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Review article on *Kwatha Kalpana*

Dr. Baban Rathod[1], Dr. Shardul Chavan[2], Dr. Prajakta Arote[3]

[1]Professor, [2]Assistant Professor, [3]Post Graduate Scholar, Dept of Rasashastra and Bhaishajya Kalpana, APM's Ayurved Mahavidyalaya, Sion, Mumbai, Maharashtra, INDIA.

ABSTRACT

Kwatha Kalpana is the most significant and widely used dosage form in *Ayurvedic* pharmaceutics. It is one among basic *Panchvidh Kashaya Kalpana* of *Bhaishajya Kalpana*. It is a basis of preparatory method of other secondary dosage form such as *Snehapaka, Sandhana Kalpana, Avleha* etc. So to get good quality of this dosage form *Kwatha* should be of standard quality. To obtain good quality of *Kwatha* it's very important to concentrate on its pharmaceutical factors such as temperature, vessel for preparation, quantity of water, particle size of raw drugs, duration of heating.

Key words: *Kwatha, Panchvidh Kashaya Kalpana, Dosage form, Ayurvedic pharmaceuticals.*

INTRODUCTION

Ayurveda is an ancient science of treatment with holistic approach and minimal adverse drug reaction. *Bhishak, Aushadhdravya, Rugna, Paricharak* are described as *Chikitsa Chatushpada* in *Samhita* among which *Aushadh Dravya* is integral part of treatment. *Aushadh* can be administered in many forms as per state of *Atura* and *Vyadhi. Panchvidh Kashaya Kalpana* are the basic formulations of *Ayurvedic* pharmacy i.e., *Swarasa, Kalka, Kwatha, Hima, Phanta*. *Kwatha Kalpana* is the most significant and widely used dosage form in *Ayurvedic* pharmaceutics.

Synonyms

In *Ayurveda Kashaya, Shruta, Niruha* are synonym words have been used in different classics for *Kwatha.*

Address for correspondence:
Dr. Prajakta Arote
Post Graduate Scholar, Dept of Rasashastra and Bhaishajya Kalpana, APM's Ayurved Mahavidyalaya, Sion, Mumbai, Maharashtra, INDIA.
E-mail: prajakta815@gmail.com

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Nirukti

The word *Kashaya* generally refers to *Kashaya Rasa* (astringent taste). 'Ka' denotes *Kaya - Sharir* (body), *'Sha'* denotes functions, *'Ya'* denotes appropriate regulation. *Kashaya* means the one that helps to regulate body functions or helps maintain equilibrium.[1,2]

Definition

Kwatha is medicinal preparation in which coarsely powdered medicinal drug is boiled in sixteen times of water until residual portion of liquid is reduced to one eighth of entire matter and is filtered. The filtered liquid is termed as *Kwatha.*[3]

Standards for *Kwatha* Preparation

Proportion of Water

In *Kwatha Kalpana* proportion of water is important factor. *Kwatha* is prepared by boiling one part of herb with sixteen parts of water in an open vessel on mild fire till it reduces to one eighth of original quantity.[4] The quantity of water may be four times, eight times or sixteen times the quantity of herb. This variation in the amount of water depends on hardness of drug used i.e., *Mrudu, Madhyam, Kathina Dravya.*

In *Mrudu Dravya* water is taken four times as herb. Likely, in *Madhyam Dravya* water is taken eight times and in *Kathina Dravya* water is taken to sixteen times the herb.

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In *Sharangdhar Samhita, Acharya* has mentioned different ratio of water and drug particularly for *Sneha Kalpana.*[5]

Different proportions of water mentioned in classic depend on hardness as well as quantity of the drug used. Different *Acharya* explained different ratio of water and drug.

The ratio of drug and water with reference to its quantity by weight is also explained in *Sharangdhar Samhita*.

Table 1: Shows proportion of *Kwathaya Dravya* and water

Quantity of *Kwathaya Dravya*	Quantity of water
1 *Masha* - 1 *Pala*	16 times of water
Above 1 *Pala* upto 1 *Kudav*	8 times of water
Above 1 *Kudav* upto 1 *Prastha*	4 times of water
Above 1 *Prastha* upto 1 *Khary*	4 times of water

Vessel

Vessel used should be non-reactive to drugs. Vessel imparts a specific role in *Kwatha* preparation. Earthen pots are mentioned in classics having qualities such as temperature regulation, doesn't take part with chemical reaction with ingredients which are under processing.[6] Vessel should be kept open throughout boiling process. Intermittently use the ladle to stir *Kwatha.*[7] Nowadays stainless steel vessels are used due to easy availability, less costly and easy for maintenance hence preferred often.

Temperature

Regulation of temperature protects heat labile phyto constituents.[8] *Madhyamagni* is term used to denote mild to moderate heat in preparation of *Kwatha*. Temperature holds the significant factor in preserving thermolabile constituents. Therefore during the preparation of *Kwatha,* temperature should be maintained 85°-90°C.[9]

Particle Size

Mostly *Yavkut Churna* (coarse powder) is used. Particle size reduction is another important factor for *Kwatha.* Less the particle size more will be the surface area which ultimately encourages phyto constituents to enter in the solvent i.e, water and vice versa.

Panchbhautik properties of *Kwatha - Shabda, Sparsha, Roop, Rasa, Gandha*

Organoleptic Evaluation

Organoleptic characters like color, odour, taste, and consistency of *Kwatha* can be evaluated.

Different physical parameters can be evaluated using standard pharmacopoeial methods.

1. Specific gravity
2. p^H value
3. Water soluble extractive value
4. Alcohol soluble extractive value

Analytical Study of *Kwatha*

Qualitative and Quantitative analysis is important aspect of standardization of *Kwatha.* Standardization of *Kwatha* were achieved by physico-chemical analysis, qualitative inorganic and organic analysis, thin layer chromatography (TLC), UV-visible spectrophotometer and high performance liquid chromatographic (HPTLC) fingerprint studies.[10] Qualitative tests are used to detect the presence of functional group, which plays important role in the expression of biological activity such as presence of tannins, mucilage, ascorbic acid, saponins etc.[11] HPTLC is a more convenient and simple procedure in which finger printing profile is available in the form of graph and densitogram.

Dose of *Kwatha*

1. *Sharangdhar* - 2 *Pala*
2. *Bhavprakash*
   a) *Uttammatra* - 1 *Pala*
   b) *Madhyammatra* - 3 *Karsha*
   c) *Adhammatra* - 2 *Karsha*
3. *Sushruta* - 1 *Anjali* = 4 *Pala*
4. *Vangasen* - 4 *Pala*
5. *Vrindamadhav* - 1 *Pala*

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Saviryata Avadhi

Saviryataavdhi of *Kwatha Kalpana* is 1 *Prahar* i.e., 3 hrs.

Preservatives

The shelf life of decoction is very small, and it is advised that to be used immediately after preparation. It cannot be preserved for a longer duration. Therefore, it becomes necessary to use the preservatives which are inert and could maintain drug potency for a longer period. Though there are many such preservatives available, sodium benzoate is preferred for the industrial production.

Prakshepa

Prakshepa Dravya added to *Kwatha* increases palatability and therapeutic efficacy.

Prakshepa Dravyas of *Kwatha* and their quantity

- *Sita* should be added in *Kwatha* either in 1/4th, 1/8th or in 1/16th part depending upon *Vata*, *Pitta* and *Kapha* type of disease.[12]
- If *Madhu* is to be added then its quantity should be 1/4th for *Kaphaja*, 1/8th for *Pittaj* and 1/16th for *Vataj* disorders.[12]
- *Jiraka, Guggulu, Kshara, Lavana, Shilajatu, Hingu* and *Trikatu* should be added in one *Shana* (3gm) quantity.
- *Kshir, Ghrita, Guda, Taila, Mutra, Kalka, Churna, Kalka* etc. should be added in one *Karsha* (12gm) quantity.[13]

Upkalpana* of *Kwatha - *Pramathya, Kshirpak, Ushnodak.*

Haarita Samhita has mentioned total 7 types of *Kwatha*, viz. *Pachana, Deepana, Shodhana, Shamana, Tarpana, Kledana, Shoshana.*[14]

Table 2: Shows types of *Kwatha* according to *Haarita Samhita.*

SN	*Type of Kwatha*	Proportion of reduction	Time of administration
1.	*Pachana*	½	*Nisha*
2.	*Deepana*	1/10th	*Aparhana*
3 .	*Shodhana*	1/12th	*Suryodyatpurve*
4.	*Shamana*	1/8th	*Poorvhane*
5.	*Tarpan*	Equal	*Prabhate*
6.	*Kledana*	1/4th	*Prabhate*
7.	*Shoshana*	1/16th	*Nishite*

Advancement in *Kwatha Kalpana*

1. *Ghana*

Rasakriya or *Ghana* is concentrated dosage form, which is a modification of *Kwatha Kalpana.* It is prepared by boiling the *Kwatha* till semisolid form is attained and then drying it to solid state.[15]

2. Syrup

For preparation of syrup, initially, decoction is prepared by taking drug and adding 8 times water and boiled until total volume becomes one-fourth of the initial volume. Then, the decoction was cooled and filtered. Filtrate was taken to prepare final herbal syrup and adding sugar in the concentration of 66.7% and the mixture is boiled up to 1-2 thread consistency.[16]

3. *Pravahi Kwatha*

It is formulated by fermentation process and can be understood as the secondary formulation of decoction prepared by adding sweetening and fermenting agent.[17]

Discussion

Panchvidh Kashaya Kalpana are basic *Kalpana* of *Bhaishajya Kalpana.*[18] All other *Kalpana* are derivatives of these *Kalpana*. *Kwatha* forms base of various *Ayurvedic* formulations like *Asava-Arishta, Taila, Ghrita, Avleha* etc. *Kwatha* is used internally for drinking or for medicated enemas or externally for eye wash or *Swedana* purpose. *Kwatha* is one of the most used dosage forms among all primary pharmaceutical preparation of *Ayurvedic*

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pharmaceutics with a wide range of therapeutic usage.

The standardization of *Ayurvedic* classical dosage forms has been an area of academic, research, industrial and regulatory interests. Due to globalization, development in its different dosage form is needed without compromising the therapeutic efficacy. The dosage form is being modified and improved from decoction (liquid) to *Kashaya* powder, *Rasakriya*, *Ghana,* tablets, capsules, syrup, and *Pravahi Kwatha*. This conversion has many advantages over *Kwatha* preparation, i.e., acceptability and prolongs shelf life.

CONCLUSION

Kwatha is the potent therapeutic preparation of liquid form containing water soluble constituents responsible for therapeutic activity. *Kwatha Kalpana* is one of the most significant and efficacious dosage forms in *Ayurvedic* pharmaceutics. *Kwatha Kalpana* frequently referred to as decoctions - aqueous extraction of a group of herbs, is one of the most commonly used classical dosage forms where the therapeutic attributes are extracted from the group of botanicals into water, with the use of heat.

REFERENCES

1. Prasad P. V. N. R, Illustrated Bhaishajya Kalpana. 2nd edition. Varanasi; Chaukhambha Krishnasdas Academy; 2008. 143p
2. Deva Raja Radhakanta, Shabdakalpadrum, Vol.2. Varanasi; Chaukhambha Sanskrit Series; 1961. 937p.
3. Shashtri Kashinath, Chaturvedi Gorakhnath, Charaksamhita of Acharya Charak, Vidyotini Hindi commentary, Vimana Sthana 07:17. 12th Edition, Varanasi; Chaukhamba Bharati Academy; 1984. 729p.
4. Pandit Sharandhara Acharya, Sharandhar Samhita, Choukhambha Surbharti Madhyamkhanda, chapter 2, p133.
5. Pandit Sharandhar Acharya, Sharandhar Samhita, Choukhambha Surbharti Publication, Reprint edition 2001, Madhyamkhanda, chapter 9/3, p. 218.
6. Yogratnakara by Vaidya Laxmipati Shashtri, Choukhamba Prakashan, Varanasi, Edition (Reprint) 2010, p120.
7. Patil S, Chaudhary AK. Quantitative Estimation of Guduchi Ghana obtained from different amount of water used for Kwatha. International Journal of Pharmaceutical Archive. 2013; 2(6); 160-164p.
8. Patil, Shilpa & Chaudhary, A.K. Quantitative Estimation of Guduchi Ghana obtained from different amount of water used for Kwatha, International Journal of Pharmaceutical Archive-2(6), 2013, 160- 164.
9. Patil S, Chaudhary AK. Quantitative estimation of Guduchi Ghana obtained from different amount of water used for Kwatha. Int J Pharm Arch 2013; 2:160-4.
10. Umapati C. Baragi, Pramod C. Baragi, Mahesh K. Vyas, Vinay J Shukla, Standardization and Quality control parameters for Dashanga Ghana Tablet : An Ayurvedic Formulation, International Journal of Ayurveda Research, Jan-Mar 2011, Vol 2(1)42-47.
11. Kalsariya BD, Patgiri BJ, Prajapati PK. Standard manufacturing procedure for syrup and tablet forms of Jwarahara Dashemani. Int Q J Res Ayurveda 2010; 31:255-9.
12. Murthy K.R. Srikanta, Sharangadhar Samhita of Acharya Sharangadhar, Madhyamkhanda 2:4-6.1st edition. Varanasi; Chaukhambha Orientalia; 1984. 56-57p
13. Sharangdhar A. Sharangdhar Samhita. Madhyama Khanda. Ch.1. Varanasi: Chaukhamba Sanskrit Academy.
14. Pandey Jaimini, Harit Samhita of Harit. 1:47. 1st edition. Varanasi; Chaukhambha Vishvabharati; 2010. 186-187p
15. Ayurved Sara Samgraha. Pravahi Kwatha Prakarana. Varanasi: Choukhambha Surbharti Publication; 2013. p. 718-25.
16. Acharya YT, Siddha Yoga Sangraha. 13th ed., Vol. 1-6. Nagpur, Jwaradhikara: Baidyanath Ayurveda Bhavan Ltd; 2008. p. 4.
17. KarAmaresh, Mallika KJ, Harini A. Journal of Pharmacognosy and Phytochemistry 2018; 7(4): 3056-3060 (sodium Benzoete)
18. Shashtri Kashinath, Chaturvedi Gorakhnath, Charak Samhita of Acharya Charak, Vidyotini Hindi commentary, Sutra Sthan 04/07, 12th edition. Varanasi; Chaukhambha Bharati Academy; 1984.68p

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