www.ijacare.in ISSN: 2457-0443

INTERNATIONAL JOURNAL OF AYUSH CASE REPORTS (IJA-CARE)

A Pilot Study on the Effect of *Śvitra Lepa* in the Management of *Śvitra* (Vitiligo)

Jayakody JADPP [1], Disanayaka SARRP [2], Jayasooriya LBDM[3*]

[1] Senior lecturer in Department of Cikitsa,
[2] Senior lecturer in Department of Basic Principals,
[3] Temporary demonstrator in Department of Kaumarabrutya and Stree Roga,
Gampaha Wickramarachchi Ayurveda Institute, University of Kelaniya, Yakkala, Sri Lanka.

Abstract:

The skin condition, *Śvitra,* is referred to as Vitiligo from the allopathic perspective of medicine. The objective of the current study was to assess the effect of *Śvitra Lepa* in the management of *Śvitra*. Thirty patients were selected from Dermatology Clinic of Gampaha Wickramarachchi Ayurveda Teaching Hospital. These selected patients were randomly assigned into two groups (Group A and B). They were treated with a selected *Āyurveda* modality as a systemic therapy, with treatment protocol inclusively decoction of *Patola Katuka*, *Kaishor Guggulu*, *Sukumara Chūrna*, along with proper dietary and life style modifications, while topical therapies were given separately; viz the patients in group A were treated with *Śvitra Lepa* and those in group B were treated with *Bakuchi* oil. The parameters of clinical assessment included the size of patches, the number of patches, the color of affected area and the spot formation were examined in every 14 days for a period of three months. The Wilcoxon signed rank test was used to test treatment efficacy of Group A and B, for the analysis statistical software known as SPSS (Version 22) was used. The analysis revealed that the patients of group A showed reduction of Vitiligenous patches in terms of the size of patches, the color of affected area and the spot formation over the period of assessment. Parameter of spot formation was showed significantly difference in Group B. The values obtained for each of these parameters were statistically significant at $p< 0.05$. Therefore, it is concluded that *Śvitra Lepa* is effective in the management of *Śvitra.*

Key words: Ayurveda, *Bakuchi* oil, *Śvitra*, *Śvitra Lepa*, Vitiligo.

Received: 03.12.2020 Revised: 25.12.2020 Accepted: 30.12.2020

Quick Response code

***CORRESPONDING AUTHOR:**
Dr. Jayasooriya LBDM,
201/B/1, 14 Mile Post, Edandavila road,
Wahala Kananke, Imaduwa, Sri Lanka.
0715420515.
Email: dilshani.m.jayasooriya@gmail.com

Introduction:

Śvitra commonly referred to as Leucoderma or Vitiligo is a distressful skin condition which is associated with a gradual loss of pigment called melanin from the dermal layers that results into formation of white patches. These patches seem bad, particularly among persons with dark complexions. The condition is prevalent among persons of any age irrespective of the kind of skins. [8] Its global prevalence is estimated to have varied from 0.2% to 1.8%. U.K. guidelines recommend the assessment of psychological state during clinical evaluation of vitiligo. However, the prevalence of psychological comorbidity in people with vitiligo has not been adequately elaborated. [9]

According to *Kāshyapa Samhithā,* 18 types of *Kushtās* are categorized into two groups on the basis of *Sādya Kushta* and *Asādya Kushta*, where *Śvitra* falls on to the category of *Asādya Kushta.* [4] *Śāraṅgadara Saṃhitā* and Sri Lankan *Āyurveda* pharmacopeia recommends the use of *Thālakādi lepa* or *Śvitra lepa*, which consists of *Harithāla, Bakuchi* and cow's urine for effective management of *Śvitra*. [1, 2]

Due to its considerably high prevalent rate and lower degree of patient satisfaction towards treatments from other medical systems, there has been a very high demand for Ayurveda treatment. This study investigated effect of the above treatment in the management of *Śvitra*.

Methodology:

Research Design:

The purposive simple random sampling technique was used in selecting thirty (30) patients from Dermatology Clinic of Gampaha Wickramarachchi Ayurveda Teaching Hospital, who were then randomly assigned into two groups (Group A and Group B) consisting of 15 patients for each.

Inclusion criteria and Exclusion criteria:

The patients of both genders within the age group of 10-80 years diagnosed with the chronicity of vitiligo 1 month to 10 years were initially identified and of them those who had Vitiligenous patches on upper limb or lower limb were included in the sample. However, the patients with the history of myocardial infarction, cerebral vascular dysfunction, ischemic cardiac disorders or a major illness like renal failure, untreated thyroid disorder and other skin disorders including allergic conditions were excluded. The pregnant and lactating mothers were also excluded.

Data collection procedure:

Data were collected by close examination of the depigmented macules and patches over the skin at the onset of treatment, during regular intervals of 14 days and at the end of the treatment on completion of three months. Clinical assessment was carried out through observation of signs and symptoms using a Case Record Performa.

Assessment criteria:

The improvement was assessed in terms of relief /reduction in the signs and symptoms of the depigmented macules and patches as per selected objective parameters: the size of patches, the number of patches, the color of affected area and the spots

formation (regimentation). Assessment range for each parameter is given below:
Size of patches – 1= 0-5 mm^2, 2 = 5-10 mm^2, 3 = 10-15 mm^2, 4 = 15-20 mm^2, 5 = > 20 mm^2
Vitiligo patches were drawn on greaseproof paper and measured using 1mm×1mm squares and compared before and after treatment.
Color changes – 1 = Hypochromic, 2 = Hyperchromic, 3 = Erythrimates, 4 = Associated
Number of patches – 1 = <5 in number, 2 = 5-10 in number, 3 = >10 in number
Spots formation in affected area – 1= Yes, 2 = No

Method of preparation of *vitra Lepa:*
Harithāla was purified and *Bākuchī* seeds were powdered, subsequent to which they were measured in the ration of 1:4 respectively [1]. According to this ratio, 0.5g of purified *Harithāla* was measured along with 2g of *Bākuchī* for the preparation of one pack to be prescribed as single dose.

Administration of drug:
Group A was treated with the selected Ayurveda modalities along with *Śvitra Lepa* while Group B was given selected Ayurveda modalities and the *Bākuchī* oil.[5] Selected Ayurveda Modality was described in Table 1.
Group A patients were treated with *Śvitra Lepa* twice a day for 03 months. The paste which contained one pack of *Śvitra Lepa* mixed with cow's urine was applied on Vitiligenous patches. After a half an hour, the paste was washed out. Group B patients were given *Bākuchī* oil once a day for 03 months. It was applied on the Vitiligenous patches and had sunbath in the morning, usually between 7.00 am and 8.00 am.

Table- 1: Selected Ayurveda Modality for 03 months

Medicine	**Dosage**	***Anupāna***	**Administration time**
Patola Katukā Kashāya [2]	120 ml	Sugar & bee honey	Twice a day (6.00 am/6.00 pm) before meals
Kaishor Guggul [2]	2 pills (250mg✕2)	with plain water	Twice a day (10.00 am /4.00pm)
Sukumāra Chūrna [2]	5g	with lukewarm water	At night (9.00 pm)

Table-2: Demographic Data:

Description	Percentage (%) of patients	
	Group A	Group B
1. Age 0-19 years 20-39 years 40-59 years 60-79 years	 20% 26.67% 20% 33.33%	 13.33% 26.66% 26.66% 33.33%
2. With Family history Without family history	33.34% 66.66%	53.33% 46.66%
3. Occupation With chemicals Without chemical	 6.67% 93.33%	 - 100%
4. Chronicity < 1 year 1-2 year 2-3 year >3year	 20% 26.66% 26.67% 26.67%	 33.33% 26.67% 20% 20%

Table-3: Comparison between before treatment and after treatment in both groups:

Description	**Percentage of patients Before treatment**		**Percentage of patients After treatment**	
	Group A (N=15)	Group B (N=15)	Group A (N=15)	Group B (N=15)
Size ranges of patches (mm^2)				
00-05	00%	20%	6.6%	6.6%
05-10	6.6%	26.6%	13.3%	20%
10-15	13.3%	33.3%	26.6%	40%
15-20	40%	20%	46.6%	13.3%
20 <	40%	00%	6.6%	00%
Color of affected area				
Hypochromic	100%	73.3%	20%	26.6%
Erythrimates	00%	13.3%	26.6%	20%
Hyperchromic	00%	13.3%	33.3%	40%
Associated	00%	00%	20%	13.3%
Number of patches				
<05	53.3%	26.6%	60%	40%
05-10	20%	60%	13.3%	46.6%
>10	26.6%	13.3%	26.6%	13.3%
Spot Formation				
Yes	00%	46.6%	100%	26.6%
No	100%	53.3%	00%	73.3%

Table-4: Analysis data by Wilcoxon signed rank test in SPSS – Group A:

Parameter	Mean	Std. deviation	P valve	Decision
Size of affected area Before treatment	4.13	.915	.001	There is significant difference between before treatment and after treatment in size of affected area.
Size of affected area After treatment	3.33	1.047		
Colour of affected area Before treatment	1.00	.000	.000	There is significant difference between before treatment and after treatment in colour of affected area.
Colour of affected area After treatment	3.47	.640		
Number of patches Before treatment	1.73	.884	.317	There is no significant difference between before treatment and after treatment in number of patches.
Number of patches After treatment	1.67	.900		
Spots formation on affected area Before treatment	2.00	.000	.008	There is significant difference between before treatment and after treatment in spots formation on affected area.
Spots formation on affected area After treatment	1.53	.516		

Table 5: Analysis data by Wilcoxon signed rank test in SPSS – Group B:

Parameter	Mean	Std. deviation	P valve	Decision
Size of affected area Before treatment	2.53	1.060	.157	There is no significant difference between before treatment and after treatment in size of affected area.
Size of affected area After treatment	2.40	1.055		
Colour of affected area Before treatment	1.00	.000	.063	There is no significant difference between before treatment and after treatment in colour of affected area.
Colour of affected area After treatment	1.66	1.175		
Number of patches Before treatment	1.86	.639	.157	There is no significant difference between before treatment and after treatment in number of patches.
Number of patches After treatment	1.73	.703		
Spots formation affected area Before treatment	2.00	.000	.046	There is significant difference between before treatment and after treatment in spots formation on affected area.
Spots formation affected area After treatment	1.73	.457		

Clinical Images:

	
Fig-1 Patient with persistent forearm Vitiligo – Before treatment (02.02.2018)	**Fig-2** Patient with persistent forearm Vitiligo – After treatment (10.05.2018)
	
Fig-3 Patient with persistent hand vitiligo - Before treatment (02.02.2018)	**Fig-4** Patient with persistent hand vitiligo – After treatment (10.05.2018)
	
Fig-5 Patient with persistent hand Vitiligo - Before treatment (18.02.2018)	**Fig-6** Patient with persistent hand Vitiligo – After treatment (30.05.2018)
	
Fig-7 Patient with persistent foot Vitiligo - Before treatment (22.02.2018)	**Fig-8** Patient with persistent foot Vitiligo - After treatment (30.05.2018)

Result and Discussion:

Demographic trends in data: It was generally observed that *Śvitra* is mostly prevalent among patients between 20 to 39 years of age; the frequency of female patients was greater in the selected sample. Distribution of patients according to age, family history, occupation, and chronicity of the disease are shown in Table 2.

The parameters including the size of patches, the number of patches, the color of affected area and the spot formation were examined at the interval of 14 days for a period of three months. The comparison between before treatment and after treatment in both groups is shown in Table 3.

A patient persistent forearm Vitiligo was reported to have spot formation, colour changes along with the reduction of size of patches after the application of *Śvitra Lepa* [Fig 1,2]. A persistent hand Vitiligo which too achieved spot formation and reduction of size of patches after application of *Śvitra Lepa* [Fig 3,4], A patient with persistent hand Vitiligo who achieved spot formation and color changes after application of *Śvitra Lepa* [Fig 5,6]. A patient with persistent foot Vitiligo who achieved spot formation and color changes after application of *Bākuchi* oil [Fig 7,8].

Data were analyzed using a Wilcoxon signed rank test in SPSS is shown in Table 4 and 5. The parameters of the size of patches, the color changes, and the spot formation were shown statistically significant at $p<0.05$) in Group A. However, the difference between the number of patches in the two groups was not statistically significant: group A showed a higher number of patches ($p=0.008$) than group B ($p=0.046$). Overall, all parameters (in group A in comparison to group B) were shown to possess a difference recording a statistically significance at $p<0.005$.

The sunbath is an essential part of treatment when applying *Bākuchi* oil for *Śvitra*. However, most of the patients complained that they were unable to sunbathe due to busy lifestyle and immediate weather changes. This was evident on the analysis of data in Group B. But in the case of *Śvitra Lepa*, which can be applied twice a day as prescribed and removed by washing it after a half an hour, does not require the condition of sunbathe. Furthermore, it is important to note that no any side effects have been reported with the use of *Śvitra Lepa;* these patients did not complain any discomfort after using *Śvitra Lepa*. The data analysis also revealed statistically significant difference of re-pigmentation patterns among the patients who used *Śvitra Lepa* than those who used *Bākuchi* oil; these patients were reported to have reduced Vitiligenous patches.

Śvitra is associated with *Vāta, Pitta* and *Kapha Dosha*. Decoction of *Patola Katuka* is composed of *Patola* (*Trichosanthes dioica*), *Katukā* (*Picrorhiza scrophulariiflora*), *Bhīru* (*Asparagus racemosus*), *Harithakī* (*Terminalia chebula*), *Vibhīthakī* (*Terminalia belerica*), *Āmalakī* (*Phylanthes embelica*), *Amruthā* (*Tinospora cordifolia*).[2] These *Dravyās* have properties like *Katu, Tikta, Kashāya Rasa* and *Ushna Vīirya* which are responsible in *Shamaka* of *Tridosha*. Due to *Tikta Rasa* they purify blood and acts on diseases caused by vitiated blood. Furthermore, these *Dravyās* possess

Raktashodhaka, *Kushthaghna* and *Tridoshamaka* mechanism of actions. [6] *Kaishor Guggulu* has property of *Kushtaghna, Vataraktha nāshaka* [5]. *Sukumara Choorna* has *Mridu Virechana* actions by which causes *Agni Vardhaka*. *Śvitra Lepa* has *Bākuchī* (*Psoralea coryfolia*) and those little black seeds that are famous for their properties to heal skin disorders. [10]. It has properties like *Katu*, *Tikta Rasa* and *Ushna Vīrya*. This drug possesses *Kushthaghna*, and has highly effectiveness of Vitiligo. [6] *Harithāla* (AS_2S_3) is said to cure fevers and skin diseases, to increase strength and beauty and to prolong life. [11] *Harithāla* has properties like *Katu, Kashāya Rasa* and *Ushna Vīirya.* It acts as *Raktashodhaka* and *Kushthaghna* [6] Cow's urine has amazing germicidal power of kill varieties of germs. It balances the *Tridoshas* [6] Cow's urine therapy is capable of curing several curable and incurable diseases. So *Śvitra lepa* has more valuable properties for the skin and it is more effective for external application.

Conclusion:

This case series reveals that administration of *Śvitra Lepa* with the selected Ayurveda regimen effectively triggers the re-pigmentation process. This study provides encouraging response. Finally, it was concluded the *Śvitra Lepa* can be used in the management of *Śvitra*.

Acknowledgement:

I express my sincere gratitude to all the members for guidance and encouragement and financial support given me throughout the research.

References:

1. Murthy K. R. S. Śārṅgadhar-saṃhitā, Uttara Khanda, Ekadashodhyaya, Lepa vidhih, Chaukhamba Orientalia, Varanasi, 1st edition reprint, 2005, Pp 240.
2. Ayurveda pharmacopoeia, Vol I, Part I, Department of Ayurveda, Sri Lanka, Pp.101, 131, 150, 278.
3. Nagodavithana P(ed.), Shri Sharangadara Samhitha, Uttara Khanda, Ekadashodhyaya, Lepa vidhiya, Samayawardana Book Shop (pvt)Ltd, Maradana, 1st edition reprint, 2001-5, pp 332-333.
4. Tewari P.V., Kāshyapa Samhita, Cikitsa Stana, Kushta cikitsa Adhyaya, Chawkhamba Visvabharati oriental publishers & distributors, Varanasi, 1st edition reprint, 2008.
5. Jayasinghe D. M, Charmaroga Nidana Cikitsa Sangrahaya, Department of Ayurveda, Sri Lanka, 1st edition, 1990, Pp 13-14, 35-36.
6. Sri Lanka Ayurveda pharmacopoeia, Volume I, Part III, Department of Ayurveda, Sri Lanka, 1979. Pp
7. http:// www.emedicine.medscape.com (Accessed on 28.08.2018)
8. http://www.healthline.com/health/skin-infection#prevention9 (Accessed on 05.06.2018)
9. Osinubi O, Matthew JG, Hong L, The prevalence of psychological comorbidity in people with vitiligo: a systematic review and meta- analysis, Wiley online library, British journal of Dermatology178 (4), 863-878, 2018.
10. http:// www.planetayurveda.com (Accessed on 28.08.2018)
11. www.ncbi.nih.gov (Accessed on 20.07.2018)

Conflict of interest: Author declares that there is no conflict of interest.

Guarantor*:* Corresponding author is guarantor of this article and its contents.

Source of support: None

How to cite this article:
Jayakody JADPP, Disanayaka SARRP, Jayasooriya LBDM. A Pilot Study on the Effect of *Śvitra Lepa* in the Management of *Śvitra* (Vitiligo): Short Communication. Int. J. AYUSH CaRe. 2020; 4(4):269-277.