

## **EFFICACY OF LOCAL APPLICATION OF BIBHITAK TAILA ALONG WITH SUGANDHABALA MASHI IN SHVITRA (VITILIGO) – A CLINICAL STUDY**

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### **ABSTRACT**

Since long ago vitiligo (Shvitra) is a big challenge to the medical fraternity. Vitiligo is a common autoimmune pigmentary disorder of great socio-medical importance. According to modern pathophysiology in vitiligo melanocyte are not found in the affected skin. Melanocyte contains pigment melanin which plays a important role in colouration of skin and protective action against the harmful effect of sunlight. Vitiligo can be corellated with shvitra in Ayurveda. In Ayurveda Panchakarma is the formost treatment of Vitiligo. Lepam plays an important role in treatment of Shvitra. Vagbhat has mentioned use of Bibhitak Taila along with Sugandhabala Mashhi. Sushrut has mentioned local application of Bibhitak Taila. Also this drug does not cause blisters after local application. The other lepas and drugs many times cause blisters and are painfull to apply to the white patch of patient. Considering all these views in mind the study was pointed to evaluate

the effect of local application of Bibhitak Taila along with Sugandhabala Mashhi in the patients of Shvitra. For that twenty patients were selected, who visited the OPD of college and local application was given to them for fortyfive days, daily three times and keen observations had done. Scientific data was collected. After statistical analysis it was observed that this drug has definite role in improving the local symptoms and colouration of the skin of patch of Vitiligo. It has a definite role on melanine pigmentation. It acts on the Bharajak Pitta situated in the skin.

**KEYWORDS:** Shvitra, Sugandhabala Mashhi, Bibhitak Taila, Pani Pada Tala.

## INTRODUCTION

Vitiligo is a noninfectious skin disorder which appears as white spot on the skin all over the body, which may be symmetrical or asymmetrical. Vitiligo is a disfiguring condition. It affects the beauty of the person and person becomes social stigma. In Ayurveda Shvitra has been described under the chapter of Kushtha. Shvitra is a disease in which normal colour of the skin is changed to white or reddish white colour due to depigmentation of skin. In modern medicine while treating the disease Shvitra, concept of immunogenetic factors, autoimmune disorders, systemic disorders, immunological response, hormonal factors are kept in mind and there is no satisfactory cure of the disease.

According to Ayurveda Shvitra of recent origin can be treated successfully, while the lesions of Guhya Pradesh and Pani Pada Tala are considered to be Asadhya. Ayurvedic texts has explained the treatment in the form of Shodhan and Shaman and local application of oils and lepas. Vighbhat in Ashtangahriday and Ashtangasangraha has mentioned the use of Bibhitak Taila alongwith Mashi of Sugandhabala (A.S.C. 22/19, A.H.C. 29/12). Sushrut has also mentioned the use of Bibhitak Taila in Shvitra but not the Sugandhabala Mashi. (S.S. 9/17). As well as reference for the manifestation of blisters by local application of Bibhitak Taila alongwith Mashi of Sugandhabala is not available. Other drugs cause blisters and irritations, after local application which are many times painful to the patients.

Keeping all these views in consideration, local application of Bibhitak Taila along with Sugandhabala Mashi was selected for the purpose of study to treat the patients of Vitiligo.

The aim of the study was to evaluate the effect of local application of the drug on the colour and size of the patch of vitiligo.

Also effect of therapy on local symptoms like Daha, Kandu, Romvidhinashi, Ghana, Guru lakshana, Rukhata, Shveta Varna, Aruna Varna, Tamravarna was also observed. For that patients of vitiligo visiting the OPD of hospital were selected randomly for the purpose of study and the local application was given daily three times for fortyfive days.

## MATERIALS AND METHODS

Twenty patients suffering from Shvitra and attending the out patient department of college hospital were selected randomly. A special proforma was prepared for diagnosis and general haematological investigations were done.

### Criteria of Diagnosis

Patients were diagnosed on clinical features described in Ayurvedic texts as Varna of Twacha, Kandu, Ghana and Guru Twacha, Daha and Romvidhvansi at the spot of Tvacha and Rukshata at the lesion of Tvacha.

Present and post history of illness and family history was evaluated. Criteria for rejection of patients -Patients who developed patch of Shvitra because of hormonal disorder in a secondary form, patients having white patch of Vrana or of Agnidaha Vrana. Syphilitic lesion, leprotic lesion were rejected from the study. Patients having systemic disease like diabetes mellitus were rejected.

### Criteria of Assessment

The status of patient with respect to various symptoms and physical characteristics was noted down before treatment and after the completion of treatment and the value were calculated. The status of colour of the lesion, area of lesion of skin was recorded. Signs and symptoms on the lesion were observed before treatment and after treatment.

A] For assessment of colour of the lesion of skin, gradation of repigmentation in the patch of Shvitra was done. For that international protocol for grading of repigmentation was used as follows.

Gradation	Score
Grade I – Diffuse lightening usually seen at margin	5
Grade II – Perifollicular repigmentation	4
Grade III – Spreading of perifollicular repigmentation	3
Grade IV- Coalescing pigmentation with area of depigmentation	2
Grade V - Cenfluent repigmentation with remnant islets of depigmentation in between	1

B] For the assessment of statistical analysis of symptoms, general symptom score method was adopted. The method is described as follows –

- 1] 'Two' mark to each symptoms present before the treatment
- 2] 'One' mark to each symptom reduced remarkably after the treatment.
- 3] 'zero' mark for complete relief in the symptom
- 4] 'Two' marks to the symptom who does not show any improvement after completion of the treatment.

C] Effect of therapy on Measurement of area surface area was evaluated in centimetre per square. For that the patches were traced on trace paper with pencil. These paper tracings were traced again on the graphpapers and the total squares on the graph paper covered by tracing were counted and total area was calculated and approximate size of the patch area was calculated. Larger than half square was counted as one square.

## MATERIAL USED

### A] Bibhitak Taila

Bibhitak Taila was prepared scientifically according to the concept of preparation of Siddha Taila.

Bibhitak – Terminalia belerica Roxb.

Taila – sesamum indicum was used

Tilataila Murchan Sanskar was carried out. For that Haritaki, Bibhitak, Amalaki, Haridra and Lodhra was used for Murchana of Tilataila. Kwath of Bibhitak was prepared by general method of preparation of Kwath described by Sharangdhara (Shar. S.M.K./2-1). Kalka of Bibhitak Majja and Bibhitak Karnels was prepared and added to Taila in the ratio of 1:4. The quantity of Bibhitak Kwath was four times that of Taila. The ratio of Kalka, Taila and Kwath was 1:4:16 as per Sharangdhar (Shar S.M.K/9-1).

### B] Preparation of Sugandhabala Mashi

Latin name – Sugandhabala – Pavonia odorata

Family – Malvaceae

Sugandhabala Mashi was prepared by scientific method described in Ayurveda.

The drugs preparation was done in the Department of Rasashastra and Aushadhinirman. Application Of The Drug– Bibhitak Taila and Sugandhabala Mashi was mixed in the ratio of 20:1. Thus mixture is formed. It was applied three times a day and patients were instructed to massage gently the lesion of Shvitra with the help of this mixture. After application patients were advised to expose the lesion to the sunlight for about half an hour daily for a period of 45 days. Before local application of the drug the lesion of the skin was scrapped gently with the copper coin to make surface of lesion rough.

**OBSERVATION AND RESULTS**

The close observation of twenty patients were done and before treatment values and after treatment values were observed and statistical analysis was done. The results obtained by data analysis are presented here in tabular form.

**Table 1: Table showing incidence of clinical features of 20 patients of Shvitra.**

S.N.	Clinical features related to lesions	No. Of patients	Percentage (%)
1	Vikrit Varna at the lesion	-	-
	a) Arun varna	03	15%
	b) Tamra varna	09	45%
	c) Shveta varna	06	30%
2	Rukshata	04	20%
3	Daha	09	45%
4	Romvidhvanshi	03	15%
5	Ghana	06	30%
6	Guru	06	30%
7	Kandu	09	45%

**Table 2: Table showing effect of therapy on symptoms score of 20 patients of Shvitra.**

S.n.	Symptoms	Symptom Score			Percentage of relief
		B.T.	A.T.	Diff.	
1	Daha	14	07	07	50.50%
2	Kandu	14	04	10	71.43%
3	Romvidhvanshi	06	04	02	33.33%
4	Ghana	16	12	04	25.00%
5	Guru	16	11	05	31.25%
6	Rukshata	06	02	04	66.66%
7	Shveta Varna	14	11	03	21.42%
8	Aruna Varna	06	05	01	16.66%
9	Tamra Varna	18	13	05	27.78%
10	Total General Symptom score	132	75	57	43.18%

**Table 3: Table showing effect of therapy on area of patches of 20 patients of Shvitra.**

S.N.	Characteristic	Mean + S.D.		Diff. Of Mean + S.D.	S.Ed.	t	P
		B.T.	A.T.				
1	Area of patches in cm <sup>2</sup>	194.9± 279.54	187.7± 276.19	7.2± 4.48	1.027	7.010	<0.001

**Table 4: Table showing effect of therapy on repigmentation gradation score of 20 patients of Shvitra.**

S.n.	Characteristics	Symptom Score			Percentage of relief
		B.T.	A.T.	Diff.	
1	Repigmentation gradation	100	75	25	25.00%

## DISCUSSION

It was observed that total general symptom score was reduced by 53.18% in the patients (Table 2). Effect of therapy on area of patches was statistically analysed. It was highly significant (Table 3). In repigmentation gradation score 25% relief was observed. In this study improvement was observed in 70% of total number of patients. Thus it can be said that Ayurvedic concept of colouration of skin is carried out by Bhrajak Pitta by the drug used is seen. As well as Panchabhautik constitution is also held responsible for that. Charak has explained it in Varna Adhikara of Indriya Sthan. It is very clear from the observations that local application of the drug has definite role on Bhrajak Pitta which improvised the colour of the lesion of Shveta kushtha.

### Mode of the action of Drugs

Acharya Vagbhat in Ashtangasangraha and Ashtanghriday has stated that Bibhitak Taila along with Sugandhabala Mashhi should be applied on the lesion of Shvitra (A.S.C. 22/9, AH.C 20/10). Sushruta has also referred Bibhitak Taila but not Sugandhabala Mashhi (S.C. 9/17) in the treatment of Shvitra. Sushruta has stated that Bibhitak is Shvitraghna (S.N.H.V.).

In Shaligram Nighantu it is stated that bibhitak has action on Shvitra. Ashraya of Shvitra is Tvacha. By the virtue of Ashray- Ashrayi Bhava, involvement of Rasadhatu can be taken from involvement of Tvacha. The Bibhitak might be acting on Rasadhatu with the help of its properties such as Laghu and Kashay Rasa along with Ushna Virya. It is possible that Bhrajak Pitta may be playing its major role in the absorption through the skin. After absorption Bibhitak might be acting by virtue of Kashay and Madhur Rasa. These two Rasa may improve the Bhrajan and Prakashan function of Bhrajak Pitta. Sugandhabala is Sheetal, Deepan Snehan, Vatanulomak, Uttejak and Balya. Therefore it is used in Jwara, Raktapitta, Daha, Vranashotha and Visarpa. It is Shvitraghna, and Vrananashak (R.N.K.V.).

Tilataila improves Varna of Tvacha and hairs. Due to its Vyavay, Vikashi and Ushna Guna it gets easily absorbed in Tvacha. It does not require any Pachan due to its Vyavayi Guna. Due to Sukshma Guna, it reaches to the lesion of Shvitra in Tvacha by Anu-pravan Bhava of Sukshma Guna. Due to its Vikashi Guna it loosens the Dosha dushya Sammurchana. Varna of Tvacha might be improved by increasing the action of Pitta particularly Bhrajak by increasing it with the help of Ushna, Tikshna Guna, Katu rasa and Katu Vipak.

It was a sincere effort to treat the patients of Shvitra. In today's era Vitiligo is a challenge to medical faculty and more research is required. Also there is a need of evaluating the efficacy of above said drug by doing more and more research on the drugs used and its action.

## CONCLUSION

After thorough study of twenty patients conclusion is drawn that based on statistical evaluation of significance the local application of Bibhitak Taila along with Sugandhabala Mashī has a definite role in improving the local symptoms and colouration of the skin of patch of vitiligo. It acts on the Brajak Pitta situated in the skin and the white discolouration of the skin is reduced and repigmentation takes place. There is a definite role of this drug on melanin pigmentation of the skin.

## Abbreviations

B.T. – Before Treatment

A.T. – After Treatment

**Conflicts of interest** – Nil.

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