



Pharmaceutico-Analytical Study of Sharir Sthaulyakar Arka

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Abstract.

Arka kalpana is the famous *kalpana* explained in *Bhaishajya Kalpana* but according to *Arka Prakash* it is considered one among the *Panchavidha kashay kalpana* and is said to be the most potent. It is introduced in ayurvedic pharmacy in later part of *Samhita* period, which is very specific in its mode of preparation and therapeutic effect. *Arka Prakash* is the first ayurvedic classical text in which various kinds of distillation procedures and heating methods are mentioned for preparing *Arka* from different types of *dravya* for different disease. *Arka* is a unique preparation in which the water soluble active principles from herbal drugs are extracted through distillation method. The five basic *kalpanas* comprise of *Swarasa* (Juice), *Kalka* (Paste), *Kwath* (Decoction), *Hima* (Cold infusion) and *Phanta* (Hot infusion). But some *Acharya* has variable opinions in the respective formulary classification. According to *Arka Prakash*, the *Panchavidha Kalpanas* include *Kalka*, *Choorna*, *Rasa*, *Taila* and *Arka*. Due to its increased potency, reduced dose, better

shelf Life, easy absorption, fast action and patient compliance, *Arka Kalpana* is first choice of growing demand among current population.

Sharir Sthaulyakar Arka is one among *Arka* preparation explained in the text *Arka Prakash*. It is indicated in *Karshya Vyadhi*. It contains *Ashwagandha*, *Gokshura*, *Twaka*, *Vatakand*, has action of *Sthaulyakar*. In the preparation of *Arka* the ratio of water varies based on the hardness and form of the drug. The pharmaceutical aspects regarding this formulation have been explained in detail with specific importance to the *Yantras*, *Agni* and different method of preparation based on the consistency of *Dravyas*.

Key words-

Ayurveda, *Arka kalpana*, *Panchvidha kashay kalpana*, *Sharir sthauilyakar arka*, *Arka*, Distillation, *Arka Prakash*.

Introduction-

Ayurveda is a holistic and integral system of medicine that treats the person as a whole in combination with body, mind and soul. It is one of the oldest system of medicine with its root in India which is called the ancient

science of life. The object of *Ayurveda* is preventing as well as curing the disease, therefore different formulations or dosage forms are evolved from time to time according to need. The idea behind the preparation of different dosage form is to make more suitable to the body for better absorption and assimilation. *Bhaishajya kalpana* is an important branch of *Ayurveda* which deals with preparing and dispensing medicines.

Acharyas have developed the basic preparations i.e; *Panchavidha kashay kalpana*, they are *Swaras*(Juice), *Kalka*(Paste), *Kwath*(Decoction), *Hima*(Cold infusion) and *Phanta*(Hot infusion). A range of secondary preparations like *Arka*, *Avaleha*, *Taila*, *Ghrita* etc. are also explained.

In *Ayurveda*, *kalpana* means various dosage forms, every *dravya* can be a medicine but some pharmaceutical procedures are done to change or potentiate its original properties.

The basic idea behind the administration of drug is to make it more suitable to the body elements. To achieve this, many processes were invented in a sense of manufacturing process, these are termed as *Kalpana*. *Arka kalpana* is nowadays famous *kalpana* among the *Ayurvedic* formulations. It is considered one among the *Panchavidha Kashay Kalpana* by *Arka Prakash*, which is only the reference available regarding the *Arka Kalpana*. *Arka* is a unique preparation in which the water soluble active principles are extracted from different drugs through distillation method. *Sharir Sthaulyakar Arka* is one among the *Arka* preparation explained in the *Arka Prakash*. For the preparation of *Arka*, the drug and water ratio depends on

the *Guna* (Qualities) of the drug. In the text of *Arka Prakash*, based on the nature of the drug different ratio of water is mentioned for the preparation of *Arka*. *Ashwagandha*, *Gokshura*, *Dalchini*, *Vatakand* comes under *Kathin Dravya* (Hard drugs), where drug and water ratio is mentioned as 1:2, then *Arka* is extracted by soaking the drug for eight *Prahara* (24hrs) in sunlight and also in moonlight. Then transferred into *Arka yantra* to extract *Arka*. The present study is to prepare *Sharir Sthaulyakar Arka* and to see its physico-chemical standards mentioned in standard operative procedure protocol of *Arka kalpana*.

Aim and objective:

Aim-

To study the preparation and analytical parameters of *Sharir Sthaulyakar Arka*

Objective-

- Study the literature on *Arka* from *Ravankrut Arka Prakash*
- Study the literature on *Karshya* from texts
- Preparation of *Sharir Sthaulyakar Arka* by Distillation method
- Study the analytical parameters of *Sharir Sthaulyakar Arka*

Materials and method-

Ingredients-

Dalchini, *Gokshura*, *Ashwagandha*, *Vatakanda*.

Sr. No.	Drugs	Quantity
1	Dalchini	100gm
2	Gokshura	100gm
3	Ashwagandha	100gm
4	Vatakanda	100gm

Method of preparation-

The ratio was taken 1:2 for dravya and water were volume by volume. The drugs were coarsely powdered and soaked in twice quantity of water and kept for overnight. The well soaked drugs were transferred to the distillation apparatus and continuously at the

temperature of 50°C to obtain the *Sharir Sthaulyakar Arka*. The vapors gets condensed and collected in a receiver. Total quantity obtained was 100 ml.

Dose- 12-24 ml

Anupana- Water

Properties of Dravya-

Sr. No.	Dravya	Rasa	Guna	Virya	Vipak
1	Dalchini	Katu, Tikta, Madhur	Laghu, Ruksha, Tikshna	Ushna	Katu
2	Ashwagandha	Tikta, Katu, Madhur	Laghu, Snigdha	Ushna	Madhur
3	Gokshura	Madhur	Guru, Snigdha	Sheet	Madhur
4	Vatakanda	Kashay	Guru, Ruksha	Sheet	Katu

Analytical study-

The organoleptic characters like appearance, taste, odour of *Sharir Sthaulyakar Arka* and physico-chemical analysis like pH, specific gravity, viscosity, refractive index have been done.

- Organoleptic characters of *Sharir Sthaulyakar Arka*-

Sr.No.	Characters	Sharir Sthaulyakar Arka
1	Appearance	Brownish
2	Taste	Characteristic taste
3	Odour	Sharp pungent

- Physicochemical analysis of *Sharir Sthaulyakar Arka*

Sr. No.	Parameters	Sharir Sthaulyakar Arka
1	pH	3.13

2	Specific Gravity	1
3	Refractive Index	1.3340
4	Viscosity	0.0114

Discussion-

Arka kalpana is a secondary preparation but one among *Panchavidha Kashay kalpana* according to *Arka Prakash*.

From 18th century onwards these preparations were widely adopted in the books of *Ayurveda*. All the drugs with essential volatile oils can be used to extract the distillate to retain the volatile principles to get them in the form of *Arka*.

Sharir Sthaulyakar Arka is one an *Arka kalpana*, mentioned only in *Arka Prakash*. The ratio is based on the nature of the drug. In *Arka Prakash* there is explanation regarding the specific ratio based on the

quality of the drugs used for Arka preparation.

As *Ashwagandha*, *Gokshura*, *Dalchini*, *Vatakand* is a *Kathina Dravya*(Hard drugs as per the description in *Arka Prakasha*) the ratio mentioned is 1:2 and should be soaked for overnight. The soaking of coarse powder of drugs aided in softening of the drugs and allows the active principles to get dissociated into water.

The temperature was maintained at 50°C for the preparation where the ratio was 1:2, so that the drug remained in contact with water and to allow the heat energy to play a role to give sufficient time for the active principles to get extracted in the water medium.

The organoleptic characters of Arka are brownish, with sharp pungent odour and taste. The pH is 3.13, viscosity 0.0114, refractive index is 1.3340, and specific gravity is 1. As the preparation is a water distillate the specific gravity and viscosity is that of water.

Conclusion-

Sharir Sthaulyakar Arka is a very unique formulation in Ayurvedic pharmaceuticals, for its method of preparation and application. Pharmaceutical aspect of this formulation has not been described in classical text of Ayurveda. So, it needs more pharmaceutical and clinical study and research work to understand the efficacy of this formulation.

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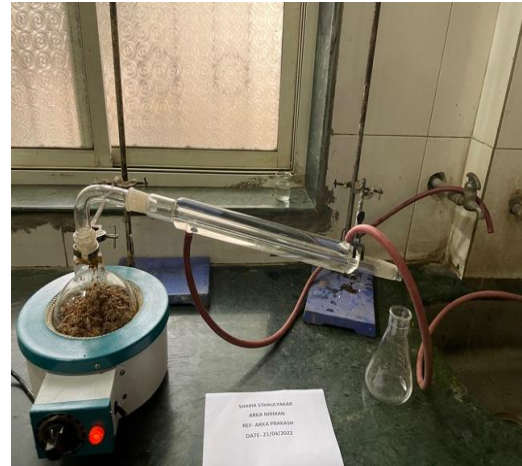
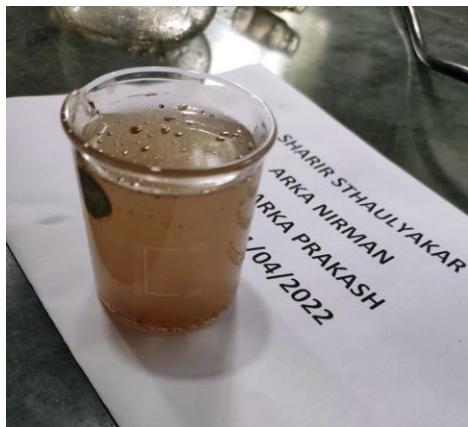
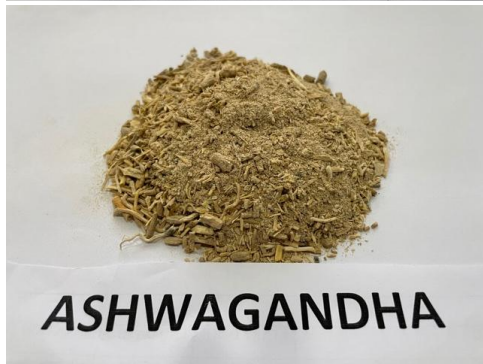
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Images-



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