SHVASAHARA MAHAKASHAYA AND ITS PHARMACOLOGY: A REVIEW STUDY

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ABSTRACT
Shvasahara mahakashaya denotes, group of ten medicines which act differently on Shavasa roga. Shvasa roga can be relate with the term Asthma of modern medicine. Shvasahara Mahakashaya is the 37th of the 50 mahakashaya described in fourth chapter of Sutra sthan of Charak Samhita and includes following ten ingredients. All 50 mahakashayas may further divide into the 10 sub classes on the basis of specific characteristics. Ten ingredients of shvasahara mahakashaya do not work together, perform differently to stimulate the immune system, treat the symptoms of asthma, and purify the lymph and bloodstream. All these 10 drugs help to reduce spasm and ease breath.

Shwashara mahakashaya having Katu Tikta Rasa, Ushna Virya, Katu Vipaka and Kapha-Vataghna properties and Shwashara mahakashaya with Ushna Virya and Katu Vipaka seem to quite naturally antagonize the Shwasa Roga, which is Kapha-Vata Pradhana disease. Shawashara Mahakashaya has got bronchial anti spasmodic effect and the most probable mode of action is that these drugs donot act as true expectorants in as much as they do not increase the secretion of mucous or make it less viscid, they help expulsion of mucously relaxing the bronchial muscles and are the great value in this disease. All the drugs are anti spasmodic and having volatile oils which, stimulates the output of respiratory tract fluid by a direct action up on the cells of the bronchial tree & reduce the spasm. It relaxes the bronchial muscles. Which paralyses the vagal endings in the muscles & also paralyses vagal ganglia. It stimulates the sempathetic endings and thus relaxes bronchial muscles.
All the 10 drugs are having the quality to treat the shavas roga. Shvashara mahakashya helps re-establish normal physiological function in the affected tissues and organs. Physician can select the best drug among these with the help of YUKTI PRAMANA.

**KEYWORDS:** Shvasahara mahakashaya, Asthma, Katu Rasa, Tikta Rasa, Ushna Virya, Katu Vipaka Kapha Vata nashak, Bronchial, Anti spasmodic, Expectorant.

**INTRODUCTION**

Shvasahara mahakashaya denotes, group of ten medicines which act differently on Shawasa roga. Shvasa roga can be relate with the term Asthma of modern medicine. In Ayurveda, Shvasa roga, of which five varieties are described. These include: maha svasa, urdhva svasa, chinna svasa, ksudra svasa, and tamaka svasa. The last variety, tamaka svasa is defined in Ayurveda as a chronic and recurring condition characterized by dyspnea, cough, airflow obstruction, and wheezing (due to spasm of bronchial tube or swelling of mucous membrane), particularly at night and awaking in the morning. Tamaka svasa corresponds to chronic persistent bronchial asthma of allopathic medicine. Both Ayurveda and modern medical Science agree regarding the Nidana of the disease as host factors (Nija Hetus – Doshadushti and Ama) and Environmental factors (Agantuja Hetus – Raja, Dhuma, Pragvata, etc). It can be easily correlated with the allergic condition. According to WHO estimates, 300 million people suffer from asthma and 255 000 people died of asthma in 2005. It is estimated that there may be an additional 100 million persons with asthma by 2025.

**SAMPRAPTI**

यदा स्फोटतन्त्रि सनुभ्य भारत: कफपुर्वक:विशेषावजति सर्द्धस्तस्तदा शवासांनकरोतिस (Ch.Chi.17/45)

कफवातात्मकाव तास पिल्लस्थान समुद्ध्रैः (Ch.Chi.17/08)

According to Aacharya Sushruta, when natural movement of Prana Vyau is hampered and it is associated with Kapha then it leads to the origin of Shawsa Roga in which the upward movement of Vata is enhanced. This condition can be correlated with asthma which is a chronic inflammatory disorder of the airways in which many cells and cellular elements play a role. The chronic inflammation is associated with airway hyper responsiveness that leads to recurrent episodes of wheezing, breathlessness, chest tightness, and coughing, particularly at night or in the early morning. These episodes are usually associated with widespread, but
variable, airflow obstruction within the lung that is often reversible either spontaneously or with treatment of the total global disease burden.

The genesis of Shwasa first involves only vitiation of Vata Dosha all over the body. This vitiated Vata which is in Urahasthana in turn creates Rukhsa, Sankocha and Kharata in Pranavaha Srotas. Vitiated Vata affects the normal Kapha in Urahasthana which results in Vilomata of Pranavayu through obstruction to its natural Gati by Kapha. Sometimes, Kapha gets vitiated independently or through Rasadhhatwagnimandya, its Mala, i.e. Kapha gets located in Urahsthana and causes obstruction to normal motion of Vayu which ends up with Vilomata of Vayu. In the third type, both Vata and Kapha get vitiating independently along with the production of Amavisha This contributes to the manifestation of Shwasa.

The signs and symptoms of this disease are vividly enumerated in both the Caraka Samhita and the Astanga Hridayam and are worth noting:

- The breathing becomes very fast and audible.
- The patient becomes tremulous on occasion
- There is chronic nasal discharge and stiffness of the head and neck
- There is excessive thirst
- The patient coughs constantly, sometimes to the point of senselessness
- If the obstructing phlegm does not come out during the cough, the patient becomes exceedingly miserable and after expectoration there is relief for some period of time.
- The throat becomes inflamed and he speaks only with great difficulty
- Due to his dyspnea (difficulty breathing), he does not sleep even after lying down in bed.
- Breathing is difficult while lying and there is some relief with sitting
- The patient desires to have hot things
- The eyeballs are gazing upwards (i.e. wide open) and perspiration appears on the forehead
- The mouth is dry
- There are periods of frequent attacks of dyspnea followed by periods of no attacks

The condition is aggravated by the onset of clouds in the sky, rain, cold breeze, drinking cold water, wind coming from the east, and regimens and diets which are cold in quality. So have to see pharmacologically effective drugs which are having anti asthmatic properties.
In this connection, Shvashara Mahakashaya is the 37th of the 50 mahakashayas described in fourth chapter of Sutra sthan of Charak Samhita and includes following ten ingredients. All 50 mahakashayas may further divide into the 10 sub classes on the basis of specific characteristics as:

1. Jeevaniya, Bringaniya, Lekhaniya, Bhdaniya, Sandhaniya and Deepniya- bZ; izR;kUr (suffix used as meaning of do good to)
2. Balya, Varniya, Kanthiya, Hridyas - ; ; izR;kUr (suffix used as meaning of assistance)
3. Triptighna, Arshoghna, Kusuthagna, Kandughn, Kramighn, Vishaghn ?u ¼jksx uk'kd½ (sufix used as meaning of slayer for ailments.)
4. Stanyajan, Stanyashodhan, Shukrajan, Shukraashodhan (similarity in between stanya & shukra) (suffix used as meaning of production, purification)
5. Snehopaga, Swedopaga, Vamanopaga, Virechnopaga, Asthabanopaga, Anuvasopaga, Shirovirechnopaga (Useful in panchakarmas)
6. Chchardinigrahan, Trishnanigrahan, Hikkanigrahan fuxzg.k iwoZd ¼iw.kZr% osxkas dks jksd nsuk½ (suffix used as meaning of stop totally.)
7. Purishsangrahniya, Purishvrjaniya, Mutrasangrahniya, Mutravrajniya, Mutravirechaniya (Effective on urine & stool)
8. Kasahara, Shwashara, Shothara, Jwarahara, Shrimhara ( Effective on general ailments)
9. Dahaprshaman, Sheetprashaman, Udardprshaman, Shoolprshaman, Angamardprshaman- iz'keuiwoZd dk;Zdkjh suffix
10. Shonitsthapana, Vedanasthapan, Sangyasthapan, Prajasthapan, Vayasthapan LFkkiiuowoZd

MATERIAL AND METHOD

These ingredients do not work together, perform differently to stimulate the immune system, treat the symptoms of asthma, and purify the lymph and bloodstream. All these 10 drugs help to reduce spasm and ease breath. It is specifying as under:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Hindi/ Sanskrit Name</th>
<th>English Name</th>
<th>Botanical Name</th>
<th>Part used</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Shati</td>
<td>Spiked ginger lily</td>
<td>Hedychium spicatum</td>
<td>Rizhome</td>
</tr>
<tr>
<td>2.</td>
<td>Pushkarmool</td>
<td>Elicampane</td>
<td>Inula racemosa</td>
<td>Root</td>
</tr>
<tr>
<td>3.</td>
<td>Amlavatus</td>
<td>-</td>
<td>Garcinia pedunculata</td>
<td>Fruit</td>
</tr>
<tr>
<td>4.</td>
<td>Elaa</td>
<td>Greater cardamom</td>
<td>Amomum subulatum</td>
<td>Fruit</td>
</tr>
<tr>
<td>5.</td>
<td>Hingu</td>
<td>Asafoetida</td>
<td>Ferula narthex</td>
<td>Resin (Niryasa)</td>
</tr>
<tr>
<td>6.</td>
<td>Aguru</td>
<td>agarwood</td>
<td>Aquilaria agollocha</td>
<td>Aromatic resinous Wood</td>
</tr>
</tbody>
</table>
If we see the ingredients of shavashar mahakshaya and its effect.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Hindi/ Sanskrit Name</th>
<th>Rasa</th>
<th>Vipaka</th>
<th>Virya</th>
<th>Guna</th>
<th>Effect on Doshas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Shati</td>
<td>Katu</td>
<td>Katu</td>
<td>Ushana</td>
<td>Laghu, Ruksha, Tikshana</td>
<td>KV ↓</td>
</tr>
<tr>
<td>2.</td>
<td>Pushkarmool</td>
<td>Katu, Tikta</td>
<td>Katu</td>
<td>Ushana</td>
<td>Laghu, Ruksha, Tikshana</td>
<td>KV ↓</td>
</tr>
<tr>
<td>3.</td>
<td>Amlavatus</td>
<td>Amla</td>
<td>Amla</td>
<td>Ushana</td>
<td>Laghu, Ruksha, Tikshana</td>
<td>KV ↓</td>
</tr>
<tr>
<td>4.</td>
<td>Elaa(Greater) *Lesser</td>
<td>Katu</td>
<td>Katu</td>
<td>Ushna</td>
<td>Laghu, Ruksha, Tikshana</td>
<td>KV ↓</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>*Mdhr</td>
<td>*Sheeta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Hingu</td>
<td>Katu</td>
<td>Katu</td>
<td>Ushana</td>
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<td>Katu</td>
<td>Katu</td>
<td>Ushana</td>
<td>Laghu, Ruksha, Tikshana</td>
<td>KV ↓</td>
</tr>
<tr>
<td>7.</td>
<td>Tulasi</td>
<td>Katu</td>
<td>Katu</td>
<td>Ushana</td>
<td>Laghu, Ruksha, Tikshana</td>
<td>KV ↓</td>
</tr>
<tr>
<td>8.</td>
<td>Bhumyamaki</td>
<td>Tikta</td>
<td>Madhr</td>
<td>Sheeta</td>
<td>Laghu, Ruksha</td>
<td>KP ↓</td>
</tr>
<tr>
<td>9.</td>
<td>Jeevanti</td>
<td>Madhr</td>
<td>Madhr</td>
<td>Sheeta</td>
<td>Laghu, Snigdha</td>
<td>P KV ↓</td>
</tr>
<tr>
<td>10.</td>
<td>Chorpushpi</td>
<td>Katu</td>
<td>Katu</td>
<td>Sheeta</td>
<td>Laghu, Tikshana</td>
<td>KV ↓</td>
</tr>
</tbody>
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Shwashara mahakashaya having Katu Tikta Rasa, Ushna Virya, Katu Vipaka and Kapha-Vataghna properties and Shwashara mahakashaya with Ushna Virya and Katu Vipaka seem to quite naturally antagonize the Shwasa Roga, which is Kapha-Vata Pradhana disease.

Almost all the classics have used Shati & Pushkarmoola in treating the disease Shwasa, and the chief therapeutic indication of These drugs is Shwasa.

Acharya Sushruta proclaims vidarigandhadi, sursadi, Dashmool gana for the disease Shwasa.

**PROBABLE MODE OF ACTION**

The properties of wholesome formulation of Shwasahara Mahakashaya are as follows:

Rasa-Katu, Tikta
Vipaka -Katu
Virya-Ushna
Guna-Laghun, Tikshana, Ruksha
Dosh shamakta- KV ↓
Panchbhotik composition-
<table>
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<tr>
<th>S.No.</th>
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<th>Panchbhautk composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Katu</td>
<td>Vayu, Agni</td>
</tr>
<tr>
<td>2.</td>
<td>Amla</td>
<td>Prithvi, Agni</td>
</tr>
<tr>
<td>3.</td>
<td>Lavana</td>
<td>Jala, Agni</td>
</tr>
<tr>
<td></td>
<td>Agni-3, Prathvi-1, Jala-1, Vayu-1</td>
<td></td>
</tr>
</tbody>
</table>

All these properties of Shawashara Mahakashaya render it a bronchial antispasmodic formulation, because, these properties are contrary to the properties of Medodhaatu. Secondly these properties of shwashara Mahakashaya, make it a jatharaagni promoting formulation. Jatharaaghi stimulation corrects hypofunctioning of Medodhaatwagni and checks increase in the quantity and subsequent deposition of Medo dhaatu in the body. Relevant actions of shwashara Mahakashaya because of each one of these properties are as follows: Laghu guna is characteristic of drugs constituted of Vaayu and Agni mahabhoota. Drugs, possessing this property produce lightness in the body and promote the jatharaagni. Both of these actions help in reducing accumulation of medo dhaatu in the body. Tikshna guna is characteristic of drugs, constituted of Agni mahabhoota. These drugs perform action of Shodhana, lekhana and kaphahara karma. Owing to the above mentioned properties, shwashara Mahakashaya is igneous in nature, stimulates jatharaagni and performs shothara karma in the body. When we look at characteristics and actions of contents of shwashara mahakshaya, researches says, the alcoholic extract of Hedychium spicatum (Shati), the drug is valued for treatment of bronchial asthma in Ayurveda showed spasmyolytic effect on the smooth muscles and tracheal chain. It could counteract the effect of spasmogens like histamine. The powder of rizhome completely relieved dyspnoea, cough and restlessness in 4 weeks. The researches about Inula racemosa, study says that it reduced the rasepiratory rate & increased the deapth of the respiration, marked protective effect against bronchospasm. It showed improvement in pulmonary functions, haematological picture and general health. Ferula narthex have distinct sedative effect showed in researches. Aqularia agollacha quoted by Acharya charka that it is best amongthe drugs which will be helpful in enhancing the warmth and also useful in external application. Ocimum sanctum showed antispasmodic activity through researches. So, it is concluded that each of the content of the shwashara Mahakashaya contributes to make it an ideal formulation.

**AVALEHA IN SHVAS ROGA**

However, a large number of Avaleha have been described for the treatment of Shwasa Roga as these have Brimhana property which is very much needed while dealing with this
disease. Acharya Kashyapa has given importance to this Kalpana and has described a separate chapter, namely, Leha Adhyaya in Sutra Sthana. Contemplation of the ancient classics reveals no such specific property of Avaleha regarding the pharmacokinetics, except its site of action starts from mouth. Avaleha may work as Rasayana for the Pranavaha Srotas and also shows Kapha Vatahara effect. Most of the Avaleha contains Madhura Dravya Ghrita and Prakshepa Dravya as base ingredients. Here, the use of Madhura Dravya is of great importance because it reduces the Tikta Katu, Kashaya taste of drug, ultimately making it more palatable, and it also nourishes all Dhatus along with Oja Ghrita exhibits the property to pacify Vata as well as Pitta and also has the properties like Agnidipana Balakara Vrishya etc. Prakshepa Drayyas serve specific functions, e.g. Pippali(Piper longum ) acts as a bioavailability enhancer and is antibacterial. They also act as flavoring agents because most of the Prakshepa Dravyas have aroma, which improves the acceptability of a product. However, the quantity of Prakshepa Dravyas should be just sufficient to suggest the desired flavor and should not leave an intense taste in mouth. Regarding Avaleha two more points are to be kept in consideration. These are mode of administration, i.e. licking, and high percentage of sugar in the medicament. Both these factors facilitate the oral absorption. Due to its mode of administration, i.e. licking, it produces soothing effect in throat, relieving local irritation. Although there are some Samskaras like Toyagni sannikarsha, Manthana, Kala and Bhajana in the preparation of Avaleha, the quality of any dosage form depends upon the raw material taken for the preparation As Kamsa Haritaki Avaleha is prepared with the Kwatha of Dashmula drugs which exhibit Shwasahar property, whereas Kantakari, Bharangi and Vasa also have the quality to conquer the disease Shwasa. The other probable reason for the interesting results may be due to the “Brimhana” (Nutrient and Energy supplementing) properties of drugs, which is very essential in the treatment of Shwasa Roga. Avaleha has predominately Madhura Rasa, along with Tikta, Katu, Kashaya Rasa, Sheet Veerya and Katu Vipaka contribute to the pharmacodynamics of Avaleha. Also, Guda (Jaggery) has Laghu, Pathya, Sara and Hridya properties which are useful to overcome the Rukshata of drugs. It has Madhura Vipaka which shows Srishta Vita Mutra action, i.e. Vatanulomana action.

Guda also provides nourishment to all Dhatusas it has Balya property which is necessary while dealing with this disease.

CONCLUSION
Shawashara Mahakashaya has got bronchial anti spasmodic effect and the most probable mode of action is that these drugs donot act as true expectorants in as much as they donot
increase the secretion of mucous or make it less viscid, they help expulsion of mucously relaxing the bronchial muscles and are the great value in this disease. All the drugs are anti spasmodic and having volatile oils which, stimulates the output of respiratory tract fluid by a direct action up on the cells of the bronchial tree & reduce the spasm. It relaxes the bronchial muscles. Which paralyses the vagal endings in the muscles & also paralyses vagal ganglia. It stimulates the sympathtetic endings and thus relaxes bronchial muscles.

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