

**A Review Study of Kwath Kalpana and its Upkalpana****Vd. Riyazuddin R. Siddiqui**

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**Abstract**

*In ayurveda rasashastra and bhaishajya kalpana are two important branches. Bhaishajya kalpana mainly contents five basic forms of drugs which are swaras, kalka, kwatha, hima and phanta. Among these five forms kwatha kalpana has its special place. kwatha kalpana is widely used in various diseases, it can be used independently as medicine, also it is used as basti dravya in niruha basti, it is also used in production of other herbomineral or metallic preparations. kwatha is highly recommend in purification process of various toxic drugs, metals etc. kwath kalpana is used for implementation of several other kalpanas to extend their shelf life, enhance their potency, increase their acceptability. There are few upkalpanas of kwatha like Rasakriya, Ghanakalpana, churna kalpana, vatika, gutika, prawahi kwath, granules, syrup etc.*

**Key words** – kwath kalpana, upkalpana, bhaishajya kalpana .

**Introduction**

**I**n Ayurveda Rasashastra and bhaishajya kalpana is a branch which deals with the study of preparation of ayurvedic medicines. Rasashastra deals with the study of metalo-mineral preparations where as bhaishajya kalpana deals with the study of herbal preparations. Bhaishajya kalpana deals with five basic kalpanas as swaras, kalka, kwatha, hima and phanta. Among which kwatha kalpana acts as a base form of drugs for preparation of sandhan kalpana, sneha kalpana, avleha kalpana etc. kwatha kalpana is also used as a media for various purification processes in rasashastra. kwatha of various herbs are independently used as medicine itself in several diseases. Along with other drug forms kwatha is used as an anupan. In Ayurveda the active part or quality of herb should reach and absorb through systems of human body. As many of herbs have their basic principle constituents water soluble, kwatha has its own importance. Basic bhaishajya kalpanas do have some demerits as higher chances of contamination, lesser shelf life, bitter taste, more volume of dosage form. To counteract these demerits there are various upkalpanas of kwath like Ghana kalpana, rasakriya, churna, gutika, vatika etc. which do have better adaptability, acceptance, more shelf life.

**Drawbacks of Kwatha –**

- In today's world people do not have that much time to prepare kwatha every time, so advance dosage form of kwatha is needed to increase shelf life.
- It is not easy to ensure quality control of herbal ingredients of kwatha.
- As kwatha is in liquid form the storage and transportation is quite difficult to deal with.
- As the preparation of kwatha is time consuming one can not avoid the probable loss of active ingredients.
- maintain IPQC ( In process quality control ) parameters like heat, quantity of water, form of raw drug is a difficult task.

**Preparation of kwatha**

One part of coarse form of drug is mixed with 16 parts of water, the mixture is subjected to heat for boiling till the mixture is reduced to 8 th part of original volume, the remaining part is filtered and the filtrate is called as kwatha.

According to the nature of the raw material the quantity of water is decided. If the raw drug is in soft form ( mridu) the water required is 4 times of the drug. If the raw drug is hard then required water proportion is 8 times of raw drug. If the raw drug is

very hard then required proportion of water is 16 times of it.

Like quality quantity also decides ratio of water for making decoction of 1 tola to 4 tola (1 pala) of drug, the required water is 16 times of drug. For drug of weight 1 pala to 1 kudava 8 times water is required, for drug of weight 1 kudava to 1 prastha 4 times water is required.

**Precautions in kwatha preparation**

1. Adulteration of drugs should be checked before starting to prepare kwatha.
2. Course form of raw drug should be used to prepare kwath.
3. Pot in which kwatha is being prepared should be chemically inert.
4. No strong fire should be given while boiling process, mild to moderate fire should be given.
5. The pot should be kept open it, should not be covered.

**Dose of Kwatha**

Dose of kwatha is 4 tola (96 ml)

**Shelf Life of Kwatha**

Kwatha should be used instantly.

**Dosage forms of kwath kalpana:**

In medical practice vaidya should consider the quality, efficacy, safety and acceptability of drug before prescribing it to the patient. To make the drug more palatable form, odour and taste of drug should be processed to an acceptable form. Shelf life of prepared medicine also plays an important role, as kwatha is to be used instantly there is need of converting it to the longer shelf life preparation. Here in this study possible literature and research papers were reviewed to put a light on the various dosage forms of kwatha.

**a) Rasakriya and ghan kalpana :-** Rasakriya is an upkalpana of kwatha kalpana which is prepared by modifying kwatha into more concentrated form. kwatha is allowed for more heating till the preparation turns into dried solid form. Eventhough the water content is evaporated the properties of active drug are stable and maintained.

**b) Churna** –Churna is a (powder form) of kwatha upkalpana. Here the decoction is subjected to heat and processed through vacuum, the water content

gets evaporated and we get semisolid form like a paste. The semisolid paste is poured into spray drier, which allows the remaining moisture content to evaporate and ultimately we get dry powder. No extra chemically active materials are used and the properties of drugs are unaltered.

**c) Gutika/vatika-** This upkalpana of kwatha is highly palatable and very widely used in practice. The semisolid paste like form of kwatha is processed with jaggary guggulu etc. the mixture is allowed for granulation and then by hand or by machines the gutika or vatika are prepared e.g. Eladi gutika etc.

**d) Granules-** Granules is another upkalpana of kwath, for preparing granules the freshly prepared kwatha is boiled on mild fire in an open vessel. Continuous stirring should be done so as to get a homogenous mixture. Heat should be given until we get a mass of uniform consistency. The mass is passed through sieves according to the required size of granules. Granules are prepared which are firstly dried in room temperature then dried in an oven.

E.g. Shatavari granules, chyawanprash granules. Nowadays various flavours are being added to granules, to make them more easily palatable for children and ladies patients.

**e) Pravahi kwatha** –This is also called as Arishta upkalpana of kwatha. In this method the kwath is processed with added sweeteners and fermenting agents. This upkalpana works on palatability and shelf life of kwatha. This dosage form is different from arishta of sandhankalpana which is having self generated alcohol. We can compare pravahi kwatha with the modern elixirs which are sweetened, hydroalcoholic and having a flavoured base.

**F) Syrup** -This is a modern dosage form of kwatha kalpana. Syrup form helps us to mask the bitter taste of herbs, unpleasant odour, so in today's pharmaceutical world this dosage form is on high demand. For preparation of syrup sugar or honey is added to kwatha, the mixture is heated ( if honey is added then heat is avoided ) upto getting one fourth of original volume. The consistency is checked while boiling. Continuous stirring is done to get uniform mixture. After getting required volume the mixture is filtered and stored. In today's pharmaceutical industries other additives like sucrose, colourants, solubilizing agents, stabilizers and preservatives are added.

**Discussion:**

Kwatha kalpana is one of the highly used and recommended dosage form of ayurvedic medicine. But in day today practice there are few drawbacks of kwatha kalpana like lesser shelf life, bitter taste of herbs and difficult transportation. So to overcome these drawbacks there is need of preparing other dosage forms of kwatha, to make the preparation more palatable with longer shelf life and easy for transportation. These are called as Upkalpana in Ayurveda. These dosage forms are Ghana kalpana, Rasakriya, Churna kalpana, Gutika, vatika, granules and syrup etc. In today's modern pharmaceutical world these dosage forms are again made more palatable for all age groups by adding additives sweeteners, colourants etc.

In preparation of kwatha kalpana few precautions are to be taken like the raw drug should be used in coarse form, vessel used should be chemically inert. Mild fire should be used for boiling etc. the fire strength depends upon the quality of drug to be processed like soft drugs, hard drugs etc.

**Conclusion**

This article reviews that kwatha is an important dosage form in Ayurveda. It acts as a basic dosage form for treating various diseases. It plays an important role in processing of other pharmaceutical products of rasashastra as a media. But as kwatha has some drawbacks there is need of modifying it in to other dosage forms like ghana, rasakriya, churna, gutika, vatika, pravahi kwatha. These modified dosage forms do show good results in achieving better palatability, longer shelf life and easier for transportation.

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