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CLINICAL EFFICACY OF *SAVARNAKARA YOGA* AND *KANAKABINDVARISHTA* IN THE MANAGEMENT OF *SHVITRA* (VITILIGO)

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Abstract: ***Background***-The condition which has white colour patches in skin is known as '*Shvitra'* in Ayurveda. In Modern science, this condition is described as a chronic disease condition and very difficult to treat with various treatment modalities. Among various formulations described in Ayurvedic classics, *Savarnakara yoga* is the first choice of many Ayurveda practitioners as *Bakuchi* (*Psoralia corilifolia* Linn.) and *Haratala* (Orpiment) are main ingredients of it. ***Aims and Objectives***- It was planned to evaluate the efficacy of *Savarnakara yoga* in two different topical forms i.e. *Lepa* and ointment. Total 60 patients having classical signs and symptoms of *Shvitra* were selected and randomly divided into two groups. *Savarnakara Lepa* and *Savarnakara* Ointment were prescribed for local application in Group A and Group B respectively. 20ml *Kanakabindvarishta* with equal quantity of water was given twice a day after meal as internal medication in both groups. ***Results***- In both the groups, statistically highly significant improvement was found in cardinal symptoms of *Shvitra*; but it was statistically insignificant when compared each other. ***Conclusion***- Both the forms of *Savarnakara yoga* along with *Kanakabindvarishta* were found as a safe remedy in vitiligo with significant pigment regenerating capacity as topical use after the application of 2 months.

Keywords: *Bakuchi*, *Haratala*, *Kanakabindvarishta*, *Savarnakara yoga*, *Shvitra*, Vitiligo

1. INTRODUCTION

Shvitra is a disease described under the heading of *Kushtha* (skin disorders) by most of the ancient scholars of Ayurveda **(Charaka Chikitsa 7/162-177).** [1] In *shvitra*, mainly *twak* (skin) **(Sushruta Nidana 5/17)** [2] and subsequent *Dhatus- Rakta, Mansa and Meda* **(Charaka Chikitsa 7/174)** [3] along with *tridosha* are being involved to generate non-secretary **(Sushruta Nidana 5/17),** [2] white or pale yellow (*pandura*) **(Harita Tritiya 39/50-51)** [4] colored spots. *Shvitra* can be correlated with Vitiligo which is a common skin disorder of unknown etiology even today **(Vinay *et al.*, 2005)**[5] There isn't major physical problem for patients of vitiligo but there is a major psychosomatic problem **(Ý. kökçam *et al.*, 2005)** [6] and depression is observed because of ugly appearance of body. Presentation of the disease may also create disturbance to personal and social life of the patients **(Podaralla *et al.*, 2014).** [7]

In modern science, PUVA (Psoralen + Ultra Voilet A exposure) therapy and corticosteroids are mainly used for treatment of disease. These therapies have many harmful side effects like skin cancer, photo aging, ultraviolet light burns and nausea. **(PUVA Therapy, 2015)**. [8] Due to unpredictable course, chronic nature of disease, long term treatment and lack of uniform effective therapy it is very demoralizing for patients suffering from vitiligo. So it is really needed to find a safe, easier, less complicating, cost effective and fruitful approach for the management of disease. The world is expecting some beneficial and useful remedies from the Traditional systems of medicine.

In Ayurveda classics, repeated application of *Shodhana Karma (Vamana and Virechana)* as well as *Shamana* therapy is beneficial in *shvitra*. But in present scenario, people do not have enough time due to their busy schedule, it is difficult to expect

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that much of patience, for a time consuming therapy like *Shodhana* and other management where as *Shamana* includes local application and internal medication. Various single herbs like *Kakodumbara* (*Ficus hispida* Linn.), *Khadira* (*Acacia catechu* Willd.) and compound formulations such as *Savrnakara Yoga* **(Ashtang Hridya Chikitsa 20/13),** [9] *Apamarga kshara taila Yoga* **(Rasatarangini),** [10] *Manahsheeladi Lepa* **(Charaka Chikitsa 7/167)** [11] are mainly described in classics. *Bakuchi* (*Psoralia corylifolia* Linn) *and Haratala* (Orpiment) are main ingredients of *Savarnakara Yoga*. *Bakuchi* is well-known for the treatment of *Shvitra* since Vedic period **(S. Barman, 1995)** [12] *and Haratala* is owning *Jantughna* (antimicrobial) **(Rasa Kamadhenu Purvardha 2/4/78)** [13] and *Vishghna* (antidote) **(Ayurveda Prakasha 2/176)** [14] properties. It is advocated externally as well as internally since *Samhita* period **(Biradar *et at*., 2015).** [15] For the treatment of *Shvitra*, internal medicines are also necessary along with external stimulation to break the pathogenesis of the disease and to help in re-pigmentation process. *Asava Arishtas* (fermentative medicinal formulations) are the dosage forms well-known for their quick action, high therapeutic effectiveness, long shelf life and maximum bioavailability **(Shingadiya *et al*., 2015).** [16] Acharya Charaka has mentioned 36 *Asava-arishta* in which one third i.e. 10 are indicated for *Shvitra*, *Kanakabindvarishta* is one of them **(Charaka Chikitsa 7/175).** [17] So, here an attempt is made for comparative management to evaluate the effect of *Savrnakara Yoga* in *Lepa* and Ointment form externally along with *Kanakabindvarishta* as an internal medicine, in the management of this disease.

2. MATERIALS AND METHODS

The study was Randomized open trial study. Total 60 patients having classical signs and symptoms **(Astanga Samghra Nidana 14/39)** [18] of *Shvitra* were selected irrespective of age, sex, religion and profession. They were grouped into two by using computer generated randomization plan. Detailed history was taken and physical examination was done on the basis of a special proforma. Relevant pathological and biochemical investigations were carried out before and after treatment to exclude any other pathology. Informed consent was taken from all the patients before including them into the trial. The study was also approved by Institutional Ethics Committee (PGT/7-A/Ethics/2013-2014/1767) and same was registered in Clinical Trial Registry of India (CTRI/ 2013/12/004232).

Savarnakara Lepa **(Ashtang Hridya Chikitsa 20/13)** [9] and *Savarnakara* Ointment were prescribed in Group A and in Group B respectively **(Table 1).** The quantity sufficient drug was advised to apply locally on patches in the morning with exposure to sunlight for 30 min for the duration of 2 months and follow-up for 1 month. 20ml *Kanakabindvarishta* **(Shingadiya *et al*., 2015)** [19] with equal quantity of water was given twice a day as internal medication in both groups. Other medicines were stopped and Dietary restrictions had been advised as given in classical texts during the treatment **(Table 2).**

2.1 Inclusion criteria

Patients having classical signs and symptoms of *Shvitra* like *Arunata* (vermilion coloured), *Mandala* (circular), *Rukshata* (dryness), *Paridhvanshi* (when rubbed scales off morbid skin) for *Vatika shvitra; Padmapatra Pratikasam* (eruptions resembling the petals of a lotus flower), *Sadaha* (burning sensation), *Romavidhvanshi* (loss of hairs), *Tamra* (coppery coloured) *for Paitika shvitra and Kandu* (itching), *Shveta* (white colored), *Bahala* (thick) and *Snigdha* (glossy) for *Shleshmika* type of *shvitra* were included in the study. Patients in age group between 16 to 60 years with chronicity of less than 10 years were included.

2.2 Exclusion criteria

Patients having chronicity more than 10 years were excluded. Patients having serious cardiac, renal, hepatic diseases, other conditions like insulin-dependent diabetes mellitus (IDDM), non-IDDM and any other serious systemic illness were excluded. Gravid and lactating women were also excluded. Patients having patches due to burning or chemical explosion were excluded. Patient having lesions at *Guhyanga* (genital organ), *Panipadatala* (sole of palm and feet), *Oshtha* (lips), *Aekanga* (generalized organ), *Sarvanga* (generalized lesion) **(Ashtang Hridya Nidana 14/40-41)** [20] and patches with *Raktaroma* (reddish hair) and *Samsakta* (coalescent) **(Charaka Chikitsa 7/175)** [21] were excluded.

2.3 Criteria for assessment

Special scoring pattern was adopted for scrutinizing the symptomatology. The score was given for subjective parameters on the basis of

Table 1. Formulation composition of both dosage forms of Savarnakara Yoga

Group A (*Savarnakara Lepa*)		**Group B (*Savarnakara* ointment)**	
Ashuddha Haratala	1 part	*Ashuddha Haratala*	¼ part
Bakuchi Churna	4 part	*Bakuchi Churna*	¾ part
Gomutra	Quantity sufficient	*Tila Taila*	4 parts
		Gomutra	16 parts
		Sikth	1:6 of prepared *Taila*

Table 2. Dietary restrictions advised during treatment

Foods	*Vidahi, Vidagdha*- Fried foods, Spicy foods, Curd etc. *Upaklinna*, *Puti anna* like Canned foods, Fast foods, packed foods, Street foods like Panipuri, Bhelpuri, etc.
Food pattern	*Ajirna bhojana, Asatmya bhojana, Atibhojana*
Faulty dietary sequence	*Shitoshnaviparyaya like hot beverages after cold water etc, Langhana ahara viparya, Santarpana Aptarpana viparyaya*
Psychological disturbance during the meal	*Not following Ashta ahara vidhi visheshayatna.*

Table 3. Criteria for assessment on Cardinal Symptoms

Score	**Percentage of area**	**Size of patches (cm)**	**Color of patches**	**Number of Patches**	**Chronicity of Patches(Year)**
1	Less than 5%	1	Normal skin color	1-2	1-2
2	5 to 25%	2	Red color	3-4	3-4
3	25 to 50%	3	White to reddish	5-6	5-6
4	50 to 75%	4	Red to whitish	7-8	7-8
5	More than 75%	>4	White	>9	9-10

Table 4. Criteria for assessment on Associate Symptom

Score	**Mandalotpatti (Circular lesion)**	**Rukshata (Dryness)**	**Saparidaha (Localized Burning)**	**Bahalatva (Thickening)**	**Kandu (Itching)**
1	No *Mandal*	No line on scrubbing with nail	No Burning sensation	No *Bahalatva*	No Itching
2	Few *Mandala* & smaller than coin	Faint line on scrubbing with nail	Occasional localized Burning sensation	Mild thickening	Mild/ occasional Itching
3	Few *Mandala* & bigger than coin	Lining &even words can be written by nail	Localized mild Burning sensation in a particular hr. of day	Moderate thickening	Moderate frequent Itching
4	More *Mandala* & smaller than coin	Excessive *Rukshata* leading to kandu	Burning throughout the day- tolerable & relieved after cold medications.	Very thick	Severe frequent Itching
5	More Mandala &bigger than coin	*Rukshata* leading to crack formation	Intolerable Burning sensation throughout the day which can't be relieved by cold medications.	Very thick with indurations	Very severe Itching which disturb sleep & routine activities

Number, Color and Size of patches, Percentage of body area involvement and chronicity of patches **(Table 3)**.

Total score was obtained from calculation of **Table 2.** Maximum score was 25. Then they were divided into mild (1-8), moderate (9-16) and severe (17-25) category. For the assessment of the involvement of body surface area, rule of nine was used to calculate the percentage of lesion with certain modifications **(Goyal M,. 2008).**[22] To assess the associate symptoms like *Mandalottapatti* (circular lesion), *Rukshata* (dryness), *Saparidaha* (localized burning), *Bahalatva* (thickening) and *Kandu* (itching) scoring pattern was adopted **(Table 4)**.

Objective parameters like hematological and biochemical estimation were adopted to rule out other pathologies. Criteria for assessment of total effect were as per **Table 5**.

Table 5. Criteria for assessment of total effect

Percentage	Effect of therapy
0–25	No change
26–50	Mild improvement
51–75	Moderate improvement
75–99	Marked improvement
100	Cured

3. OBSERVATIONS AND RESULTS

Among registered 60 patients, 24 patients in group A and 28 patients in group B were completed the treatment. In group A six patients were dropped out in which two could not bear the burning and itching, one was refused for investigation and rest three were irregular in study. In group B two patients were dropped out in which, one was migrated from Jamnagar and another was irregular in study. In group A majority (24 patients) were belonging to the age group of 31–45 years. 32 patients were males, 59 patients were from hindu religion and 31 patients were from middle class. The majority of the registered patients (41 patients) had negative family history, while 47 patients had positive Medication history. 43.33% patients had *Vegadharana* (suppression of various physical urge), 40% patients had habit of *Diwaswapa* (day sleep) and 36.67% patients had habit of *Ratri Jagarana* (watch night).

Totally, 34 patients had white colored patches while 18 patients had red to white and 7 patients had white to red only one patient had red colored patch. 32 patients had more than 4 patches; while 12 patients had 4 patches, 5 patients had 3 and 7 patients had 2 patches.

Totally, Twelve patients had more than 4 cm size of patches, 15 patients had 4 cm while 12 patients had 3 cm size of patches, 14 patients had 2 cm and only 7 patients had 1 cm size of patches. *Vata pittaja pakriti* (body constitution) and *Rajsika prakriti* were predominant in the majority of the patients. All laboratories investigations were within normal limits. Effect of therapy on cardinal symptoms shows that in percentage area of patches, 12.89% reduction was found in Group A, while 26.67% reduction was found in group B. 51.43% and 61.42% improvement was found in color of patches in both groups respectively, in number of patches 27.46% reduction was found in group A while 16.12% reduction was found in group B. 52.77% and 51.13% reduction was found in size of patches in both groups respectively. All these changes were statistically highly significant ($P < 0.001$) **(Table 6) (Figure. 1, Figure. 2, Figure.3)**.

Table 6. Effect of therapy of patches on Group A (*n*=24) and Group B (n=28)

Signs and symptoms	Group	Mean		Mean difference	Percentage change	*P*
		Before treatment	After treatment			
Colour	A	4.375	2.125	2.250±0.235	51.43↓	<0.001
	B	4.536	1.750	2.786±0.195	61.42↓	<0.001
Number	A	4.250	3.083	1.167±0.177	27.46↓	<0.001
	B	4.429	3.714	0.714±0.177	16.12↓	<0.001
Area	A	26.219	22.198	4.021±1.140	15.336↓	<0.001
	B	23.339	18.036	5.304± 0.981	22.676↓	<0.001
Size	A	3.000	1.417	1.583±0.158	52.77↓	<0.001
	B	3.143	1.536	1.607±0.173	51.13↓	<0.001

Effect of therapy on associated symptoms reveals that both groups showed highly significant results on *Saparidaha* (localized burning sensation). On *Rukshata* (dryness), both groups showed significant (<0.05) results. On *Kandu* (itching), highly significant results was found in group A while insignificant (>0.05) result was found in group B. Both groups showed insignificant (>0.05) results on *Mandalotapatti* (circular legions) and *Bahalatva* (thickening) **(Table 7).**

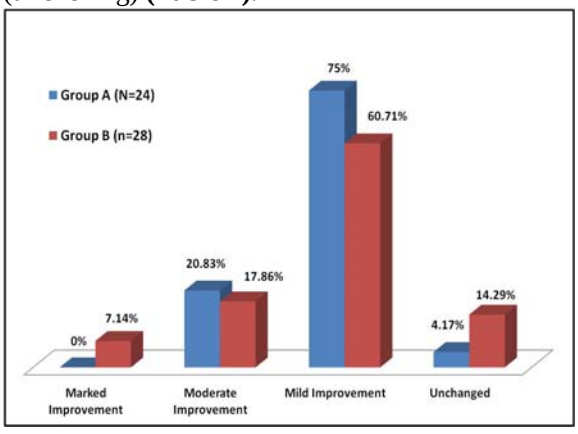

Figure 1: Comparative effect of therapies

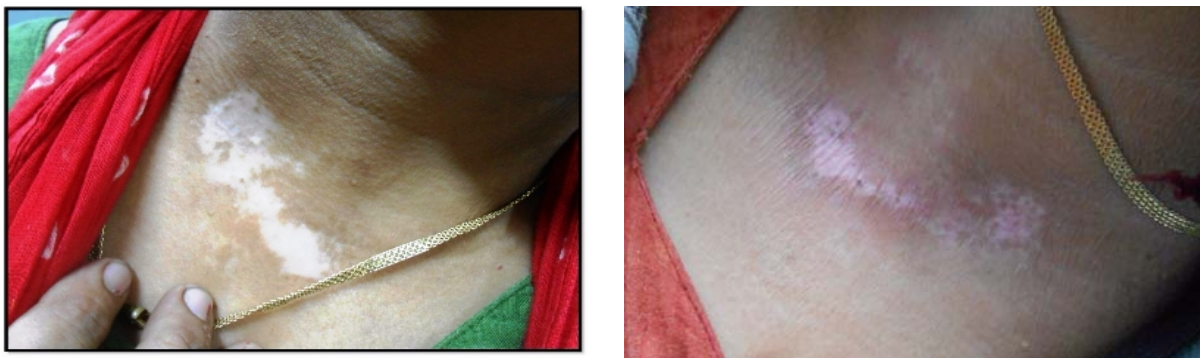

Figure 2: Before treatment (B.T) and after treatment (A.T) of Group A

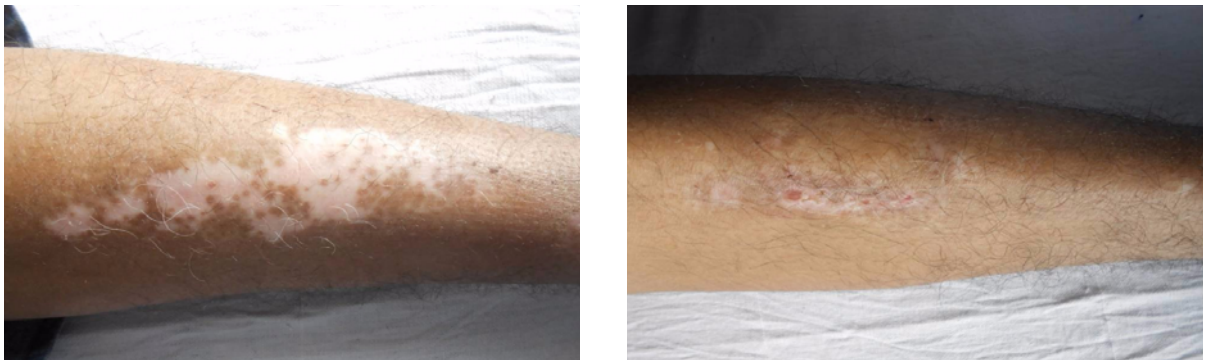

Figure 3: Before treatment (B.T) and after treatment (A.T) of Group B

Table 7. Effect of therapy on Associated Symptoms on Group A and Group B

Signs and symptoms	Gp	N	Mean		Mean difference	% change	*P*
			Before treatment	After treatment			
Mandalotpatti (Circular lesion)	A	24	1.792	1.792	0.000	0.000	>0.05
	B	28	2.143	2.071	0.0714±0.0436	3.331↓	>0.05
Rukshata (Dryness)	A	07	1.571	0.143	1.429+0.297	90↓	<0.05
	B	06	1.000	0.00	1.00+0.00	100↓	<0.05
Saparidaha (Localized Burning)	A	13	0.231	1.154	0.923+0.0769	399↑	<0.001
	B	19	0.368	1.211	0.842+0.138	228.8↑	<0.001
Bahalatva (Thickening)	A	06	1.167	1.167	0.000	00	>0.05
	B	09	1.000	1.000	0.000	00	>0.05
Kandu (Itching)	A	21	0.524	1.286	0.762+0.168	145↑	<0.001
	B	25	0.880	1.240	0.360+0.237	40↑	>0.05

In comparison between both groups, it can be seen that there is no significant difference (p >0.05) in the effect of therapies on size of patches, color of patches, number of patches and area of body **(Table 8).**

Savarnakara Lepa showed moderate improvement in 20.83% patients, mild improvement in 75% and 4.17% patients showed unchanged as well as worsened. None of patient showed marked improvement and complete remission or remarked. In *Savarnakara* ointment, 7.14% patient showed marked improvement, 17.86% patients showed moderate improvement, 60.71% patients showed mild improvement and 14.29% patients showed unchanged as well as worsened. None of patient showed marked improvement and complete remission or remarked.

3.1 Discussion

Shvitra is considered as a *Tridoshaja Vyadhi* **(Charaka Chikitsa 7/173)** [23] and also mentioned under *Rakta Pradoshaja Vikara* **(Charaka Sutra 28/ 12-13)** [24] by Acharya Charaka. Acharya Harita has clearly described the pathogenesis of the disease that the Vitiation of *Vata* along with the *Pitta dosha* spoil the *Rakta dhatu* and create the spot of *Pandura Varna* that is called *Shvitra* **(Harita Tritiya 39/50-51).** [4] Faulty dietary habits like *Ajirnasana* (taking diet before complete digestion of previous meal), *Adhyasana* (repeated eating at short intervals), and *Viruddhasana* (incompatible food combinations) and Faulty life style habits like *Vegavidharana, Divaswapa, Ratri jagarana* are mentioned as

Table 8. Comparative effect of therapies on chief complaints

Sign and symptoms of patches	Mean difference Group A (*n*=24)	Mean difference Group B (*n*=28)	*P*
Colour	2.250±0.253	2.786±0.195	>0.05
Number	1.167±0.177	0.714±0.177	>0.05
Area	4.021±1.140	5.304± 0.981	>0.05
Size	1.583±0.158	1.607±0.173	>0.05

common causative factors for *Kushtha* and *Shvitra* by Acharya Charaka **(Charaka Chikitsa 7/04-08)**. [25] In present study, maximum patients were found to have such faulty dietary habits and life style. Majority of the patients were taking *Madhura* (sweet), *Amla* (sour), *Katu* (pungent), *Lavana Rasa* (salty) dominant and *Ushna* and *Guru guna* (heavy to digest) dominant items in their routine meal and habits of *Vegavidharana*, *Divaswapa* and *Ratrijagarana* were found common in majority of the patients. These factors cause vitiation of *Agni* and *Tridosha Prakopa* and thus they induce the *Samprapti* of *Shvitra*.

In present study, 40% of the patients were belonged to age group of 31-45 that is young age. This may be because young patients are more conscious regarding their looks and are mostly in stressful condition. Modern science believes that it may appear at any age **(Fast Facts about Vitiligo, 2015)**. [26] 68.33% patients were having negative family history while remaining 31.67% were having positive family history. This shows genetic involvement of the disease. 58.33% of the patients were having Active Vitiligo while remaining 41.67% had Quiescent Vitiligo. In some people the white patches can remain stable for many years but in others they can enlarge in size while new patches appear or disappear in large areas of the skin surface. In Past medication history, maximum of the patients had been prescribed topical medication, followed by multivitamins and steroids as 60% of the patients had allopathic medication history. Systemic steroid can arrest the effect of the disease **(Kim SM** *et al.***, 1999)** [27] but are not effective in repigmentation; moreover the side effects of long-term use of systemic steroids contraindicate their common use.

In present study, majority of the patients had belonged to urban area. Urban lifestyle, which is full of polluted air, irregular and unhygienic dietary habits and hectic and stressful routine can be one of the causes. Vitiligo is considered as psychosomatic disorder **(Imran** *et al.***, 2010)**. [28] Stress is a major aggravating factor found in majority of the patients (60%). Psychological stress increases levels of neuroendocrine hormones, affects the immune system and alters the level of neuropeptides, which may be the initial steps in the pathogenesis of vitiligo **(Al-Abadie** *et al.***, 1994)**. [29] Junk and fermented food was found as a secondary major aggravating factor in 41.67% of the patients. *Savarnakara Lepa* was seen to provide better results on size of patches (52.77%), Number of patches (27.46%), *Saparidaha* (399%) and *Kandu* (145%) where in *Savarnakara* ointment shows better result on area of patches (22.67%), colour of patches (61.42%) and *Rukshata* (100%). *Rasayana Churna* **(Ashtang Hridya Uttara 39/160)** [30] was prescribed in both groups for 1 month follow up period. Recurrence was observed in 2 patients of group A and 3 patients of group B. It was observed in half of the cases that redness of the patches decreased gradually after 2nd to 3rd week. It suggests that continuous topical application is necessary until complete cure.

Among the main ingredients of *Savarnakara Yoga*, *Bakuchi* is a renowned herb with many therapeutic properties **(Bhavaprakasha Nighantu *Haritakyadi Varga*)**. [31] It contains psoralens, which are responsible for melanin synthesizing in the depigmented lesions on exposure to the sun **(Chakraborty** *et al.***, 1996)**. [32] *Haratala*, an arsenic compound, is owed with immunomodulating properties **(Michel** *et al.***, 2003)**. [33] It breaks the pathogenesis involved in *Shvitra* and prevents the selfdestruction of melanocytes. *Gomutra* acts as chemical drug penetration enhancer and thus enhances the activity and bioavailability of the drug in the body **(Goyal M., 2008)**. [22] Alkaline pH of the formulation also helps to increase the lipid solubility **(General principles of pharmacology, 2015).** [34] Conversion of *lepa* into ointment is also beneficial because the

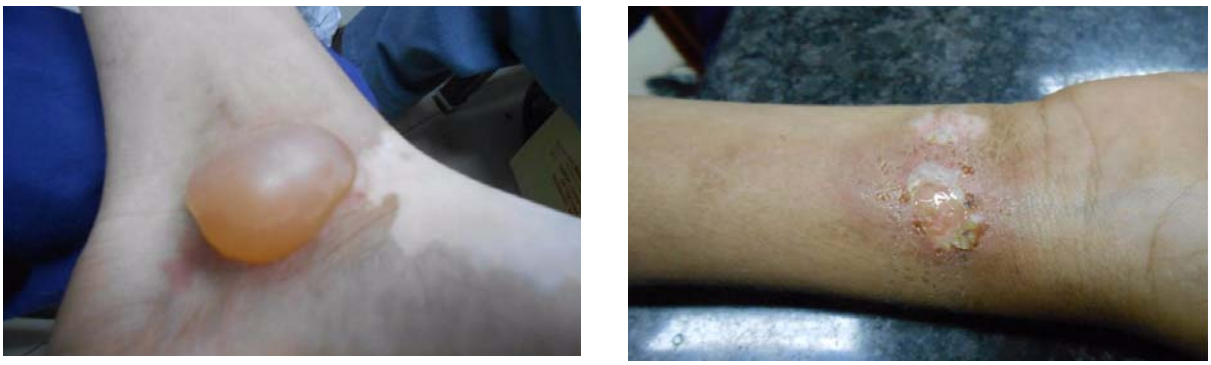

Figure 4: Formation of blisters in some patients

skin has an oily secretion, hence medication applied to the skin surface is absorbed best if such medication is suspended or dissolved in oily media **(Pharmainfo.net, 2015).** [35] *Khadira* heartwood is the main component of *Kanakabindvarishta* which shows Anti-bacterial, anti mycotic and anti oxidant activity (**Negi** *et al*., **2010)**. [36] *Khadira* heartwood and other adjuvant of *Kanakabindvarishta* are having such type of constituents, which help to break the pathogenesis of *shvitra*.

Rasadi Panchaka of *Savarnakara Lepa* has dominancy of *Tikta-Katu Rasa*, *Katu Vipaka*, *Ushna Veerya*, and *Sara-Tikshna Guna*. However all the *dravyas* in this *Lepa* are *Kushthaghna*, *Krimighna*, *Deepana* (stomachic), *Pachana* (digestant) and *Kandughana* (antipruritic). As *Shvitra* is *Tridoshaja Pitta Pradhana Kushtha*, this *Lepa might* have helped in *Samprapti Vighatana* (agitating pathogenesis). The chief ingredients of of *Kanakabindvarishta* have *Tikta, Kashaya Rasa, Laghu, Ruksha Guna* (properties), *Katu Vipaka* (metabolite) and *Khadira* has *Kusthaghna Prabhava* (specific properties) and the *Vyavayi* (instantly absorbable) and *Ashukari* (quick) properties of *Arista* help the active principles of drugs to reach to the target site quickly and to remove the obstruction of *Srotasa* (internal pathways of body) **(Sushruta Sutra 45/194).** [37]

3.2 Adverse drug reaction

Small blisters were found in 8 patients in group A and 3 in group B **(Figure 4).** In compared to several previous studies, blisters were found in which *bakuchi* was used as a major ingredient of formulation i.e. **(Patel N** *et al*., **2013),** [38] **(Dhanik A** *et al*., **2010)** [39] and **(Jadav H** *et al*., **2013),** [40] **(Zhankhana G** *et al*., **2006);** [41] while **Jadav H** *et al*., **2014** [42] and **Goyal M** *et al*., **2008** [22] did not found blisters during their studies. Arsenic trisulpide is reported to cause irritation, burns, itching and rashes on topical application. It is not found reported to cause blisters after local application. Thus psoralen which is presented in *bakuchi* is responsible for blisters. This is taken as a natural phenomenon and positive sign in the management of *Shvitra*. All these affected patients were found to having *pitta* dominance *prakriti* and hyper sensitivity of skin. For the management of ADR, blisters were erupted with sterile needle and irrigated the lesions with freshly prepared *Panchavalkala Kwatha* **(Sharangadhara Madhyam Khanda 2/149)**. [43] Then *Sarjarasa Malahara* **(Charaka Chikitsa 29/122)** [44] was prescribed for local application. Internally, combination of *Punarnavashtaka Kwatha* **(Chakradatta 39/10)** [45] and *Manjishtadi Kwatha* **(Bhavprakash 54/100)** [46] along with *Kaishora Guggulu* **(Sharangadhara Madhyam Khanda 7/70)** [47] was administered.

4. CONCLUSION

Clinically both the forms of *Savarnakara Yoga* and *Kanakabindvarishta* were found as a safe remedy in vitiligo with significant pigment regenerating capacity as topical use. *Savarnakara Lepa* (Group A) was seen to provide better results on size of patches (52.77%), Number of patches (27.46%), *Saparidaha* (399%) and *Kandu* (145%) where *Savarnakara* ointment (Group B) had shown better result on area of patches (22.67%), colour of patches (61.42%) and *Rukshata* (100%). Statistically, *Savarnakara Lepa* and *Savarnakara* ointment are equally effective in Cardinal Symptoms (Colour, Number, Area and Size of patches) and Associate Symptoms *(Mandalottapatti, Rukshata, Saparidaha, Bahalatva* and *Kandu*) of *Shvitra* (Vitiligo). Blisters were observed in few patients but it cannot be considered as untoward effects due to presence of

psoralen in *bakuchi*, which is positive sign in the management of *Shvitra*.

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VAGBHATASARANI

A National movement for popularization and revitalization of Ayurveda, has been functioning for the last twenty six years focusing on the holistic development of Ayurvedic studies and practices. The main theme of Vagbhatasarani was propagated and popularized by the great Ayurvedic master- PADMABHUSHAN VAIDYABHUSHANAM K. RAGHAVAN THIRUMULPAD. He named the organization as VAGBHATASARANI. He was the Paramachrya (Chief Patron) for us through out from the beginning. Vagbhatasarani has been conducting a series of Seminars, Workshops and Programs at academic and community level. We have associated to conduct the 1st World Ayurveda Congress in 2002 at Kochi, in which more than 3000 delegates from 28 nations participated. 2nd World Ayurveda Congress was held at Pune, 3rd World Ayurveda Congress was at Jaipur and the 4th was at Bengaluru. The 5th World Ayurveda Congress was at Bhopal in December 2012, 6th at New Delhi in December 2014 and the 7th at Kolkatha in November 2016. The 2nd, 3rd, 4th, 5th 6th and 7th World Ayurveda Congress's were collaborated by Vagbhatasarani. We have also organized 7 Ashtanga Hridaya Sathram (Residential training program), a weeklong Workshop for Ayurveda Students, Doctors and Practioners, where the delegates will gather together and recite and practice the "Ashtanga Hridayam" and has organized 14 Sasthramadhanam, a 3 day workshop on different subjects at different places.

Ashtangahridayasathram:

1. Poorna Auditorium, Kalady, EKM (Dt), Kerala. 18th to 25th May. 2003; 2. Palace Auditorium, Chalakkudi, Thrissur (Dt) Kerala.17th to 24th December,2005; 3. Santhi Nilayam, Thiruvalla, Pathanmthitta (Dt), Kerala. 21st to 28th October, 2007; 4. Vivekananda Kendram, Kanyakumari, Tamil Nadu,13th to 20th December, 2009; 5. Hosanna Mount, Bharananganam, Pala. Kottayam (Dt.) Kerala. 23rd to 30th October,2011; 6. Guruvayoor resorts, Guruvayoor. Kerala 9th to 16th February, 2014: 7. Parabrahmam Auditorium, Ochira, Kollam, Kerala 24th to 31st January 2016

Sasthramadhanam:

1. Basic Principles of Ayurveda and Sanskrit at Adwithasramam, Aluva (22 & 23 August,1993);
2. Hrudayasritha Rogas and Chikitsa at Yathri Nivas,Thrissur(19,20 & 21 August, 1994) 3. Swasarogam at Thiruvanandapuram (28,29 & 30 April, 1996)
3. Vathasonitham at Jassela Tourist Home, Manjeri (24 &25 May, 1997)
4. Udararogam at Renewal Centre,Ekm.(22 & 23 August, 1998)
5. Marmachikitsa & Nadeevijnanam at Gandhi Smaraka Nidhi,Tvm (22,23 & 24 October, 1999)
6. A no-rectal diseases and Ksharasoothra at Govt.Ayurveda College, Thrippunithura (29,30 Sept. & 1 Oct., 2000
7. Mental diseases and Epilepsy at Kanjangad, Vyapara bhavan, (22 & 23 December, 2001)
8. National Seminar on Ayurvedic Opthalmology at Sreedhareeyam, Koothattukulam (22,23 & 24 October, 2004)
9. Panchakarmam at Charaka's Hospital,Thodupuzha, Idukki (8,9 & 10 December, 2006)
10. Prameham at Hosanna Mount, Bharananganam, Pala. (25,26 & 27 October, 2006)
11. Koumarabhruthyam at Vagbhatacharya Nagar, Thrissur (22,23 & 24 October, 2008)
12. Sishyopanayaneeyam at Top in Town Conference Hall Palghat,(14,15 & 16 Nov,2012)
13. Ayurveda with Sanskrit and its profound significance for better understanding at Chavara Cultural Centre, Eranankulam, (10,11 & 12 February, 2017)

Vagbhatasarani invites you for the 8th Ashtangahrudayasathram – A National seminar and workshop on Ayurveda -Residential training program for the revitalization of Ayurvedic heritage on the divine shore of Nila river (Bharathapuzha) at Mullurkkara, Shornur from 25th Dec 2017 to 1st January 2018

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