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# An open label single arm clinical study to evaluate the combined effectiveness of *Navakashaya* and *Vidangadi Lepa* in *Vicharchika* (Dermatitis)

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## ABSTRACT

**Background:** *Vicharchika* is one among the *Kshudra Kushta* with predominance of *Kapha Dosha* and it is characterized by, *Kandu* (Itching), *Bahu Srava* (Excessive exudation), *Shyava Varna* (Greyish black discolouration) and *Pidaka* (Papule). *Vicharchika* is similar to Dermatitis (Eczema). Dermatitis is a heterogenous group of disorders that share similarities in clinical appearance and histopathologic findings, but may have different etiologies. **Objectives:** To evaluate the combined effectiveness of *Navakashaya* and *Vidangadi Lepa* in the management of *Vicharchika* (Dermatitis). **Methods:** Among 34 registered subjects, 30 of them completed the course of treatment. They were administered with *Navakashaya* internally and *Vidangadi Lepa* application externally for a period of 30 days. Ordinal data was analyzed with Friedman's test followed by Wilcoxon signed rank test as post-hoc and Nominal data was analyzed with Cochran Q test followed by McNemar test as post-hoc. Continuous data was analyzed by Repeated Measures ANOVA and after applying bonferroni correction with Paired t test as post-hoc. **Results:** There was statistically significant improvement in the subjective and objective parameters of *Vicharchika* (Dermatitis). **Conclusion:** *Navakashaya* and *Vidangadi Lepa* are effective in the management of *Vicharchika* (Dermatitis).

**Key words:** Dermatitis, EASI Score, *Navakashaya*, *Vicharchika*, *Vidangadi Lepa*

## INTRODUCTION

In *Ayurveda*, all skin disorders have been classified mainly into two groups - *Mahakushta* and *Kshudra Kushta*. *Vicharchika* is one among the *Kshudra Kushta* with the predominance of *Kapha Dosha* and it is

characterized by the *Lakshanas* i.e., *Kandu* (itching), *Bahu Srava* (excessive exudation), *Shyava Varna* (blackish brown discolouration) and *Pidaka* (papule).<sup>[1]</sup>

On the basis of the symptoms, *Vicharchika* can be correlated with Dermatitis in modern science, which is a reaction pattern manifested by variable clinical and histologic findings. Dermatitis was estimated to affect 245 million people (3.34%) of the world population.<sup>[2]</sup> The prevalence of dermatitis is increasing because of rapid industrialization, use of chemicals, cosmetics, soaps and other irritants. About 10-20% of the general practice includes the patients suffering from skin disorders. Dermatitis accounts for a very large proportion of all the skin disease. Primary lesions may include papules, erythematous macules and vesicles which can coalesce to form patches and plaques. In severe dermatitis, secondary lesions such as weeping and crusting may predominate. Long-standing

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dermatitis is often dry and is characterized by thickened, scaling skin (lichenification). The histologic features of Dermatitis have been divided into three patterns: acute, sub-acute and chronic. Acute dermatitis shows a mixture of epidermal vesiculation, and a mononuclear cell infiltrate. Chronic dermatitis demonstrates epidermal acanthosis, hyperkeratosis, upper dermal fibrosis, and a predominantly perivascular mononuclear cell infiltrate. Mixtures of these two histologic reaction patterns occur in sub-acute dermatitis.<sup>[3]</sup>

In contemporary medical practice, antihistamines and topical steroids are the medications for Dermatitis. There is no specific description available in *Samhita* regarding the *Chikitsasutra* of *Vicharchika*. Hence the treatment is to be carried out according to the predominance of *Dosha*.

The *Navakashaya*<sup>[4]</sup> *Yoga* explained by *Chakradutta* in *Kushta Adhikara* comprises of *Triphala*, *Patola*, *Rajani*, *Manjishta*, *Rohini*, *Vacha* and *Nimba*. These drugs have properties like *Tikta Rasa*, *Laghu* and *Ruksha Guna*, *Ushna Veerya*, *Katu Vipaka* and *Kapha Pittahara*, *Deepana* and *Varnya* action.

External intervention i.e., *Vidangadi Lepa*<sup>[5]</sup> comprises of *Vidanga*, *Saindhava*, *Shiva (Haritaki)*, *Sasirekha (Bakuchi)*, *Sarshapa*, *Karanja*, *Rajani (Haridra)*, along with *Go Jala (Gomutra Arka)* which is explained by *Chakradutta* in *Kushta Prakarana*. These drugs have properties like *Tikta Rasa*, *Laghu*, *Ruksha Guna*, *Ushna Veerya* and *Kushtagna*. Hence both formulations are helpful in *Samprapti Vighatana* of *Kapha Pradhana Vicharchika*.

## OBJECTIVE

To assess the combined effectiveness of 45 ml of *Navakashaya* internally twice daily, before food with *Anupana* of warm water and *Vidangadi Lepa* application externally, once daily in day time with *Gomutra Arka* for a period of 30 days in the management of *Vicharchika* (Dermatitis).

## MATERIALS AND METHODS

**Source of data:** Patients who attended the out-patient department of Kayachikitsa at Sri Dharmasthala Manjunatheswara Ayurveda Hospital, Hassan.

**Method of collection of data:** Data was collected using specially prepared case report form.

### Screening of the patient

A screening form was prepared with all aspects of history, signs, and symptoms of *Vicharchika* (Dermatitis).

### Diagnostic criteria

Among screened patients, *Vicharchika* (Dermatitis) was diagnosed based on *Lakshanas* of *Vicharchika* (Dermatitis) such as *Kandu* (itching), *Shyava Varna* (Greyish black discolouration), *Pidaka* (papule), *Bahu Srava* (exudation).

### Inclusion criteria

- Subjects suffering with *Vicharchika* up to 1 year of chronicity
- Subjects of either gender, aged between 18-70 years
- Subjects willing to participate in the study and ready to sign informed consent form

### Exclusion criteria

- Subjects with uncontrolled diabetes mellitus
- Pregnant and lactating women
- Subjects with impaired cardiac, renal, and hepatic functions

**Sampling technique** - Convenient sampling

**Sample size** - 30

### Statistical method

Ordinal data was analyzed with Friedman's test followed by Wilcoxon signed rank test as post-hoc and Nominal data was analyzed with Cochran Q test followed by McNemar test as post-hoc. Continuous data was analyzed by Repeated Measures ANOVA and after applying bonferroni correction with Paired t test as post-hoc.

### Ethical clearance and CTRI registration

The ethics clearance certificate from the Institutional Ethics Committee of Sri Dharmasthala Manjunatheswara College of Ayurveda and Hospital,

Hassan was obtained, with IEC No: SDM/IEC/75/2021 (9/7/2021). Trial was registered on Indian clinical trial registry, CTRI/2022/05/042516.

### Study design

Open label single arm prospective clinical study with pre and post-test design, from outpatient department of a tertiary Ayurveda hospital attached to Ayurveda medical college located in district headquarters in Southern India.

### Intervention

#### Internal medication

##### 1. Navakashaya

Dose: 45ml twice daily (Morning and Evening), before food

Route of administration-Orally

Anupana - Warm water

Duration - 30 days

#### External Application

##### 2. Vidangadi Lepa

Vidangadi Lepa Choorna application mixed with Gomutra Arka

Dose - Once daily, in day time (Morning - 15 minutes), Thickness of 3mm.

Duration - 30 days

#### Source and Authentication of Raw Drug

Required raw drugs for the medicine preparation were purchased from GMP certified Pharmacy - CKKM Ayurveda Medicine Manufactures, Kerala along with authentication certificate.

#### Assessment Criteria:

Signs and symptoms of Vicharchika (Dermatitis) like *Kandu* (itching), *Shyava Varna* (greyish black discolouration), *Pidaka* (papule), *Bahu Srava* (exudation) were assessed by giving suitable scoring at three intervals namely 1<sup>st</sup>, 15<sup>th</sup> and 30<sup>th</sup> day of treatment. The disease activity of the patient was assessed by Eczema Area and Severity Index Score (EASI Score).

#### Subjective parameter

- *Kandu*

#### Objective parameter

- *Shyava Varna*
- *Pidaka*
- *Bahu Srava*

**Table 1: Scoring criteria of *Kandu*<sup>[6]</sup> (Pruritus)**

Grade	Score
Nearly no itching	0
Mild or occasional itching (1-2 times in a day)	1
Itching on and off	2
Continuous itching without disturbance in routine	3
Continuous itching with disturbance in routine even in sleep	4

**Table 2: Scoring criteria of *Bahu Srava*<sup>[6]</sup> (Discharge)**

Grade	Score
Nearly no weeping	0
Moisture on the skin lesion	1
Weeping from the skin after itching	2
Weeping from the skin	3
Profuse weeping making cloths wet	4

### OBSERVATIONS

**Table 3: Demographic profile of 34 patients of Vicharchika**

Observation	Predominance	Percentage %
Age	31-40 years	11 (32.35%)
Gender	Female	20 (58.82%)
Socio-economic status	Lower middle	17 (50%)

**Table 4: Baseline distribution of Lakshanas of 34 patients of Vicharchika**

Lakshana (Present)	Percentage %
Kandu	34 (100 %)
Shyava Varna	34 (100 %)
Pidaka	34 (100 %)
Bahu Srava	34 (100 %)

**RESULTS**

**MC Nemar Test**

**Table 5: Effect of Intervention on the assessment of Kandu between various intervals**

BT - 15 <sup>th</sup> Day					
Kandu BT	Kandu 15 <sup>th</sup> Day		N	P	Remarks
	Present	Absent			
Present	26	4	30	>0.016	NS
Absent	0	0			
15 <sup>th</sup> Day - 30 <sup>th</sup> Day					
Kandu 15 <sup>th</sup> Day	Kandu 30 <sup>th</sup> Day		N	P	Remarks
	Present	Absent			
Present	14	12	30	<0.016	S
Absent	0	4			
BT - 30 <sup>th</sup> Day					
Kandu BT	Kandu 30 <sup>th</sup> Day		N	P	Remarks
	Present	Absent			
Present	14	16	30	<0.016	S
Absent	0	0			

**Wilcoxon signed Rank Test**

**Table 6: Effect of Intervention on scoring of Kandu**

Parameter	Negative Ranks			Positive Ranks			Ties	Total	Z Value	P Value	Remarks
	N	M	SR	N	M	SR					
BT - 15 <sup>th</sup> Day	18	9.50	17.00	0	0	0	12	30	-3.866	<0.016	S

15 <sup>th</sup> Day - 30 <sup>th</sup> Day	22	11.50	25.00	0	0	0	8	30	-4.456	<0.016	S
BT - 30 <sup>th</sup> Day	29	15.00	43.00	0	0	0	1	30	-4.798	<0.016	S

**MC Nemar Test**

**Table 7: Effect of Intervention on the assessment of Pidaka between various intervals**

BT-15 <sup>th</sup> Day					
Pidaka BT	Pidaka 15 <sup>th</sup> Day		N	P	Remarks
	Present	Absent			
Present	29	1	30	>0.016	NS
Absent	0	0			
15 <sup>th</sup> Day - 30 <sup>th</sup> Day					
Pidaka 15 <sup>th</sup> Day	Pidaka 30 <sup>th</sup> Day		N	P	Remarks
	Present	Absent			
Present	22	7	30	<.016	S
Absent	0	1			
BT - 30 <sup>th</sup> Day					
Pidaka BT	Pidaka 30 <sup>th</sup> Day		N	P	Remarks
	Present	Absent			
Present	22	8	30	<.016	S
Absent	0	0			

**Cocharn Q Test**

**Table 8: Effect of Intervention on the assessment of Shyava Varna between various intervals**

Parameter	Value		N	Cochran's Q	P value	Remarks
	Present	Absent				
Shyava Varna BT	30	0	30	2.000	P<0.05	NS
Shyava Varna 15 <sup>th</sup> Day	30	0				
Shyava Varna 30 <sup>th</sup> Day	29	1				

MC Nemar Test

Table 9: Effect of Intervention on the assessment of *Bahu Srava* between various intervals

BT - 15 <sup>th</sup> Day					
<i>Bahu Srava</i> BT	<i>Bahu Srava</i> 15 <sup>th</sup> Day		N	P	Remarks
	Present	Absent			
Present	23	7	30	P<.016	S
Absent	0	0			
15 <sup>th</sup> Day - 30 <sup>th</sup> Day					
<i>Bahu Srava</i> 15 <sup>th</sup> Day	<i>Bahu Srava</i> 30 <sup>th</sup> Day		N	P	Remarks
	Present	Absent			
Present	8	15	30	P<.016	S
Absent	0	7			
BT - 30 <sup>th</sup> Day					
<i>Bahu Srava</i> BT	<i>Bahu Srava</i> 30 <sup>th</sup> Day		N	P	Remarks
	Present	Absent			
Present	8	22	30	P<.016	S
Absent	0	0			

Table 10: Effect of Intervention on scoring of *Bahu Srava*

Parameter	Negative Ranks			Positive Ranks			Ties	Total	Z Value	P Value	Remarks
	N	M	SR	N	M	SR					
BT - 15 <sup>th</sup> Day	15	8.00	12.00	0	.00	.00	15	30	-3.624	<0.016	S
15 <sup>th</sup> Day - 30 <sup>th</sup> Day	20	10.50	21.00	0	.00	.00	10	30	-4.134	<0.016	S
BT - 30 <sup>th</sup> Day	26	13.50	35.00	0	.00	.00	4	30	-4.573	<0.016	S

Repeated measure ANOVA Test

Table 11: Effect of Intervention on EASI Score

Parameter (EASI)	N	Mean	Greenhouse-Geisser			Greenhouse-Geisser error Df	Remarks
			df	F Value	P Value		
BT	30	9.18	1.662	12.443	<0.05	48.194	S
15 <sup>th</sup> Day		7.68					
30 <sup>th</sup> Day		6.63					

Table 12: Effect of Intervention on EASI Score - Pair wise

Gross Score I	Gross Score J	Mean difference (I-J)	Std Deviation	Std. error Mean	t Value	Sig.	Remarks
BT	15 <sup>th</sup> Day	1.493	3.132	.571	2.611	<.016	S
15 <sup>th</sup> Day	30 <sup>th</sup> Day	1.056	2.085	.380	2.776	<.016	S
BT	30 <sup>th</sup> Day	2.550	3.095	.565	4.512	<.016	S

DISCUSSION

Effect on *Kandu*

Statistically significant improvement was found in *Kandu* after treatment. Mc Nemar test (P value< 0.016) showed improvements in counts at intervals of 15<sup>th</sup> day - 30<sup>th</sup> day (p.000) and BT - 30<sup>th</sup> day (p.000). *Kandu* was present in 26 subjects and was absent in 4 subjects at interval of BT - 15<sup>th</sup> day. From 15<sup>th</sup> day - 30<sup>th</sup> day interval of treatment *Kandu* was absent in 12 subjects and from BT - 30<sup>th</sup> day interval of treatment *Kandu* was absent in 16 subjects. *Navakashaya* containing *Patola*, *Rajani*, *Nimba* and *Vidangadi Lepa* containing *Sarshapa*, *Haridra* and *Gomutra* have *Kandughna* property.

*Tikta Rasa* is *Kaphahara* and *Rakthaprasadhana*. *Navakashaya* and *Vidangadi Lepa* possess *Tikta Rasa*, *Laghu Rooksha Guna* and *Ushna Veerya* which are opposite to the *Guru*, *Snigdha* and *Sheeta* properties of *Kapha Dosh*a, which is responsible for *Kandu*.

#### Effect on *Pidaka*

Statistically significant improvement was found in *Pidaka* after treatment. Mc Nemar test (P value <0.016) showed improvements in count at intervals of 15<sup>th</sup> day - 30<sup>th</sup> day (p.016) and BT - 30<sup>th</sup> day (p.008). *Pidaka* was present in 29 subjects and was absent in 1 subject at interval of BT - 15<sup>th</sup> day. From 15<sup>th</sup> day - 30<sup>th</sup> day interval of treatment *Pidaka* was absent in 7 subjects and from BT - 30<sup>th</sup> day interval of treatment *Pidaka* was absent in 8 subjects. The vitiated *Pitta* when accumulates in *Twacha* and *Rakta*, it causes *Pidaka*. *Rakta* is the *Ashraya* for *Pitta Dosh*a. *Tikta Rasa* is *Pittahara* and *Rakthaprasadhana*. *Navakashya* containing *Triphala*, *Rajani*, *Manjishta*, *Katuki Nimba* and *Vidangadi Lepa* containing *Haritaki*, *Bakuchi*, *Sarshapa*, *Karanja* and *Haridra* are *Pittahara*.

#### Effect on *Shyava Varna*

Statistically significant improvement was not noticed in *Shyavavarna* after treatment. The Cochran Q Test and Post hoc test with MC Nemar test showed no improvements in mean ranks of three intervals i.e., BT-15<sup>th</sup> day, 15<sup>th</sup> day-30<sup>th</sup> day and BT-30<sup>th</sup> day. But clinically there was reduction in *Shyava Varna*.

#### Effect on *Bahu Srava*

Statistically significant improvement was found in *Bahu Srava* after treatment. Wilcoxon signed rank test (P value <0.016) showed improvements in mean ranks at intervals of BT-15<sup>th</sup> day (p.016), 15<sup>th</sup> day-30<sup>th</sup> day (p.000) and BT-30<sup>th</sup> day (p.000). *Bahu Srava* was present in 23 subjects and was absent in 7 subjects at interval of BT-15<sup>th</sup> day. From 15<sup>th</sup> day-30<sup>th</sup> day interval of treatment *Bahu Srava* was absent in 15 subjects and from BT-30<sup>th</sup> day interval of treatment *Bahu Srava* was absent in 22 subjects. *Srava* can be due to both *Kapha* and *Pitta Dushti*. *Navakashaya* and *Vidangadi Lepa* containing ingredients are *Tikta Rasapradhana*, which is *Pittahara* and *Kaphahara*. Both formulations possess

*Rooksha Guna*, which is opposite to the *Snigdha Guna* of *Kapha* and *Pitta Dosh*a which is responsible for *Bahu Srava*.

#### Assessment score of Dermatitis (*Vicharchika*)

##### EASI Score on Head and Neck

Statistically significant improvement was not found in the erythema, papulation, Scratching and lichenification in head and neck after three intervals of treatment i.e., BT-15<sup>th</sup> day, 15<sup>th</sup> day-30<sup>th</sup> day and BT-30<sup>th</sup> day. This may because of less number of subjects having involvement of head and neck region and because of less sample size lead to statistically not significant.

##### EASI Score on Trunk

Statistically significant improvement was not found in the erythema, papulation, Scratching and lichenification in head and neck after three intervals of treatment i.e., BT-15<sup>th</sup> day, 15<sup>th</sup> day-30<sup>th</sup> day and BT-30<sup>th</sup> day. This may because of less number of subjects having involvement of head and neck region and because of less sample size lead to statistically not significant.

##### EASI Score on Upper limb

Statistically significant improvement was found in the erythema in upperlimb. Wilcoxon signed rank test (P value <0.016) showed improvements in mean ranks at intervals of BT-30<sup>th</sup> day (p.005). Statistically significant improvement was found in the papulation in upperlimb. Wilcoxon signed rank test (P value <0.016) showed improvements in mean ranks at intervals of BT-15<sup>th</sup> day (p.014), and BT-30<sup>th</sup> day (p.005). Statistically significant improvement was found in the scratching in upperlimb. Wilcoxon signed rank test (P value <0.016) showed improvements in mean ranks at intervals of BT-30<sup>th</sup> day (p.008). Statistically significant improvement was found in the lichenification in upperlimb. Wilcoxon signed rank test (P value <0.016) showed improvements in mean ranks at intervals of BT-30<sup>th</sup> day (p.008). This may because of majority number of subjects having involvement of upper limb region.

### EASI Score on Lower limb

Statistically significant improvement was found in the erythema in lowerlimb. Wilcoxon signed rank test (P value<0.016) showed improvements in mean ranks at intervals of BT-15<sup>th</sup> day (p.014) and 15<sup>th</sup>day-30<sup>th</sup>day (p.008) and BT-30<sup>th</sup> day (p.000). Statistically significant improvement was found in the papulation in lowerlimb. Wilcoxon signed rank test (P value<0.016) showed improvements in mean ranks at intervals of BT-15<sup>th</sup> day (p.014), 15<sup>th</sup>day-30<sup>th</sup>day (p.002) and BT-30<sup>th</sup>day (p.000). Statistically significant improvement was found in the scratching in lowerlimb. Wilcoxon signed rank test (P value<0.016) showed improvements in mean ranks at intervals of BT-30<sup>th</sup> day (p.008). Statistically significant improvement was found in the lichenification in lowerlimb. Wilcoxon signed rank test (P value<0.016) showed improvements in mean ranks at intervals of 15<sup>th</sup>day-30<sup>th</sup>day (p.005) and BT-30<sup>th</sup> day (p.001). This may be because of majority number of subjects having involvement of lower limb region.

### EASI Score

Statistically significant improvement was found in mean score of EASI Score in BT-15<sup>th</sup> Day with mean difference (1.493, p.014, SD 3.132) 15<sup>th</sup> Day- 30<sup>th</sup>Day with mean difference (1.056, p.010, SD 2.085) and BT-30<sup>th</sup> Day with mean difference (2.55, p.000, SD 3.095). Overall, the combination of *Navakashaya* and *Vidangadi Lepa* were found to show statistically significant result in relieving symptoms like erythema, papulation, excoriation and lichenification.

### Discussion on Probable mode of action of drug

This study was intended to evaluate the combined effectiveness of *Navakashaya* internally and *Vidangadi Lepa* externally in *Kushta Chikitsa*. The ingredients of *Navakashaya* and *Vidangadi Lepa* possess *Tikta Rasa*, *Laghu Rooksha Guna*, *Ushna Veerya*, *Katu Vipaka* and *Kushtagna* properties which are opposite to the qualities of *Kapha*.

The administration of *Haritaki* extract helps in decreasing keratinization, mast cell infiltration and inflammation related mediators.<sup>[7]</sup> *Amalaki* helps in

liver detoxification and it is rich in Vitamin C. It is good for the complexion (*Varnya*). The paste obtained from *Vibhitaki* offers distinctive advantages in wound healing.<sup>[8]</sup>

*Patola* possess anti-inflammatory and wound healing activity. *Haridra* is also called by the name of *Vishothajita*, which means it can act as an anti-inflammatory and help in decreasing the erythema of the skin. It improves the complexion and might have helped in the *Vaivarnya* of skin. *Manjishta* root extract has been used as anti-inflammatory agent because of the presence of rubimallin. It inhibits the lipoxigenase enzyme pathway, which catalyze the production of various inflammatory mediators such as leukotriens.<sup>[9]</sup> *Nimba* (*Azadirachta indica*) has a complex of various constituents including nimbin, nimbidin, nimbolide, and limonoids and such types of ingredients play role in diseases management through modulation of various genetic pathways and other activities.<sup>[10]</sup> Alcoholic extract of *Katuki* and compounds kutkin, picroside-1 and kutkoside have been reported for their anti-inflammatory and antioxidant activity.<sup>[11]</sup> *Vacha* leave extract has, characteristics of restriction of interleukin. *Bakuchi* is *Katu Tikta* in *Rasa*, *Laghu*, *Ruksha* in *Guna*, *Ushna Veerya* and has *Katu Vipaka*. It helps in balancing *Vata* and *Kapha*. It is *Kushtaghna*, *Deepana*, *Pachana*, *Anulomana*, and *Vranashodhana* by *Karma*. *Karanja* has *Katu*, *Tikta*, *Kashaya Rasa*, *Laghu Teekshna Guna* and *Ushna Veerya* and acts as *Kapha* and *Vata Shamaka*. It is *Kushtaghna*, *Shothahara*, and known as *Kushtajita* which means helpful in treating all types of skin disorders. Ethanol leaf extract and embelin isolated from *Vidanga* were proved good for wound healing in albino rats. *Sarshapa* balances *Vata* and *Kapha Dosh*.<sup>[12]</sup> *Gomutra Arka* is *Kushtashamaka*, *Kanduhara*, *Kaphahara* and useful in *Alepana*. *Gomutra Arka* is *Kushtahara* and *Kanduhara*. Hence, it can be concluded that *Navakashaya* and *Vidangadi Lepa* were effective in the management of *Vicharchika* (Dermatitis).

### Mechanism of action of Lepa

Network of *Sira*, underneath the skin and their openings are attached to hair follicles which carry



sweat and replenish *Rasa* inside and outside through the *Veerya* of *Lepa*. *Dravyas* enter the body after being transformed in skin. Because of application of *Lepa*, the skin temperature increases which helps in hastening the pilosebaceous uptake and skin permeation of the drug in topical formulation. Though small amounts of chemicals may enter the body rapidly through the glands or hair follicles, they are primarily absorbed through the epidermis. Chemicals must pass through the cell layers of epidermis before entering the dermis where they can enter the blood stream and circulate to other areas of body. The stratum corneum is the outermost layer of the epidermis and the rate limiting barrier in absorption of an agent. After penetrating through the stratum corneum and into viable epidermis and dermis the molecules of the formulation produce its characteristic pharmacological response through receptors even before the blood and lymph circulations remove it. Thus, *Lepa* helps to remove the toxins.<sup>[13]</sup>

## CONCLUSION

45 ml of *Navakashaya* internally twice daily, before food and *Vidangadi Lepa* application externally, once daily in day time with *Gomutra Arka* for a period of 30 days was effective in the management of *Vicharchika* (Dermatitis). It showed significant improvement in symptoms such as *Kandu*, *Pidaka* and *Bahusrava*. There was no significant improvement in *Shyava Varna*. There was a significant improvement in the EASI score. Thus, Research hypothesis was accepted.

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