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**PHARMACEUTICAL AND PRELIMINARY ANALYTICAL STUDY OF  
JEEVANTYADI MALAHARA**

**AMBIKA S<sup>1\*</sup>, PAUL WILSON PARATHUVAYALIL<sup>2\*\*</sup>, GAZALA HUSSAIN<sup>3\*\*\*</sup>**

<sup>1,2</sup>Post Graduate Scholar, <sup>3</sup>Associate Professor

Department of Rasashastra and Bhaishajya Kalpana, Sri Dharmasthala Manjunatheshwara

College of Ayurveda Hospital, Hassan-573201

\*Corresponding Author: Dr. Ambika S: E Mail: [ambikasudarshan152@gmail.com](mailto:ambikasudarshan152@gmail.com); Mobile No:

9449753466

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**ABSTRACT**

**Introduction:** Malahara is an ointment preparation used for topical applications and has advantages owing to its dosage form. Jeevantyadi malahara is a unique preparation comprising of jeevanti, manjista, daruharidra, kampillaka, tuttha, go ksheera, go ghrita, sarjarasa and madhuchista. It is indicated in padadari (heel fissures). The same Jeevantyadi malahara after washing with water for 100 times i.e., dhouta karma is indicated in agni dagdha (Burn ulcer), arsha (Piles), pama (Eczema) and kandu (Itching). **Aim:** To develop preliminary standards for jeevantyadi malahara and shatadhouta jeevantyadi malahara and highlight the importance of dhouta samskara. **Materials and methods:** Jeevanti, manjista, daruharidra, kampillaka, go ksheera, go ghrita, were taken and jeevantyadi sneha was prepared out of it. Jeevantyadi sneha was added with sarjarasa and beeswax to obtain jeevantyadi malahara. The prepared malahara was made into two separate samples. One sample was subjected to repeated washing with water and another kept as it is. Both samples were subjected to organoleptic and physico-chemical parameters. **Observations and results:** The results of organoleptic characters like appearance, odour, taste and physico-chemical parameters like pH and loss and drying was carried out. **Discussion and conclusion:** Jeevantyadi malahara is mainly indicated in padadari. The properties and therapeutic utility also differ after subjecting for washing with water. Shatadhouta jeevantyadi malahara is

indicated in dagdha, arsha and vrana. Hence the importance of dhouta karma is highlighted in this paper.

**Keywords:** Jeevantiyadi malahara, padadari, vrana, arsha, dhoutakarma

## INTRODUCTION

The term malahara has originated from the root word malham or marham taken from Unani system of medicine. It is a quite widely used ointment preparation with many advantages. It has been inducted to Ayurveda pharmaceuticals and the first reference can be seen in yogaratnakara [1].

The base material for the preparation of malahara can be taila, ghrita, siktha, sarjarasa, etc. Base material should be taken and its filtered to get rid of impurities, to this filtered base, the fine powder of medicinal drugs are added and stirred. After it is cooled, the product attains a thicker consistency and malahara is obtained.

Jeevantiyadi malahara is a herbo-mineral preparation comprising of jeevanti, manjista, daruharidra, kampillaka, tuttha, go ksheera, go ghrita, sarjarasa (Table 1) and it is indicated in padadari (cracked feet). It comes under kshudra kushta and it is also called as heel fissures. The prepared jeevantiyadi malahara after washing with water for 100 times (Shatadhouta jeevantiyadi malahara) is said to be beneficial in agni dagdha, kandu, pama and arsha [2]. In this present study method of preparation and its physicochemical and analytical parameters of jeevantiyadi malahara and shatadhouta jeevantiyadi malahara are analysed.

Table 1: Attributes of the ingredients of jeevantiyadi malahara

S. No.	Ingredients	Rasa	Guna	Virya	Vipaka	Doshagnata	Rogagnata	Karma
1	Jeevanti	Madhura (Sweet)	Laghu (Light), Snigdha (Unctuous)	Sheeta (Cooling)	Madhura (Sweet)	Tridosahara (Alleviates all dosha)	Rakta pitta (Bleeding Disorders), Grahani (Malabsorption Syndrome), Stanya Kshaya (Reduced Breast milk)	Chakshushya (Eye or vision tonic), Dardhyakara (Strengthening) Rasayana (Rejuvenating) Grahi (Binding)
02	Manjista	Madhura (Sweet), Tikta (Bitter), Kashaya (Astringent)	Guru (Heavy)	Ushna (Hot)	Katu (Pungent)	Kapha hara (Alleviates kapha dosha)	Kushta (Skin Diseases), Yonidosha (Gynaecological disorders), Netra roga (Eye Diseases), Raktaatisara (Diarrhoea with bleeding), Visarpa (Erysipelas), Prameha (Diabetes),	Varnya (Improves Complexion), Rakta Stambhaka (Haemostatic), Rasayana (Rejuvenating)

							Sarpa visha (Snake bite), Bhagna (Fracture), Arsha (Haemorrhoids), Krimi (Worms), Visha (Poisoning)	
03	Daruhar idra	Tikta (Bitter)	Ruksha (Dry)	Ushna (Hot)	Katu (Pungent)	Kapha pittahara (Alleviates Kapha pitta dosha)	Vrana (Wound), Prameha (Diabetes), Karnashula (Ear pain), Kandu (Pruritus), Kapha abhishyanda (Eye inflammation), Kushta (Skin diseases, Shopha (oedema), Amatisara (Dysentery))	Pachana (Digestive), Stanya Shodhana (Breast milk cleansing)
04	Kampill aka	Katu (Pungent)	Laghu (Light), Ruksha (Dry), Tikshna (Sharp)	Ushna (Hot)	Katu (Pungent)	Pitta, kapha hara (Alleviates pitta and Kapha dosha)	Adhmana (Abdominal distention), Gulma (Phantom tumour), Vibandha (Constipation), Vrana (Wound), Prameha (Diabetes)	Ropana (Wound Healing), Tikshna Virechana (Purgative)
05	Tuttha	Kashaya (Astringent), Katu (Pungent), Kshara (Alkali)	Laghu (Light), Ruksha (Dry), Tikshna (Sharp)	Sheeta (Cold)	Katu (Pungent)	Tridosha hara (Alleviates all three dosha)	Visha (poisonous), hridroga (heart diseases), Kushta (skin diseases)	Rasayana (Rejuvenator), Vamaka (induces emesis)
06	Go Ksheera	Madhura (Sweet)	Guru (Heavy), snigdha (Unctuous), picchila (Slimy)	Sheeta (Cold)	Madhura (Sweet)	Vata pittahara (Alleviates vata and pitta dosha)	-	Rasayana (Rejuvenator)
07	Go Ghrita	Madhura (Sweet)	Guru Heavy, snigdha (Unctuous), mrudu (Soft)	Sheeta (Cold)	Madhura (Sweet)	Vata pittahara (Alleviates vata and pitta dosha)	-	Rasayana (Rejuvenator)
08	Tila taila	Madhura (sweet), Tikta (bitter), Kashaya (Astringent)	Guru (Heavy), Snigdha (unctuous) tikshna (Sharp)	Ushna (Hot)	Madhura (Sweet)	Vata kapha hara (Alleviates vata and kapha)	Vataja vikara (Disorders related to vata)	Twachya (good for skin), balya (strengthening, Keshya (Hair tonic)
09	Sarja rasa	Katu (pungent), tikta (bitter), kashaya (as tringent)	Ushna (Hot), snigdha (Unctuous)	Ushna (hot)	Katu (Pungent)	Kapha vata hara (Alleviates kapha and vata)	Dagdha (burn), Vrana (wound), kandu (pruritis)	Varnya (gives complexion), swedagna (anti-perspirant)
10	Beewax	Madhura (sweet), kashaya (as tringent)	Snigdha (unctuous), mrudu (soft)	Ushna (Hot)	Katu (pungent)			

**MATERIALS AND METHODS**

Pharmaceutical preparation was carried out in Dept. of Rasashastra & Bhaishajya

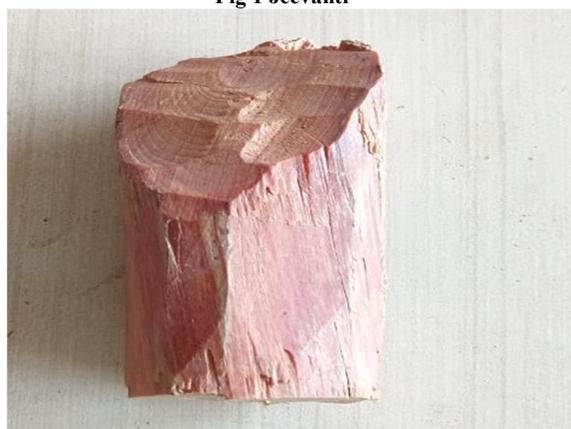
Kalpana, SDMCAH, Hassan (Figures 1-19).



**Fig 1 Jeevanti**



**Fig 2 Manjishta**



**Fig 3 Daruharidra**



**Fig 4 Kampillaka**



**Fig 5 Tuttha**



**Fig 6 Jeevanti churna**



Fig 7 Daruharidra churna



Fig 8 Shodhana of Kampillaka

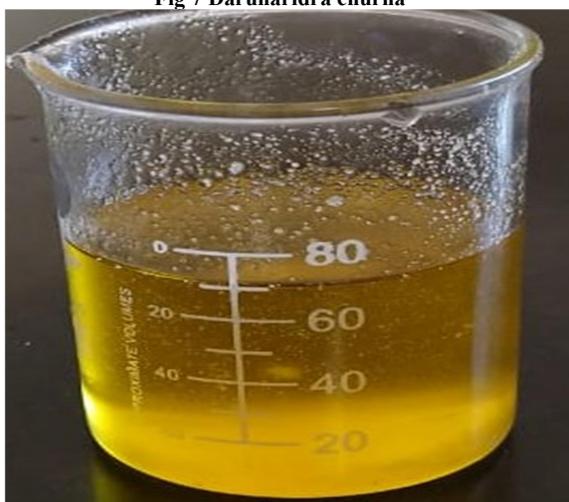


Fig 9 Tila taila



Fig 10 Go ghrita



Fig 11 Go-Ksheera

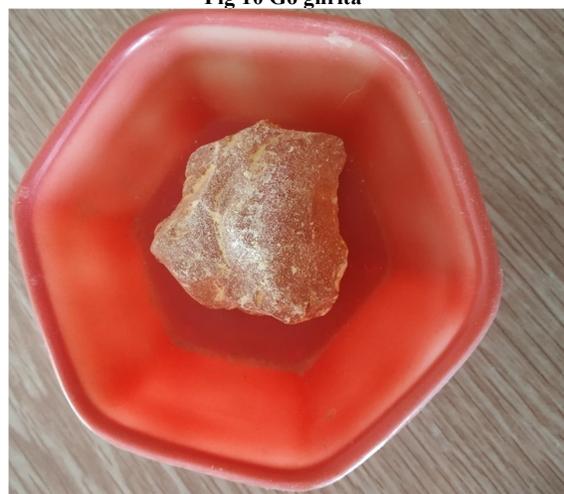


Fig 12 Rala (Sarja rasa)



Fig 13 Bee wax



Fig 14 Preparing Jeevantyadi sneha



Fig 15 Added kalka to the jeevantyadi sneha



Fig 16 After the preparation of Jeevantyadi Malahara



Fig 17 Prepared jeevantyadi malahara



Fig 18 Washing jeevantyadi malahara with water



Fig 19 Jeevantyadi malahara and shatadhouta jeevantyadi malahara

Ingredients of Jeevantyadi malahara and its quantity is tabulated in **Table 2**.

**Table 2: Ingredients of Jeevantyadi malahara and its quantity**

Sl No	Ingredients	Botanical name	Part used	Quantity mentioned in classics	Quantity taken for preparation
01	Jeevanti	<i>Holostemma ada-kodien Schult</i>	Root	4 tola (48g)	3g
02	Daruharidra	<i>Berberis aristata DC</i>	Stem	4 tola (48g)	3g
03	Manjishta	<i>Rubia cordifolia L.</i>	Stem	4 tola (48g)	3g
04	Kampillaka	<i>Mallotus philippensis (Lam) Mull.Arg.</i>	Fruit	4 tola (48g)	3g
05	Tuttha	Cupric sulphate	-	1 tola (12g)	0.5g
06	Tila taila	<i>Sesamum indicum L.</i>	Oil	32 tola (384g)	50g
07	Go-ksheera	<i>Bos Taurus Linnaeus,1758</i>	Milk	32 tola (384g)	100ml
08	Go-ghrita	<i>Bos Taurus Linnaeus,1758</i>	Ghee	64 tola (768g)	50g
09	Sarjarasa	<i>Vateria indica L</i>	Exudate	8 tola (96g)	16g
10	Beewax	<i>Cera alba</i>	Wax	8 tola (96g)	16g
11	Water	-	-	256 tola (3,072g)	600ml

### Method of preparation [2]

The Kalka dravya viz., Jeevanti moola, daruharidra, kampillaka, manjista and tuttha were taken in mentioned quantity and shodhana was carried out for kampillaka and tuttha.

### Shodhana of kampillaka [3]

Kampillaka was taken and sprinkled on to a wide mouthed vessel containing water. Shuddha kampillaka floats and the brick powder which is the common adulterant, will sink down and settle at the bottom of the vessel. The Kampillaka floating on the surface of water was collected, dried and used for the preparation as kalka dravya.

### Shodhana of Tuttha [4]

Ashuddha tuttha was taken in clean porcelain khalwa. It was added with sufficient quantity of nimbu swarasa and triturated for six hours. Later the triturated tuttha was dried under sun and used for preparation of jeevantyadi malahara.

### Preparation of Jeevantyadi sneha

All the kalka dravya were taken and powdered and made to fine powder. Tila taila and ghrita were taken as sneha dravya. Go-ksheera and jala were taken as drava-dravya for preparation of taila.

Initially sneha dravya i.e., tilataila and go-ghrita were taken in a clean wide mouthed stainless-steel vessel. The vessel is placed over mild fire and cooked. When vapours start appearing in sneha, followed by the prepared kalka dravya and later the specified drava dravya i.e., go-ksheera and jala were carefully added to it. Boiling was continued with frequent stirring until sneha siddhi lakshana were attained. Later the Jeevantyadi sneha was filtered through a clean cloth and kept in wide mouth glass vessel.

### Preparation of jeevantyadi malahara

The prepared sneha was taken in a clean steel vessel and placed over mild fire. It was heated until foam starts appearing. Soon the specified ratio of bee wax and

Sarja rasa was added to it. When all the wax completely melts in oil, it is filtered to another clean vessel and allowed to cool. It attains a thicker consistency as that of bee wax after cooling. This is jeevantyadi malahara.

### **Preparation of Shatadhouta jeevantyadi malahara**

The prepared jeevantyadi malahara was divided into two samples. One sample was kept as it is (Sample 1) and other sample was taken in clean wide mouthed vessel and plain water added to it for dhouta karma. The malahara was washed with water for 100 times. Fresh water was used each time and water was discarded when change in colour was seen. After washing 100 times with water the malahara was considered as shatadhouta jeevantyadi malahara (Sample 2).

### **ANALYTICAL STUDY**

Analytical study was carried out in Quality Control Lab of Teaching Pharmacy, SDMCAH, Hassan.

The organoleptic characters like appearance, odour, taste and physico-chemical parameters like pH, loss on drying were carried out.

#### **pH determination [5]**

pH value of an aqueous liquid may be defined as the common logarithm of the reciprocal of the hydrogen ion concentration expressed in grams per litre. The pH value of a solution can be measured

with pHmeter which consists of a voltmeter connected with two electrodes. pH meter was calibrated to 4,7 and 9 by using buffer solution. One gram of jeevantyadi malahara (sample 1) was dissolved in 10 ml of distilled water and this solution was taken in a glass beaker. The electrode of the pH meter was dipped to the solution and reading was noted. Same procedure was repeated for sample 2.

#### **Loss on drying [6]**

A sample of 10 grams of the prepared jeevantyadi malahara and shatadhouta jeevantyadi malahara were taken in a tarred evaporating dish and dried at 105<sup>0</sup>C for five hours and weighed. The process of drying and weighing was continued at one-hour interval until difference between two successive weighing corresponded to not more than 0.25%.

### **OBSERVATIONS AND RESULTS**

#### **Pharmaceutical observation**

During preparation of jeevantyadi sneha, sneha kalka attained perfect shape when rolled between fingers. When part of kalka was put into fire, no sound was produced, foam was produced and desired color, odour and taste of the ingredients become appreciable as the preparation was completed.

During the preparation of malahara, jeevantyadi sneha was mixed with bee wax and powdered sarjarasa. Total duration of heating was 15 minutes. At 60<sup>0</sup>Celsius

Beewax melted in jeevantyadi sneha and sarjarasa was added. The heating was stopped when Beewax melted in the mixture. The colour of prepared jeevantyadi malahara was pale green in colour.

After the preparation of jeevantyadi malahara, one half was kept as control and

the other half was taken for dhouta. It was washed for 100 times with plain water and the slowly colour of malahara changed to pale yellow, stickiness was reduced, and became softer than control sample.

Results of organoleptic and physico-chemical parameters are tabulated in **Table 3** and **Table 4** respectively.

**Table 3: Results of Organoleptic characters**

SINo.	Organoleptic Characters	Jeevantyadi malahara	Shatadhouta Jeevantyadi malahara
01	Colour	Pale green	Pale yellow
02	Odour	Characteristic smell	Characteristic smell
03	Touch	Sticky	Smooth in touch

**Table 4: Physico-chemical characters**

Sl No.	Organoleptic Characters	Jeevantyadi malahara	Shatadhouta Jeevantyadi malahara
01	pH	4.02	5.69
02	Loss on drying	12.5%	14%

## DISCUSSION

Jeevantyadi malahara is a unique herbo-mineral formulation prepared by using jeevanti moola, kampillaka, tuttha, manjista, daruharidra, go ksheera, goghrita, tila taila, Sarja rasa and beewax. Initially jeevantyadi sneha was prepared and during the conduction of test of perfectness, when the kalka dravya was put over the fire, no sound was produced suggesting absence of moisture in the sneha. After the completion of jeevantyadi sneha it was added with sarjarasa and bee wax to obtain jeevantyadi malahara. A part of the jeevantyadi malahara was subjected for dhouta kriya for 100 times. The prepared jeevantyadi malahara after washing with water for 100 times is called shatadhouta jeevantyadi Sneha (sample 2).

The colour of jeevantyadi malahara was pale green and shatadhouta jeevantyadi malahara was pale yellow colour. The difference in the colour is due to repeated and prolonged trituration of the fat and water mixture.

The prepared shatadhouta jeevantyadi malahara (sample 2) was less sticky compared to jeevantyadi malahara (sample 1). Repeatedly washing of malahara for a longer duration may split the fat particles and make it into an emulsion making it smoother in consistency.

The pH of the jeevantyadi malahara was 4.02 whereas shatadhouta jeevantyadi malahara was 5.69 which suggests that the dhouta karma made preparation less acidic. Water is having a neutral pH and that may

have diluted the acidic concentration in sample 2 and made it near to neutral pH.

Loss on drying value of jeevantyadi malahara (sample1) and shatadhouta malahara (sample 2) was 12.5 % and 14% respectively. This indicates that sample 2 is having high moisture content compared to sample 1. This implies that the dhouta karma has imparted more water into the ghrita.

The Jeevantyadi malahara is mainly indicated in padadari where aggravation of vata and kapha dosha is involved. The ingredients of jeevantyadi malahara possess ushna virya which helps in pacifying aggravated kapha and vata dosha. The jeevantyadi malahara after washing with water for 100 times is indicated in agni dagdha, kandu, pama and arsha where more of saumya guna is needed. The addition of jala and dhouta samskara enhance or add up to the sheeta guna in the preparation by which the change in indications is appreciated. Though the ingredients and method of preparation are same but the properties will change after the dhouta karma. The dhouta karma comes under samskara which helps to change the properties on the basis of samskaro hi gunantaradhanaam. Hence shatadhouta jeevantyadi malahara got sheeta virya and pittadosha shamana property and thus indicated in pitta dosha involved diseases like agni dagdha, kandu, pama and arsha.

## CONCLUSION

Jeevantyadi malahara is a combination of both herbal and mineral drugs which comprises of jeevanti moola, kampillaka, tuttha, manjista, daruharidra, go ksheera, goghrita, tila taila, Sarja rasa and Beewax. It is indicated in padadari and shatadhouta jeevantyadi malahara indicated in agni dagdha, kandu, pama and arsha. Though the ingredients and method of preparation was same in both jeevantyadi malahara and shatadhouta jeevantyadi malahara the organoleptic and physico-chemical properties got changed because of dhouta kriya. Because of dhouta samskara properties and therapeutic efficacy of shatadhouta malahara differs from jeevantyadi malahara. In this way the importance of dhouta samskara is highlighted. This formulation is simple in preparation, but not in practice. A clinical study to revalidate the preparation will pave way for the formulation to come into practice.

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