

A Literature Review on Various Ayurveda Dosage Forms

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Abstract

Ayurveda is an ancient system of medical science which elucidates about the different forms of dosage, which is the physical form of a medication deliberate for administration. As per Ayurveda the different types of dosage forms can be prepared by the Vaidya (physician) according to Yukti (solution by scientific logic), seeing samyoga, vishesha, kala and samskara. Different types of dosage forms have been described in the Ayurvedic texts. These all are classified into different types such as Aushadhakalpana, Aaharakalpana, and Bahyaand Abhyantarakalpana, including solid, liquid and semisolid forms, as well as their sources also such as plant, animal and mineral origin. The dosage forms are mainly premeditated to increase shelf life, palatability and to alter potency. These all can be used for both purposes internally and externally. Few of the dosage forms of them have been described mainly based on the physical mode of medicine, its uses and advantages.

Keywords: *Samyoga, Vishesha, Kala, Samskara, Aushadhakalpana*

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INTRODUCTION

Ayurveda is an ancient system of medical sciences which is related to life. It is based on Trisutra—Hetu, Linga and Aushadhi. Among these all Aushadhi plays a vital role in the treatment. Aushadhi acts as an aid for the other branches of Ayurveda. Aushadhi is used for the purpose of maintaining a good health as well as to cure diseases in mainly humans. It is generally administered as per the condition and convenience of the patient. There are particular definition of different dosage forms in Ayurveda which have been explained nearly 5000 years ago. These all are explained in classics for the purpose of making it appropriate without losing the potency or efficiency of the drugs. All the aspects such as Desa, Kala, Bala etc has been explained or clarified in a systematic manner. In classics it is elaborately mentioned that different dosage forms can be made by the Yukti (solution by scientific logic) of the Vaidya (physician) involving principle of Samyoga or Vibhaga to convert into another dosage form.

Also the potency of a drug can be increased or decreased by the same way. Kala and Samskara play a very important role in drug collection and accelerate the potency of the

drugs. In Ayurvedic text they have also mentioned about the ideal qualities of a drug. It should be suitable for preparing many preparations. It should possess the gunas (quality) and should be promptly available. The total number of dosage forms explained in Ayurveda text is not expressed by any other system of medical sciences.

IMPORTANCE AND DEFINITIONS OF VARIOUS DOSAGE FORMS OF AYURVEDA

In the influence of various dosage forms in Ayurveda is to make it appropriate and acceptable to the patient. In order to do this, the potency of a drug can also be altered—increased or decreased. It is also used to increase the shelf life of the particular formulations or preparations. Dosage can be established in conformance with the roga, bala, prakruti and satmya of the patient. The particular definitions which are very important has been defined here which include drug, dosage form, kalpana, formulations or preparations.

Drug (Drug and Cosmetic Act)

Drugs including all the medicines and

formulations are predetermined for internal or external use or aid in the diagnosis, treatment, mitigation or prevention of disease or disorder in human beings or animals.

Dosage Forms

It is defined as physical form of a chemical compound used as drug or medication intended for administration or consumption.

Kalpana

It is a method, process or a kind of adaptation, alteration, modification, transformation or plan of preparation of medicines by using either a single drug or combination of several drugs. It can also be known as a science or technique which explains or expresses about the various methods of preparation, formulation or processing of drugs. Different kalpanas have been expressed in Ayurvedic text which stands good even for present era.

We can see the different types of dosage forms/kalpana based on its physical property. It can be grouped under three main groups, namely solid, semisolid and liquid dosage forms/kalpana.

Various Dosage Forms According to Physical Status of Product

Liquid Dosage Forms

Swarasa (Juice of Drugs) [1]

The juice extracted from the drug is known as swarasa. It is one of the basic preparations in Ayurveda and one among the pancavidha kashaya kalpana and the most potent among them Ex: Tulasi swarasa. It is used as a bhavana dravya and as shodhana dravya in mineral preparation. It is mainly administered in the dose of 1/2 –1 pala. There are different methods involved in the extraction of juice from drug and they are mainly based on nature of drugs. The different methods involved for extraction are pounding for soft drugs, adding eight times of water and reducing it to 1/4 parts for hard drugs and putapaka method is adopted for fibrous drugs.

Kwatha (Decoction) [1]

It is another basic preparation where the coarse powder form of a drug is taken and it is boiled with different ratio of water; as in case of soft drugs, four parts of water is used. In case of

medium and hard drugs, eight times of water is used and in case of very hard drugs, 16 times of water is used in an earthen pot and it is heated on mandagni till it is reduced to 1/8 parts of the original quantity. For example, rasnadi kwatha the dose of this kind of preparation is 2 palas (96 ml). It can also be used for secondary preparation such as preparation of medicated ghee and oil. and also used as anupana, niruhabasti, and bhavanadravya. There are certain upkalpana of kwatha such as pramathya kalpana, paniya kalpana, usnodaka, ksirapaka, laksarasa, and mamsa rasa.

Table 1: Showing Liquid, Semisolid and Solid Dosage Form of Ayurveda.

Liquid dosage forms	Semisolid dosage forms	Solid dosage forms
Swarasa	Kalka	Churna
Kasaya (Kwatha)	Avaleha	Ganavati/ Rasakriya
Hima	Lepa	Khanda
Phantha	Siktha taila	Guddapaka
Pramathya	Malahara	Guggulu
Paniya	Upanaha	Sattwa
Usnodaka	***** *****	Lavana
Ksirapaka		Ayaskrti
Laksarasa		Vati
Masmasa rasa		Ksara
Mantha		Masi
Udaka		Varti
Panaka		***** ****
Arka		*****
Sarkara		
Asavarishta		
Sneha		
Sandhana		

Hima (Cold Infusion) [2]

It is also one of the primary preparations mentioned in Ayurveda. One part of drug is put in six parts 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, and the formulation thus obtained is called as the Hima kalpana. It is

also known as cold infusion. This type of preparation mainly acts as a pittashamaka and hrudya and they can also be used as an instant source of energy, e.g. Dhanyaka hima. The dose of this kind of preparation is 2 pala (96 ml). The upkalpana of hima are mantha kalpana, udaka kalpana, and panaka kalpana.

Phanta (Hot Infusion) [3]

It is the last preparation among the pancavidha kashaya kalpana. Here the coarse powder of a drug is put into hot water and rubbed and filtered with a cloth. By this there is softening of the drugs takes place as the extraction of all the volatile principles from the drug to water. It is considered to be the least potent among the panchavidha kashaya kalpana.

Arka [4]

It is a secondary preparation which is obtained by distillation of certain liquid or drugs soaked in water and extracted by an arkayantra. It is used in the case of agnimandya, amaajeerna and amatisara.

Sarkara Kalpana [5]

The medicines in the syrup form are called sarkara. Here two parts of sugar is added to one part of kwatha/swarasa/hima is added and heated on mandagni till it gets proper paka and after cooling it is filtered and mainly used for children due to its sweetness. The sugar concentration in this preparation will be 66.7% due to which it also acts as a preservative .eg. parushaka sarkara.

Asavarishta [6]

Asava and Arishta are a special kind of medicinal preparation which are made by soaking the drugs either in the powder form or in the kashaya form in a solution of sugar or jiggery for a specific period of time for fermentation to generate alcohol. The alcohol thus generated acts as a preservative and thus facilitating the extraction of active principles contained in it. It is preserved for many years, eg. draksarista, kanakasava.

Taila/Grutha Kalpana [7]

Taila /Grutha are preparations in which taila are boiled with a prescribed kashaya and kalka according to the formula. This is mainly in the ratio 1:4:16. This form of medicine can be

used internally as well as externally, eg. Triphalagrutha, Dhanwantara taila.

Semisolid Dosage Forms

Few kalpanas of semisolid dosage forms are explained below:

Kalka [8]: It is a soft paste prepared by both wet and dry drugs prepared by grinding wet and dry drugs, eg. Nimba Kalka.

Avaleha Kalpana [9]: It is another type of semisolid preparation which is prepared either by adding jiggery and/or sugar, and is boiled with a prescribed drug, decoction of drug or its juice to get a semisolid preparation known as Avaleha; eg. Kushmanda Avaleha.

Rasakriya [10]: It is also another type of semisolid preparation where the swarasa is extracted, boiled down to thick consistency so as to obtain a semisolid preparation known as Rasakriya. It is used mainly for the bitter drugs, so it will be easier for consumption and the dosage of the drug can be minimized, e.g. Daruharidra Rasakriya.

Solid Dosage Forms

Few kalpanas of solid dosage forms are explained below:

Churna Kalpana [11]: Churna is a powder of a single drug or a mixture of two or more drugs. Here the drugs are finely powdered and filtered through a cloth so that the powder is very fine which can be used internally as well as externally. This can be used for preparations such as Vati, Avalehya etc.

Vati Kalpana [12]: It is solid preparation which is prepared either by cooking the powder of a drug with jaggery, sugar or guggulu or without cooking. Then macerating the powder with liquid like honey and guggulu and then rolled into pill forms. This form is considered to be the most convenient form of medicine for the patient. It can also be used internally and externally and can be used for many years, e.g. Bilvadi gulika, Triphala guggulu.

Varti Kalpana [13]: It is similar to vati but medicines are modified into a yavakriti form ie, along with tapering ends; eg. Gudavarti.

Lavanakalpana [14]: It is one of the solid forms where the saindhavalavana is powdered and combined with arka, narikela, and is covered and puta is given on agni so as to obtain a black coloured lavana. It can be preserved for many years when kept in airtight containers, e.g. Narikelalavana.

Ksharakalpana [15]: Ksharas are alkaline substances which are obtained from the ash of drugs. It is used both internally as well as externally. Internally used kshara is called paniyakshara and externally used kshara is called pratisaraneyakshara. It is again divided into three types i.e., mrudu, madhyama and teekshnakshara. It is considered to be one of the anusastras and last indefinitely, eg. Yavakshara, Apamargakshara.

Masikalpana [16]: Conversion of a drug into its carbon form by burning is called as masikalpana. The drug from which masi is prepared should be powdered and placed in a sarava and samputa is prepared by placing another sarava over the first one and sealing it. It is thus prepared by giving either laghuputa or mahaputa according to the nature of the drugs involved. After the cooling of the samputa, the prepared masi is ground once again to obtain a homogeneous and fine powder, eg. Triphala masi.

DISCUSSION

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 kalpana and Secondary kalpana. Primary kalpana are considered to be fundamental preparation which is used directly, eg. Swarasa, kalka, pancavidha kashaya kalpana. Secondary preparations are prepared by using primary kalpana, eg. Vati, Avaleha, etc. According to usage it can again be classified into two types, Bahya kalpana and Abhyantara kalpana. Based on origin it is classified into plant, animal and mineral origin. It can be again classified according to the state in which they are present i.e., liquid, semisolid, and solid.

CONCLUSION

All the Kalpanas which have been mentioned in Ayurveda are mainly aimed at isolation of

suitable active principles through different media such as water, oil and ghee. These different aspects have to be considered in the preparation of formulations such as samyoga, vishlesa i.e., combination and separation of different drugs keeping into consideration factors like kala, samskara etc. The various kalpana as explained is formulated to achieve increased shelf life, increased potency and greater palatability along with its application of modern technology. I would like to conclude that the selection of the various dosage forms is left to the Yukti of the Bhishak as per the needs of the patient.

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