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A CLASSICAL REVIEW ON KUPIPAKVA RASAYANA WITH SPECIAL REFERENCE TO DIFFERENT AYURVEDA TEXTS

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INTRODUCTION

Kupipakwa Rasayanas are very popular and commonly prescribed preparations among the Ayurvedic physicians, and are looked upon as panacea. These are prepared in a specially designed glass bottle by gradual heating immersion in sand bath (Valuka Yantra). Particular chemical processes are involved in these preparations which also bear testimony to the great chemical knowledge prevailing in ancient India. In the present review, the probable chemistry of Kupipakwa Rasayanas has been discussed.

"Chemistry is concerned with substances with kinds of matter, materials of which things are made. It is concerned with identifying or characterizing physical and chemical properties of substances and are transformed into other substances." Rasa shastra is the Ayurvedic chemistry, the science of life which deals with mercury (Rasa) and its processings. The ancient scholars of Rasa Shastra might have thought that poverty is the main hazard for the happiness and joyfulness of an individual and society and they succeeded to achieve this goal by converting lower metals into noble metals (Lohavada). As the time enpassed when the sufferings of human becomes the prime cause of unhappiness they invented the utility of mercury and other metals and minerals to cure the disease and restore the healthy status by subjecting them into different processes (Dehavada).

A number of purificatory detoxificatory incineration procedures were elaborately explained by our ancient Acharyas to make metals and minerals therapeutically useful. All these processes lead to physico-chemical changes that activate and potentiate the metallic or mineral drug. The absorption and action of these drugs depends on physico chemical characters of the drug i.e. electronic configuration covalency characters ionic characterization, structural configuration, chemical composition etc. besides its solubility and viscosity. The quality of the pharmaceutical products depends not only on the care taken in its preparation but also in confirming that the material has been correctly identified authenticated and properly processed.

Agni is the important factor which changes the natural physico-chemical properties of the drug which depends

on its chemical combination and dissociation which can be brought about by the duration and type of contact of heat.

There are several Rasashastriya methods like Shodhana, Bhavana, Marana, Jarana, and Murchhana etc. which make metals and minerals suitable for body. Murchhana is a method, especially applied for the preparation of mercurial compound used for therapeutic purposes.

"Gandhaken Rasam prajnaha sudradham mardayet bhishak |

Kajjalabho yada sooto vihaya ghana chapalam || Drashyate asou tada jneyo Murcchito rasa kovidaihi | Asou rogachayam hanyat anupanasya yogataha || (R.S.S.1/56-57)"

"Bhasma bhinnatwe sati rasa bhakshana yogyata karma (Murcchana) ||" P.V-Pp 142."

"Murchhana is a process in which mercury with or without sulphur is converted in such a suitable compound even without being reduced to ashes. Through this process mercury develops a definite diseases curing capacity".

MATERIAL AND METHODS CONCEPTUAL REVIEW

The terminology 'Kupipakwa' itself denotes the pharmaceutical processing that is involved in these preparations by heating in glass bottle. The products thus obtained are very favourite and frequently used remedy by the Ayurvedic physicians. These are reputed to be panacea for a variety of ills that human flesh is heir to. The general belief is that by association with mercury

and sulphur, these products acquire the most potent efficacy.

Concept of Parada Murchhana: Murchita Rupa in simple words means "remaining unconsciouses". It can also be interpretated as a state from which "consciousness" can be regained.

Here "Parada Murcchita" means a state where Parada attains "vyadhinashaka quality". It can also be interpreted as if Parada has tobe given with an intention to destroy disease, then its Murcchita avastha is considered. Parada from the Murcchita avastha can be regained back by subjecting it to Urdhvapatana.

Ayurveda Prakash opines that Parada in the state devoid of Ghanatwa and Chapalatwa with colour of Collyrium or various colors is called Murchita Parada. Hence it can be summarized that Murchita Parada is a state where Parada has disease destroying capacity and physical characters as colour of Collyrium, any other color, devoid of Chapalatwa, devoid of Ghanatwa. The last two physical characters of Murchita Parada are same as that of Baddha Parada. This can be concluded up to some extent that concept of Baddha Parada and Murchita Parada overlap each other. Ex. Kajjali Bandha, Arota Bandha, Kshara Bandha etc.

In Bhava Prakash, the gunas of Murchita Parada are said as shadrasa yukta, yogavahi, Sara etc. This Parada is Pancha Mahabhutamaya and hence has all the qualities of Pancha Mahabhutha in it.

Properties: Parada is devoid of Chanchalata and Ghanatwa. Depending upon the contents, the color of final product varies. The Murchita Parada is of black color and also of various colours.

♣ Kupi Pakva Rasayana Historical Review

Ancient Indian alchemists were expert in transforming lower metals to higher metals. In this way ancient scholars were used to potentiate and transform mercury to certain higher level metals by different Jarana procedures. In Jarana process, Gandhaka was commonly used for this purpose. Different proportion of Gandhaka was used to mix with Parada and gradually potentiate the preparation of Parada. In such experimentation of Jarana, with time the use of Kupipakva method was adopted.

It is believed that the cause for the invention of Kupipakva method might be certain special procedures done on Parada and Gandhaka and also the temperature is particularly controlled to get the desired effect in the final product. Such procedures of Gandhaka Jarana have firstly been mentioned by Govinda Bhagvat Padacharya in his treatise.

Concept of Kupipakva Rasayana

There is no reference regarding Kupipakwa Rasayana found during Pre-Vedic, Vedic and Samhita Period i.e. upto 600 A.D. In 9th century A.D. Govinda

Bhagavatpada described Gandhaka Jarana vidhi in Rasa Hridaya Tantra. Though Kachakupis were in practice, references about usage of metallic Kupis (Gold, Silver etc.) are found. Though the description of Valukayantra found in Rasa Hridaya Tantra, nonavailability of Kachakupis, leads them to use Sharavas or Mushas for Gandhaka Jarana process. Bhairavananda, the author of Rasarnavam, also mentioned the process of Gandhaka jarana in 12th century A.D.

Sri Dundukanatha, the author of Rasendra Chintamani was the first person to introduce Kupipakwa Rasayana preparations in the Ayurvedic therapeutics during 12th century A.D. In Rasendra Chintamani there is clear cut reference about specific heating pattern named as period has been mentioned. The same method is used in practice now a days with some modifications. Kupipakva Rasayana was developed by Siddha Sampradaya i.e. from 13th century. Acharya Yoshodhara Bhat (13th cent.) in his text Rasa Prakash Sudhakar quoted Sindhura Kalpana by the name of Udayabhaskar Rasa". Udaya Bhaskara rasa is nothing but the name of Rasasindura. At the same place, he has given the method of Rasakarpura preparation by the name "Ghanasara-Rasa". He has used Kachaghati (Kupi) Sikatayantra for the preparation of Udayabhaskar Rasa (Rasa Prakash Sudhakar 3/10-14).

Kupipakva Rasayana Etymology

This term is composed of four words Kupi, Pakva, Rasa and Ayana.

"Kupi Iti Kacha Kupi, Pakwam Iti Agnina Pakwam, Rasasya Paradasya, Ayanam Sthanam Arthath: Kupyam Agninam Pakwam YadRasayanam Tat Kupi Pakwa Rasayanam ||"

The process where Parada and other Dravyas are processed by heating in a specialized bottle to prepare medicine is called Kupi Pakwa Rasayana.

Rasayana - by which the human being can retain Bala, Oja, Medha, etc. and become ever health, is known as Rasayana.

Importance:

Kupipakva Rasayana Kalpana is having importance among other Kalpanas because of having following properties:

- 1. Potency of these drugs remains for longer period.
- 2. It requires minimal dose.
- Easy for administration.
- More potent as compared to other pure herbal preparations.
- When mixed with other drugs, it reduces the dose of other drugs.
- Due to its augmenting effect.
- Due to its quicker action. 7.
- The opinion of some people is that when all other medicines fail, these infellible remedies hit to the goal and amaze even the prescribers themselves.

- Chemical bond becomes stronger in the following order; Kajjali, Parpati, Pottali and Kupipakva Rasayana.
- Significance is to introduce properties of Gandhaka into Parada and to create a Special medicinal compound.

Table 1: Types of Kupipakva Rasayana.

Ingredients	Sangandha	Prepared with the use of Gandhaka e.g. Vyadhiharana Rasa Makaradhwaja, ManikyaRasa, Rasa sindhura.
	Nirgandha	Prepared without the use of Gandhak e.g.
		Rasakarpura, Rasa Pushpa
Manufacturing method	Antardhuma	Cork is applied in the beginning and the vapors are
		not allowed to escape e.g. Rasasindhura.
	Bahirdhuma	Cork is applied after burning of sulphur e.g.
		Vyadhiharana Rasa, Hinguliya Manikya Rasa, Sila
		sindhura.
	Kanthastha	The finished product is deposited at the neck e.g.
	Kanuiasula	Makaradhwaja, Rasa sindhura
Place of finished product	Talastha	The product is obtained from the bottom of the Kupi
		e.g. Sameerapannaga-Rasa, Swarna Vanga
	Ubhayastha	Final products obtained from both the sites e.g.
		Sameerapannaga Rasa, Hinguliya Manikya Rasa

DISCUSSION

Kupipakva Rasayana analysed under three phases as follows

- 1. Initial stage
- 2. Middle Stage
- 3. End Stage:
- 1. Initial Stage: Acharya Babu Niranjan Prasad Shastriji, the author of "Vaidya Yoga Ratnavali" has mentioned in his text the type of Agni given in this stage as Deepagni which is nothing but the initial stage of Mrdu Agni. Because of this Agni Valukayantra becomes hot while Mridu Agni plays role in the melting of Kajjali. Sita Shalaka test shows blackish (or according to the nature of compound going to be formed) powder coating on the shalaka. Also in this stage, Gandhaka starts to expel out in the form of yellowish fumes.
- Middle Stage: This stage commences from the complete melting of Gandhaka and lasts till the starting of formation of Sindhura compound. According to Vaidya Yoga Ratnavalikar, in this stage "Kamalagni" should be given which is nothing but Madhyamagni. During this, sulphur fumes come out pungently. Hence care should be taken that heating should not be strong otherwise boiling Kajjali may come out from the mouth of Kupi and may catch fire which may leads to breaking of Kupi. Unfortunately if such type of mistake happens then, mouth of Kupi should have to be covered quickly by a Sharava (cork) so that oxygen supply is devoid and fire gets off. At that time precaution should be taken so that temperature in the Bhrastri lessens down. After that heat should be maintained for Gandhaka

Jarana process which is necessary for the initiation of Sindhura formation.

3. End Stage: This stage commences from the formation of Sindhura compound and lasts up to the completion of Jarana of Gandhaka. The process of formation of Sindhura compound occurs as - In the middle stage, durig boiling stage of kajjali (Honey comb like appearance), chemical changes occurs and as a result formation of new compound will take place. This on later stage will sublime and gets condensed at the neck and mouth of Kupi.

• Shalaka Sanchalana:- (Application of Rods)

During the procedure cold and hot Shalakas are being in use. Sheeta shalaka (Cold rod) is used especially for noting the state of Kajjali, whether is it in powder form or in melted state or in boiling state or in sublimating compound state. Tapta shalaka (Hot rod) is used for burning the extra sulphur deposited at the neck region. One must be very careful while applying Tapta shalaka as it immediately burns sulphur which produce flame & fumes. Application of Tapta shalaka is must, otherwise the deposited sulphur may block the mouth of the Kupi and the fumes or vapours inside the Kupi increase the interior pressure and there may be chances of bursting of Kupi. Sheeta shalaka test can be used as confirmatory test for deciding corking time of the bottle.

• Observations of Fumes and Flames:- All the characteristics of fumes like colour, smell etc. must be observed. It differs according to the ingredients. Colour may be yellow, orange, quantity may be less, moderate, profuse, smell like sulphur odour, other odour may be some of the observations.

 Flame: This is also an important factor while preparing Kapipakva Rasayana. Timing of starting of Flame, its height, colour and its duration are the important features. These features depend on the ingredients used.

• Corking of mouth of kupi (Mukhamudrana)

➤ To decide the proper timing of corking is very important and is difficult task.

The corking of mouth of Kupi should be done after complete Jarana of Gandhaka and formation of Sindhura compound. But before this few tests must have to be done and those are after the complete Gandhaka Jarana and well formation of Sindhura compound, the base of Kupi becomes clear and red hot.

- On keeping copper coin over Kupimouth, if it shows a white layer or as per the nature of final compound it indicates the presence of mercury. So considering this as critical situation, Kupi should be corked quickly otherwise complete loss of mercury may occur.
- Tranadaha (dried grass) examination should be positive.
- Mudrana vidhi (Method of Corking): Cork made from stone or wood should be kept in the mouth of Kupi & then it shouldbe covered with the cloth smeared by clay (Multani Mitti). For this purpose Khatika (Chalk powder), Guda (Jaggery), Madhu (Honey) etc. may be used. After corking 2-3 inches of sand layer shouldbe moved aside from the neck of Kupi. There is controversy regarding heating after corking. Some Vaidyas are in favour to continue heating schedule as per textual reference for complete period & then leave it for self cooling. While some are of the opinion that temp. should be raised by 50°C after corking and then should leave for self cooling as it is. The latter method was followed in this study.
- > Kupibhedana (Breaking of kupi): A thread soaked in Kerosene should be tied around the kupi just below the level upto where the compound get adhered/sublimed and the thread should be kept horizontal and rotated so that the whole thread sets fire. When it is burnt up completely, immediately the Kupi should be wrapped in a wet cloth. This causes immediate cracking/ breaking of kupi exactly at the desired level. Then Rasayana which is of Kanthastha or Talastha should be collected.

Dose: The general dose described is 0.5 Gunja to 4 Gunja (i.e. 60-480 mg) but the dose should be decided according to the particular Sindhura kalpa and the patients.

Anupana: The Anupana should be given according to

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the use of that drug.

CONCLUSION

In conclusion it may be said that all the Kupipakwa Rasayanas are product of compound substance processes. The modern analysis of these processes confirms the high level of understanding of the physico-chemical principles and the skill achieved at an early date in ancient India.

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