

## CLINICAL EVALUATION OF MULAKBEEJ-AVALGUJ LEP AND BAKUCHI-DHATRI-KHADIR KASHAYA IN THE MANAGEMENT OF SHVITRA ROGA W.S.R. TO VITILIGO

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## ABSTRACT

In the present era, there is huge change of diet and lifestyle in modern civilization. There is constant use of plastic, rubber, paint, perfume and cosmetics of inferior quality, consumption of incompatible food, polluted water and certain synthetic medicines are important factors that cause skin manifestations. Thus frequent indulgence in *Mithya Ahara-Vihara*, *Viruddh Ahara & Pragyaparadha* can lead to several skin disorders. Shvitra is mentioned in Ayurveda as *tvak roga* and Vitiligo is a disorder characterized by depigmented macules which may be of variable shapes.. Here is an attempt to know the “clinical evaluation of *mulakbeej-avalguj lep* and *bakuchi-dhatri-khadir kashaya* in the management of *shvitra roga w.s.r. to vitiligo*” so as to make the sufferer free from clinical signs & symptoms. In the present study 30 patients were registered. All the patients were assessed on the basis of subjective and objective parameters. The selected patients were studied under three groups. The results obtained were statistically analysed.

Keyword:- *shvitra*, vitiligo, *bhrajak pitta*, *mulakbeej-avalguj lep*, *bakuchi-dhatri-khadi kashaya*

## INTRODUCTION

*Ayurveda*, one among the ancient system of life sciences, deals with all those aspects which are related to life i.e. maintenance of health, prevention and cure of diseases through systematic follow-up of regimens told in it such as *Dincharya*, *Ratricharya*, *Ritucharya*, *Achar-rasayana*, *Sadvritta* etc. This idiopathic depigmentary condition is estimated to affect 1-2% of world's population and is common in India.

*Shvitra* is one among the important skin diseases characterized by “*Shvita-Varna*”<sup>1</sup> i.e. whitish discolouration of the skin and “*AparisraviShveta Varna Mandala*”<sup>2</sup> i.e. non exudative skin lesions. Here *Twak*, *Rakta*, *Mansa*, *Meda* are involved as *Dushyas*. The reference of Vitiligo can even be seen in *Vedas*. AcharyaCharaka has explained *shvitra* as a type of *Kilasa*<sup>1</sup>. Based upon the clinical features, *Shvitra* can be compared to Vitiligo of modern science. Vitiligo is a disorder

characterized by depigmented macules which may be of variable shapes. Vitiligo may be described as an acquired, idiopathic progressive and symmetric area of complete pigment loss<sup>4</sup>. For the etiology of Vitiligo, various theories are given yet it is called idiopathic in origin. These characters point towards *Shvitra*. Etiology described by Acharya Charaka shows that for modern point of view it should be idiopathic in origin. Although Acharya Vagbhata and Acharya Sushruta also mentioned *Shvitra* due to burn or trauma<sup>3</sup>. But they also followed Acharya Charaka. *Shvitra* is very progressive like Vitiligo and also very difficult to treat. As the *Bhrajaka Pitta* is responsible for the normal texture of the skin so the drugs capable of maintaining normalcy of *Bhrajaka Pitta* with properties such as *Dipana*, *Pachana*, *Rakta-shodhana*, *Krimighna* should be used for the purpose. Thus *Bakuchi*, *Dhatri*, *Khadir*<sup>5</sup> were taken for *Kashaya* and

*Bakuchi*, *Mulakbeej*<sup>1</sup> were used as *Lep* as they contain the told qualities.

The modern treatment of Vitiligo consists generally of topical glucocorticoids, PUVA therapy; surgical measures such as skin grafting; other techniques such as tattooing, camouflage etc<sup>6</sup>. But there is no effective treatment for this disorder in modern science and even the medicines have considerable toxicity.

#### **Aim and objective of study:**

1. Conceptual and clinical studies on *Shvitra Rog* with special reference to Vitiligo.
2. To evaluate the effect of *Mulakbeej-Avalguj Lep* and *Bakuchi Dhatiri Khadir Kashaya* in the management of *Shvitra Rog*.

#### **MATERIAL AND METHODS**

##### **Source of data:**

It was a clinical study where a minimum of thirty patients suffering with *Shvitra Roga* and fulfilling the inclusion criteria were selected from O.P.D. and I.P.D. of Jammu Institute of Ayurveda & Research & put into three different groups.

**(a) Group A** - 10 patients of *Shvitra Roga* were recommended for application of *Mulakbeej-Avalguj Lep* alone for two times a day followed by 15 min exposure to sunlight after 1 hour application of *Lep*.

**(b) Group B** - 10 patients were provided *Bakuchi Dhatiri Khadir Kwath* in quantity of 40 ml twice a day followed by 15 min. exposure to sunlight after 1 hour of intake of *Kwath*.

**(c) Group C** - 10 patients were provided both *Mulakbeej-Avalguj lep* and *Bakuchi Dhatiri Khadir Kwath* followed by 15 min. exposure to sunlight after 1 hour of *Lep* application and *Kashaya* administration.

##### **Criteria of selection:**

##### **Inclusion criteria**

1. Belonging to age group 5-65 years.
2. Both sexes.
3. History less than 10 yrs.

##### **Exclusion criteria**

1. The Vitiligo cases which have been diseased since more than 10 years.
2. Patient having history of *Shvitra* since birth.
3. Albinism
4. Leucoderma due to burn, trauma.

##### **Diagnostic criteria**

The diagnosis of patient was confirmed on the basis of sign and symptoms described in *Ayurvedic* text and modern text as follows:

1. Colour of patches - a. *Shveta* (white) b. *Tamra* (copper colour) c. *Raktabh* (red-dish)
2. *Daha* (Burning sensation)
3. *Kandu* (Itching)
4. *Romashatana* (Loss of hair)
5. *Ati sweda* (Oily touch/ excessive sweating)
6. *Rukshata* (Roughness)
7. White hair on patches
8. Percentage of affected area according to "Rule of Nine" of burn

##### **OBSERVATIONS AND RESULTS**

Various observations and results are made in three groups are summarized below.

The clinical improvement after the application of *Mulakbeej- Avalguj Lep*, statistically highly significant improvement was observed in Colour of lesion ( $p < 0.005$ ), significant result was noticed in Vitiliginous surface area of lesion ( $p < 0.01$ ), itching ( $p < 0.025$ ), Roughness ( $p < 0.01$ ) While insignificant improvement was noticed in Burning sensation ( $p > 0.1$ ), excessive sweating ( $p > 0.1$ ) and colour of hair ( $p > 0.1$ ).

**Table: 1 EFFECT of Mulakbeej-Avalguj Lep in Group A**

S.No	Group A	Mean B.T.	Mean A.T.	Mean Dif.	Mean %	Number	S.D.	S.E	t	Sig	Result
1.	Vitiliginious Surface Area	1.90	1.10	0.80	42.10%	10	0.79	0.24	3.21	P< 0.01	S.
2.	Itching	1.83	1.16	0.67	36.36%	6	0.52	0.21	3.16	P< 0.025	S.
3.	Burning sensation	1.67	1.33	0.34	20%	6	0.52	0.21	1.58	P > 0.10	N.S.
4.	Excessive sweating	2.14	1.57	0.57	26.66%	7	0.79	0.30	1.92	P > 0.10	N.S.
5.	Roughness	2.25	0.50	1.75	77.77%	4	0.50	0.25	7.00	P < 0.01	S.
6.	Colour of lesion	2.40	1.40	1.00	41.66%	10	0.82	0.26	3.87	P< 0.005	H.S.
7.	Colour of Hair	1.71	1.42	0.29	16.66%	6	0.95	0.36	.79	P > 0.10	N.S.

**Table: 2 EFFECT of Bakuchi Dhatri Khadir Kwath in Group B**

S.No	Group B	Mean B.T.	Mean A.T.	Mean Dif.	Mean %	Number	S.D.	S.E.	t	Sig	Result
1.	Vitiliginious Surface Area	1.80	1.30	0.50	27.78%	10	0.56	0.17	3.00	P < 0.02	S.
2.	Itching	1.80	0.60	1.20	66.66%	5	0.45	0.20	6.00	P< 0.005	H.S.
3.	Burning sensation	2.00	0.66	1.34	66.66%	6	0.52	0.21	6.33	P < 0.001	H.S.
4.	Excessive sweating	1.83	0.83	1.00	54.54%	6	0.63	0.26	3.87	P < 0.02	S.
5.	Roughness	2.00	0.80	1.20	60.00%	5	0.45	0.20	6.00	P< 0.005	H.S.
6.	Colour of lesion	2.60	1.50	1.10	42.30%	10	0.88	0.28	3.97	P < 0.005	H.S.
7.	Colour of Hair	2.00	1.42	0.58	28.57%	7	0.98	0.37	1.55	P > 0.10	N.S.

The clinical improvement after the administration of *Bakuchi Dhatri Khadir Kashaya*, statistically, highly significant improvement was observed in Itching (p<0.005), Burning sensation (p<0.001), Roughness (p<0.005), Colour of lesion (p<0.005). Statistically, significant result was noticed in Vitiliginious surface area of lesion (p<0.02), Excessive sweating (p<0.02). While insignificant improvement was noticed in colour of hair (p>0.1).

**Table: 3 EFFECT of Mulakbeej-Avalguj Lep and Bakuchi Dhatri Khadir Kwath in Group C**

S.No.	Group C	Mean B.T.	Mean A.T.	Mean Dif.	Mean %	Number	S.D.	S.E.	t	Sig	Result
1.	Vitiliginious Surface Area	1.90	1.00	0.90	47.38%	10	0.74	0.23	3.86	P<0.005	H.S.
2.	Itching	2.00	0.50	1.50	75.00%	6	0.55	0.22	6.71	P<0.001	H.S.
3.	Burning sensation	1.83	0.66	1.17	63.63%	6	0.41	0.17	7.00	P< 0.001	H.S.
4.	Excessive sweating	2.16	0.50	1.66	76.85%	7	0.98	0.37	3.87	P < 0.01	S
5.	Roughness	2.00	0.33	1.67	83.33%	6	0.52	0.21	7.91	P<0.001	H.S.
6.	Colour of	2.40	1.20	1.20	50.00%	10	0.42	0.13	9.00	P<0.001	H.S.

7.	lesion											
	Colour of Hair	2.28	1.42	0.86	37.5%	7	0.69	0.26	3.29	P < 0.02	S.	

the clinical improvement in IIIrd group after the application of *Mulakbeej-Avalgaj Lep* in combination with *Bakuchi Dhatri Khadir Kashaya*, it shows the synergistic action. Statistically highly significant results were observed in Vitiliginous surface area of the lesion (p<0.005), Itching (p<0.001), Burning sensation (p<0.001), Roughness (p<0.001), Colour of hair (p<0.005). Significant result was observed in Colour of lesion (p<0.01) and Excessive sweating (p<0.02)

**Table: 4 The haematological improvement in Group Ist**

S.No.	Group A	Mean B.T.	Mean A.T.	Mean Dif.	Mean %	Number	S.D.	S.E.	t	Sig	Result
1.	Hb %	10.41	10.75	-0.34	-3.26%	10	0.72	0.23	-1.49	P>0.10	N.S.
2.	ESR	6.8	6.3	0.5	7.35%	10	1.58	0.50	1.00	P>0.10	N.S.
3.	TLC	8540	8440	100	1.17%	10	767.4	242.67	0.41	P>0.10	N.S.

The Haematological improvement in the first group- after the application of *Mulakbeej-Avalgaj Lep*. Statistically, Non-significant results were found in haemoglobin percentage (p>0.1), Total leucocyte count (p>0.1) and Erythrocyte sedimentation rate (ESR) (p>0.1).

**Table: 5 The haematological improvement in Group B**

S.No.	Group B	Mean B.T.	Mean A.T.	Mean Dif.	Mean %	Number	S.D.	S.E.	t	Sig	Result
1.	Hb %	10.37	11.12	-0.75	-7.23%	10	0.82	0.26	-2.90	P < 0.05	S
2.	ESR	4.9	4.6	0.3	6.12%	10	1.50	0.47	0.64	P> 0.10	N.S.
3.	TLC	8300	8880	-580	-6.99%	10	876.6	277.2	-2.09	P> 0.05	N.S.

The hematological improvement in the second group treated with *Bakuchi Dhatri Khadir Kashaya*, Statistically significant result was noticed in Haemoglobin percentage (P<0.05). Statistically insignificant result were noticed in Erythrocyte sedimentation rate(p>0.1) and in Total leucocyte count (TLC) (p>0.1)

**Table: 6 The haematological improvement in Group C**

S.No	Group C	Mean B.T.	Mean A.T.	Mean Dif.	Mean %	Number	S.D.	S.E.	t	Sig	Result
1.	Hb %	11.17	12.04	-0.87	-7.78%	10	1.05	0.33	-2.61	P<0.05	S.
2.	ESR	6.8	5.9	0.9	13.23%	10	3.00	0.95	0.95	P>0.10	N.S
3.	TLC	8660	8570	90	1.03%	10	1135.7	359.15	0.25	P>0.10	N.S

The haematological improvement in third group treated with *Mulakbeej-Avalgaj Lep* in combination with *Bakuchi Dhatri Khadir Kashaya*, significant improvement were noticed in haemoglobin percentage (p<0.05) and non significant result was noticed in TLC (p>0.10) and ESR (p>0.10).

## RESULT

While assessing overall percentage of improvement of in all the 3 groups on different clinical parameters it was noticed that there was 38.99% improvement in First group, 49.32% improvement in second group and 61.07% improvement in 3rd group.

**Probable action of drug:** *Mulakbeej Avalgaj Lep* contains *Mulakbeej, Avalgajbeej*

and *Gomutra*. The *Mulakbeej* has *katu- tikta rasa, katu vipaka, ushna veerya, laghu Teekshan guna* and is *Tridosha shamaka*. *Avalgaj beej* has properties such as *Katu-tikta- madhur rasa, katu vipaka, ushna veerya, laghu-ruksha guna* and is *Kaphavata shamaka*. *Gomutra* has *Katu-tikta-kashaya-madhur- lavana rasa, Katu Vipaka,*

Ushna Veerya, Laghu-ushna-teekshna Guna and thus kapha-vata Shamaka<sup>8</sup>.

In Shvitra, the three Doshas enter the Rakta Dhatu Tiryak Siras leading to Twak resulting in Twak Aranjkatva<sup>1</sup>. The alteration of Agni and presence of Ama have their role to play in Srotovaigunya, Sanga. Thus, the preparation Mulakbeej-avalguj lep has predominantly katu-tikta rasa, katu vipaka, ushna veerya, laghu-teekshna guna resulting in karma such as dipana, pachana, , shvitrashaka ,krimighna, twak mansa sthirikarna<sup>7</sup>.

In addition Bakuchi is a Rasayana, thus having rejuvenating properties. Chemical constituents present in the preparation are – Psoralins, Isopsoralins, Bakuchiol, The preparation Bakuchi Dhatri Khadir Kashaya has dominantly katu-tikta-madhur rasa, katu vipaka, laghu-ruksha guna and properties such as Tridosha shamaka resulting in karma as dipana, pachana, Yakriduttejaka, lekhan,ropana, , kandu- kushta hara, krimighna<sup>9</sup>. In addition, Amalaki has rasayana properties which thus rejuvenate the whole body.

### CONCLUSION

The following conclusion can be drawn from current research project

1. Mulakbeej-Avalguj Lep is an effective Preparation in uncomplicated and new cases of Shvitra (Vitiligo) but it has a limited role in management of chronic cases of Shvitra (Vitiligo).
2. Bakuchi-Dhatri-Khadir Kashaya has shown better result in patients of Shvitra in comparison to Mulakbeej-Avalguj Lep.
3. Administrations of Mulakbeej-Avalguj Lep along with Bakuchi-Dhatri- Khadir Kashaya have produced highly significant result.
4. Patients of Shvitra when treated with Mulakbeej-Avalguj Lep, Bakuchi-Dhatri-Khadir Kashaya and mixed

group (Both Mulakbeej-Avalguj Lep along with Bakuchi-Dhatri-Khadir Kashaya) produced mild, moderate and maximum response without any serious complications. **Therefore it can be concluded that Mulakbeej-Avalguj lep along with Bakuchi Dhatri Khadir Kashaya is a very potent remedy for the management of Shvitra vis a vis Vitiligo.**

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