

A COMPARATIVE PHARMACEUTICO ANALYTICAL STANDARDIZATION OF TRIPHALA KASHAYA WITH TRIPHALA ARKA

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ABSTRACT

Panchavidhakashayakalpanas are the basic or primary preparations of BhaishajyaKalpana. The different dosage forms like Swarasa, Kalka, Kashaya, Hima, Phanta have shelf life of 24 hours. In order to increase the shelf life these primary preparations are processed and converted into secondary dosage. To meet the need of time and to fulfil the requirements like long self-life, palatability, low dose, quick action, easy dispensing and handling, several upkalpanas were discovered, like Vatikapana, Avaleha, Sandhan, Sneha, arkaKalpana etc. Arka is a liquid preparation obtained by distillation of certain liquids or of drugs soaked in water using the ArkaYantra. For the present study a critical evaluation on preparation of Triphala Kashaya and TriphalaArka by following the Standard Operating Procedure (S.O.P) was done by considering suitable Analytical parameters. For pharmaceutical standardizing preparation of Triphala Kashaya and TriphalaArka was repeated five times

KEYWORDS: Ajmodadichoorna; Ayurveda; Pharmaceutico - Analytical Standardization.

INTRODUCTION

BhaishajyaKalpana is the branch of kinds of dosage forms and their therapeutic utility. Among the large number of formulations specified by Acharyas, the Panchavidha primary basic dosage forms from which other secondary dosage forms are prepared.

Panchavidhakashaya kalpanas,^[1] are the basic or primary preparations of BhaishajyaKalpana. The different dosage forms like Swarasa, Kalka, Kashaya, Hima, Phanta have shelf life of 24 hours. In order to increase the shelf life these primary preparations are processed and converted into secondary dosage forms.

Kwatha is a primary dosage form where the drugs are boiled with prescribed amount of water and reduced to specific amount. In this preparation water soluble active principles present in the drugs are extracted. The effectiveness of kwatha will change with time and temperature. Keeping this in core and looking to marketing of these Kashayas is difficult. Considering the less shelf life and changes in action with preservatives,

secondary dosage forms like ArkaKalpana becomes better alternative.^[2]

Arka is a liquid preparation obtained by distillation of certain liquids or of drugs soaked in water using the Arka Yantra.^[3] ArkaPrakasha describes Kalka, Churna, Rasa, Taila and Arka as Panchavidha Kashaya Kalpana.^[4] Among these, Arka is said to be the most potent. This preparation has specificity in the preparation aspect with increased shelf life and reduced dosage.

TriphalaArka is an important formulation which is used in treating the diseases like Prameha, Kustha, Jwara and various Paitika Rogas.^[5]

TriphalaKwatha is indicated in vrishana shotha.^[6] with gomutra, Bhagandhara.

In this study preparation of TriphalaArka and TriphalaKwatha and its analytical evaluation was carried out. For pharmaceutical standardizing preparation of Triphala Kashaya and TriphalaArka was repeated five times.^[7]

MATERIALS AND METHODS

Materials

SL. No	Dravya	Rasa	Virya	Vipaka	Guna
1.	Amalaki	Pancharasa (LavanaVargita)	Seeta	Madhura	Laghuruksha, Sheeta
2.	Haritaki	Kashaya	Ushana	Madhura	Laghu, Roksha
3.	Vibhitaki	Kashaya	Anusha	Madhura	Rooksha Sara

Dravya Scientific name, parts used and proportion.^[8]

SL. No	Dravya	Scientific Name	Parts Used	Proportion in Grams	
				Kashaya	Arka
1.	Amalaki	Emblcaofficinalis	Fruit	30	45
2.	Haritaki	Terminalia Chevula	Fruit	30	45
3.	Vibhitaki	Terminalia Bellerica	Fruit	30	45

Methods

A. Preparation of Triphala Kashaya

1. Drug Mixture of Triphalayavakutachurna (90g) was soaked in stainless steel container with 8 parts (720ml) for 12 hours.
2. Boiled and reduced to 1/4th of the quantity i.e. 180ml.
3. In the same manner 5 samples of Triphala Kashaya prepared.

B. Preparation of Trihapa Arka

1. Drug mixture of Triphalayavakutachurna (45g) is taken in a stainless steel in 450ml of water for 12 hours.
2. Then it is transferred to heating mantle.
3. Distillation apparatus are heated at 100° temperature and maintain the same for 30 minutes.
4. After 30 minutes, temperature was reduced to 70° and maintain the same temperature throughout the procedure.
5. Arka started draining out after 50 to 55 minutes to a receiver.
6. First and last 5 to 10 drops are discarded as it doesn't contain the active principles.
7. Like this same 5 sample are prepared as per the standard operative procedures.

Physico chemical study of 5 samples of Thriphala Kashaya & TriphalaArka^[9]

Organoleptic Characteristics

1) Loss on drying

This test was conducted to find out the moisture content in the sample Kashaya (Residual dried drug). About 1g, accurately weighed sample was taken in a previously dried and weighed dish and heated in a hot air oven at 110°C till constant weight. It was cooled and the weight was noted. Difference between the weights was calculated and taken as the loss on drying. The loss on drying of the sample was expressed as % w/w.

2) Determination of pH: The pH value conventionally represents the acidity or alkalinity of an aqueous solution. In the pharmacopoeia, standards and limits on pH have been provided for these pharmacopeial

substances in which pH as a measure of the hydrogen activity is important from the standpoint of stability or physiological suitability. The measurement of pH is generally done with a suitable potentiometric meter known as the pH meter fitted with two electrodes, one constructed of glass and sensitive to hydrogenation activity and the other a calomel reference electrode.

3) Determination of Specific gravity

The specific gravity of a liquid is the weight of a given volume of the liquid at 25° (unless otherwise specified) compared with the weight of an equal volume of water at the same temperature, all weighing being taken in air.

Method^[10]

Proceed as described under Wt. Per ml. Obtain the specific gravity of the liquid by dividing the weight of the liquid contained in the pycnometer by the weight of water contained, both determined at 25° unless otherwise directed in the individual monograph.

Determination of Total Ash^[11]

Incinerate about 2 to 3 g accurately weighed, of the ground drug in a tared platinum or silica dish at a temperature not exceeding 450° until free from carbon, cool and weigh. If a carbon free ash cannot be obtained in this way, exhaust the charred mass with hot water, collect the residue, Calculate the percentage of ash with reference to the air-dried drug.

Determination of Acid Insoluble Ash^[12]

Boil the ash obtained in (2.2.3) for 5 minutes with 25 ml of dilute hydrochloric acid; collect the insoluble matter in a Gooch crucible or on an ash less filter paper, wash with hot water and ignite to constant weight. Calculate the percentage of acid-insoluble ash with reference to the air-dried drug.

RESULTS

The results were assessed in following section Triphala Kashaya and triphalaArka were subjected to physicochemical analysis.

The results are tabulated in following tables.

SL. No	Test Parameter	Triphala Kasha of 5 Sample	TriphalaArka of 5 Sampla
1.	Colour	Light Brownish	Colour less
2.	Taste	Astringent	Astringent
3.	Odour	characteristicsTriphal Odour	characteristicsTriphal Odour
4.	Form	Liquid	Liquid
5.	Loss on drying at 105°C	3.425-3.944	-
6.	Ph	3.132-3.132	5.082-5.012
7.	Specific Gravity	1.422-1.070	1.001-1.002
8.	Total Ash %	4.050-4.558	-
9.	Acid Insoluble %	0.641-0.794	-

DISCUSSION

Development of Triphala Kashaya and TriphalaArka and its analytical study was taken in this study sample shown the analytical standards in accordance with Ayurvedic pharmacopeia standards.

Physico chemical parameters of TriphalaArka where suggestive of the quality and increased self-life with good palatability.

CONCLUSION

Analytic parameters were within the parameters mentioned in API and where suggestive of the genuine of the Raw materials and quality of the end product obtained.

The Pharmacochemical parameters such as loss on drying, Ph, specific gravity, acid insoluble ash and organoleptic characteristics TriphalOdour can be effectively used for standardization of Triphala Kashaya and TriphalaArka.

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