

Pharmaceutical Preparation, Standardization and Clinical Study of *Talkodaya Malhara* w.s.r. to *Dadru Kushtha*

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ABSTRACT

Rasashastra and *Bhaishajya kalpana* is a specialized branch of *Ayurveda* dealing mainly with *Dravya* that includes herbs, minerals, metals and animal products. *Rasashastra*, popularly known as Indian alchemy or iatrochemistry is important subject of Ayurvedic curriculum. *Malahara* is an Arabic word, meaning plaster, dressing for wounds and shelve. *Malahara Kalpana* is not only applied externally, but is semisolid in all seasons, stable, smooth and soft. *Talkodaya Malhar* is one such classical *Rasaushadhi* which contains *Siktha Taila*, *Hartal*, *Parad*, *Gandhak*, *Haridra*, *Khadirsara*, *Gairik*, *Girisindur* and *Manashila*. It is indicated in *Dadru Kushtha Roga* (*Twak Vikar*) in *Rasgrantha*. Skin diseases are common manifestation in present era and more so frequent in the elder age. *Dadru*, is a *Kapha Pitta Pradhan Vyadhi* and the management of which includes *Shodhana*, *Shamana* and *Bahiparimarjana Chikitsa* among them *Shamana* measure in the form of *Lepa* has shown appreciable result in many prior research studies. *Dadru* can be correlated with tinea infections. *Dadru* in *Khsudra Kushtha* which involves the clinical features like *Kandu*, *Deerghapratana*, *Utsanna*, *Mandala*, *Raaga*, *Pidaka* which exhibits involvement of *Kapha* and *Pitta*. So a try is given to assess effects of *Talkodaya malahar* in treating signs and symptoms of *Dadru* through this present dissertation.

Key Words *Ayurved*, *Rasashastra*, *Malahar*, *Khudrakushtha*, *Dadru*, *Tinea*, *Talakodaya Malahar*

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INTRODUCTION

History of *Rasashastra* can be traced to pre-vedic period, where metals were successfully employed in treatment of various diseases. The *Bheshaja* in accordance to the requirement is flourished by undergoing different modulations. These efforts designed a new branch *Bhaishajya Kalpana*, an *Ayurvedic* Pharmaceutical science. *Bhaishajya*

Kalpana comprises of two words *Bhaishaja* and *Kalpana*. *Bheshaja* means drug and *Kalpana* means formulation according to *Chakrapani*.

Due to changing life style and food habits etc. there is increased incidence of skin diseases in practice and other systems fail to find a satisfactory solution for it. Therefore it is necessary to find a solution for it through

ORIGINAL RESEARCH ARTICLE

Ayurveda. An attempt has been made through this study to standardize the *Talakodaya Malahra*. An attempt is made to clinically evaluate the efficacy of *Talakodaya Malahra* in the treatment of *Dadru Kushtha*. Keeping the above points in mind the present study entitled “Pharmaceutical Preparation, Standardization and Clinical Study of *Talakodaya Malahra* W.S.R. To *Dadru Kushtha*” was carried out.

AIMS AND OBJECTIVES

The study was aimed at:

1. To ensure safe and efficacious preparation of *Talakodaya Malahra*.
2. Standardization of *Talakodaya Malahra*.
3. To explore and establish clinical efficacy of *Talakodaya Malahra* on *Dadru Kushtha*.

PHARMACEUTICAL STUDY

Procedure:

All the ingredients were weighted according to their proportion in *Shloka*. Then first *Siktha Tail* was taken into that all contents were added according to their sequence and triturated well until homogenous mixture was obtained. The prepared medicine was kept safe in glass container.

***Siktha Taila* 5.850kg**

***Shuddha Hartal* 390gm**

***Kajjali* 390gm**

***Haridra Choorna* 195gm**

***Khadira Choorna* 195gm**

***Shuddha Gairik Choorna* 195gm**

***Shuddha Girisindoor* 195gm**

***Shuddha Manahshila* 98gm**

Various *Shodhana* processes were carried out before actual making of *Talakodaya Malahra*. The first was *Gandhak Shodhana*. Total 400 gms. of *Gandhaka* was taken initially which was after subjecting to *Shodhana* reduced to 340 gms. 60 gm of loss was obtained which is 15%. *Kajjali* was made with equal amount of *Shuddha Parad* and *Shuddha Gandhaka* that weights 410gms. Final yield was 400 gms. 10 gms loss was obtained which is 2.5 %. *Kushmanda Swaras* and *Triphala Kwath* was made to which *Ashuddha Hartala* was subjected for *Shodhana*. Initial amount was 500 gm and final yield was 490 gm. Loss was 10 gm that is 2%. Similarly, *Gairik Shodhana* was carried with 20% loss obtained. *Shuddha Manahshila*, the other mineral used in the formulation was taken in from college pharmacy. Likewise *Haridra Choorna*, *Khadira Choorna* and *Shuddha Girisindura* was obtained from college pharmacy store. *Siktha tail*, which is the base media to prepare *Talakodaya Malahra*. It was made in the ratio 1:6. That is 1 part of *Siktha* was added to 6 parts of *Tila Taila*.

For the preparation of *Talakodaya Malahra*. For final preparation of medicine 5.850 gm *Siktha Taila*, 390 gm *Shuddha Hartal*, *Kajjali* 390 gm, *Haridra choorna*, *Khadira choorna*, *Shuddha Gairik Choorna*, *Shuddha Girisindoor* each weighing 195 gm and *Shuddha Manahshila* 98 gm was taken and triturated to mix thoroughly.

Whole pharmaceutical procedure was carried out in steps like *Gandhaka Shodhana*, *Kajjali* preparation, *Hartal Shodhana*, *Manahshila*
January 10th 2023 Volume 20, Issue 1 Page 79

ORIGINAL RESEARCH ARTICLE

Shodhana, Gairik Shodhana, Siktha Tail Nirman, preparation of Talakodaya Malahara etc.

All the ingredients were taken into a mortar & triturated well. They were filled in plastic container of capacity 50ml. 50 gm of which was sent to S.R labs, Jaipur for standardization and anti-microbial study purpose. Rest of the medicine was stored in college pharmacy store.

ANALYTICAL STUDY

Physiochemical analysis, heavy metal analysis and antimicrobial analysis were carried out of the selected drug to ensure safety and efficacy for clinical trial.

a) Physiochemical analysis:

pH value of the drug was found to be 6.16 which denotes that it is slightly acidic in nature.

Loss on drying was found to be 0.38% w/w which shows the formulation has less moisture content so it cannot be easily contaminate. Rancidity is the criterion used to assess whether the sample is decomposed or destroyed. The observed value of this sample is absent which means it is in good condition to be used.

Acid value or free fatty acid content test is done to assure that whether the sample is contaminated or not due to hydrolysis of fatty content by moisture, temperature or enzymatic actions. High values denote inadequate processing or storage conditions. Acid value of this sample is 0.02 mg KOH/g indicates that *malahar* is in good condition.

Peroxide value is the criterion to judge initial stage of fat and oil deterioration. A peroxide

value greater than 10 units denotes that the sample is rancid. In case of this sample, it is 1.32meqO₂/kg which shows sample is not damaged.

The higher **the saponification value** lighter the molecular weight of triglyceride and lower the fatty acid in a sample. Saponification value of 133.27 mgKOH/g denotes that it cannot be converted into soap easily.

Unsaponifiable matter means those substances present in oils or fats which are not saponifiable by alkali hydroxides. This sample contains 14.35% unsaponifiable value which is quite high. **Total fatty acid** criterion used to assess the quality of an ointment. Higher the total fatty acid more it is good for skin conditions. Here 78.84% w/w shows that this malahar is good for skin diseases.

Spreadibility is the ability of a cream to spread on skin. 5second spreadibility shows this sample can be easily spread through skin.

Thermal stability test of *Talakodaya Malahar* showed that sample is thermally stable.

b) **Heavy metal analysis**

however, this test is useful for assessment of presence of heavy metal for internal use here it was done for lead, cadmium, mercury. Arsenic. They all was found in permissible amount.

c) **Microbiological analysis**

total bacterial count and total fungal count was done for the sample to assess any contamination. The value was found to be less than 10cfu which clearly shows that sample is in good state for use.

CLINICAL STUDY

ORIGINAL RESEARCH ARTICLE

30 patients fulfilling criteria of *Dadru* were selected from M.M.M. Govt. Ayurved College hospital, Motichohatta hospital, Anusandhan Kendra(Udaipur)

INCLUSION CRITERIA:

It is designed for:-

1. Patients presenting with the symptoms of *Dadru Kushtha*.
2. Patients having age 12-60 years.

Table 1 Overall effect of therapy

Symptoms	n	BT	AT	% of Relief	SD	SE	T	P	Re
<i>Kandu</i>	30	2.23	0.63	71.64%	0.62	0.11	14.10	<0.001	HS
<i>Raga</i>	30	1.47	0.43	70.45%	0.49	0.09	11.55	<0.001	HS
No. of Mandal	30	1.67	0.30	82.00%	0.56	0.10	13.46	<0.001	HS
Size of Mandal	30	1.93	1.10	43.10%	0.46	0.08	9.90	<0.001	HS
<i>Raja</i>	30	1.20	0.20	83.33%	0.37	0.07	14.75	<0.001	HS

Highly significant result at the level of $P < 0.01$ were obtained in all the category of symptoms & Size of Mandal decreased by 43.10% only due to chronic nature of the disease.

PROBABLE MODE OF ACTION OF TALAKODAYA MALAHARA

The contents of *Talakodaya malahara* are the *Kajjali*, *Hartala*, *Manahshila*, *Gairika*, *Girisindura*. All these have conferred *Talakodaya Malahara* with the properties like *Ushna*, *Tikshna*, *Laghu*, *Vishada Guna*, *Ushna Virya* & *Katu Vipaka*. Due to its *Ushna*, *Tikshna*, *Vishad* & *Sukshma* properties it deblocks the obstruction in *swedavahi Strotas* & allows the local toxins to flow out through the *Sweda*, thus clearing out the micro channels. The *Ushna Virya* of *Talakodaya Malahara* & *Snigdha Guna* of its vehicle i.e. *Siktha Taila* causes pacification of

3. Patients with history of *Dadru Kushtha* less than 5 years

EXCLUSION CRITERIA

1. Patients with chronic severe illness
2. Patients with history of *Dadru Kushtha* more than 5 years.

Yoga – *Talkodaya malahar*

Dose – As per required area for *Malahara*

Duration– 2 Month

Vata & *Kapha* which forms the *Samprapti* thus alleviating the symptoms.

CONCLUSION

1. The Observations showed that the teenagers & youth are the main victim of the diseases.
2. *Dadru* is *Kapha* dominant disease which can be compared with Dermatophytoses.
3. Though *Kshudrakushtha Dadru* is very tenacious in nature, hence a treatment schedule lasting continuously up to 3 months is very necessary to avoid relapses.
4. *Talakodaya Malahara* gives highly significant results while treating *Dadru*.
5. Insofar as the topical applications are concerned, a proper base for its preparation or a proper vehicle for application must be considered vitally, because in topical applications a base or

ORIGINAL RESEARCH ARTICLE

vehicle is as important as heart for a human being.

ORIGINAL RESEARCH ARTICLE

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