A REVIEW ARTICLE ON BODHIVRIKSH KASHYA AND GUDUCHI KASHYA – AYURVEDIC FORMULATIONS FOR VATRAKTA

Dr. Ankita Thakur¹, Dr. Sakshi Sharma², Dr. Akhilesh. K. srivastva³

¹,²2nd year MD Scholar, ³Senior Lecturer
Department of Rog Nidan,
RGGPGAC Paprola, kangra HP

Abstract: In the age of modern technology, Ayurvedic pharmaceutical industries are demanding standardization at every step of processing pharmaceutical area. Kwath (decoction) Kalpna is the basic dosage for many other important dosage of formulations. Kwath Kalpana is the most considerable and mostly used form of the Ayurvedic pharmaceutical formulations. It have some disadvantages i.e. to certifying the quality control of the herbal ingredients. There are many drugs for Vatrakta in Ayurveda. But here in this review article I am going to describe the components of these drugs which are used in treatment of Vatrakata. These herbs in these drugs are having potential to treat the symptoms of Vatrakata. Bodhi Vriksha Kashaya is having Analgesic, Anti-arthritic effect which reduces the symptoms like pain and inflammation in Vatrakata and on the other hand Guduchi Kashaya is having also analgesic and anti oxidant properties which reduces the symptoms of Vatrakta. This drug has been taken from Charak Bodhi Vriksha kashaya and Guduchi Kashaya has been taken from chakardat. These classical text describes the importance of these drugs in Vatrakata. This review article is a attempt to describes the properties of these drugs which are used in vatrakata.

Keywords: Kwath Kalpana, Kashya, Vatrakata, Bodhi Vriksha, Guduchi

INTRODUCTION

The antiquity of Indian materia medica goes back to the period of Vedas, when certain Vedic Samhitas mentioned the use of many herbs. Charaka Samhita the foremost Ayurvedic classical text devotes its fourth chapter on Ayurvedic materia medica arranging the drugs in fifty groups according to their action on different functions of the body or in different symptoms of the diseases. Sushruta Samhita has also described drugs and their botanical categories in detail. Further details are available in subsequent treatises like Ashtanga Sangraha, Ashtanga Hridayam, and medicinal texts like Bhavaprakasha and several Nighantus i.e. special texts dealing with the drugs.¹ [¹] Charaka proclaims that there is nothing in this universe which is not a medicine. For selection of the drugs for clinical research work, the drugs to be tried must have some authentic background either in the form of classical reference or the successful clinical experience of previous researchers. All these principles of drug selection were kept in mind while selecting the said drug. The formulation chosen here has been used with classical mention in Charka Samhhit (Vatashonita Chikitsa Adhyayaya) and Chakradutta-Vatara Vaka Chikitsa.

Justification of selection of drug: -

Principles of management of Vata–Rakta were kept in mind while planning the research work. The drugs capable of pacifying Vata and Rakta were selected. Pacification of the Doshas brings homeostasis and causes clearance of metabolic wastes.

Specific toxins in case of Vatarakta accumulated in the body are metabolic wastes. Herbs help specific organs of elimination in the body to remove them. Vata Shamaka drugs relieve pain and swelling whereas Rakta Shodhaka drugs purify blood and eliminate retained metabolic wastes, thus lower the Serum uric acid level in blood. Taking this fact into consideration, Ayurvedic physicians have formulated single as well as compound drugs for the cure and prevention of Vatarakta. As many systemic and local therapeutic applications have been mentioned in Ayurvedic texts.

The present study is a clinical trial on Vatarakta (Gouty Arthiritis) to assess the efficacy of Bodhi Vriksha kashaya in Group A and Guduchi Kashaya in Group B.

BODHI VRIKSHA(ASHWATHA) KASHAYA[7,8]

Ashwatha is a religious tree, as a drug it is mentioned in Charka Samhita for the treatment of Vatarakta.

Botanical Name   –  Ficus religiosa
Family   –  Moraceae
**Ashwatha in samhita:**

- Charaka: *Matrasangrahniya, Kashayasakand*
- Susurata: *Nayagrodhdi*
- Bavaprakasha: *Kashiri vriksha, Panchvalkal*

**Classical Names:**

*Ashwatha, Bodhidru, Pippala, Chalapatra, Gajasa*

**Distribution:**
The tree is found wild or cultivated nearly throughout India. It is found up to an altitude of 1500 m. in sub-Himalayan forests, districts of Bihar and Orissa, Upper Gangetic Plain, West Bengal and Central India.

**Botanical description:**

A large tree, frequently epiphytal. Leaves leathery broadly ovate, entire undulate, tip narrowed into a linear, tail like point, petiolate. Figs axillary, sessile, in pairs, globose, slightly vertically flattened 12 mm in diameter, dark purple when ripe.

**Chemical Constituents:**

**Sterols**
- Lanosterol, ß-Sitosterol and its glucoside, stigmasterol, lupen-3-one are present in the bark and campestrol, stigmasterol, 28-isofucosterol, a-amyrin, ß-amyrin and lupeol in the leaf.

**Coumarins**
- Bergapten and bergaptol have been isolated from the bark.

**Tannins**
- The leaves contain significant amounts of tannic acid.

**Aminoacids**
- Asparagine and tyrosine have been isolated from the fruit; alanine, threonine, tyrosine and valine from the seeds and arginine, serine, aspartic acid, glycine, threonine, alanine, proline, tryptophan, tyrosine, methionine, valine, isoleucine, leucine and others from the leaf.

**Vitamin**
- Vitamin K has been found in the stem bark.

**Hydrocarbons and aliphatic alcohols**
- N-Nonacosane, n-hentriacontanen-hexacosanol, n-octacosanol in the leaf.

**Minerals**
- Calcium, iron, copper, manganese and zinc are present in the leaf.

**Ayurvedic Pharmacology:**

<table>
<thead>
<tr>
<th>Rasa</th>
<th>Guna</th>
<th>Veerya</th>
<th>Vipaka</th>
<th>Doshaghnata</th>
<th>Rogaghnata</th>
<th>Kasa</th>
<th>Shwasa</th>
<th>Prameha</th>
<th>Raktavikara</th>
<th>Vrana</th>
<th>Atisara</th>
<th>Pravahika</th>
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<tbody>
<tr>
<td>Kashaya</td>
<td>Madhura</td>
<td>Guru</td>
<td>Ruksha</td>
<td>Sheeta</td>
<td>Katu</td>
<td>Vedana</td>
<td>Shotha</td>
<td>Vataraka</td>
<td>Rakaptit</td>
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</tbody>
</table>

[6]
Pharmacological action: –


Action and uses: –

The bark is astringent, sweet, cooling and aphrodisiac. It is used in treatment of gonorrhea, diarrhea, dysentery, hemorrhoids and gastric ulcer. The paste of powdered bark is good absorbent for inflammatory swellings and useful in burns. Leaves fruits are pulverized and administered with water to cure asthma. Seeds are refrigerant and laxative. The latex is useful in inflammation and hemorrhages.

Parts used - Stem bark, fruit, apical bud, latex, root
Doses - Decoction: 40–100 ml

Recent studies on Bodhi Vriksha (Peepal):-

Ficus religiosa as a source of bioactive molecules that have antidiabetic properties (Elavarasi et al., 2013; Shukla et al., 2012; Ambika and Rao, 1967).

A study was carried out by Supriya and Harshita (2013) in which extracts of dried powdered leaves of Ficus religiosa in petroleum ether, chloroform, methanol and water was made. These extracts were then subjected for in vivo antimicrobial activity against E.coli and S.aureus. It was found that chloroform extract showed more activity against E.coli and S.aureus as compared to methanol and water extracts. The petroleum ether extract did not show any activity. (Supriya and Harshita 2013)

Preparation of Bodhi Vriksha (Ashwatha) Kashaya: -

Raw Drug : The raw drug i.e, Ashwath Twak was purchased from the Baijnath pharmaceuticals due to the unavailability of raw drug in Charaka pharmacy Paprola and Jogindernagar pharmacy. The Yavkat Churna of Ashwath twak was prepared in Charaka Pharmacy Paprola. Then this Yavakut form of Ashwath Twak was packed in small packets according to the desired dose.

Method of Preparation: Ashwath Twak was added to water in the ratio 1:8 and Kashaya was prepared by reducing it to ¼ th .

Probable mode of action of Bodhi Vriksha (Ashwatha) Kashaya: - Ashwath possesses anti-inflammatory and analgesic properties. Due to the combination of these two activities, Ashwath is regarded therapeutically as highly efficacious for Vatarakta as it decreases inflammation and pain.

GUDUCHI KASHAYA[5]

Guduchi is the crown of drugs mentioned in the various classics in the treatment of Vatarakta.

Botanical Name – Tinospora cordifolia
Family – Menispermaceae

Guduchi in samhita: –

Charaka – Vayasthapana, Trishna nigrahana, Satnayashodhana,
Triptighna.[7]
Susuruta – Guduchyadi, Aarghvadadi, Kakolyadi, Valli
Panchamoola.[8]

Distribution:

Found throughout tropical India, ascending to an altitude of 900 m.

Botanical description: –

It is glabrous climbing shrub with a succulent stem and usually attains a large height. Stem is green, striated and ribbed and has long filiform fleshy aerial roots arising from the branches. Bark is grey brown with deep spiral and longitudinal clefts. Branches bear heart shaped leaves and the fruit is pea sized. Plants are dioecious, inflorescence is racemose or simple, staminate inflorescences are drooping longer than the leaves. Pistillate inflorescence is shorter with flower born singly but densely packed on the rachis. Flowers are small, numerous and greenish yellow in color.
Chemical Constituents: –
Tinosporine, tinosporon, tinosporic acid, tinosporide, tinosporidine, columbin, chasmanthis, palmarin, berberine, giloin, giloinisin, cordifol, cordifolon, magnoflorine etc.

Ayurvedic Pharmacology:

<table>
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</tr>
<tr>
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<tr>
<td>Vipaka</td>
<td>Madhura</td>
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<tr>
<td>Doshagnata</td>
<td>Tridoshashamaka,</td>
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<tr>
<td>Rogagnata</td>
<td>Kushti, Vataraka, Chhardi, Jvara, Kamala, Agnimandy, Visarpa, Phiranga Twakroga,</td>
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</tbody>
</table>

Pharmacological action: –

Action and uses: –
The stem is bitter, astringent, sweet, thermogenic, anodyne, anthelmintic, antispasmodic, anti-inflammatory and antipyretic. It is useful in burning sensation, dyspepsia, vomiting, flatulence, acid gastritis, fevers, inflammations, gout, skin disease, anaemia, cough, asthma, general debility, urinary disorders, splenomegaly, eye diseases etc. The roots and stems are useful in relieving the symptoms of rheumatism. Leaves are useful in Jaundice.

Parts used - Root, Stem and Leaf
Doses - Decoction: 40–100 ml
Powder: 3–6 gm.

Satta: 1–2gm
Ghrita: 5–10gm

Recent studies on Guduchi
According to Gupta et. al. 1967 alcoholic extract of Guduchi stem has shown activity against E.coli.

In 1961 Sisodia and Laxmi Narayana have found the drug effective as diuretic and anti-rheumatic.

In 1966 Rai and Gupta reported that the drug is having anti-inflammatory properties. The drug is reported to possess one-fifth the analgesic effect of sodium salicylate. Its aqueous extract has high phagocytic index. The active constituent was also found to inhibit in vitro growth of Mycobacterium tuberculosis. (Annual Report, ICMR 1968–69, 92 Anonymous, 1976) The aqueous extract of Tinospora Cordifolia was found to enhance phagocytosis in vitro and also induced an increase in antibody production in vivo when SRBC (sheep red blood cells) was used as an antigen, thus finding a new dimension in immunomodulation (Ranjith MS et al. 1998).

Guduchi is a natural diuretic which may aid in excretion of serum uric acid. It is also analgesic and anti-inflammatory. So Guduchi is a reliable therapeutic treatment for Vatarakta (Shivaprasad Huded et al. 2013)

Preparation of Guduchi Kashaya:-

Raw Drug -: The raw drug i.e, Guduchi Kand was purchased from the Bajnath pharmaceuticals due to the unavailability of raw drug in Charaka pharmacy Paprola and Jogindernagar pharmacy. The Yavuk Churna of Guduchi Kand was prepared in Charak Pharmacy Paprola. Then this Yavatuk form of Guduchi Kand was packed in small packets according to the desired dose.

Method of Preparation: - Guduchi Kand Yavuk Churna was added to water in the ratio 1:8 and Kashaya was prepared by reducing it to ¼ th. [2]

PROBABLE MODE OF ACTION OF THE GUDUCHI KASHAYA:-
Guduchi have analgesic and anti-inflammatory properties due to which it helps in relieving symptoms of Vata Rakta. Due to its anti-oxidant activity it prevents further cell injury and promotes healing. All these properties of Guduchi yield high efficacy in the treatment of Vata Rakta.[9]
DISCUSSION

Ayurveda have unique way to explain the mode of action of drugs. The action of every drug is depend on its Rasa, Guna, Veerya, Vipaka and Prabhava. There are some specific properties of drugs which are not explained in Ayurvedic text are explained on the basis of Prabhava. These drugs act in combination of Dosha and Dushya to cause Samprapti Vighatana to allay the symptoms of the disease.

Probable mode of action of Bodhi Vrisha Kashaya can be explained on the following basis.

According to Rasapanchaka

<table>
<thead>
<tr>
<th>S. No.</th>
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<tbody>
<tr>
<td>1.</td>
<td>Bodhi Vriksha (Peepal)</td>
<td>Kashaya, Madhura</td>
<td>Guru, Ruksha</td>
<td>Sheeta</td>
<td>Katu</td>
<td>Kaphapittashamaka</td>
</tr>
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</table>

- **ON THE BASIS OF RASA**: Kashaya and Mathura Rasa are present in Bodhi Vriksha. Madhura and Kashaya Rasa are said to be Pitta Shamaka. Kashaya Rasa has predominance of Prithvi and Vayu mahabhoota. Both of these Mahabhoota possess Ruksha Guna which helps in cleansing the channels (Srotovishodhana) and also helps in absorbing undigested Ahar Rasat(Amashoshana).

- **ON THE BASIS OF GUNA**: Guru Guna helps in pacifying vata and Ruksha Guna help in clearance of Srotas-Avarodha. As a result of Guru Guna properties patients got relief in symptoms caused due to vitiated Vata Dosha like Sandhi Shoola and Pain on Movement of Joints.

- **ON THE BASIS OF VEERYA**: Bodhi vriksha(Ashwatha) has sheet veerya due to which it helps in pacifying pitta dosha and helps in relieving symptoms like Sandhi Shotha, Raga, Vidaha, Sparshasahtava.

- **ON THE BASIS OF VIPAKA**: Due to Katu Vipaka Bodhi vriksha (Ashwatha) helps in digestion of Ama. Because of Amapachana, Rakta Dhatu don’t get vitiated with Ama and there is no further progression of the disease occurs.

- **ON THE BASIS OF DOSHA KARMA**: Bodhi vriksha has vatapittashamaka property. In the pathogenesis of Vatarakta, Vata and Raktta are mainly involved. As we know Rakta Dhatu is the dushya of Pitta dosha and according to Doshadushya ashrayashriyabha, aggravation of Pitta dosha leads to Rakta Dhatu Pradushna(vitiation). Due to Pittashamaka property of the trial drug Rakta dhatu don’t get vitiated and there is no further progression of the disease occurs. So we can say that due to Vata and Pitta Shamaka property Bodhi Vriksha helps in curing Vatarakta.

- **According to Samprapti vighatana**: Avoiding the cause of disease is, of course the first line of treatment of all the diseases but the drug (medicine) which is instituted as a treatment should not only reduce the vitiating power of the Doshas but also should increase the Dhatu bala. This is so because Dhatus help in maintaining a balance between the Doshas. If Dhatus are strong, the doshas will not be able to produce any deformity no matter what the extent of the vitiated Doshas is. Hence, the drug used for the treatment of diseases must have the capability to reduce the vitiation of Doshas and bring about an equivalent increase in Dhatu bala. Treatment is done for achieving health and health depends on the strength (bala) of Dhatus, hence the regimen of treatment must be so constituted that it increases the balance of all those Dhatus which are involved in the Samprapti.

Bodhi Vriksha Kashaya because of its Katu Vipaka causes Agni Pradeepana and helps in digestion of Ama. This leads to the Samprapti Vighatna of the disease. Further we can infer that Vatapitta Shamka property of the Bodhi Vriksha Kashaya also helps in disintegrating the disease process associated with pathogenesis of the disease.

According to Rasapanchaka

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<td>Tikta, Kashaya</td>
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<td>Ushna</td>
<td>Madhura</td>
<td>Tridoshashamaka</td>
</tr>
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</table>
ON THE BASIS OF RASA: Tikta and Kashaya Rasa are present in Guduchi. In Tikta Rasa there is predominance of Vata and Aaksha Mahabhoot. Hence having Deepana and Pachana properties. Other properties are Lekhana and Kleda, Medashoshana properties (Ch.Su-26/40). As Agnimandyaata is one of the causative factor for Vatarakta. So Tikta Rasa help in Jathragnideepan. Tikta Rasa other properties like Lekhana, Shoshana help in clearance of Srotas Avarodha. Tikta and Kashaya Rasa both having properties of opening closed channels i.e., ‘Srotasaans vivrinoti’ caused by Ama. Thus also help in Ama Pachana.

ON THE BASIS OF GUNA: Guru and Snigda Guna helps in pacifying Vata Dosha. As a result of Guru and Snigda properties patients got relief in symptoms caused due to vitiated Vata Dosha like Sandhi Shoola and Pain on Movement of Joints.

ON THE BASIS OF VEERYA: Guduchi has ushna veerya due to which it helps in pacifying Vata Dosha and helps in relieving symptoms which are caused by vitiated Vata.

ON THE BASIS OF VIPAKA: Due to Madhur Vipaka, Guduchi helps in pacifying Pitta Dosha. Because of Pittashamak vipaka of Guduchi patients got relief in symptoms like Raga, Vidaha and Sparshasahtava.

ON THE BASIS OF DOSHA KARMA: Guduchi is having Tridosha Shamaka property property. In the pathogenesis of Vatarakta along with Vata there is vitiation of Rakta dhatu which is Dushya of Pitta, although involvement of Pitta is also there. Due to manifestation of all (Vata, Pitta, Rakta and Ama) the disease characteristically represents vitiation of Tridoshadosha. Guduchi helps in pacifying Tridosha and causes break in the further progression of the disease (Samprapti vighatana).

According to Samprapti vighatana
Avoiding the cause of disease is, of course the first line of treatment of all the diseases but the drug (medicine) which is instituted as a treatment should not only reduce the vitiating power of the Doshas but also should increase the Dhatu bala. This is so because Dhatus help in maintaining a balance between the Doshas. If Dhatus are strong, the Doshas will not be able to produce any deformity no matter what the extent of the vitiated Doshas is. Hence, the drug used for the treatment of diseases must have the capability to reduce the vitiation of Doshas and bring about an equivalent increase in Dhatu bala. Treatment is done for achieving health and health depends on the strength (bala) of Dhatu, hence the regimen of treatment must be so constituted that it increases the balance of all those Dhatus which are involved in the Samprapti.

Guduchi because of its Tikta Rasa causes Agni Pradeepana and helps in digestion of Ama. This leads to the Samprapti Vighatna of the disease. Further we can infer that Tridoshadosha property of the Bodhi Vriksha Kashaya also helps in disintegrating the disease process associated with pathogenesis of the disease.

CONCLUSION
The drugs Bodhi Vriksha (Peepal) Kashaya mentioned in Charka Samhita (Vatashonita Chikitsa Adhyayaya) and Guduchi Kashaya as mentioned in Chakradatta (Vatarakta Chikitsa Prakaran) contains Bodhi vriksha (Peepal) and Guduchi as main content respectively. These drugs are explained on the basis of Therapeutics and detailed pharmacodynamics. Both of the drugs has been mentioned according to Rasa – Panchaka. They are having many properties like Hypoglycemic, Analgesic, Anti-arthritis, Anti-viral, Anti-bacterial, Hypolipidaemic, Anti-ulcer, Anti-tumor, Antiprotozoal and Oestrogenic. These properties show that these drugs are acting on Vatrakata and useful in treating Vatrakata.

REFERENCES