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PHYSICO-CHEMICAL ANALYSIS OF SHWASHARA MAHAKASAYA

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ABSTRACT

Shwashara Mahakasaya is the group of ten medicinal plants described in Caraka Samhita for the management of different pathological conditions of respiratory system under the heading of *Mahakasaya.* It includes *Shati, Puskarmool, Amlabeatsh, Elachi, hing, agaru, Tulsi, Bhumyamlaki, Jeevanti* and *Chanda*. Out of these ten plants, *Chanda* which is also known as shorpuspi has very little description in different classics as well as its availability is also very rare. Therefore the rest nine plants were collected from various authentic sources and one powder formulation was made. Though individually the plant has different indications but in compound for it is effective in the management of different respiratory diseases, especially in bronchial asthma. This study was under-taken to standardize the compound formulation of *Shwashar Mahakasaya* through pharmaceutical evaluations. The sample was subjected for various Physico- chemical parameters like water soluble extractive (69.9029%), Alcohol soluble extractives (40.2618%)Total Ash value(8.3250%)Acid insoluble Ash(1.6450%),water soluble Ash(5.5528%), Suphated ash (1.0140%).thus the physico-chemical character's may provide guidelines for the standardization of powder formulation of *Shwashar mahakasaya*.

Key Words: *Shwashar, Mahakasaya*, Bronchial Asthma,

INTRODUCTION

Shwashar Mahakasaya is a group of ten medicinal plants of different botanical families but from Ayurvedic pharmacological point of view having similar properties which are highly effective in the management of different diseases of respiratory system as mentioned in Carak Samhita Suthra Sthan 4th chapter, under the heading of *Mahakasaya* [1].The *Shwashar mahakasaya* includes *Shati, Puskarmool, Amlabeatsh, Elachi, hing, agaru, Tulsi, Bhumyamlaki, Jeevanti* and *Chanda*. Out of these ten plants, chanda which is also known as *shorpuspi* has very little description in different classics as well as its availability is also very rare. In various clinical studies the efficacy of *Shwashar mahakasaya* is proved in the management of *Tamak Shwas* (Bronchial Asthma).

According to Ayurveda *tamak shwas* is caused by *vata* and *kapha dosha* for which medicine having ushna and teekshna properties are required for its treatment. From modern medicine point of view Bronchial asthma is a multifactorial disease; especially allergic factors are highly responsible. Different pharmacological studies have showed the anti-allergic properties of the medicinal plants like *Shati, puskarmool* etc. Looking the effectiveness of poly herbal formulation of *Shwashar* Mahakasaya there is highly need of scientific evaluation of this *mahakasaya* group. In the present study powder formulation of *Shwashar*

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Mahakasaya was subjected to pharmaceutical evaluation (evaluation of different physico-chemical parameters) in order to prepare a profile of the formulation.

MATERIAL AND METHODS:

Method of preparation of *Shwashar maha-kasaya Churna* as per Carak Samhita. For the present study the nine medicinal plants out of ten included under *Shwashar Mahakasaya* are collected from reliable sources. The tenth one i.e. *Chanda* is not available, so it was not collected. The powder form was prepared in the state Ayurvedic pharmacy at Govt. Ayurvedic College, Guwahati, Assam.

Table No.1.Ingredients of *shwashar mahakasaya* as per Carak Samhita

SL. No	Name	Botanical name	Part used	Quantity of drug
1	*Sati*[2]	*Hedychium spicatum*	Kanda (Rhizome)	80g
2	*Pushkar- moola*[3]	*Inula recemosa*	Root	80g
3	*Amlavetasa*[4]	*Garcinia pedunculata*	Fruit juice	Quantity sufficient
4	*Ela*[5]	*Elleteria cardamomum*	Seed	13.33g
5	*Hingu*[6]	*Ferula asafetida*	Extraction of root	6.66g
6	*Agaru*[7]	*Aquilaria agallocha*	Resin	80g
7	*Tulsi*[8]	*Ocimum sanctum*	Leaf	80g
8	*Bhumyamlaki*[9]	*Phyllanthus niruri*	Whole plant	80g
9	*Jivanti*[10]	*Leptadenia Reticulata*	Whole plant	80g

Total 500 gram of powder is mixed with juice of *Amlabetash* and dried up for three consecutive times. The powder was sent to DTL, Govt. Ayurvedic College, Guwahati and the organoleptic analysis and Physico-chemical analysis were done. Organoleptic characteristics: colour, odours were done as per slandered characteristics. Physico-chemical evaluation: In this phase following parameters were carried out-foreign matter, moisture content/LOD, Total ash, Acid insoluble ash, water soluble ash, sulphated ash, water soluble extractives and alcohol soluble extractive.

RESULTS AND DISCUSSION:

Oraganoleptic characteristics: Colour brown, mild sour and astringent in taste, odour is characteristics of cardamom and asafetida.

Table 2: organoleptic Character

Parameters	Shwashar Mahakasaya
Colour	Brown
Taste	Sour, astringent
Smell	Aromatic(Cardamomum and asafetida)

Table 3: Physico-chemical analysis:

SL.No	Tests	*Shwashara Mahakasay*
1	Foreign matter	Nil
2	Moisture content/LOD	14.4655%
3	Total ash	8.3250%
4	Acid insoluble ash	1.6450%
5	Water soluble ash	5.5528%
6	Sulphated ash	1.0140%
7	Water soluble extractive	69.9029
8	Alcohol soluble extractive	40.2618%

DISCUSSION:

Pharmacognostical evaluation showed that organoleptic characters of the sample was brown in colour, sour and astringent in taste, aromatic odour and mild moistures powder in consistency. Sour taste may be due to presence of *Amlabetash*. The aromatic odours may be due to *elachi* and *hing*.

Physico-chemical values found in the research work of *Shwashar mahakasaya* may be helpful in similar type of future study.

CONCLUSION:

The study on *Shwashar Mahakasaya* is preliminary steps towards the physio-chemical standardization of poly herbal formulation in powder form. As there is very less information's are available on physic-chemical profiles of *shwashar mahakasaya*, this could be informative for the similar type of research work in future.

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