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A DESCRIPTIVE OVERVIEW ON KUPIPAKWA RASAYANA

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Abstract: Rasa Shastra and Bhaishajya kalpana are the two main part of Ayurvedic pharmaceuticals. Rasa Shastra deals with the metallic and herbo mineral preparations with their types, occurrence, physical properties and organoleptic characteristics. Basically there are four varieties of Rasoushadhis are mentioned in Rasa Shastra such as Kupipakwa Rasayana, Parpati Rasayana, Pottali Rasayana and Kharaliya Rasayana. Kupipakwa Rasayana is very difficult to prepare and require long duration for preparation. However, it bears a unique place in Rasa Shastra because of its mercurial preparations with quicker action and synergistic effects in the body at very low dose. This kalpana including so many preparations like Rasa Sindur, Makardhwaja, Malla Sindura, Rasakarpoor, Rasapushpa etc. The name kupi indicates that the preparation is made in kupi (glass bottle) on mild to intense heat by using an instrument known as Baluka yantra. In this article detail knowledge regarding the definitions, etymology, history, types, manufacturing procedures, instruments useful in Kupipakwa Rasayana are discussed. This study definitely will give an idea about usefulness of this preparation.

Keywords: Kupipakwa; Rasayana; Baluka Yantra; Makardhwaja; Malla Sindur

Introduction: In the field of medicine and treatment, Ayurveda are the very ancient system of medicine. The main aim of ayurveda is to prevention of diseases and its treatment. There are two main pillar of Ayurveda are Veda and Samhita. The way of treatment with Ayurveda has been developed with time to time. Rasa Shastra is also a very ancient text and it is the result of more than thousand years of research. The initiations of Rasa Shastra are well known from Vedic period. After doing lots of experiment and research it is found that Parada is a dravya which having all the quality of curing the diseases. Parada is very usefull in *Dhatu vada* as well as in *Deha vada*. The utilization of Rasa Shastra gives Dharma, Artha, Kama and Moksha (*Sapinda moksha*). In traditional system of medicine, the use of Rasa Shastra and Rasaushadhi are the revolutionary development. Basically, Rasa Shastra deals in metallic and herbo mineral preparations with various kalpanas including Kupipakwa Rasayana. While Rasaushadhi are mentioned in various rasa texts in terms of their effectiveness and it is in practice since ancient times. Rasaushadhi are very effective in many aspects like long lasting

effects, ease of palatability, rapid onset of action, small dose and having better efficacy to cure the complex diseases (*asadhya vyadhis*)^[1]. There is no any need of evaluation of patient testing, *desha kal* and *dosha* with the use of rasaushadhi. Kupipakwa Rasayana Kalpana is also known as Sindhura Kalpana. It is made up of four words that is *kupi*- glass bottle, *pakwa*- heating or paka, *rasa*- parada, *aayana*- sthan. Kupipakwa method is a special procedure in which kajjali is main ingredients. The role of temperature is very important to get the desired and beneficial effect in the final product. Many observations and precautions are involved in the process of Kupipakwa Rasayana. In this, mercury (Hg) known as parada has been widely used and other drug is sulphur known as Gandhaka has been also used frequently. There are several chemical changes are seen in the finished product. Now a day, with Parada and Gandhaka there are chemical reactivity are well known^[2].

Aims and Objective: The main aim of this present article is to be summarised the detail knowledge regarding the etymology, types of this kalpana, method of preparation and different verities of Kupa Pkwa Rasayana Kalpana.

Historical Background: The acharya who has firstly introduced the preparation of Kupipakwa Rasayana is Sri Dundukanatha, who is the author of Rasendra Chintamani during 12th century A.D. The text Rasendra Chintamani mention *Kramagni paka* that is increasing of heat (*Mrudu*, *Madhya* and *Tivragni*). From 13th century the Siddha Sampradaya was developed the Kupipakwa Rasayana. Sindhura Kalpana is mentioned as the name of *Udaya Bhaskar Rasa* in *Rasa Prakash Sudhakar* text written by Acharya Yoshodhara Bhat who gave the method of preparation of *Rasa karpura* as the name of "*Ghanasara-Rasa*". Kachaghati (Kupi) and Sikata yantra are used for the preparation of *Udaya Bhaskar Rasa*. In 15th, 16th and 17th century Kupipakwa Rasayana are explained in the name of *Sindhura Rasa*. The specific procedure of Parada and Gandhaka was done with the controlled temperature. On final conclusion we can say that Gandhaka Jarana is the main reason for invention of Kupipakwa kalpana to achieve the desired effect in the

finished product. In 8th century A.D. Govinda Bhagavatpada described Gandhaka Jarana procedures in his text *Rasa Hridaya Tantra*^[3] which is finally developed as Kupipakwa Rasayana.

Etymology: The etymology of Kupipakwa Rasayana is understood by a verse-“*KUPYAM AGNINAM PAKWAM YADRASAAYANAM TAT KUPIPAKWA RASAYANAM*” This means there is an implementation of heat (Agni) with the use of Parada in kanch kupi is known as Kupipakwa Rasayana. The word Kupipakwa Rasayana are assembled with four words that is-

KUPI “*ITI KACHA KUPI*”

PAKWAM “*ITI AGNINA PAKWAM*”

RASASYA “*PARADASYA*”

AYANAM “*STHANAM ARTHAT*”

Classification: There are 256 different varieties of Kupipakwa are mentioned in *Rasa grantha* named *Kupi-pakwa Vijnaniyam* written by Harisharanananda. The types of Kupi Pakwa preparation are mentioned in following table:

Table-1: Classification of Kupi Pakwa preparation:

Ingredients	Sagandha	Gandhaka is used.	Makaradhwaja and Rasa sindhura.
	Nirgandha	Gandhaka is absent.	Rasa Manikya and Vyadhiharana Rasa
Manufacturing method	Antardhuma	Fumes appear in the beginning.	Sila sindhura and Rasa Manikya.
	Bahirdhuma	When Gandhaka is totally burn then fumes appear.	Rasa sindhura and Makaradhwaja.
Accumulation of desired product	Galastha	The product is obtained from the neck of bottle.	Makaradhwaja, Rasa sindura.
	Talastha	The product is obtained from the bottom of bottle.	Sameerapannaga Rasa, Swarna Vanga.
	Ubhayastha	The product is obtained from both neck and bottom of bottle.	Hinguliya Manikya Rasa, Sameerapannaga Rasa,

Materials and Methods

In *Rasa Shastra*, the practical experience with the preparation of every medicine is more important. Preparation (*Nirman*) of Kupipakwa Rasayana is one of the typical procedures to adopt. The text *Rasa Ratna Samuchhaya* gives clear cut indication regarding the method of preparation of Kupipakwa kalpana. The colour of finished product is resembled like red because it is consider that Kupipakwa kalpana is a Sindoor kalpana^[1]. Here method of Kupi Pakwa preparation discussed in detail. Kajjali are prepared by the shodhita Parada and shodhita Gandhaka and in it Bhawana was given by some herbal juice like Vatanakur swarasa or semal swarasa^[4]. This prepared kajjali are filling in the

glass bottle known as *aatishi shishi*, which is made up by seven layers of mud and cloth. The baluka yantra are used for this preparation. *Aatishi shishi* filled with kajjali are put into Baluka yantra and given the required temperature.

Role of Temperature Pattern: There are 3 temperature patterns are used in this preparation. Mild heat (*Mridu agni*), intense heat (*Madhya agni*) and more intense heat (*Tivra agni*). The initial temperature of mild heat is 120-250°C and on that, Kajjali starts melting, when heating increases that are in the phase of intense heat, (250-450°C) Kajjali starts boiling. After 12 hours of *mridu* and *madhya agni* yellow fumes of Gandhaka disappeared. During the preparation

an iron rod (*shalaka*)^[5] was inserting in the mouth of kupi to avoid any obstruction in the mouth. When heating came in the phase of more intense heat (more than 450-630°C) for 6 hours^[6-8], the preparation is start to accumulate on the neck of kupi (*Galastha*) or bottom of kupi (*Talastha*) as per types of preparations. Perform the copper coin test and ensure that test is positive. Stop the heating and kupi are removed from the yantra. After self cooling (*swangsheets*) dip a thread in kerosene oil and tied bellow 2 cm on that portion where preparation are accumulate. Burn the thread, when it is burning a wet cloth are allow to cover the bottle, due to this the neck of kupi break and collect the preparation very carefully from the neck of the glass bottle^[9]. There are various instruments (Yantra) are involve in the preparation of Kupipakwa Rasayana which are as follows^[1].

Baluka yantra in which preparation are performed consist of sand as a material and with

Table-2: Description of some Kupi Pakwa preparations:

S.N	Name of preparation	Ingredients	Chemical reaction	Dose	Indication
1	Rasa Sindura	Shuddha Parada and Shuddha Gandhaka	$Hg + S = HgS$	1-2 Ratti (125-250 mg)	Rasayana, Vajikarana, Kushtha, Varna.
2	Makaradhwaya	Eight parts of Shuddha Parada, One part of Shuddha Swarna, Sixteen parts of Shuddha Gandhaka	$Hg + S = HgS$	1/2-2 Ratti (62.5-250 mg)	Kantikar, Aayushya, Vajikarana.
4	Rasakarapura	Specified quantity of Shuddha Parada Shuddha Sphatika, Shuddha Kasisa Saidhava Lavana, brick powder Gairika (red ochre)	$K_2SO_4, Al_2(SO_4)_3, 24H_2O = K_2O + 4H_2SO_4 + Al_2O_3 + 20H_2O$ $Hg + 2H_2SO_4 = HgSO_4 + 2H_2O + SO_2$ $Hg_2SO_4 + 2NaCl + Hg = Na_2SO_4 + Hg_2Cl_2$	1/64-1/32 Ratti (2-4 mg)	Vrana ropana, grahi, kushtha, atisaranasaka.
5	Rasapushpa	Equal quantity of Shuddha Parada and Shuddha Kasisa, equal part of Saindhava Lavana	$Hg_2SO_4 + 2NaCl + Hg = Na_2SO_4 + Hg_2Cl_2$	1/2-2- 1/2 Ratti (125-312.5 mg)	Visuchika nasaka, pittahara, vishanasaka.
6	Swarna Vanga	Shuddha Vanga, equal quantity of Shuddha Parada, Equal parts of Shuddha, Gandhaka, Shuddha Navasadara.	$Sn + 4NH_4Cl = (NH_4)_2SnCl_4 + H_2 + 2NH_3$ $2(NH_4)_2SnCl_4 + 2S = SnS_2 + (NH_4)_2SnCl_6 + 2NH_4Cl$	1-2 Ratti (125-250 mg)	Rasayana, Vajikarana, kushtha.

Importance of Kupipakwa Rasayana: A kind of metallic preparations which is commonly prescribed by ayurvedic physician known as Kupipakwa Rasayana. It has disease curing properties due to parada murchana. Sometimes many chemical reactions are involved to give synergistic effect in the body. By this different minerals and metals are transformed into effective medicines^[14]. The actions of Kupipakwa rasayana remain for longer period of time which indicates its greater potency and efficacy. It is very effective even at minimum dose with ease of administration. When kupipakwa medicines are mixed with other medicines, it minimizes the dose of other

an earthen pot^[7]. *Shalaka* used to elimination of any obstruction in the kupi during the preparation.

Kapadmitti used to seal the kupi as well as used in the *aatishi shishi nirman*^[10].

Koshthi for giving of required amount of heat at different temperature.

Kupi used to keep the ingredients initially then prepared medicine also.

Mudra for sealing of kupi mukha (mouth of glass bottle)

Pyrometer used to assess the temperature range.

Copper coin used for copper coin test^[11].

Different varieties of Kupipakwa preparations: There are various types of kupipakwa preparations are available to cure and control the diseases like Makaradhwaya^[12]. Malla/Tala/Shila Sindura, Rasakarapura, Rasapushpa, Swarna Vanga, Rasasindura^[13]. The ingredients and possible chemical reactions are mentioned in given Table 2.

medicines. When it is compared with other Rasaushadhi like Kajjali, Parpati, Pottali its chemical bonding are stronger among these three. It is more potent than any of other herbal preparations.

Discussion: In Rasa chikitsa, lots of Rasaushadhi are mentioned to control and cure the disease. Among all, Kupipakwa Rasayana is more potent and effective medicine for the treatment of various complicated diseases. Due to ease of palatability, long lasting effects, rapid onset of action and desired result shows greater efficacy of this preparation. When procedure, ingredients, bhawana drugs, types of heating pattern are change then name and indication of preparation

will be change like Rasa Sindura, Makardhwaja, Malla sindura, Tala sindura, Rasa karpoor, Rasa pushpa etc. When mercury is processed with metals it forms an amalgam which is responsible for formation of an intermediate product. The main promoters for chemical reaction are Gandhaka and Parada in which Gandhaka is responsible for formation of sulphide. Mercury reacts with sulphur and forms mercuric sulphide (HgS). The preparations of Kupipakwa Rasayana bear a unique importance in Rasa Shastra when it is compared with other formulations, due to its quicker action on minimum dose. Heating pattern and preparation of Kajjali are most important to achieve maximal yield and increase effectiveness of preparation without any side effects or unwanted effects. The *Kramagni* are the best heating pattern for the kupi pakwa preparation which is clearly mentioned in classical texts^[14]. Heating pattern should be always in increasing order like *Mridu Agni* 120-250°C for 6 hrs, *Madhyama Agni* at 250-450°C for 6 hrs and *Tivra Agni* 450-630°C for 6 hrs^[6-8], but heating should be intermediate during the preparations.

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