

## PREPARATION OF KAJJALIKODAYA MALHAR AND ITS ANALYTICAL EVALUATION

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### ABSTRACT

Many formulations are mentioned as pearls in the ocean of Ayurvedic treatise, which was developed based on Malhara Kalpana. Kajjalikodaya Malhar is an excellent composition compared to the one mentioned in Rasatarangini, shashtamtarang. It is described as very effective in Vrana (Wound). Its constituents are Tila taila, Sikhth, Kajjali, Kampillak, Mridarshring, and Tutth. Sikhth tail is emollient or as a base in the preparation of malhar. Almost all ingredients are Vranaropak, Vranashodhaka and Kandughna. It is anti-inflammatory, antifungal, antibacterial, and effective in treating skin diseases. The product was analysed and evaluated using the parameters of Ayurvedic and Modern standardisation techniques.

**Key words:** Malhar, Sikhth tail, Kajjali, Mridarshring, Kampillak, Tutthha, Vrana, Standardisation

### INTRODUCTION

Ayurveda is a holistic science of life. Its root is based on its eight vital specialised organs. Rasashastra and Bhaisajya kalpana is one of them. Bhaisajya Kalpana is the pharmaceutical branch of Ayurveda, which

deals in detail with preparing different medicinal formulations. Many formulations are mentioned as pearls in the ocean of Ayurvedic treatise. **Kajjalikodaya Malhar** is one of them, and it was developed

based on *Malhara Kalpana*—the word ‘*Malhara*’ adopted from the Unani system. ‘*Malhar*’ came from the renowned word ‘*Marham*’, an Arabic word that means plaster or wound dressing. During the 19th century, the word “*Malhar*” from Unani vaidyak was adopted as a substitute for *pradeha*, *kalk*, or *lepa*. A great Ayurvedic wordsmith, *Yogratnakar*, mentioned it as *Malhar Kalpana*. This is called *Malhara* because it removes *mala* (residue, etc.) from *vra*na, *vidradhi*, *tvak vicar*, etc. This is similar to ointments in modern pharmaceuticals. *Malhara*(ointments) is a homogenous viscous, semi-solid preparation, most commonly greasy, thick oil (oil 80%, water 20%) with high viscosity intended for external skin application.

*Kajjalikodaya malahara* is an excellent composition given in *Rasatarangini*<sup>1</sup>, which is described as very effective in *vra*na<sup>2</sup>. The constituent of *Kajjalikodaya malahara* is *Tilatail*, *Sikth*, *Kajjali*, *Kampillak*, *Mridarshring* (*Murdashankh*) and *Tutth*. *Kajjalikodaya malhar* is a herbomineral formulation, a key Ayurvedic pharmaceutical representing *Rasaushadis* as a boon for the healing system of the planet. All *Rasaushadis* in *Ayurveda* play an imperative role in curating the ailment of the illness of human beings. *Rasaushadis* have some unique characteristic attributes like instant effectiveness, the requirement of tiny doses and expensive therapeutic utility irrespective of constitutional variation.<sup>3</sup>

#### AIMS AND OBJECTIVES

- To standardise the preparation of *Kajjalikodaya Malhara* from the purification of ingredients to incorporation, including the

analytical study of the final product.

#### MATERIAL AND METHOD

*Kajjalikodaya malhar* is developed based on *Malhar Kalpana*, *pharmaceutics mentioned in Rasatarangini*. It has seven ingredients: *Sikth*, *Tila taila*, *Parad*, *Gandhak*, *Kampillak*, *Mridarshring*, and *Tutth*.

Process of *Kajjalikoday malhar* contains *Tila taila murchhana*<sup>4</sup>, purification of *Gandhak*<sup>5</sup>, purification of *Parad*<sup>6</sup>, preparation of *Kajjali*<sup>7</sup>, purification of *Mridarshring*<sup>8</sup>, purification of *Kampillak*, purification of *Tutth*,<sup>9</sup>preparation of *sikth taila*<sup>10</sup>and preparation of *Kajjalikoday malhar*. The fusion method is applied to prepare *malhar*. After this, it is standardised on the parameter of *malahara kalpana*.

#### PROCEDURE

The present study prepares the *Kajjalikoday Malhara*, which can be presented as a Standard Operating Procedure (SOP).

#### PREPARATION: -

- All materials were weighed precisely.
- Siktha tail* was taken and heated on a high flame to melt.
- After melting the *siktha taila*, slow the flame and add all the ingredients.
- Stir the mixture continuously and carefully till it is adequately mixed with the *taila*.
- Then, carefully remove the flame, filter the tail in an enormous container, and allow it to cool.
- After condensing, properly triturate the *malhar* in a *kharal* and packed in a sampling container. \_

**Table no. 1-Showing list of Materials with their quantities before and after preparation.**

Sr.no.	Name of practical	Quantity before	Quantity after	% loss during process	Reference
1	Purification of <i>Parada</i>	500g	380 g	24%	R.T
2	Purification of <i>Gandhaka</i>	600g	360 g	40%	R.T
3	Preparation of <i>Kajjali</i>	700g	520 g	25.71%	R.T
4	Purification of	25 kg	2kg 50g	91.8%	B.R

5	Purification of <i>Kampillak Murdashankha</i>	1kg 520 g	1kg125g	25.98%	R.T
6	Purification of <i>Tuttha</i>	175 g	140 g	20%	R.T
7	<i>Murchhana</i> of <i>TilaTaila</i>	16kg+3kg500g	11kg300g	29.37%	B.R
8	Preparation Of <i>Siktha Taila</i>	11kg300g+2kg300g	12kg300g	9.56%	R.T
9	Preparation of <i>Kajjalikodaya Malhara</i>	15kg950 g	14kg400g	9.71%	R.T

### OBSERVATION AND RESULT

The essential aims of the analytical study are to know the particular chemical configuration, point out the physicochemical changes and effects of different Sanskar, and understand the probable role of media during pharmaceutical processing. Without analytical studies, research on a drug is incomplete. It provides some standards to judge its quality; it also helps to interpret the pharmacokinetics and pharmacodynamics of raw medications as well as finished products. In *Ayurveda*, especially in *Rasashastra*, several parameters and texts have been given to standardise raw materials of herbal and mineral origin. Prepared *Rasaushadhis* are standardised by parameters like colour and fineness, as well as its tests, i.e., Bhasma examinations like *Rek-hapurnatva*, etc. *Ayurvedic* pharmacopoeia has prescribed several parameters for evaluating the quality of *Ayurvedic* formulation.

This chapter includes the standardisation of *Kajjalikoday Malhar using* physico-chemical analysis, which is said to be preliminary work in the analysis of *Malhar*.

#### Table no.2 Organoleptic characters

Colour	Brownish black
Appearance	Viscous, smooth
Odour	sulphurous
Touch	Unctuous & oily

#### Table no.3Physico-chemical parameter

Parameter	Result
Viscosity	3770000 cps
Acid value	3.64
Peroxide value	1.45 meq
Saponification value	227.18
Iodine value	57.49
Lead(pb)	15009.942 mg/kg(15.00% W/W)
Mercury(hg)	681.348 mg/kg(0.068% W/W)

#### Table no-4 Microbial limit

Total plate count	Less than 10 cfu/gm
Yeast and mould count	Less than 10 cfu/gm

The analytical studies showed that the drug does not contain microbes and meets the standard parameters of superficial ointments.

### **DISCUSSION**

The purpose of the discussion is to interpret and describe the significance of findings in light of what was already known about the research problem being investigated and to explain any new understanding or

insights that emerged as a result of the study of the problem. *Kajjalikodaya malhar* is developed on the basis of *Malahara kalpana*. *The fusion method is ideal for the preparation of Kajjalikodaya malhar*. *Malhara* often contains active ingredients in oleaginous bases, which make a thin film over the affected

area. In contrast, active ingredients penetrate inside and help in the debridement, cleaning or healing of the wounds according to their properties. Thin coating over wounds does not allow free entry of oxygen, and all aerobic microorganisms are affected by this property. It has seven ingredients: *Tila taila*, *Sikth*, *Parad*, *Gandhak*, *Kampillak*, *Mridarshring*, and *Tutth*. It is observed that all the ingredients of the *Kajjalikodaya malhar* have significant efficacy for *vrana*. *Tila taila* has *Vyavai* and *sookshma guna*, which enter through the minute pores and quickly spread throughout the *vrana*. It has *krimighna* and *shoola prashamana* properties. According to *Yogratnakara*, it is *jantughna*, *kandughna* and *vrana ropak*. It is an active antibacterial against staphylococcus and streptococcus. *Parad* has *Rasayan<sup>11</sup>* and *Yogavahi guna*. *Gandhak* has antifungal and antimicrobial properties. It also has *kandughna* property. It plays a significant role in the production of collagen fibre. *Tutth* and *Kampillak* have antifungal properties, and *Murdha sankh* and *Sikth<sup>12</sup>* have *vrana ropak* and *vranshodhak* properties.

## CONCLUSION

An ideal wound healing agent must be effective in every step of the wound until the complete closure. In *Kajjalikoday Malhara*, all the ingredients have better healing properties. All the Seven ingredients of *Kajjalikodaya Malhara* were used for the preparation, and some drugs were used for purification. Finally, most ingredients were cited as having *Rasayana*, *Vrana shamak*, and *Vranaropak* properties. Some were noted as having *Krimighna*, *Kandughna* & *Lekhan* property. Thus, by considering all the above facts about *Rasa*, *Guna* and *Karma*, it can be

concluded that *Kajjalikodaya Malhara* is effective in wound healing.

*Kajjalikodaya Malhar* is developed based on the *Malhar Kalpana* process mentioned in *Rasatarangini*. The fusion method is ideal for preparing *Kajjalikodaya Malhar*. The analytical studies showed that the drug does not contain microbes and also meets the standard parameters of superficial ointment.

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