

**Case Study*****BHRINGARAJA BHAVITHA GANDHAKA KALPA IN THE MANAGEMENT OF VYANGA – A CASE STUDY*****Sen Aparna<sup>1\*</sup>, Thara Lakshmi<sup>2</sup>****\*1P G Scholar, <sup>2</sup>Associate Professor, Government Ayurveda College, Thiruvananthapuram, Kerala, India.****ABSTRACT**

Acquired disorders of hyperpigmentation affects individuals of all skin types. In Ayurveda, 'Vyanga' is a *Kshudra roga* and a *Rakta pradoshaja vikara* which mainly affects the complexion of a person by producing *Niruja*, *Shyava varna mandalas* over face. The aim of the study was to assess the effect of *Bhringaraja bhavitha gandhaka kalpa* in *Vyanga* which is the eighth *Gandhaka kalpa* mentioned in the eight Taranga of Rasatarangini. Variables like percentage of area involved, darkness and homogeneity were assessed before and after treatment. This paper highlights a case study of *Vyanga* treated with *Bhringaraja bhavitha gandhaka kalpa*.

**KEYWORDS:** *Vyanga*, *Bhringaraja bhavitha gandhaka*, Hyperpigmentation.

**INTRODUCTION**

Facial melanoses are a common presentation in Indian patients, causing cosmetic disfigurement with considerable psychological impact. Melasma is a common, acquired, symmetric hypermelanosis characterised by irregular light to dark brown patches commonly involving the cheeks, forehead, upper lip, nose and chin. Melasma is more common in women of child bearing age, although men also suffer from the condition and account for about 10% of the cases. It is generally found between 20 and 50 years of age. Factors associated with melasma include exposure to ultraviolet rays, genetic influences, pregnancy, thyroid autoimmunity, oral contraceptives etc; with ultraviolet light exposure and genetic factors being strongest predictors.<sup>[1]</sup> Due to rising economic affluence, the demand for treating pigmentary disorders is also increasing. Pigmentary disorders of skin being visible can lead to low self esteem and embarrassment. Therefore there is a need for addressing this condition through Ayurvedic treatment modalities to find an effective management.

In Ayurveda, 'Vyanga' is a *Kshudra roga* and a *Rakta pradoshaja vikara* which mainly affects the complexion of a person and having the *Lakshanas* like *Niruja* (painless), *Shyava varna mandalas* (brownish black patches) over face. *Dosas* involved in the development of *Vyanga* are *Vata* and *Pitta*. *Nidana* of *vyanga* is said as anger, grief, exertion etc.<sup>[2]</sup> Vitiated *Dosas* manifest the symptoms in skin of face.

*Gandhaka*, one among the *Uparasas*, when purified is *Rasayana* and effective in managing various diseases especially those affecting skin. *Gandhaka kalpas* are unique formulations of

*Gandhaka* having *Rogahara* and *Rasayana* effects. The study aims at finding the effect of *Bhringaraja bhavitha gandhaka kalpa* in the management of *Vyanga*. A single case study to assess effect of *Bhringaraja bhavitha gandhaka kalpa*<sup>[3]</sup> is an attempt to develop *Bhringaraja bhavitha gandhaka kalpa* as an effective drug of practice in the treatment of *Vyanga*. It is the eighth *Gandhaka kalpa* mentioned in the eighth Taranga of Rasatarangini.

**Brief history of the patient****Presenting complaints**

A 37 year old male, who was apparently normal 2 years back, developed blackish patches of pigmentation gradually on forehead, above eyebrows around and over nose with no associated symptoms like itching. Complaints aggravated on exposure to sun and heat. Initially he took allopathic medications but got only temporary relief, later he consulted our hospital OPD for treatment. He is an electrical worker and his job demands working near heat. He is non-diabetic and non-hypertensive and has the habit of taking spicy foods.

**Clinical findings**

No relevant family history was found, patient was observed to be slightly depressed with occasional outburst of anger. Lesions were blackish in colour and irregular shape, with gradual onset on forehead, above eyebrows, above and around nose. There was no other associated inflammatory conditions or itching.

**Laboratory investigations**

Blood routine – Normal

Thyroid function tests- Normal

Abdominal USG – Normal

**Samprapti ghataka**

- Dosh- Vata, pitta, rakta
- Dushya- Rasa, rakta, twak
- Srotus – Rasavaha, raktavaha
- Agni – Mandam
- Rogamarga- Bahyam
- Sadhyasadhyata- Sadhyam

**Samprapti**

Nidana sevana like Aharaja, Viharaja, Manasika (spicy foods, exposure to excess heat, grief and anger)



Vitiate Vata, Pitta, Rakta along with Rasavaha srotus and Raktavaha srotus



Sthanasamsraya in the Twak of face



Niruja, tanu, syava varna mandalas on forehead, above eyebrows, above and around nose



Vyanga

**Materials and methods**

**Criteria for selection of patient**

Patient presenting with the classical signs of Vyanga and not associated with any systemic illness like psoriasis, PCOS, SLE or any malignant melanoma.

**Method of preparation of Bhringaraja bhavitha gandhaka kalpa**

**Gandhaka sodhana** - Gandhaka shodhana done using Koormaputa<sup>[4]</sup> method. 500g finely powdered Gandhaka was taken. A clean mud pot of 5litre

capacity was taken and inside was smeared with ghee; 3litres of fresh cow’s milk was poured into the pot. Mouth of the pot was covered with a double layered cotton cora cloth and properly tied around neck. 500g of powdered Gandhaka was then spread over the cloth and closed with an appropriate earthen lid and the joints were sealed with multani mitti smeared cotton cloth seven times. After drying, the entire pot was kept in a Koormaputa pit and heat was given from above using coconut exocarps pieces which were ignited. Exocarps of 4 coconuts were used for entire process. After complete burning of all pieces, apparatus left for self cooling. On cooling, sealing was broken and purified Gandhaka in form of small globules were collected, washed, dried, weighed and stored. 475g Gandhaka was obtained.

**Bhavana of Gandhaka in bhringaraja swarasa** - Purified Gandhaka was subjected to Bhavana in freshly expressed juice of Bhringaraja (Eclipta alba) using a stone grinder. 150ml Swarasa was needed for the first Bhavana. After completion of this second Bhavana was carried out with 125ml Bhringaraja swarasa, sufficient to soak the Gandhaka. On the completion of second Bhavana, third Bhavana was carried out with 125ml Bhringaraja swarasa and properly dried.

**Bhringaraja bhavitha gandhaka kalpa** - 750g of clean, dried Hareetaki was taken and finely powdered. Gandhaka done three Bhavana in Bhringaraja juice was first finely powdered in a mortar and then mixed little by little with equal amount of finely powdered Hareetaki, grinded thoroughly to get a homogenous mixture.

**Dose** - 1 Masha (750mg) of Bhringaraja bhavitha gandhaka along with 1 Masha (750mg) of Hareetaki choorna makes a single dose. Administered with Anupana of honey and ghee once daily in morning.

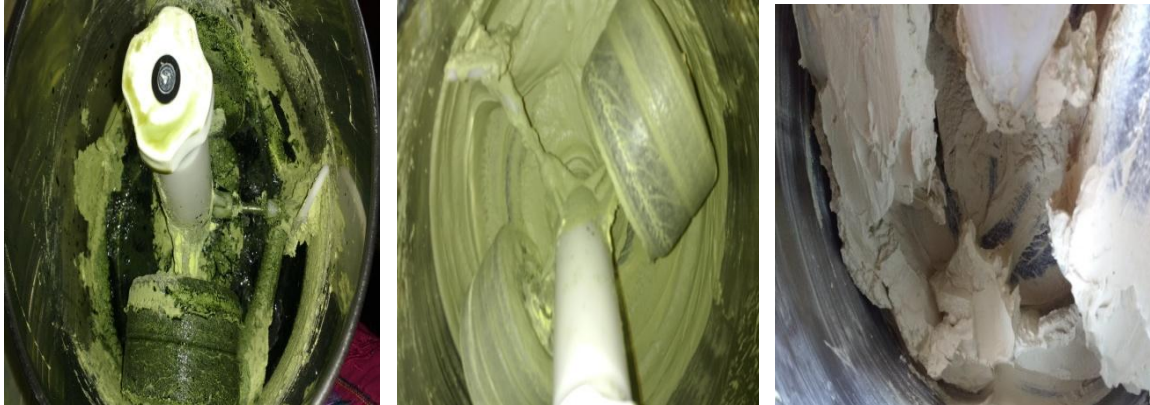
**Fig.1 Gandhaka shodhana by Koormaputa**







**Fig.2 Bhringaraja bhavana of Gandhaka**



**1<sup>st</sup> Bhavana**

**2<sup>nd</sup> Bhavana**

**3<sup>rd</sup> Bhavana**

**Fig.3 Bhringaraja bhavitha gandhaka kalpa**



### Intervention schedule

*Bhringaraja bhavitha gandhaka kalpa* - 1.5g of *Bhringaraja bhavitha gandhaka kalpa* given along with 8 drops honey and 5 drops ghee as *Anupana* in morning before food for 60 days continuously.

### Assessment criteria

Melasma Area Severity Index (MASI)<sup>[5]</sup> which assess the percentage of total area involved, darkness and homogeneity of the lesions was used. The severity of the melasma in each of the four regions (forehead, right malar region, left malar region and chin) is assessed based on three variables:

1. Percentage of total area involved (A)
2. Darkness (D)
3. Homogeneity (H)

A numerical value assigned for corresponding percentage area involved is as follows;

0=no involvement

1= <10% involvement

2=10-29% involvement

3=30-49% involvement

4=50-69% involvement

5=70-89% involvement

6=90-100 % involvement

The darkness of the melasma (D) is compared to the normal skin and graded on a scale of 0-4 as follows;

0=normal skin colour without evidence of hyperpigmentation

1=barely visible hyperpigmentation

2=mild hyperpigmentation

3=moderate hyperpigmentation

4=severe hyperpigmentation

Homogeneity of the hyperpigmentation is also graded on a scale of 0 to 4 as follows;

- 0=normal skin colour without evidence of hyperpigmentation
- 1=specks of involvement
- 2=small patchy areas of involvement <1.5 cm diameter
- 3=patches of involvement >2 cm diameter
- 4=uniform skin involvement without any clear areas

To calculate the MASI score, the sum of severity grade for darkness (D) and homogeneity (H)

**RESULTS**

**Table 1: Showing results**

Features	Before treatment	After treatment
MA SI score	21.3	7.2
Colour of lesions	Black	Reduced
Area of lesions	Widely diffused	Reduced
General appearance	Ill	Normal
Appetite	Reduced	Normal

**Table 2 : Images before and after treatment**



**DISCUSSION**

- *Shodhita gandhaka* is *Rasayana* in nature and *Gandhaka kalpas* are unique formulations of *Gandhaka* having *Roga samana* as well as *Rasayana* effects. The core functions of *Rasayana* is said as imparting longevity, memory, intelligence, health, youthfulness, complexion and colour and providing excellence of *Prabha*, *Varna*, *Swara*, strength to body and senses, virility, *Kanthi*.<sup>[6]</sup>
- *Hareetaki* and *Bhringaraja* have *Rasayana* property.
- *Shudha gandhaka* has *Kushtahara*<sup>[7]</sup> effect, also sulphur is said to have an elective affinity to skin

- *Anupana* honey is *Tridosha samana* and *Ghrita* is *Vata pittahara*, *Twachya* and *Rasayana*.<sup>[8]</sup>
- The *Rasayanatwa* property of *Bhringaraja bhavitha gandhaka kalpa*, helped in attaining the normal *Varna* of skin.
- The *Sookshma guna* of honey helped in the penetration of medicine to *Sookshma srotas*.<sup>[9]</sup>
- *Kushtahara* property of *Shodhita gandhaka* helped in the treatment of *Vyanga*, thereby reducing the area, darkness and homogeneity of lesions.
- Due to *Deepana* and *Pachana* effects of *Sodhita Gandhaka*<sup>[7]</sup>, appetite was improved.

- *Vyanga* is a *Kshudrakushta* where psychological factors like *Soka*, *Krodha* etc. along with physical factors like *Ayasa* results in the vitiation of *Vata* along with *Pitta* to manifest the disease. The ingredients in the formulation are regulators of *Vata*, *Rasayana*, *Kushtahara* and *Vayasthapana*.

### CONCLUSION

It can be concluded from the present study that *Bhringaraja bhavitha gandhaka kalpa* provided significant relief in the condition *Vyanga*. Along with medicine, avoiding the *Nidanas* and resorting to proper *Pathya* gives quick results. General well being and appetite improved after treatment. Thus *Bhringaraja bhavitha gandhaka kalpa* can be taken as an effective and safe drug of choice in the management of *Vyanga*.

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