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Review Article

MODIFICATIONS OF *PANCHA VIDHA KASHAYA KALPANA*

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ABSTRACT

Science has perplexed humanity in its way of adapting and evolving according to the generations. Modifications and changes are imperative for any science to grow and reach greater heights. The age- old system of medicine, *Ayurveda* is also no exception in this regard. *Ayurveda* have many number of effective basic formulations for treating various diseases and disorders but problems of less shelf life and un-palatability pose as major challenge to patients. To use these formulations in this present era they require effective modifications into new dosage forms with more shelf life and palatability that suit to the patients without compromising the underlying basic principles and by which the effective basic preparations can be available to treat many number of diseases. This paper highlights the review on *Pancha vidha kashaya* and their modifications for the need of present era.

Keywords: Need for Modification, *Pancha vidha kashaya kalpana*, Modification of *pancha vidha kashaya kalpana*.

INTRODUCTION

Every man of this universe can take the drug inside the body either as diet or in the form of medicine. But every drug must be formulated in such a way, so that it should be easy for administration. For this purpose, different processes are derived which are known as *Kalpana* - which indicates the methods and procedures involved in the manufacturing process of formulations. So *Kalpana* is a method/ process or a sort of modification / transformation /conversion or plan of preparation of medicines using either a single drug or several drugs¹.

Pancha vidha kashaya kalpanas being the primary preparations and the most widely used formulations as a starting dosage form as well as a base for many different dosage forms, the modification that can be done for these are a point of immense interest. This paper is an attempt to review

the possible modifications in the *pancha vidha kashaya kalpana*.

IMPORTANCE OF DOSAGE FORMS

The importance of various dosage forms in *Ayurveda* is to make it compatible and palatable to the patient. In order to do this the potency of a drug can also be increased or decreased. In accordance with the *roga, bala, prakruti* and *satmya* of the patient dosage can be fixed.

PANCHA VIDHA KASHAYA KALPANA

In *Ayurveda* there is an explanation of different dosage forms or *kalpanas*. It is mainly classified into two types; *Aushadha kalpana* and *Ahara kalpana*. *Aushadha kalpana* can be again classified into two; Primary *kalpanas* and Secondary *kalpanas*. Primary *kalpana* ie, the *Panchavidha kashaya kalpanas* are considered to be fundamental preparation in *Ayurvedic* pharmaceuticals which is having good therapeutic action and prepared for instant use.

Table 1: *Kashaya Kalpanas* by Different Authors

No	Charaka ²	AS ³	AH ⁴	Sharangdhara ⁵	Arka Prakasha ⁶	Sushruta ⁷	Kashyapa ⁸
1	Swarasa	Niryasa	Rasa	Swarasa	Kalka	Ksheera	Churna
2	Kalka	Kalka	Kalka	Kalka	Churna	Swarasa	Sheeta
3	Sruta	Niryuha	Sruta	Kwatha	Rasa	Kalka	Swarasa
4	Sheeta	Sheeta	Sheeta	Hima	Taila	Shruta	Abhisava
5	Phanta	Phanta	Phanta	Phanta	Arka	Sheeta	Phanta
6						Phanta	Kalka
7							Kwatha

MERITS OF PANCHAVIDHA KASHAYA KALPANA

Pancha vidha kashaya kalpanas are the basic formulations in *Ayurvedic* pharmaceuticals from which various *upakalpanas* and secondary preparations are made. *Kashaya* is that which irritates the throat and *Kashaya kalpana* ⁹ irritate the disease condition and drove them away from the body.

DEMERITS OF PANCHAVIDHA KASHAYA KALPANA

The selection of *Kashaya kalpanas* for treatment purpose depends on various factors like *roga*, *rogibala* etc. The use of these *kashaya kalpanas* were very much reduced because of its short shelf life, lack of proper protocol for testing and practise of this medicine become difficult. These factors gave thoughts to ponder over neo-formulations that can be made from *pancha vidha kashaya kalpanas* and their *upakalpanas*.

IMPORTANCE AND NEED OF MODIFIATION

All *Kalpanas* are aimed at isolation of suitable active principles through different media. Application of modern technology has given aesthetic approach to existing and neo-formulations. So primary preparations are modified into

acceptable form with increased shelf life, palatability, easy dispense, global acceptance and marketing standards etc.

Mainly modification are done for increasing palatability, Shelf life, Adopting to market standards, Compatibility-patient compliance, Global acceptance, Easy administration, Dosage fixation. Modification can be done by improving appearance, form, increasing therapeutic utility or potency, by enhancing Shelf life, by simplifying Dispensing and portability and by increasing palatability.

MODIFICATIONS OF PANCHAVIDHA KASHAYA KALPANA

As different authors have mentioned different opinion regarding *Panchavidha kashaya kalpana* classification by *Sharangadhara* is commonly followed. They are *Swarasa*, *Kalka*, *Kwatha*, *Hima*, *Phanta*.⁴

SWARASA

The freshly extracted juice from the drug is known as *Swarasa*¹⁰

Table 2: Modifications of Swarasa

Types	Modification	Utility	Merits	Demerits
<i>Agni sidha swarasa</i>	<i>Ghana vati</i> , Syrup (eg: <i>kumari</i> , <i>ikshu</i>)	Shelf life Palatability	Converting into Juice and packing in Tetra pak it can preserve for long time and spoilage or contamination can be prevented	There may be chance of reduction in efficacy due to change in chemical properties of preparation
	Dry powder (sunlight, vacuum dry), Juice (tetra pak)			
<i>Anagni swarasa</i>	Pouch pack of dry powder			

KALKA

Kalka is a soft paste of a wet or dry drug prepared by grinding wet drug without adding water and dry one with little water¹¹.

Table 3: Modifications of Kalka

Modification	Utility	Merits	Demerits
<i>Churna</i> Tetra pak of <i>kalka</i> (mainly for preservation) Pouch pack	Shelf life palatability, package	Easy usage by mixing with any <i>drava dravya</i> If it is converted by vacuum drying to <i>churna</i> heat sustainable active principles can be preserved Dry: moisture content will be reduced and thereby microbial contamination and spoilage can be arrested	Conversion with <i>agni</i> loss of volatile principles and change in chemical properties

KASHAYA

One part of coarsely powdered drug is boiled with 16 parts of water in an earthen pot and kept over fire till liquid is reduced to 1/8 part of original quantity¹².

Table 4: Modifications of Kashaya

Modification	Merits and Demerits
Tablet , <i>Ghana vati</i>	Unit dosage form, distaste of <i>kashaya</i> can be avoided Easy administration, easy to carry, shelf life increases, Children compatibility
<i>Kashaya sookshma churna</i>	Without losing its potency can be store for long time, time saving compared to preparation of <i>Kashaya</i>
<i>Arishta</i>	Shelf life increases, palatability, here self generated alcohol itself act as preservatives, Due to <i>madya guna</i> easy absorption and action of drugs. By using Jaggery in fermentative preparations they become palatable and nutritive in their effect. and compatible for children Demerits Time involved for preparation of <i>arishta</i> and prescription excluded in Diabetes
Syrup	Shelf life, easy administration for children, (as sugar is one of the content), less dose Demerits: In all the condition syrup cannot be administered in place of <i>kashaya</i> (exception diabetes)
<i>Arka</i>	Easy preparation and administration, No need of preservatives. lower dose, palatability, easy administration, longer shelf life

UTILITY

Shelf life, Palatability, Dose fixation

*PRAVAHI KWATHA*¹³

Concentrated and fermented formulation is a new modified dosage form prepared by concentrating one of the basic formulations of *Ayurveda*, i.e. *kwatha* or decoction. Due to its increased palatability & stability most of the pharmacies have started marketing these types of dosage form in place of decoction.

HIMA

One part of drug is put in 6 part of cold water and kept overnight in an earthen pot. Next day the drug is taken and macerated well and filtered through a clean cloth.¹⁴

PHANTA

The coarse powder of a drug is put into hot water and it is rubbed and filtered with a cloth.¹⁵

HIMA AND PHANTA

Table 5: Modifications Of Hima And Phanta

Modification	Utility	Merits
Syrup(<i>Agni sidha</i>) Pouch pack	Palatability. reduce dose	Syrup: Palatability, Children compatibility Pouch pack: easy usage and prevent contamination Demerits: In all the condition syrup cannot be administered (exception diabetes)

DISCUSSION

By closely inspecting the available literature in *Ayurveda*, it becomes clear that the references regarding the use of herbal drugs were seen from Vedic period itself, in its crude form, provided the detailed processes involved in the preparation not mentioned. This again clearly indicates that there was only modification in the techniques in each and every formulation and thereby its development over the coming ages rather than the evolution of a new dosage form. Even the neo formulations had its core or base in the five basic *kalpanas*.

In ancient era *Ayurvedic* medicines were prepared by the physician himself for the use of his patient, but in present scenario because of increased population and growing demands, it becomes practically impossible for a physician to prepare medicine by himself. The advent of commercialization in *Ayurvedic* medicines at national and international levels lead to large scale manufacturing. So today modification becomes indispensable in a bulk manufacturing unit and therefore done to make different formulations from the *Panchavidha Kashaya Kalpana*. The major processes involved in the modification of the primary dosage forms include drying of the raw drug, heating of the formulation and thereby making it into thicker consistency, addition of sweetening agents, fermentation, packing and containers used in storage or preservation. Since the main aim of modification is to retain the therapeutic efficacy of the dosage form, improved shelf life and increased palatability the various processes listed above rightly serves their purpose. By heating the moisture content if any present in the formulation or in the raw drug is removed thereby preventing susceptibility to microbial attack. The method of heating the liquid preparations into thicker semi- solid or solid dosage forms also greatly reduces the amount of moisture in a formulation. The addition of sweetening agents serves the dual function of improving the palatability as well as to enhance the shelf life. Fermentation process leads to the generation of alcohol, which further arrests the action of micro organisms. The different types of packing and storage materials employed nowadays ensure that no cross contamination happen once the final product is formed.

CONCLUSION

In current scenario, there is a need to develop new formulations along with the specific modifications in the older formulation to gain wider acceptance. According to existing fast moving life there is a demand of ready to use products in every field. *Bhaishajya Kalpana* branch contributed to aid the physician to utilise this *Bheshaja* in various forms and styles to fight the disease. Sometime to complete the needs of all time availability, easy dispensing, palatability etc a number of *Kalpanas* were developed. But the base of all these were embedded in five basic *Kalpana* only.

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