, Indian Materia Medica, Volume I, 3<sup>rd</sup> edition Bombay popular prakashan Pvt. Ltd, 1976.
17. Prema S., M.D(S), Agathiyar Mani 4000 @ Vaidya Sindhamani Venba 4000, Volume II, Thamarai Noolagam, Chennai. 600-026.
18. Ramachandran Kosssayi. S. P., Anupoga Vaithiya Parama Ragasiyam, Thamarai Noolagam, 1999; 7.
19. Ramachandran S.P., Agasthiyar Vaithiya Sinthamani 4000 at 1992 by thamarai noolagam, Chennai 26.
20. Ravindra Sharma Dr., M.Sc., Ph.D., F.N.R.S., MEDICINAL PLANTS OF INDIA, An Encyclopaedia, Daya Publishing House, New Delhi.
21. Sambasivampillai. T. V., Siddha Medical Dictionary (Tamil-English), Department of Indian Medicine & Homoeopathy, Chennai – 106, fourth print-2016.
22. Suriya Kumar Bhattacharjee Prof., Hand book of AROMATIC PLANTS, second revised edition, Pointer Publishers, Jaipur, India.
23. Thiyagarajan K.B., Agathiyar Vaidya Rathina Surukam-360, Sanmuhanaandha book dippo, Chennai-112.
24. Uthamarayan.K.S., H.P.I.M, Thotra kiramaaraichiyam Siddha maruthuvavaralarum, Indian Medicine and Hemoepathy, 3<sup>rd</sup> ed, 2006, pg 337.
25. Vaidyaratnam P S Varier's, Indian Medicinal Plants – a compendium of 500 species – volume -5, Arya vaidya sala, Kottakal, 1989,
26. Vaidyaratnam P S Varier's, Indian Medicinal Plants, Volume IV & V, Kottakal.

27. Venkatrajan, S. L.I.M., Agasthiyar 2000, Volume III at 2002 by saraswathy mahal, tanjore.
28. Yoganarasimhan S.N., Medicinal Plants of India, Volume II-Tamil Nadu, Regional Research Institute, Bangalore.