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A COMPREHENSIVE REVIEW ON VETTUMARAN GULIKA: PHARMACOLOGICAL AND CLINICAL PERSPECTIVES

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ABSTRACT

Vettumaran Gulika is a classical Ayurvedic formulation cited in *Sahasrayogam*, widely used in Southern India for the treatment of Jwara (fever) and various Vata-Kapha disorders. It contains potent ingredients like Vatsanabha and Hingula which demand careful preparation due to their inherent toxicity. This review compiles information from classical Ayurvedic texts, modern pharmacological studies, and recent clinical and toxicological evaluations. The pharmacodynamics, therapeutic indications, and the role of adjuvants in modulating the action of the formulation are analysed. Ayurvedic analysis highlights the formulation's Amahara, Deepana, and Jwarahara properties, with most ingredients exhibiting Ushnavirya and Tikshna guna. Modern pharmacology identifies active compounds such as piperine, aconitine, and gingerol with antipyretic, anti-inflammatory, and antimicrobial properties. Subacute toxicity studies conducted on Wistar rats have shown no adverse effects at varying doses, supporting the safety of the formulation. Clinical case studies, including its use in rare neurological disorders like Saturday Night Palsy, demonstrate its broader therapeutic potential. Vettumaran Gulika acts by enhancing Agni, clearing Ama, and facilitating Srotoshodhana (clearing channels), making it effective not only in Jwara but also in conditions like Gulma (Lumps or growth) and Shula (Abdominal colic). The intelligent combination of ingredients reflects the depth of classical Ayurvedic pharmaceutics. The formulation exemplifies how synergistic and antagonistic principles are balanced within a single polyherbo-mineral preparation. With a strong foundation in both traditional logic and modern pharmacological validation, Vettumaran Gulika stands out as a safe, versatile, and clinically effective Ayurvedic formulation. Its adaptability through appropriate anupana makes it a promising candidate for wider therapeutic application and future research.

Keywords: Vettumaran Gulika, Clinical Perspectives, Jwara, Anupana

INTRODUCTION

Ayurveda is a holistic system of medicine. It focuses on healing of mind, body and spirit equally. The various aspects of this science, be it regimens, pharmaceutics or treatment, always gave importance to the preservation of wellbeing of everyone. This is emphasized by the unique ways in which each medicine is prepared, especially the ones made using metals and minerals. Inherently toxic, the metals and minerals have the capacity to render the person who consumes it to fall ill, sometimes even fatally. The medicines are hence undergone rigorous practices of purification, thorough processing and meticulous trials before they are available to public.

Rasashastra and Bhaishajya Kalpana is the branch of pharmaceutics in Ayurveda. The medicines are classed under various kalpanas (formulations), such as Swarasa, kalka, Kashaya etc. Gutika or Gulika is a dosage form which is a subsidiary of Kalka Kalpana. They are a highly used category of medications, which are popular because of their compactness, palatability and longer shelf life. Vettumaran Gulika is one such formulation which is very popular especially in Southern parts of India, which is a classic example of all the attributes of Gutika Kalpana.

Vettumaran Gulika is a classic Ayurvedic formulation told in the famous Ayurvedic text '*Sahasrayogam*'¹. It contains five

ingredients and is used mainly to treat Jwara. The verse is written in Tamil, which may nod towards a connection to Siddha system of practice. The contents are Tankana, Hingula, Vatsanabha, Maricha and Ajamoda. The Malayalam commentary of the book, which is called '*Sujanapriya*', tells that as a practice, Pippali is also added to the formulation in various places². Ventamarai gulika is a hugely popular drug in treatment of fever, especially in Kerala. It is used to treat all kinds of Jwara, and its therapeutic effectiveness has been observed in clinical practice. As a rasa preparation, Safety studies have been conducted, and it has been proven safe for use. Case studies are also published, proving its efficacy in clinical practice. Most of the ingredients present in the formulation are found to be possessing antipyretic effect, and further studies are to be conducted to establish the clinical application and pharmacological safety of the drug.

Ingredients, Preparation and Mode of Administration of Vettumaran Gulika

Vettumaran Gulika has one known reference only, which exists in *Sahasrayoga*, under Gulika prakarana. It consists of five primary ingredients, which are Porikaram (Tankana), Kaanamulaku (Maricha), Nabhi (Vatsanabha), Paathilingam (Hingula) and Ajamoda. As per the *Sujanapriya* Vyakhyana which is in Malayalam, there is a mention of usage of Pippali also as an ingredient. The ingredients are to be continuously given bhavana for a period of one yaama or 3 hours in Ardrakaswarasa. Then

once dried, the mixture is converted into Gulika form and may be used for curing conditions such as Sanni (Febrile seizures), Gulma and Chhardi (Vomiting) by giving it with Ardrakaswarasa as anupana. Its size is mentioned by the granthakara as the size of Cherupayar or green gram which doesn't have a metric conversion in terms of SI unit given in Ayurvedic pharmacopoeia but the weight of one tablet marketed by Kottakkal Arya Vaidya Sala is 125 mg. It is brownish in colour and devoid of smell once dried.

Past Studies

A safety study was conducted on Vettumaran Gulika. It was a subacute toxicity study conducted in Wistar albino rats. The test drug, Vettumaran Gulika, was administered to Wistar rats at doses of 30 mg, 150 mg, and 300 mg daily for 28 days. Throughout the study, general behaviour, adverse effects, and mortality were monitored. No deaths or harmful symptoms were observed during the sub-acute toxicity study. The treatment did not result in any significant changes in body weight, food and water intake. Additionally, haematological, serum biochemical, and histopathological evaluations showed no abnormalities. Based on these observations, it could be concluded that Vettumaran Gulika is safe at the tested dose levels in Wistar rats.³

A case study was done where Vettumaran Gulika was given alongside other medications to treat a particular case of Saturday night Palsy, which is a rare case and not easily cured. The paper concluded that complete relief was obtained in the signs and symptoms as well as the Quality of life of the patient within 12 days of Ayurvedic internal medications only, which contained Vettumaran Gulika too.⁴ These studies show that while more studies are needed, Vettumaran Gulika has documented evidence of being therapeutically effective and safe to administer.

Indication and Anupana

As per Sahasrayogam, the indications are mainly Vasuri (Smallpox), Vayuropa and Sanni (febrile seizures). In regular practice, the physicians administer it in a variety of diseases along with unique Anupanas. For Jwara, it is given along with Ardrakaswarasa. For vatakopa, it is given with Jeerakakwatha. For vomiting, it is administered with kachuraswarasa. For mutraghata, it is given with nalikerajala. For Shula, it's given with Ajamodakwatha and for gulma, with lashunaswarasa³⁵.

Caution

Although studies have revealed that Vettumaran Gulika is safe to consume at multiple times the dosage level³⁶ it is prescribed for, caution is to be exercised as it contains poisonous constituents such as Vatsanabha and Hingula. It is advisable to keep it out of reach of children, and to not take it above the prescribed dose.

Pharmacological Action

Most of the ingredients possess Kaphavata hara property in Vettumaran Gulika. Considering how navajwara and most cases of Ama needs ushnaveerya, laghupaka, Tikshna, vyavayi and vikashi properties to get cured, the formulation acts perfectly aiding the vighattana of Sampraphthi. Hingula is yogavahi. Moreover, along with other drugs, Hingula reaches the cellular level because of the Sukshamasrotogamitva property. It is also sarvadoshahara, and its deepana property aids in agnideepana. Vatsanabha is a vishadraryva and acts as yoga vahi and accelerates the overall action of the formulation. It has properties like rasayana, balavardhana and jwarahararata and aids in relieving shirashhula. It opens channels through its swedajananava property and jwara is further helped by its diaphoretic and analgesic properties. Tankana is an antidote for vatsanabha and is itself an agnideepaka and vishanashakadraryva. It has anti-microbial and anti-inflammatory properties. Maricha is regarded as pramathini

which implies it aids in clearing congestion at the microcellular level. Pippali which is considered to be dipaniya and pachaniya helps in regulating the amadoshajanyalakshanas and aids in Ama digestion. These drugs have anti-inflammatory, analgesic, and antipyretic, anti-bacterial action which aids the potency of this formulation. Other indications like gulma and Vatakopa also fit the case for vettumaran Gulika. In both cases there is a clear aggravation of Vata associated with srotorodha which is likely brought about by Kapha sanchaya. The attributes such asushna guna, Tikshna and swedajanyaswabhava contribute heavily in removing srotorodha and bringing about vatanulomana along with agnisandeepana.

DISCUSSION

Jwara is one of the most predominant ailments in the world since the dawn of time. From common flu to serious conditions like Dengue or Typhoid, we can find manifestations of Jwara clearly. It is said by acharyas that the important thing in treatment is not the disease's name but rather finding out its pathogenesis. Sampraphthivighattana is the most important step in the treatment of any disease, and Jwara is not an exemption. Dosha kopa leads to its sanchaya in the abdomen and leads to the expulsion of Jatharagni, resulting in Agnimandya and manifestation of symptoms of Ama and eventually leading to Fever. Even in the Vrana sampraphthi, you have sophaavasthas and have to deal with Ama first. Vettumaran Gulika is one of the best Amahara drugs around, owing to its properties like Ushna virya, laghutva, katu rasa, swedajananatva etc. Modern view dictates that fever is often the result of inflammatory changes in the body, owing to the presence of microbes in the system. It can be an interpretation of a symptomatic change in the body, pointing to the impending arrival of a graver disease. Hence it is important to treat a fever as quick as possible, so as to maintain health and happiness. The ingredients in Vettumaran Gulika contain many phytoconstituents such as borax, piperine, gingerine, piplartine etc., that possess properties such as anti-microbial, anti-fungal and anti-pyretic, which helps in treating fever as well as the reasons that cause them. Diaphoretic property of Vatsanabha helps open up the channels to cause sweating and helps reduce the temperature of the body. Many secondary metabolites that these plants produce, may inhibit microorganisms and may interfere with metabolic processes or may modulate gene expressions and signal transduction pathways³⁷, acting as a defence against infections and inflammatory changes.

The properties in Vettumaran Gulika helps in increasing the Agni first, which is the most important step in the treatment of any disease, let alone Jwara. The improved agni aids in the dissipation of Ama, leading to proper hunger and return of strength, which allows the body to fight against any negative changes. This property that helps in the initial stages of Jwara, is going to apply in the treatment of many more diseases. As it is told by Acharya Vaghbhata in the context of udararogas, mandagni is the cause of every disease³⁸. Hence every treatment should be oriented around agni. This makes Vettumaran Gulika a viable option in the initial stages of many diseases, including even Urusthambha where the treatment is very limited in options.

Role of Anupana

Anupanas have a very important role in the way a medication acts. You can see examples where various anupanas aid in various actions and ultimately helps in curing various diseases. Anupana enhances the bioavailability of Ayurvedic medicines by aiding in better absorption and assimilation, acting as a carrier for the active principles to reach deeper tissues. It also directs the drug's action toward specific tissues or Dhatus—for instance, milk as an Anupana channels the effect of a medicine toward the

reproductive and nutritive tissues. Additionally, Anupanas can modify the potency of a drug by increasing or decreasing qualities like Ushna or Sheeta, depending on therapeutic need. They also help reduce the toxicity or harsh effects of potent substances, especially in formulations involving metals or minerals. Moreover, Anupanas improve the palatability of otherwise unpleasant-tasting medicines, making them easier for patients to consume. Importantly, they contribute to Dosha balance, as each Anupana has inherent properties that influence Vāta, Pitta, or Kapha accordingly.

A classic example of a single formulation being used in a variety of diseases just with the change of anupana can be found in the case of Narayana Churna³⁹. Even though it is prescribed in the context of Udara, where it is to be given alongside buttermilk, it also finds its use in a bigger spectrum. For gulma it uses badarambu as anupana, for anaha, it uses sura and so on. For the

wise, classical formulations mentioned in the textbooks are not necessary to be followed but their logic should be the guiding light. As such, vaidyas of old used to permute and combine when it came to drugs and anupanas. In the case of Vettumaran Gulika, a variety of anupanas are used by vaidyash in a variety of diseases even though they are not classically mentioned. For Jwara, it is given along with Ardrakaswarasa. Ardrakaiskata, kaphahara and in general possess jwarahara properties⁴⁰. For vatakopa, it is given with Jeerakakwatha. Jeeraka with its carminative action and Vatanulomana property⁴¹ helps expel vayu and clear out the channels. For vomiting, it is administered with kachuraswarasa. Kachuraiskutikta, laghu, teekshna, deepana, hrdaya and is ruchya⁴². All these properties help in clearing amashayodbhavavyadhis and chhardi is predominantly one. For mutraghata, it is given with nalikerajala. That makes sense since Vettumaran Gulika has the potency to open channels and nalikerajalaisvasthishodhana.

Table 1: Ingredients of Vettumaran Gulika

Ingredient and part used	Botanical name/ English name	Quantity
Tankana	Borax	1 part
Maricha (Fruit)	<i>Piper nigrum</i>	1 part
Vatsanabha (Rhizome)	<i>Aconitum ferox</i>	1 part
Hingula	Cinnabar	1 part
Ajamoda (Fruit)	<i>Apium graveolens</i>	1 part
Ardraka (Rhizome)	<i>Zingiber officinale</i>	Q.S
Pippali (Fruit)	<i>Piper longum</i>	1 part

*Pippali is not found in the original reference but in the Malayalam commentary, Sujanapriya

Table 2: Pharmacological Actions of Ingredients of Vettumaran Gulika: Ayurvedic Perspective

Ingredient	Rasa	Guna	Virya	Vipaka	Karma
Tankana ⁵	Katu	Ruksha, Tikshna, guru	Ushna	Katu	Hrdya, Balya, Sara, Kaphanissaraka, Deepana, Stripushpapravartaka, mudhagarbhapravartaka
Maricha ⁶	Katu	Laghu, Tikshna	Ushna	Katu	Chedana ⁷ , Deepana ⁸ , Pachana, Vatakaphapaha ⁹ , krimighna, Amadoshapaha ¹⁰
Vatsanabha ¹¹	Madhura	Ruksha, Vikashi, Laghu, Tikshna, Vyavayi, Vikashi ¹²	Ushna	Madhura	Tridosahara, Rasayana, Swedana, Rochana, Deepana, Pachana, Sothahara, Yogavahi ¹³
Hingula	Tikta, Katu, Kashaya	Laghu ¹⁴	Ushna	Katu	Rasayana, Sarvadoshaghna, Vrshya, Vishahara ¹⁵ , Kaphapittahari ¹⁶
Ajamoda ¹⁷	Katu	Tikshna	Ushna	Katu	Deepana, Kaphapittahari. Hrdya, Vrshya, Balakari, Laghu
Ardraka ¹⁸	Katu	Guru, Ruksha, Tikshna	Ushna	Katu	Rochana, Deepana, Swedana, Hrdya, Vrshya, Bhedya ¹⁹
Pippali ²⁰	Katu	Laghu, Snigdha, Tikshna	Anushna-Aseetha	Madhura	Deepana, Ruchya, Rasayana, Hrdya, Vrshya, Tridosaharra, Rechana ²¹

Table 3: Pharmacological Actions of Ingredients of Vettumaran Gulika: Modern Perspective

Ingredients	Active ingredients	Pharmacological actions
Tankana	Borax	Anti-microbial ²² , anti-inflammatory ²³
Maricha	Piperine (5-10%), Piperidine (5%), Piperettine and Chavicine, Volatile oil (1-2.6%)	Anti-inflammatory, Antioxidant, analgesic, muscle relaxant, antipyretic, antifungal, hepatoprotective, anti-microbial, anti-bacterial, antiulcer ²⁴
Vatsanabha	Pseudo-Aconitine, Aconitine, Picoaconine, benzoyl aconine, homonepeline	Analgesic, spasmogenic, diaphoretic, diuretic, sedative, anodyne, hypotensive, cardiac stimulant, antidiarrhoeal ²⁵
Hingula	Cinnabar	Tranquilizing ²⁶
Ajamoda	Volatile oil (2.5-3%), Apiole, Glucoside-apoin, Albumin	Diuretic, Anti spasmodic, Anti arthritic ²⁷
Ardraka	Gingerin, Gingerol, Shogaol, Oleoresin, Zingerone	Anti-inflammatory and Anti rheumatism ²⁸ Anti cancerous ²⁹ Anti osteoarthritis ³⁰ Antioxidant action ³¹
Pippali	Piperine (4-5%), Piplartine, Sesamin, Piplasterol	Analgesic ³² , anti-inflammatory ³³ Immunomodulatory activity, hepatoprotective activity, bioavailability enhancer, antiulcer, antifungal, anti-obesity, anti-arthritic ³⁴

CONCLUSION

Ayurveda offers a unique therapeutic approach through formulations that serve multiple purposes, rather than targeting a single disease entity. The inclusion of diverse ingredients within a single formulation broadens its range of indications and may concurrently mitigate potential toxic effects. This is often achieved through the incorporation of antagonistic and

synergistic substances within the same formulation. Vettumaran Gulika exemplifies this principle, wherein Tankana—a known antimicrobial and Agnideepaka—acts as a functional antidote to Vatsanabha, a potentially toxic ingredient. Such a thoughtful combination reflects the profound wisdom of classical formulators, whose logic remains relevant in contemporary practice—especially in designing new formulations or modifying existing ones. Despite its primary indication in Jwara, the

strategic selection of ingredients in Vettumaran Gulika enables its utility across a broad spectrum of Vata-Kapha dominant conditions. Furthermore, the role of Anupana (adjuvant) is critical in enhancing the formulation's efficacy, directing its action to specific Dhatus, and improving bioavailability, thereby reinforcing its clinical versatility.

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