

**A BRIEF REVIEW ON SHWETA MALAHARA****Dr. Sinduja V.\*<sup>1</sup>, Dr. Rakesh Salve<sup>2</sup> and Dr. Lekshmi Priya<sup>3</sup>**

<sup>1</sup>Final Year PG scholar, Dept. of Rasa Shastra & Bhaishajya Kalpana, Parul Institute of Ayurved, Parul University, Vadodara, India.

<sup>2</sup>Guide, Associate Professor, Dept. of Rasa Shastra & Bhaishajya Kalpana, Parul Institute of Ayurved, Parul University, Vadodara, India.

<sup>3</sup>Co-Guide, Assistant Professor, Dept. of Rasa Shastra & Bhaishajya Kalpana, Parul Institute of Ayurved, Parul University, Vadodara, India.

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**\*Corresponding Author****Dr. Sinduja V.**

Final Year PG scholar, Dept.  
of Rasa Shastra &  
Bhaishajya Kalpana, Parul  
Institute of Ayurved, Parul  
University, Vadodara, India.

**ABSTRACT**

*Bhaishajya Kalpana Vijnana* is the pharmacological branch of *Ayurveda* which deals with the preparation of herbal and herbo-mineral formulations. *Malahara* is a lately introduced dosage form to *Ayurvedic* system of medicine. *Shweta Malahara* is a potent medicament in burn injuries. It is prepared in two different methods and the products obtained by both the methods are unstable on exposure to atmosphere. This study deals with the different methods of preparation of *Shweta Malahara*, basics of emulsion and a hypothetical solution to increase the stability of *Shweta Malahara* by addition of stabilizers.

**KEYWORDS:** *Bhaishajya Kalpana Vijnana, Shweta Malahara.*

**INTRODUCTION**

The term *Malahara* is originated from the root word *Malham* or *Marham*, which is a commercial external use dosage form of *Unani* system of medicine.<sup>[1]</sup> This dosage form is introduced into *Ayurveda* by *Yogaratanakara*.<sup>[2]</sup> It is a widely practised dosage form, prepared with lipids as base. *Shweta Malahara*, also known as *Sarjarasa Malahara* is a renowned formulation, which is used extensively in *Dagdha Vrana* (burn injuries). It is prepared by using *Tila Taila* (oil of *Sesame indicum*) as base and *Sarjarasa* (resin of *Shorea robusta*) as main ingredient.

## MATERIALS AND METHODS

The *Shweta Malahara* is prepared in two different methods, which are described as follows.

### Method. 1.<sup>[3]</sup>

S. No.	Ingredients	English / Latin Name	Quantity
1	<i>Tila tailam</i>	Oil of <i>Sesame indicum</i>	16 parts
2	<i>Sarjarasam</i>	Resin of <i>Shorea robusta</i>	4 parts
3	<i>Tuttham</i>	Copper sulphate	1 part
4	<i>Jalam</i>	Water	Sufficient

The oil is heated in low flame till fumes appear. On appearance of fumes, the heating is stopped and fine powders of *Sarjarasa* and *Tuttha* are added little by little and stirred continuously till they dissolve. Then before the mixture turns cool, it is filtered over a plate and rubbed by hands with little by little addition of water. The added water gets absorbed by the melted mixture on rubbing. The addition and rubbing is continued till the absorption of water stops. This indicates completion of the procedure and fine butter like ointment is obtained. This is called *Sarjarasa Malahara*. It is stored in wide mouth containers, with water at the neck of the container. It is required to change the water frequently to maintain the *malahara* in good condition.

### Method. 2.<sup>[4]</sup>

S. No.	Ingredients	English / Latin Name	Quantity
1	<i>Tila tailam</i>	Oil of <i>Sesame indicum</i>	16 parts
2	<i>Sarjarasam</i>	Resin of <i>Shorea robusta</i>	4 parts
3	<i>Tuttham</i>	Copper sulphate	1 part
4	<i>Sphatikam</i>	Potash alum	1 part
5	<i>Jalam</i>	Water	Sufficient

The procedure till heating and addition of powders is similar to the above but on filtration, the mixture is filtered into a vessel with water and rubbed with hands. The water is changed and rubbing is continued till all the added *Tuttha* gets washed away (i.e. no colour change is observed in water used for washing). In the end fine white coloured, butter like ointment is obtained, which should be stored as mentioned above. This method of preparation yields an ointment which is whiter than the above as all *Tuttha* gets washed away in water. Thus it is more suitable for the name *Shweta Malahara*. Both the processes result in an emulsion which is less stable when exposed to environment and this defect makes the product difficult to be marketed.

**Emulsion<sup>[5]</sup>**

An emulsion is a liquid in liquid dispersion. An emulsion droplet interface has at any point the same interfacial tension and sometimes emulsions are subdivided arbitrarily regarding the droplet size (macro-, mini- and micro-emulsions) and hence general aspects might be lost. The emulsification is done by two methods.

- i. Comminution: Destruction, achieved by mechanical energy or pressure.
- ii. Condensation: Construction, achieved by thermodynamics. E.g. swelling of solid particles with liquids.

The hydrophobe (lipid) and hydrophile (water) are combined with the mediators viz. surfactant (a substance which tends to reduce the surface tension of a liquid in which it is dissolved), emulsifier (a substance or an apparatus used for making an emulsion by stirring or shaking) and stabilizer (a substance which prevents breakdown of emulsions). Emulsifiers commonly used include mono-diglycerides (E471), lactic acid esters (E472b), propylene glycol esters (E477) and blends of these.

**Stabilizer<sup>[6]</sup>**

The purposes for using stabilizers in a media is to produce smoothness in body and texture; retard or reduce crystal growth during storage, especially during periods of temperature fluctuation; provide uniformity to the product; and provide some degree of shape retention. They also contribute to mix viscosity, stabilize the protein in the mix, help in suspension of flavouring particles, slow down moisture migration from the product to the package or the air, and assist in preventing shrinkage of the product volume during storage. Some of the commonly used stabilizers are gelatine, guar gum, alginate, agar, cellulose and cellulose derivatives.

**DISCUSSION**

The *Shweta Malahara* is an effective prescription in case of burn injuries. The base ingredient *Tila Taila* possesses *Tikshna* (deep penetrating), *Vyavayi* (quick spreading) and *Krimighna* (antimicrobial) properties by which it transports the drugs to every pores of tissue and prevent infection too.<sup>[7]</sup>

The main ingredient *Sarjarasa* is cold in potency, dominantly astringent in taste and is classified under *Vedanasthapana Ghana* (group of analgesics) by *Acharya Charaka* and *Vriddha Vagbhata*. It is considered as *Vrana Ropaniya Dravya* (wound healer) in

*Dhanwantri Nighantu* and *Kaiyadeva Nighantu*. It is a drug commonly used to treat burn injuries, with consideration to its properties.<sup>[8]</sup>

*Tuttha* is classified under *Maharasa* in *Rasashastra*. It is *Kapha-Pitta Hara* and has *Krimighna* and *Lekhaniya* (scrubbing) properties, by which it is capable of purifying putrefied wound tissues and enhances the healing.<sup>[9]</sup>

*Sphatika* is classified under *Uparasa* in *Rasashastra*. It is astringent dominant in taste and has *Vranaghna* (wound healer) and *Vishanashaka* (antitoxic) properties, by which it helps the cure of wound and prevents infections.<sup>[10]</sup>

## CONCLUSION

*Shweta Malahara* is an easy to prepare and easy to introduce medicament, which is made of effective wound healers and anti-toxic drugs. Though it is a potential medicament, it is less marketed due to its unstable nature and demand of water topping in classical method. With the advancement in technologies the *Shweta Malahara* can be made more stable and its shelf life can be increased by addition of suitable stabilizers.

The difference in method of preparation will obviously yield *Malahara* of different properties. Clinical studies are required to determine the effective method of preparation of *Shweta Malahara*.

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