



Research Article

TO EVALUATE THE EFFICACY OF GUNJAPHALADI LEPAM AND VIBHITAKADI KWATHA IN MANAGEMENT OF SWITRA W.S.R TO VITILIGO

Mada Avinash Reddy^{1*}, Ragamala K.C², B.Harinathachary³

*1PG Scholar, ²Assistant Professor, Department of Kaumarabhritya, ³Associate Professor, Department of Kayachikitsa, S.V. Ayurvedic College and Hospital, T.T.D., Tirupati, Andhra Pradesh, India.

Article info

Article History:

Received: 22-12-2022

Revised: 07-01-2023

Accepted: 28-01-2023

KEYWORDS:

Switra, Vitiligo, Gunjaphaladi leepam, Vibhitakadi kwatham.

ABSTRACT

Switra is type of *Kushta roga* often encountered by Ayurvedic pediatric OPDs characterized by *Twak swetata* (white discolouration of skin). It is caused due to involvement of *Tridoshas* and *Dhatus* like *Rasa, Rakta, Mamsa, Meda*. Based on the symptoms Switra can be correlated with vitiligo in modern science. Vitiligo is a common pigmentary disorder of great socio-medical importance. Vitiligo is an acquired macular depigmentation disorder associated with the destruction of melanocytes. It affects approximately 0.5-2% of world population.

In children *Shamana* is preferred than *Shodhana* therapy. So, a clinical study aimed to evaluate the efficacy of *Gunjaphaladi leepam* and *Vibhitakadi kwatha* in Switra in children 6-16 years of age was conducted considering inclusive and exclusive criteria. Patients were given *Gunjaphaladi leepam* for external application and *Vibhitakadi kwatha* internally for 60 days and called for follow up after 30 days of completion of treatment. Among 30 patients, maximum patients were having mild improvement i.e., 56.66%, 17% showed complete remission and 13.33% showed moderate improvement. The clinical study clearly concludes that *Gunjaphaladi leepam* and *Vibhitakadi Kwatham* are safe and effective in the management of Switra in children.

INTRODUCTION

The skin is the most visible organ of the body and determines to a large extent, our appearance with a wide function in physical, social and psychological communication. Dermatological problems are seen by paediatricians everyday and comprise of around one quarter of a busy outpatient clinic.

In Ayurveda all types of skin diseases have been discussed under the heading *Kushta*. The word *Switra* is derived from Sanskrit word *Sweta*, which means white patch^[1]. So, *Switra* is a disease where white patches appear on the body. According to *Kashyapa Samhita Shweta Bhava Michanti Shwitram* ^[2].

Bhrajaka Pitta which is situated in the skin is responsible for *Chaya* and *Prabha* of *Twacha* (skin). Any impairment of *Bhrajaka Pitta* and *Vata Dosh* can cause skin diseases like *Switra*. In *Switra* morbidity is located in *Medhodhatu*. Depending on the colour and *Ashraya* in *Dhatus* 3 types of *Switra* are mentioned i.e., if located in *Rakta* (blood) it is red in colour, if in *Mamsa* (muscle tissue) it is of coppery colour, and if located in *Medas* it is white in colour^[3]. It affects approximately 0.5-2% of world population^[4]. Focal loss of melanocytes results in the development of patches of hypo pigmentation. It is thought to be the result of cell-mediated autoimmune destruction of melanocytes. Generalized vitiligo is often symmetrical and involves hands, wrist, feet, knees and neck, as well as areas around body orifices^[5].

The vitiated *Tri- Doshas vata, Pitta, Kapha*, along with impaired *Rasa, Rakta, Mamsa, Medo dhatu* plays important role in pathogenesis of *Switra*.

In maximum cases, patients of *Switra*, who do not get much benefit from treatment of modern medicine, come to Ayurvedic treatment with great

Access this article online

Quick Response Code



<https://doi.org/10.47070/ayushdhara.v10i1.1124>

Published by Mahadev Publications (Regd.)
publication licensed under a Creative Commons
Attribution-NonCommercial-ShareAlike 4.0
International (CC BY-NC-SA 4.0)

hope for cure of the disease in Ayurveda *Shodana*, *Shamana* and *Nidana parivarjana* are the treatment principles for any disease. *Shamana chikitsa* is more preferable than *Shodana chikitsa* in paediatric group, because children have *Mridu* and *Sukumara* body constitution. In the present study i.e., *Gunjaphaladi lepam* and *Vibhitakadi kwatham* are well indicated in *Switra* and both act as *Shamana dravyas* in *Switra*

AIMS AND OBJECTIVES

Gunjaphaldi Lepam

Table 1: Ingredients of Gunjaphaldi lepam^[6]

S.No	Drug	Part used	Quantity
1	<i>Gunja</i>	Seed	1 Part
2	<i>Chitraka</i>	Root	1Part

Preparation of Gunjaphaldi lepam

Gunja shodhana

- *Gunja* seeds are tied in two layered cloth like *Pottali*, kept suspended in cow's milk in *Dola yantra* so that *Gunja* seeds are completely immersed.
- It is boiled for 2 *Yama* – 6 hours.
- Seeds are filtered and dried.
- After drying, seeds are made into fine powder.

Chitraka Shodhana

- *Chitraka moola* is collected and cleaned to remove external impurities.
- Roots are pounded in *Khalwa yantra*.
- It was soaked in *Churnodaka* for 24 hours.
- *Chitraka moola* is taken out, dried under sunlight and made into fine powder.

To study the efficacy of *Gunjaphaladi lepam* and *Vibhitakadi kwatham* in *Switra*

MATERIALS AND METHODS

The materials and methods used and the modifications, made was based on easy availability of the drugs, feasibility of the methods, available literature, traditional experience and expert opinions.

Mode of Administration

- Both *Gunja* seeds powder and *Chitraka* root powder are mixed equally
- This *Churnam* is mixed with water and made into paste and should be applied in the morning over affected area evenly and exposed to sunlight. Wait till *Lepa* dries up approximately 30 minutes and clean with lukewarm water. *Lepa* should not be thick, thin and dry.

Vibhitakadi Kwatham

- *Vibhitaki phala twak* and *Kakodumbara mula twak* are washed and dried separately.
- After drying, coarse powder is made.

Table 2: Ingredients of Vibhitakadi Kwatham^[7]

S.No	Drug	Part used	Quantity
1	<i>Vibhitaki</i>	<i>Phala twak</i>	1 Part
2	<i>Kakodumbara</i>	<i>Mula twak</i>	1 Part
3	Water		16 Parts
4	<i>Bakuchi</i>	Seed	1/8 Part
5	<i>Guda</i>		Q.S

Mode of Administration

- Coarse powder of *Vibhitaki phala twak* and *Kakodumbara mula twak* is taken in equal quantities.
- Prepare *Kashayam* by adding 4 times of water to it and reduced it to 1/4th part.
- Add *Bakuchi* and *Guda* to the *Kashaya* and administered according to the age, *Bala* and *Agni* of the patient.
- In general doses, the dose of *Kwatha* according to age for children is not clearly mentioned in the classics. So the dose was calculated according to Young's formula keeping in the mind the adult dose of *Kwatha* as 2 *Pala* (96ml).

Source of Data

About 30 patients were selected aged between 6-16 years were randomly selected from OPD and IPD of Department of Kaumarabhritya, S.V.Ayurvedic Hospital, Tirupati.

Selection of Patients

Total 30 patients were selected and registered from OPD and IPD of Department of Kaumarabhritya, S.V.Ayurvedic Hospital, Tirupati, based on inclusive criteria and clinical features mentioned.

Method of study

30 patients aged between 6- 16 years were randomly selected and were treated with *Gunjaphaladi lepam* as external and *Vibhitakadi kwatham* of 10-15ml

for children in age group of 6- 10 years and 15-25ml for children in age group of 11-16 years was given twice in a day for 60 days and called for follow up after 15days.

The dose was calculated according to Young's formula keeping in mind the adult dose of *Kwatha*.

Children's dose= Adult dose × Age in years /Age in years +12

Diagnostic Criteria

For the diagnosis and assessment of *Switra*, scoring criteria for subjective and objective parameters were adopted.

Inclusive Criteria

- Children of age group of 6 years to 16yrs old.
- Children with symptoms of *Switra roga* as per Ayurvedic classic such as *Twak swethata*, *Aruna varnata*, *Tamra varnata*, *Twak rukshata*, *Daha*, *Kandu*, are included in the study.

Exclusive Criteria

- White patches due to *Agnidagdha* [burns], occurring on palm, sole, lips, genital organs and other *Asadhya switra lakshanas*.
- *Switra* in scalp, *Raktalomatva* [red hairs], *Sweta roma* [hair turned to white colour].
- Genetic disorders like Albinism.

Drug and Posology

Gunjaphaladi lepam was applied over the affected part twice in a day and *Vibhitakadi kwatha* of 10-15ml for children in age group of 6-10 years and 15-25ml for children in age group of 11-16 years was given two times/day morning and evening.

Duration and follow up of the Study

- The period of study was for 60 days.
- All the cases are followed up with an interval of 1 month between the study period for progress or changes during treatment.
- After active trial period i.e., 60 days, the patient were called on 90 days to note any reoccurrence.

Assessment Criteria

Subjective Criteria

- *Twak swetata*
- *Twak rukshata*
- *Daha*
- *Kandu*

Objective Criteria

- Size of the patch
- Number of patches

Scoring Criteria for Subjective Parameters

Twak swetata

- 0 – Normal skin colour
- 1 – Pink
- 2 – Reddish white
- 3 – White colour

Rukshata

- 0 – No dryness
- 1 – Slightly dryness
- 2 – Dryness present no discomfort to patient
- 3 – Dryness present sometimes causing itching to patient

Kandu

- 0– No itching
- 1 – Occasional itching
- 2 – Tolerable itching
- 3 – Severe itching

Daha

- 0 – Absent
- 1 – Slightly burning sensation
- 2 – Burning sensation present only exposed to sunlight
- 3 – Severe burning sensation associated with redness

Scoring Criteria for Objective parameters

Size of Patch

- 0 – Completely reduced
- 1 – 1 to 2cm
- 2 – 3 to 5cm
- 3 – 6 to 10cm

Number of Patches

- 0 – lesion disappeared
- 1 – 1 to 2
- 2 – 3 to 5
- 3 – 6 to 10

Total Score

Total score was obtained from calculation of above table. Maximum score will be 18 for severe cases.

Criteria for Overall Assessment

For assessing the overall effect of the treatment in 30 patients, score obtained before and after the treatment was considered. As per the reduction in the total scores, the overall effect is calculated as under:

- Complete improvement: Score between 91 to 100%
- Marked improvement: Score between 76 to 90%
- Moderate remission: Score between 31 to 75%.
- Mild remission: Score between 1 to 30%
- Unchanged: Score 0%

RESULTS

Among 30 patients who completed the treatment and follow up maximum number of patients belongs to age group 11-16 years (60%) and 6-10 years (40%). Maximum patients are Male children (56.66%), *Pittakaphaja prakriti* (56.66%), intake of *Virudha ahara* food (66.66%)

The symptoms of *Switra* like *Twak swetata* (100%), *Twak rukshata* (50%), has been observed. *Daha* and *Kandu* were totally absent in 30 patients.

Table 3: The Effect of the Therapy on all Parameters

S.no	Characteristics	No. of Patients	Mean score		SD		SE	t	p	Remarks
			BT	AT	BT	AT				
1	<i>Twak swetata</i>	30	3.00	1.87	0	1.01	0.184	6.1582	<0.0001	Extremely statistically significant
2	<i>Twak rukshata</i>	15	0.50	0.07	0.51	0.25	0.092	4.7092	<0.0001	Extremely statistically significant
4	Number of Patches	30	1.57	1.37	0.68	0.89	0.074	2.6926	=0.0117	statistically significant
5	Size of patch	30	1.87	1.47	0.73	0.90	0.103	3.8898	=0.0005	statistically significant

Extremely significant results ($p < 0.0001$) were found in Parameters like *Twak Swetata*, *Twak Rukshata*. Statistically significant were found in number of patches ($= 0.0117$), size of patch ($= 0.0005$).

Table 4: Percentage of overall improvement in each ailment after treatment in 30 patients with respect to assessment criteria

Ailment	Percentage improvement
<i>Twak swetata</i>	37.66%
<i>Twak rukshata</i>	86%
No. of Patches	12.7%
Size of Patches	21.4%

Table 5: Overall success rate in individual patients

Success rate	Number of Patients	Percentage
No improvement	4	13%
Mild improvement	17	56.66%
Moderate improvement	4	13.33%
Complete improvement	5	17%

Among 30 patients, maximum patients i.e., 56.66% were having mild improvement, 13.33% showed moderate improvement, 17% showed complete improvement

The bar chart displays the overall success rate for 30 patients. The y-axis represents the percentage from 0.00% to 70.00%. The x-axis lists four categories of improvement: no improvement (13.00%), mild improvement (56.66%), moderate improvement (13.33%), and complete improvement (17%). A legend indicates that the blue bars represent the 'over all success rate'.

DISCUSSION

Switra is one of the chronic skin diseases. It has been mentioned under *Kushta*. It has been considered has *Kricha sadya roga*.

In modern science *Switra* can be co-related with vitiligo which is chronic autoimmune disease, where death of melanocytes occurs leading to the depigmentation of skin which is expressed as white patches on different areas of the skin.

Since both *Gunja* and *Chitraka* have been indicated in *Kusta* and also have *Katu, Tikta, Kashaya rasas, Usna Virya, Sroto dushti* may be removed and there will be increased blood circulation providing adequate nutrients locally and aids in Melanogenesis

Vibhitaki has *Kashaya rasa, Laghu Ruksha guna, Ushna virya* and *Kapha Pittahara* properties. *Kakodumbara* has *Tikta, Kashaya, Laghu, Ruksha Guna, Sheeta Virya, Katu Vipaka, Kapha pittahara* properties. It also has synonym *Switrabhesaja*, as its bark is considered as the drug of choice in *Switra*^[10].

Probable Mode of Action

Gunjaphaladi Lepam

- *Lepa* therapy is included under *Bahir Parimarjana chikitsa* and is especially meant for the *Twakgata vikara*.
- The *Lepa chikitsa* also facilitates expulsion of the *Dosha* locally.
- The Ingredients of *Gunjaphaladi lepam* are *Gunja* and *Chitraka*.
- *Gunja* has *Tikta, Kashaya rasas, Ushna Virya, Kapha pitta hara Karma* and indicated in *Kusta*^[8].
- *Chitraka* has *Katu rasa, Ushna Virya, Vata Kapha hara Karma* and indicated in *Kusta*^[9].
- Since both the drugs have been indicated in *Kusta* and also have *Katu, Tikta, Kashaya rasas, Usna Virya, Sroto dushti* may be removed and there will be increased blood circulation providing adequate nutrients locally and aids in melanogenesis.
- When this *Lepa* is applied over the surface of a skin opposite to the direction of hairs, through a proper base (i.e., *Usnajala*) the active principles of this *Lepa* are released into the base, enters the *Romakupa* and further gets absorbed through the *Svedavahi Srotas* and *Siramukha*.
- Thereafter, it is subjected for *Pachana* by *Bhrajaka pitta* i.e., aided by exposure of sunrays. On exposure of affected area to sun rays in early morning helps in absorption of ultraviolet rays leading to growth and proliferation of melanocytes.

Probable mode of action of *Vibhitakadi Kwatha*

- *Vibhitaki* has *Kashaya rasa, Laghu Ruksha Guna, Ushna Virya* and *Kapha pittahara* properties^[10].

- *Kakodumbara* has *Tikta, Kashaya, Laghu, Ruksha Guna, Sheeta Virya, Katu Vipaka, Kapha Pittahara* properties. It also has synonym *Switrabhesaja*, as its bark is considered as the drug of choice in *Switra*^[11].
- According *Charaka Switra* has been considered one of the *Rakta Pradoshaja Vikara*. In diseases having *Rakta* as causative factor, line of treatment is one pacifying *Rakta* and *Pitta*.
- *Virechana Karma* is best modality for *Pitta Dosha*. *Rakta* and *Pitta* are considered as *Ashrayi Ashraya* and hence *Virechana* suits best for *Pitta*.
- In *Charaka kushta chikitsa, Purgation* with *Malapurasa (Kakodumbara)* with jaggery is the best treatment for vitiligo has been mentioned. It causes mild Purgation on exposure to sunlight which removes *Vitiated Pitta Dosha*.
- *Bakuchi* has *Katu, Tikta, Laghu, Ruksha Guna, Ushna Virya, Katu Vipaka, Kapha Vata hara* properties. It a renowned herb and is a rich source of naturally occurring Psoralens which helps in absorption of ultraviolet rays leading to favourable condition for promoting the growth of melanocyte formation^[12].
- *Purana Guda* is *Laghu, Pathyam, Anabhisyandi, Agnividdikaram, Pitta haram, Madhuram, Vrisyam, Vata haram, Rakta dosha haram*.
- *Guda* has *Tridosahara, Rakta prasadana* and *Mamsa Medokara* property. In *Switra Rakta dhatu, Mamsa dhatu* are the *Dushyas* and *Guda* helps in promoting the *Rakta* and *Mamsa dhatu Prasadana*. Jaggery contains the trace elements of Copper, Zinc and Iron. In vitiligo, Copper deficiency also plays a role, *Guda* has the property to increase copper levels. Along with these elements jaggery also contains the small amounts of iron, thiamine, riboflavin and niacin which helps in boosting the immune system as vitiligo is an auto immune disorder. In Ayurveda, *Guda* is mainly used in the *Guda kalpas/ Avalehana kalpanas*. By taking *Guda* as *Anupana* it will enhance the palatability being *Madhura rasa*, and enhances drug activity by its absorption property.
- *Switra* is a disease where *Vata* and *Pitta* is obstructed by *Kapha*, so in this condition *Vata* is in *Moodavastha* and *Pitta* is in *Kshaya Avastha*. In that condition when we give *Katu, Tikta Rasa, Katu Vipaka, Ushna Virya Pradana* medicine like *Vibhitakadi Kwatha*, it stimulates the *Agni* and also help to break the *Avarana* of *Kapha*. As *Agni* is stimulated and starts properly functioning in *Raktavaha Srotas* patient will be improve in pigmentation of skin.

CONCLUSION

The clinical study clearly concludes that *Gunjaphaladi lepam* for external application and *Vibhitakadi kwatha* internally could be remedy for *Switra* without any side effects. Disease prognosis is better in acute stage, than chronic stage. So early diagnosis and treatment is essential. For complete cure of *Switra* especially in chronic stage, long duration of treatment with *Gunjaphaladi lepam* and *Vibhitakadi kwatham* is necessary.

REFERENCES

1. Barman S, Switra and its treatment in veda, Ancient Science of life, 1995, XV (1), 71-74.
2. Tewari PV, Kshayapa Samhita, Chikitsastana, 9th chapter, Sloka 2, Choukhamba Visvabharati, Varanasi, reprint-2018.
3. Kliegman, Robert. Nelson textbook pediatrics. Edition 21. Philadelphia, PA: Elsevier, 2020, page No-13414
4. Caraka Samhita by Dr.R.K.Sharma and Vaidya Bagwan Dash published by chaukambha Oriental Varanasi, Vol-3, Chikitsa Sthana, Chapter-7, Sloka-174, page no-361
5. Stuart H. Ralston, Ian D. Penman, Mark W. J. Strachan, Richard P. Hobson, Davidson's Principles & Practice of Medicine, 23rd edition, 2018, page no-1257.
6. Bhaisajya Ratnavali by Dr.Prabhakar Rao- 54 chapter, 51st sloka
7. Ibid, 75th sloka
8. Dravyaguna Vijnana by Prof. K.Nishteswar and Dr.Koppula Hemadri, page- 239
9. Ibid, page- 91
10. Ibid, page- 61
11. Ibid, page- 460
12. Clinical use of Bakuchi in Switra w. s. r. to Vitiligo. Pravin Ashok Mali Balkrushna Patil, Dinesh Ashok Mali in Ayurline: International Journal of Research in Indian Medicine 2020; 4(5): 01-04

Cite this article as:

Mada Avinash Reddy, Ragamala K.C, B.Harinathachary. To Evaluate the Efficacy of Gunjaphaladi Lepam and Vibhitakadi Kwatha in Management of Switra w.s.r to Vitiligo. AYUSHDHARA, 2023;10(1):14-19.

<https://doi.org/10.47070/ayushdhara.v10i1.1124>

Source of support: Nil, Conflict of interest: None Declared

*Address for correspondence

Dr. Mada Avinash Reddy

PG Scholar,

Department of Kaumarabhritya,

S.V. Ayurvedic College and

Hospital T.T.D., Tirupati,

Andhra Pradesh, India.

Email:

reddyavinash771@gmail.com

