



## Polyherbal varmam Medicine formulation Kurunthotti Kashayam: A Review

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### ABSTRACT

The Siddha system of medicine is one of the traditional systems and it's mainly practiced in South India. Siddha system has a few specialties like *Varma*, *yogam* and *kayakarpam*. *Varmam* is a subtle energy that flows like a stream, flowing from one point to another in its pathway where the mind, body and soul interact and communicate. *Kurunthotti kashayam* is one of the non-shashtic preparations of *Varmam* formulation, described in the *Varmam* literature named as *Varma marunthu seimurigal*. It is used for the treatment of all type of *Varmam*. Most of the ingredients of *Kurunthotti kashayam* have anti-inflammatory, anti-analgesic, Antinociceptive, anti-arthritis and anti-oxidant. This review describes the chemical constituents and pharmacological activity of the part of each ingredient used in this formulation. Ingredients of the polyherbal formulation of *Kurunthotti kashayam* and their pharmacological action in various research studies are discussed in this review. The details were collected from various Siddha texts and electronic databases. In conclusion, the results of the review revealed that the pharmacological action and the chemical constituents of the drug were perfectly matched with each ingredient of the formulation.

### Keywords:

*Varmam*, Siddha system, Review, *Kurunthotti kashayam*

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## INTRODUCTION

The Siddha system of medicine is one of the traditional systems and it's mainly practiced in South India. Siddha system has a few specialties like *Varma*, *yogam* and *kayakarpam*. *Varmam* is a subtle energy that flows like a stream, flowing from one point to another in its pathway where the mind, body and soul interact and communicate. *Varmam* treatment contains internal medicine and external technique / medicine to treat the diseases. *Kurunthotti kashayam* is one of the non-shashtric preparations of *Varmam* formulation, described in the *Varmam* literature named as *Varma marunthu seimurigal*<sup>1</sup>. It is used for the treatment of all type

of *Varmam*. Most of the ingredients of *Kurunthotti kashayam* have anti-inflammatory, anti-analgesic, Antinociceptive, anti-arthritis and anti-oxidant. All the ingredients of *Kurunthotti kashayam* are herbal only and most used the root part and some bark, rhizome, seed bud and tuber. This review describes the chemical constituents and pharmacological activity of the part of each ingredient used in this formulation.

### 1. PREPARATION OF KURUNTHOTTI KASHAYAM

#### A. LIST OF KURUNTHOTTI KASHAYAM INGREDIENTS AND ITS USED PARTS

Table No: 1 - List of *Kurunthotti Kashayam* ingredients and its used parts

RAW DRUGS	BOTANICAL NAME <sup>(2,3)</sup>	USED PARTS	WEIGHT	WEIGHT IN GRAMS
<i>Kurunthotti Ver</i>	<i>(Pavonia zeylanica)</i>	Root	½ palam	17.5 Grams
<i>Vilva Ver</i>	<i>(Aegle marmelos)</i>	Root	½ palam	17.5 Grams
<i>Muthakassu</i>	<i>(Cyperus rotundus)</i>	Root	½ palam	17.5 Grams
<i>Seenthil</i>	<i>(Tinospora cordifolia)</i>	Root	½ palam	17.5 Grams
<i>Arugan Ver</i>	<i>(Cynodon dactylon)</i>	Root	½ palam	17.5 Grams
<i>Murungai Ver</i>	<i>(Moringo oleifera)</i>	Root	½ palam	17.5 Grams
<i>Kalyana murungaipattai</i>	<i>(Erythrina variegata)</i>	Bark	½ palam	17.5 Grams
<i>Sirukanjori Ver</i>	<i>(Tragia involucrata)</i>	Root	½ palam	17.5 Grams
<i>AamanakuVer</i>	<i>(Ricinus communis)</i>	Root	½ palam	17.5 Grams
<i>Chukku</i>	<i>(Zingiber officinale)</i>	Rhizome	2 kzhachi	10.2 Grams
<i>Milagu</i>	<i>(Piper nigrum)</i>	Seed	2 kzhachi	10.2 Grams
<i>Thippili</i>	<i>(Piper longum)</i>	Dry fruit	2 kzhachi	10.2 Grams
<i>Athimathuram</i>	<i>(Glycyrrhiza glabra)</i>	Root	2 kzhachi	10.2 Grams

<i>Oomam</i>	<i>(Trachyspermum ammi)</i>	Seed	2 kazhachi	10.2 Grams
<i>Kothamalli</i>	<i>(Coriandrum sativum)</i>	Seed	2 kazhachi	10.2 Grams
<i>Kiramppu</i>	<i>(Syzygium aromaticum)</i>	Bud	2 kazhachi	10.2 Grams
<i>Sittarathai</i>	<i>(Alpinia galanga)</i>	Tuber	2 kazhachi	10.2 Grams

## B.SOURCE OF RAW DRUGS:

The required raw drugs for the preparation of *Kurunthotti kashayam* were purchased from a well-reputed country raw drug shop and drugs were authenticated by the competent authority Medicinal Botany. After that, the raw drugs were purified separately and the Medicine was prepared in Gunapadam laboratory – National Institute of Siddha.

## C.PURIFICATION<sup>(4,5)</sup>:

***Kurunthotti Ver:*** Raw root was washed with water and dried it.

***Vilva Ver:*** Raw root was washed with water and dried it.

***Muthakassu:*** The drug was dried under sunlight without any dust particles.

***Seenthil:*** Outer layer of the root was removed.

***Arugan Ver:*** Raw root was washed with water and dried it.

***Murungai Ver:*** Raw root was washed with water and dried it.

***Kalyana murungaipattai:*** The drug was dried under sunlight without any dust particles.

***Sirukanjori Ver:*** Raw root was washed with water and dried it.

***AamanakuVer:*** Raw root was washed with water and dried it.

***Chukku:*** Soaked in limestone for 3 hours (1 *samam*) and dried it. Then the outer layer was scrapped.

***Milagu:*** Kept the drug in buttermilk for 3 hours (1 *samam*) and dried it.

***Thippili:*** The drug was soaked in lemon juice and dried under sunlight.

***Athimathuram:*** The drug was dried under sunlight without any dust particles.

***Oomam:*** The drug was soaked in limestone water and dried it.

***Kothamalli:*** The drug was dried under sunlight without any dust particles.

***Kiramppu:*** The nab of the raw drug was removed.

***Sittarathai:*** Raw root was washed with water and dried it.

## D.METHOD OF PREPARATION<sup>(1)</sup>:

**1. All the drugs were purified by the above methods and crushed into a coarse powder.**

**2. Then 8 folds of water were added with the coarse powder and boiled**

**3. Decoction was prepared by reducing it into 1/8 part**

4. Then filtered and added 2 grams of palm jaggery.

**Dosage** : 60 ml twice a day  
(after food)

**DRUG STORAGE:**

The trial drug *Kurunthotti kashayam chooranam* was stored in a clean and dry container.

**Duration** : 3 days

**Indication** : All types of *Varmam*






**Reference** : *Varma marunthu seimuraikal*<sup>(1)</sup>







**Table no: 2- Taste, Potency and Division of *Kurunthotti Kashayam* ingredients**







RAW DRUGS	TASTE <sup>(3)</sup>	POTENCY <sup>(3)</sup>	DIVISION <sup>(3)</sup>
<i>Kurunthotti Ver</i>	Bitter	Hot	Sweet
<i>Vilva Ver</i>	Bitter, Sour	Cool	Spicy
<i>Muthakassu</i>	Bitter	-	Spicy
<i>Seenthil</i>	Bitter	Hot	Spicy
<i>Arugan Ver</i>	Sweet	Cold	Spicy
<i>Murungai Ver</i>	Sour, Bitter, Sweet	Cold	Spicy
<i>Kalyana murungaipattai</i>	Bitter, Spicy	Hot	Spicy
<i>Sirukanjori Ver</i>	Bitter	Hot	Spicy
<i>AamanakuVer</i>	Bitter	Hot	Spicy
<i>Chukku</i>	Spicy	Hot	Spicy
<i>Milagu</i>	Bitter, Spicy	Hot	Spicy
<i>Thippili</i>	Spicy	Hot	Sweet
<i>Athimathuram</i>	Sweet	Cold	Sweet
<i>Oomam</i>	Spicy	Hot	Spicy
<i>Kothamalli</i>	Spicy	Cold hot	Spicy
<i>Kiramppu</i>	Bitter, Spicy	Hot	Spicy
<i>Sittarathai</i>	Spicy	Hot	Spicy

## 2. CHEMICAL CONSTITUENTS AND ITS ACTION:

Table no: 3- Chemical Constituents and its action of *Kurunthotti Kashayam* ingredients

Tamil name	Chemical constituents	Action <sup>(3)</sup>
<b><i>Kurunthotti Ver</i></b> 	<ul style="list-style-type: none"> <li>Ephedrine Pseudoephedrine Sterculic, malvalic and coronaric acid. Fatty acids, Saponine, Betaphenethylamin,e Hypaphorine, Ecdysterone, Indole, alkaloids, Palmitic, stearic and <math>\beta</math> – sitosterol<sup>(6)</sup></li> </ul>	<ul style="list-style-type: none"> <li>Emollient</li> </ul>
<b><i>Vilva Ver</i></b> 	<ul style="list-style-type: none"> <li>Marmenol, marmin, marmelosin, marmelide, psoralen, alloimperatorin, rutaretin, scopoletin, aegelin, marmelin, fagarine, anhydromarmelin, limonene, a-phellandrene, betulinic acid, marmesin, imperatorin, marmelosin, luvangentin and auroptene<sup>(7)</sup></li> </ul>	<ul style="list-style-type: none"> <li>Aphrodisiac</li> </ul>
<b><i>Muthakassu</i></b> 	<ul style="list-style-type: none"> <li>12-methyl cyprot-3-en-2-one-13-oic acid, two aliphatic ketone viz. n-dotriacontan-15-one and n-tetracontan-7-one, fatty esters n-pentadecanyl octadec-9, 12- dienoate (n-pentadecanyl linoleate, 3), n-hexadecanyl linoleate<sup>(8)</sup></li> </ul>	<ul style="list-style-type: none"> <li>Stomachic,</li> <li>Expectorant,</li> <li>Stimulant,</li> <li>Diaphoretic.</li> </ul>
<b><i>Seenthil</i></b> 	<ul style="list-style-type: none"> <li>Alkaloids, diterpenoid lactones, glycosides, steroids, sesquiterpenoid, phenolics, aliphatic compounds and polysaccharides, etc<sup>(9)</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>Stimulant,</li> <li>Stomachic,</li> <li>Demulcent,</li> <li>Tonic,</li> <li>Antiperiodic</li> </ul>
<b><i>Arugan Ver</i></b> 	<ul style="list-style-type: none"> <li>Flavanoids, alkaloids, glycosides, terpenoides, triterpenoids steroids, saponins, tannins, resins, phytosterols, reducing sugars, carbohydrates, proteins, volatile oils and fixed oils<sup>(10)</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>Emollient,</li> <li>Astringent,</li> <li>Diuretic.</li> </ul>
<b><i>Murungai Ver</i></b>	<ul style="list-style-type: none"> <li><math>\beta</math>-carotene, phytyl fatty acid ester, polyprenol, chlorophyll a, <math>\beta</math>-sitosterol, triacylglycerols, fatty acids, fatty alcohols, and saturated hydrocarbons<sup>(11)</sup></li> </ul>	<ul style="list-style-type: none"> <li>Stimulant,</li> <li>Antispasmodic</li> </ul>

		
<p><b><i>Kalyana murungaipattai</i></b></p> 	<p>➤ Alkaloids, flavonoids, pterocarpan, triterpenes, steroids, alkyl trans-ferulates, proteins, and lecithin<sup>(12)</sup></p>	<p>➤ Febrifuge, ➤ Expectorant, ➤ Anti-bilious</p>
<p><b><i>Sirukanjori Ver</i></b></p> 	<p>➤ Alkaloids, carbohydrates, protein, tannins, flavonoids, sterols and saponins<sup>(13)</sup></p>	<p>➤ Diaphoretic</p>
<p><b><i>Aamanaku Ver</i></b></p> 	<p>➤ Dipiperenoyl methyl ester methylene (Ricipiperanyl ester), Erandone, Indole-3-acetic acid, Lupeol, 1-Oleio-2-palmitoglyceryl phosphate, etc<sup>(14)</sup></p>	<p>➤ Anti-vatha</p>
<p><b><i>Chukku</i></b></p> 	<p>➤ Monoterpenoids (B-phellandrene, camphene, cineole, geraniol, curcumene, citral, terphineol, borneol, cineole, geranyl acetate, limonene, linalool) and sesquiterpenoids, zingiberol<sup>(15)</sup>.</p>	<p>➤ Sialogogue ➤ Stomachic ➤ Carminative ➤ Stimulant ➤ Rubefacient</p>
<p><b><i>Milagu</i></b></p> 	<p>➤ Piperonal (2E,4E)-N-isobutyl-2,4-decadienamide. Piperine, Piperanine, piperettine, piperilin A, piperolein B, pipericine, flavanoids, alkaloids, phenolic amides<sup>(16)</sup>.</p>	<p>➤ Acrid ➤ Carminative ➤ Antiperiodic ➤ Stimulant ➤ Rubefacient</p>
<p><b><i>Thippili</i></b></p>	<p>➤ Alkaloids, lignins, Piperine, piplartine, piperenonoline, pipericide B-sitosterol dihydrostigmasterol L-tyrosine, Lcysteine, hydrochloride, L-aspartic acid,</p>	<p>➤ Carminative ➤ Stimulant</p>

	<p>palmitic, hexadecenoic, stearic, linoleic, oleic, linolenic high saturated acids arachidic and L-tyrosine<sup>(17)</sup>.</p>	<ul style="list-style-type: none"> <li>➤ Diuretic</li> <li>➤ Aphrodisiac</li> <li>➤ Alterative</li> </ul>
<p><b>Athimathuram</b></p> 	<ul style="list-style-type: none"> <li>➤ Triterpene, saponins, flavonoids, alkaloids, glycyrrhizin, glycyrrhetic acid, glabridin, liquiritin, etc<sup>(18)</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Emollient,</li> <li>➤ Laxative</li> <li>➤ Tonic</li> </ul>
<p><b>Oomam</b></p> 	<ul style="list-style-type: none"> <li>➤ Thymol, carvaco, p-cymene<sup>(19)</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Carminative</li> <li>➤ Stimulant</li> <li>➤ Stomachiac</li> <li>➤ Antispasmodic</li> <li>➤ Tonic</li> </ul>
<p><b>Kothamalli</b></p> 	<ul style="list-style-type: none"> <li>➤ Tannins, terpenoids, reducing sugars, alkaloids, phenolics, flavonoids, fatty acids, sterols and glycosides<sup>(20)</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Stimulant</li> <li>➤ Stomachiac</li> </ul>
<p><b>Kiramppu</b></p> 	<ul style="list-style-type: none"> <li>➤ Sesquiterpenes, monoterpenes, hydrocarbon, and phenolic compounds. Eugenyl acetate, eugenol, and <math>\beta</math>-caryophyllene<sup>(21)</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Stomachic</li> <li>➤ Carminative</li> <li>➤ Antispasmodic</li> </ul>
<p><b>Sittarathai</b></p> 	<ul style="list-style-type: none"> <li>➤ Terpenoids, diarylheptanoids, phenylpropanoids, flavanones, phenolics, steroids, alkaloids, stilbenes, etc<sup>(22)</sup></li> </ul>	<ul style="list-style-type: none"> <li>➤ Stomachic</li> <li>➤ Febrifuge</li> <li>➤ Expectorant</li> </ul>

ii) Anti-inflammatory activity<sup>(23)</sup>

#### 4. PHARMACOLOGICAL ACTIVITY OF KURUNTHOTTI KASHAYAM

##### 1. *Kurunthotti ver* (*Pavonia zeylanica*)

i) Antinociceptive activity<sup>(23)</sup>

##### 2. *Vilva ver* (*Aegle marmelos*)

i) Anti-inflammatory activity<sup>(24)</sup>

ii) Anti-oxidant activity<sup>(25)</sup>

##### 3. *Muthakaasu* (*Cyperus rotundus*)

- i) Anti-arthritis activity<sup>(26)</sup>
- ii) Anti-inflammatory activity<sup>(26)</sup>
- iii) Analgesic activity<sup>(27)</sup>

**4. *Seenthil* (*Tinospora cordifolia*)**

- i) Anti-inflammatory activity<sup>(28)</sup>
- ii) Analgesic activity<sup>(28)</sup>

**5. *Arugan ver* (*Cynodon dactylon*)**

- i) Anti-inflammatory activity<sup>(29)</sup>
- ii) Analgesic activity<sup>(30)</sup>

**6. *Murungai ver* (*Moringo oleifera*)**

- i) Anti-arthritis activity<sup>(31)</sup>
- ii) Antinociceptive activity<sup>(32)</sup>

**7. *Kalyana murungaipattai* (*Erythrina variegata*)**

- i) Anti-inflammatory activity<sup>(33)</sup>
- ii) Analgesic activity<sup>(34)</sup>

**8. *Sirukanjori ver* (*Tragia involucrata*)**

- i) Analgesic activity<sup>(35)</sup>

**9. *Aamanaku ver* (*Ricinus communis*)**

- i) Anti-arthritis activity<sup>(31)</sup>
- ii) Antinociceptive activity<sup>(36)</sup>

**10. *Chukku* (*Zingiber officinale*)**

- i) Anti-inflammatory activity<sup>(37)</sup>
- ii) Anti-arthritis activity<sup>(31)</sup>

**11. *Milagu* (*Piper nigrum*)**

- i) Analgesic activity<sup>(38)</sup>

**12. *Thippili* (*Piper longum*)**

- i) Anti-arthritis activity<sup>(31)</sup>
- ii) Anti-inflammatory activity<sup>(39)</sup>
- iii) Analgesic activity<sup>(40)</sup>

**13. *Athimathuram* (*Glycyrrhiza glabra*)**

- i) Anti-arthritis activity<sup>(31)</sup>
- ii) Antinociceptive activity<sup>(41)</sup>

**14. *Oomam* (*Trachyspermum ammi*)**

- i) Anti-inflammatory Effect<sup>(42)</sup>
- ii) Antioxidant activity<sup>(43)</sup>

**15. *Kothamalli* (*Coriandrum sativum*)**

- i) Anti-inflammatory activity<sup>(44)</sup>
- ii) Anti-oxidant activity<sup>(45)</sup>

**16. *Kiramppu* (*Syzygium aromaticum*)**

- i) Antinociceptive activity<sup>(46)</sup>
- ii) Anti-inflammatory activity<sup>(46)</sup>

**17. *Sittarathai* (*Alpinia galanga*)**

- i) Anti-arthritis activity<sup>(31)</sup>

## CONCLUSION

According to the review of the literature of *Kurunthotti kashayam*, the following topics were analyzed such as parts used, chemical constituents and pharmacological actions of each ingredient.

Based on the review, the pharmacological actions, organoleptic characters and chemical constituents of each ingredient were perfectly matched with the indications of '*Kurunthotti kashayam*' mentioned in Siddha's text.

## CONFLICT OF INTEREST:

The authors declare that there are no conflicts of interest in this research.

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