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Review Article

THERAPEUTIC PROPERTIES OF VACHADI GUTIKA: A REVIEW

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ABSTRACT:

Vachadi Gutika is one of the Agada yoga, mentioned in the Keraliya Visha Chikitsa text named Visha Vaidhya Jyotsnika. This yoga is mentioned under the chapter Sarvavisha Chikitsa. It has the drug like Vacha, Hingu, Lashuna, Maricha, Pippali, Adraka given bhavana with Khanjika. The main objective of this review article is to discuss the therapeutic uses of Vachadi Gutika along with its different pharmacological properties and therapeutic uses of isolated constituent drugs of this formulation. Vachadi Gutika is given as a form of Shamana oushadi in cases of Visha. The selected yoga (formulation) is mentioned to be effective on Visarpa which is caused by Visha. The present review is an attempt to encompass old literature along with recent comprehensive literature review on Vachadi Gutika, with respect to its therapeutic uses and its various pharmacological activities especially in the management of the complications.

KEY WORDS: Vachadi Gutika, Visha Vaidhya Jyotsnika, Visha, Visarpa

INTRODUCTION:

Ayurvedic classics consider 'Drug' as a very important management tool in treating the patients by physician and therapist. These drugs are used either single or in combination, in different modalities to meet the need and to treat the patients. One such mode is Gutika (tablet), which plays an important role in Ayurveda pharmaceuticals owing to many advantages like easy administration, palatability, fixed dose, convenient form for dispensing and transportation. In Ayurvedic literature there are many formulations that are being used in the form of Gutika. They are mentioned in curative, preventive and even in managing the complications of diseases. One such gutika is Vachadi Gutika.

Visha Vaidya Jyotsnika is one of the famous books among Keraliya Visha Chikitsa textbooks, which exclusively deals with Visha chikitsa ie., Toxicology. Vachadi Gutika is an agada yoga (anti-poisonous medication) mentioned in Visha Vaidhya Jyotsnika in the chapter Sarvavisha Chikitsa which is said to cure Visarpa (Erysipelas) caused by Visha. It is a herbal compound having the drugs like Vacha, Hingu, Lashuna, Maricha, Pippali, Adraka and Khanjika is the bhavana dravya.¹

The present paper is an attempt to put forward a formulation having simple available drugs with easy administration, which is unaware and is not being practiced. This paper emphasizes on the pharmacological actions of Vachadi gutika in the management of complications caused by visha(poison).

METHODS:

The ingredients of Vachadi gutika is as follows,

Table No 1: Details of Vachadi gutika

Ingredients	Vacha Hingu Lashuna Maricha Pippali Adraka
Bhavana Dravya	Khanji
Indication	Visarpa caused by Visha
Mode of Administration	Internally as gutika (tablet) Externally as lepa (application)

Table no 2: Ingredients of Vachadi Gutika

Ingredients	Botanical Name	Common Name	Parts Used	Parts Taken
Vacha	<i>Acorus calamus</i>	Bajje	Kanda	1 part
Hingu	<i>Ferula northax</i>	Hingu	Niryasa	1 part
Lashuna	<i>Allium sativum</i>	Belluli	Phala	1 part
Maricha	<i>Piper nigrum</i>	Menasu	Phala	1 part
Pippali	<i>Piper longum</i>	Hippali	Phala	1 part
Ardhraka	<i>Zingiber officinale</i>	Shunti	Moola	1 part

VACHA: ²

Vacha is an herb that is widely used in Indian system of medicine for many ailments including rheumatism. The extract of rhizome powder showed secondary metabolites like Alcohol, Glucoside,

Starch, Tannin, Mucilage, Gum and Calcium Oxalate along with free sugars like Maltose, Glucose and Fructose.

Therapeutic properties: ³

The benzene extract of vacha was most potent in scavenging hydroxyl and superoxide radicals and in reducing 1,1-diphenyl-2-picryl hydrazyl and ferric reducing antioxidant power. Vacha is significant antibacterial and an effective Anti-fungal agent. Being analgesic and anti-inflammatory it is widely used in Rheumatoid arthritis, Osteoarthritis, and Hemiplegic-paralysed limbs. Widely used as an antiseptic in animals for application on wounds. Root powder is powerful insecticide and helpful in killing houseflies, repelling ticks, and treating eye diseases in ruminants.

HINGU: ⁴

Hingu has been consumed as a spice and a tradition and folk medicine form centuries for many diseases in many parts of world. The Gum contains α -pinene and phellandrene, whereas the extract of roots showed the presence of foetidin, luteolin, and extract of whole plants showed the presence of asasafoetidin, ferocolincin.

Therapeutic properties: ⁵

The gum extract has effect on contractile response of isolated guinea-pig ileum stimulated by histamine. Acetylcholine and KCl. Asafoetida produces slight inhibition of *Stap. Aureus*, *Streptococcus pyogenes* and *Shigella sonnie*. Luteolin inhibited proliferation of human carcinoma of larynx and sarcoma-180 cells and the inhibitory concentrations were so close to that of the anticancer drug plumbagin. It also exhibits anti-polio virus activity which was comparable to that of Ascorbate stabilized Quercetin

LASHUNA: ⁶

It is known as Anti-aging spice, cultivated throughout India. The alcoholic extract of Allium bulb showed the presence of Alliin, carbohydrates, vitamins like folic acid, niacin, riboflavin, thiamine, vit c; amino acids, allinase enzymes and volatile oils

Therapeutic properties: ⁷

The different extract of lashuna has shown its analgesic activity in higher concentrations. It also has wound healing properties. The alcoholic extracts of bulbs showed anti-inflammatory effect against carrageenin-induced rat hind paw edema in albino rats. Diallyl trisulphate showed antimicrobial activity. It has definite bactericidal effect on pathogenic microorganisms.

MARICHA: ⁸

Maricha is found in South Western parts of India in hills stations. The main chemical constituents are piperine, piperidine, citronellol, cryptone, piperonal, camphene, beta alanine, piperide, carotene, ascorbic acid.

Therapeutic properties: ^{9, 10}

The analgesic activities of both piperine and morphine in the tail flick assay were reversed on pre-treatment of animals with naloxone at dose 5mg/kg (i.p). The results revealed the analgesic activity of piperine which possibly mediated via opioid pathway. Many studies have shown that the piperine inhibits free radicals and reactive oxygen species, therefore it is known to have protective effects against oxidative damages.

PIPPALI: ¹¹

It is found in hot parts of India. The extract of fruit contains alkaloids like piperine, pipartine, piperlongumine, piperlonguminine, pipernonaline, piperundecalidine, piperide and sesamine along with essential oils

Therapeutic properties: ^{12, 13}

The root has shown significant result as NSAID type analgesia using acetic acid writhing method. The chloroform extract of pippali exhibited greater amount of phenolic and had significant antioxidant activity compared to the hexane, ethyl acetate, ethanol, hydro ethanol and aqueous extract. Marked anti-inflammatory activity is established against carrageenan induced rat paw edema. It has showed anti-microbial activity against *Staph aureus* and *Streptococcus pyogenes*. The oil of pippali fruit possessed anthelmintic activity.

ARDHRAKA: ¹⁴

Ardhraka is seen in most parts of India. The extract of fresh ginger contains protein, carbohydrates and minerals along with traces of iodine and fluorine. The rhizome has been found to be a new source of photolytic enzymes.

Therapeutic properties: ^{15, 16}

The rhizome of ginger is proven to be good anti-inflammatory and analgesic. The extract produced significant inhibition of carrageenan induced raw paw edema and reduction in the number of writhing induced by acetic acid in mice. The aqueous extract of ginger arrested the growth of m tuberculosis in vivo. Acetone extract of ginger rhizomes is attributed with antioxidant property. The ginger extract is a good source of polyphenolic compounds, including gingerols, shogaols, paradols and gingerdions.

KHANJI: ^{17, 18, 19}

Kanjika is also known as Dhanyamla or Aranala and is liquor prepared with Manda of half boiled Kulmasha and Shali is Kanjika.

It is considered as a good bhavana dravya, which comes next in important to water. It has an advantage over water, thus preparations made with it remain stable for quite a long time, because of its anti-microbial properties and hence extensively used in pharmaceutical formulations. It is extensively used in clinics and hospital practices for effectively treating inflammatory diseases like rheumatoid arthritis and also Vata disorders having an association of morbid Kapha or Ama

Khanjika smoothens nerve and improves the blood circulation to skin and improves skin glow and complexion, softens and exfoliates the dead skin cells, dirt and debris, tones and detoxifies the skin.

Chemical action:

Khanjika is rich in phyto-chemical like flavonoids and tannins. Flavonoids are good antioxidants and tannins promote healing process by increasing formation of capillaries. A glycoside called Hesperidine is present in it, which has the ability to prevent capillary bleeding and reduces inflammation. It is used often for hemorrhoids, varicose veins and poor circulation conditions. The properties of flavonoids based on its antioxidant properties include anticancer, antiviral, anti-inflammatory activities and ability to inhibit human platelet aggregations.

The ingredients exhibit unparalleled analgesics and anti-inflammatory actions and thus are highly useful in compacting inflammatory diseases. Antioxidant and anti-toxic actions of

khanjika will help in reducing the progression of degenerative disorders.

Table No 3: Properties of Vachadi gutika

Sl No	Drugs	Rasa	Guna	Veerya	Vipaka
1	Vacha	Katu, Tikta	Laghu, Tikshna	Ushna	Katu
2	Hingu	Katu, Tikta	Laghu, Tikshna	Ushna	Katu
3	Lashuna	Katu, Madhura, Lavana, Tikta, Kashaya	Tikshna, Snigdha, Guru, Sara	Ushna	Katu
4	Maricha	Katu	Tikshna, Laghu	Ushna	Katu
5	Pippali	Katu	Tikshna, Laghu, Snigdha	Anushna	Madhura
6	Ardhraka	Katu	Tikshna, Ruksha, Guru	Ushna	Madhura

Table No 4: Action of Vachadi gutika

Drug	Dosha karma	Karma	Roga Karma
Vacha	Kapha-Vata Shamaka	Medhya, lekhana, vama, dipana, Jantughna, Sulahara, Mutra Vishodhaka, Pachana, Bhutaghna, Swarapradha	Jwaraghna, Bhutaghna, Unmada Rogahara, Apasmara, Atisaraghna
Hingu	Vata-Kapha shamaka	Pachana, Ruchya, Krimighna, Sulahara, Hrudhya,	Agnimandhya, Sula, Gulma, Udara, Anaha, Krimi, Hridroga, kasa, Shwasa, Vibandha, Netraroga, karna sula
Lashuna	Vata-Kapha shamaka	Brimhana, Vrishya, Pachana, Balya, Varnya, Netrya, Rasayana, Medhya, Kantiya, Ruchikara	Bhagnasandhanakara, Hridrogahara, Jwaraghna, Sulaghna, Vibandhahara, Gulmaghna, Kasahara, Shophahara, Arsoghna, Kushtagna, Jantughna, Swasahara, Hikkaniagrahana, Mehaghna,
Maricha	Kapha-Vata Shamaka	Dipana, Swasahara, Krimighna, Sulahara, Rochana, Hridrogahara, Chedana, Avrsya, Rasayana	Vishagna, Hridroga, Krimi, Netraroga, Agnimandya, Sula, Krimi, Shwasa, Kasa, Hrudroga, Vatavyadhi, Mutrakrichra
Pippali	Kapha-Vata Shamaka	Dipana, Pachana, Rasayana, Vrshya, Rechaka	Shwasahara, Kasahara, Jwarahara, Kushtaghna, Pramehahara, Arshoghna, Sulanashaka, Pliharogahara, Gulmaghna, Krimighna,
Ardhraka	Vata-Kapha Shamaka	Pachana, Bhedana, Rochana, Vrshya, Dipana, Swarya	Vibhandahara, Shulahara, Jhiwa shodhaka, Kanthashodaka

DISCUSSION:

Plant extracts represents an extremely rich source of pharmacologically active compounds and possess more than one biochemical/ pharmacological property. The usage of natural medicine has been increased in recent years due to cost effectiveness and cultural acceptability. The herbal medications have excellent potential to treat cases of poison and management of its complications. Many of the formulations are not been used and has to be brought into light. One such formulation is Vachadi gutika. Vachadi gutika is mentioned in the chapter Sarva Visha Chikitsa, and mainly indicated in the management of Visarpa caused by Visha. Most of the drugs in this formulation help in pacifying the effects caused by visha, due to its antipoisonous property. The drugs in this yoga have Katu and Tikta rasa, Laghu, Tikshna Guna, Ushna veerya and Katu-Madhura Vipaka. This yoga in a whole is Vata-Kapha Shamaka. The drugs mentioned have Vishagna, Krimighna, Shoolahara, Shothahara and Vrana Shodaka properties in it.

The combined drugs have Deepana, Pachana, Jwaragna, Krimighna actions, which helps in symptomatic relief of Visarpa. By virtue of its Ushna virya, Katu vipaka, Katu-Tiktha rasa, Vata-Kapha shaman properties, it is suitable in treating the pain, swelling and burning sensation. All the 6 drugs are said to possess Vishagna and Krimighna action in it and thus useful in managing the complications of visha as well.

On the other hand, along with Anti-poisonous property it does have Anti-oxidant, Anti-bacterial, Anti-fungal, Anti-inflammatory, Analgesic and Anthelmintic properties. And hence this formulation can be used in various conditions like Rheumatoid arthritis, Osteoarthritis, Hemiplegic-paralyzed

limbs, Bronchitis, Upper respiratory tract infection, Tonsillitis, Pharyngitis, Laryngitis, Allergic dermatitis, secondary infections and other inflammatory conditions.

CONCLUSION:

Visha is one of the causes for Visarpa, and Vachadi Gutika is specifically mentioned for its management in the text Visha Vaidhya Jyotsnika. This is an authentic preparation mentioned in this text. The drugs of this yoga ie., Vacha, Hingu, Lashuna, Maricha, Pippali, Ardhraka with Khanji as a bhavana dravya in total have Vishagna property. This yoga can also be used in conditions like Shoola, Shotha, Jwara, Krimi and Vrana. Individual drug has analgesics and anti-inflammatory action in it, so in total this yoga may act as analgesic, anti-inflammatory and antioxidant. Thus, it can be helpful in pain and inflammation relief, which is most commonly seen as complications in visha patients.

In present era we are being exposed to many kinds of pollutants and toxins unknowingly and unavailingly, which are accumulated day by day resulting in many skin diseases and many other manifestations. Since this Vachadi gutika told as Sarva Visha hara, easy to prepare and increased drug availability, it can be used in day to day practice to treat and avoid complications and can be made use of. This paper is a piece of work to enlighten the significance of this formulation. Further researches are needed on this topic to explore different dimensions of Vachadi Gutika.

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