

A COMPARATIVE CLINICAL STUDY OF *VISHA ARAGWADHAADI AGADA LEPA* AND *GANDHAKAADYA MALAHAR* IN MANAGEMENT OF *VICHARCHIKA*

Ayurveda

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ABSTRACT

Ayurveda is a science of holistic approach and its well known to treat skin disorders, auto immune disorders, life style disorders etc. Twacha (skin) being biggest organ which is exposed to untoward effects of toxins, harsh chemicals, dust, dyes, environment pollution, etc which manifest skin diseases. *Kushta* is the name given to all skin disorders. *Vicharchika* is one among *Kshudra Kushta*. It's signs and symptoms are of *Kandu* (itching), *Pidika* (vesicle), *Srava* (discharge), *Shyava* (discoloration), *Rukshata* (dryness), *Rajji* (lichenification), *Shotha* (inflammation) and *Daha* (burning sensation)^[1,2]. *Vicharchika* correlated with Eczema. It's a chronic inflammatory skin disease characterized by pruritis and repeated remissions and relapse. Patients demands easy mode of medicine administration so we choose *Lepa* (external application-anointing). *Visha Aragwadhaadi Agada churna* with *Takra Lepa* of *Astang Sangrah* for *Vicharchika*, *Dadru* etc *Kushta*. *Gandhakaadya Malahar* of *Rasa Tarangini* for *Kushta*. *Visha dravyas* had an vital role in treating skin diseases, neurological disorders. Hence to assess the efficacy of both formulations a clinical trial had been done. **Material & Methods**- A randomized clinical trial of two Groups having 35 patients had been taken for comparative study in *Vicharchika*. *Lepa* done twice a day for 1month and follow up done for 1month. **Results**-Both group external applications showed significant effect in reducing Itching, Discharge and Thickness of lesions. **Discussion**- The observed parameters of clinical trial were discussed. **Conclusion**- Through subjective and objective clinical parameters assessment of effect of *Lepa*'s is drawn.

KEYWORDS

Visha Aragwadhaadi Agada Lepa, Gandhakaadya Malahar & Vicharchika

INTRODUCTION:

Skin diseases are not a life threatening, they make the patients worried due to its appearance. *Kushta* is *Aapuasargika vyadhi* & two types *Mahakushta* and *Kshudra Kushta*. *Vicharchika* is *Kshudra Kushta*. Excess usage of chemicals, pesticides, exposure to pollution, plastics are proven to get contact dermatitis etc skin diseases. *Kushta* considered as *Mahagada* because of its *bahu dosha avasta* (vitiation of deep seated tissues), reoccurrence and need of long term treatment. *Vicharchika* is one of the *Rakta pradoshaja tridoshaja vikara* (diseases due impure blood) which manifest due to *Vidahi ahar*; *virudha ahar*, *ati sinigdha-ushna-guru-drava ahar*; *dushita vayu*, *jala sevana*, incompatible articles contact etc.^[1] It manifest with *laxanas* (signs & symptoms) like *Kandu*, *Srava*, *Ruja*, *Vaivarnaya Rajji*, *Shotha*, *Daha*, *Pidika*^[1,2]. The description of *Kushta* according to *Acharyas* can be correlated with Atopic Dermatitis.

The prevalence rate of 200 million with atopic dermatitis and chronic inflammatory conditions in skin that affects the world wide.^[3]

Bahir Parimarjana Chikitsa (external treatment modalities) is the purification of the skin by the external application of the medicament. It includes *Lepa* (topical-external application), *Parisheka* (pouring the medicine) and *Avachurnana* (sprinkling medicine powder) etc, out of this *Lepa* has been given importance so that it can be used easily and repeatedly^[4]. *Vicharchika* being a *Kushdra Kushta* the vitiation of *alpa dosha* or *Stanika dosha* is possibility. *Stanika Rakta dushti* can be treated by *Lepa*. Drugs selected for studies are proven *rakta doshahar*. Hence possibility of good effective.

Visha dravyas (toxic medicinal plants) because of *askukari*, *vyavayi*, *laghu*, *ushna*, *teekshna gunas* (early penetrating into tissues and so early effect on the bodies). *Agada* preparations have proven their impact in treating skin diseases, autoimmune disorders etc. To provide cost effective and easy mode of medicine in the form of applications a research clinical trial is "A comparative clinical study of *Visha Aragwadhaadi Agada Lepa* and *Gandhakaadya Malahar* in management of *Vicharchika*".

Kushta is considered as one among the *Ashtamahagada* (eight severe diseases) because of its *Bahu Doshavastha*. To reduce the reoccurrence episodes of *Vicharchika* complete body purification is needed, so *Shodhana* is most appropriate treatment. *Stanika rakta dushti* can be treated with *Bahir Parimarjana Chikitsa*^[4].

So a research trail was conducted in Shri Vijaya Mahantesh Ayurvedic medical College & RP Karadi hospital Ilkal under the guidelines of RGUHS Bangalore. Research trail done to evaluate the effect of Group A - *Visha Aragwadhaadi Agada Lepa* and Group B - *Gandhakaadya Malahar Lepa* in *Vicharchika*.

METHODOLOGY:

Preparation of medicine and mode of application.

Group A: *Visha Aragwadhaadi Agada Lepa* includes *Vatsnabha*, *Aragwada* (cassia fistula) *Mula*, *Aragwada Patra*, *Aragwada Twak* and *Takra* (buttermilk).^[5]

Vatsnabha (aconite) is toxic drug. I took *Shweta* (white) variety available in market and its *Shodhan* (purification) done by *Gomutra* (cow's urine) *Stapana* (keeping) for 3 days, *ushna jala prakshlana* (washing with warm water) on 4th day with *Atapa Soshana* (dried in under sun light). Aim of *Shodhana* is to detoxify the herbo mineral drug to less toxic level which is sustainable to the body^[6].

Aragwada plant parts are collected according to the season from Chandhalinga Hills near Hanumasagar Koppal District. Parts of plant are cleaned under running water and dried under shade and powdered. After drying powdered in pulverizer and equal quantity of *Vatsnabha churna* (powder) mixed and sieved. The patient advised to mix the prepared medicine with *Takra* during application. The *Lepa* should be washed with water before it gets complete dry.

Group B: *Gandhakaadya Malahar*^[7]

Ingredients: *Sikata taila* (bees wax with sesame oil), *Gandhaka* (sulphur), *Girisindhura* (oxide of mercury), *Tankhana* (borax), *Karpura* (camphor)

Procedure: Fine powder of all the ingredients is mixed with *Sikata Taila* homogeneously.

METHOD OF COLLECTION OF DATA:

This was a randomized comparative clinical study. Source of the Data: 70 subjects attending OPD and IPD of SVMAMC had been selected according to study design. Patients details was collected acc to specially designed case sheet Performa.

Sample size: 35 Patients in both groups

A. Diagnostic Criteria:

The diagnosis based on following clinical features of *Vicharchika* described in *Samhita* (classical texts)^[1, 2, 4, and 5] *Shyava varna*, *Kandu*, *Rukshata*, *Pidaka*, *Srava*, *Ruja*, *Daha*, *Sotha*.

B. Inclusive Criteria:

Age group of 18 to 60yrs patients who presented with features of *Vicharchika* irrespective of sex, religion and socio-economic status had been selected.

C. Exclusion Criteria

1. Patients associated with other systemic diseases.

2. Other dermatological diseases like Photo Dermatitis.

Study Design:

Table No 1 Showing Study Design

	Name of medicine	Dose	Mode of Administration	Duration of Treatment	Follow up	Total Duration of Study
Group A	<i>Visha Aragwadha adi Agada Lepa</i>	Sufficient quantity	<i>Lepa</i>	30 days Twice a day.	30 th day	60 days
Group B	<i>Gandhakadya Malahar</i>	Sufficient quantity	<i>Lepa</i>	30 days Twice a day.	30 days	60 days

Laboratory Investigation: RBS, HB%, AEC

Assessment of Results:

1. Assessment of will be made depending upon Subjective & Objective Parameters.
2. Statistical analysis will be made using proper statistical tests.
3. The Assessment will be done with EASI score (BT, AT, AF).
(BT- before treatment, AT-during treatment, AF-after treatment)

CRITERIA FOR ASSESSMENT:

Data collected from both groups were analyzed by history taking and examination. Every 15days patients advised for follow up and both objective and subjective data's were collected. Assessments done based on stat tests like Paired't' test, Friedman's and Wilcoxon signed rank tests.

All the patients will be examined Before Treatment, during treatment and after treatment. Criteria of assessment were kept on the basis of relief in the Sign and Symptoms of the disease of *Vicharchika*. For this purpose, an especially design case sheet to collect the data required for assessment.

1. **Subjective criteria:** *Kandu, Daha, Vedana, Vaivarnya, Rukshata, Sotha, Pidika,*

2. **Objective criteria:** EASI score^[9,10,&11]

OBSERVATION AND RESULT:

Table no-2 showing the details of both group general parameters demographic presentation.

Sl no	Criteria	Sub Criteria	Group A No of patients	Group B No of patients	Remarks
1	<i>Ahara</i>	Vegetarian	16	16	<i>Vishmaashana, Viruddha ashana, Adhyashna</i>
		Non vegetarian	19	19	<i>Mamsa and Rakta pradhoshan</i>
		Fermented food	15	13	<i>Vidhahi, Amlata</i>
		Curd	35	35	<i>Abisyandhi, kaphakar</i>
		Spicy food	35	35	<i>Pittakar and rakta dushka</i>
		Ahararasa-A,L,KT,KS	26	24	<i>Vata, Pitta dushka</i>
2	<i>Vihara</i>	Exercise	32	34	Routine work
3	Occupation	Labourers	23	22	<i>Asuchi, Raja, Duli</i>
		Farmers	8	8	<i>Dushi Visha</i>
4	Examination parameters	<i>Agni -Manda</i>	13	14	<i>Sarva rogo api mandagni-Ama, Ajeerna</i>
5	<i>Koshta</i>	<i>Krura</i>	13	14	<i>Sama Mala (constipated bowel habits)</i>
		<i>Madhayama</i>	17	16	<i>Kaphakar</i>
		<i>Mrudu</i>	14	15	<i>Ashahismuta, Sukumara</i>

	<i>Nidra</i>	<i>Alpa</i>	04	04	Itching disturb the sleep
	<i>Vyasana (habit)</i>	Tobacco	14	16	Toxic effect
6	<i>Prakruti</i>	<i>VK</i>	14	14	Maximum no of Patients
		<i>VP</i>	12	13	Maximum no of patients
		<i>KP</i>	9	8	Minimum no of patients
7	<i>Vikruti</i>	<i>Avara</i>	5	5	Recent origin
		<i>Madhyama</i>	21	20	Chronic under regular treatment.
		<i>Pravara</i>	9	10	Chronic and neglected condition
8	<i>Satwa</i>	<i>Avara</i>	11	12	Burden of disease and other condition
		<i>Pravara</i>	1	1	Good tolerance
		<i>Madhyama</i>	23	22	Maximum no of patients had moderate body physic, immunity, pulse rate varies with doshas involvement, compatible to environmental changes.
9	<i>Satmya</i>	<i>Madhyama</i>	31	31	
10	<i>Samhanana</i>	<i>Madhyama</i>	32	32	
11	<i>Vyayama Shakti</i>	<i>Madhyama</i>	30	30	
12	<i>Nadi</i>	<i>KV</i>	17	17	
		<i>PK</i>	5	6	
		<i>VP</i>	13	12	
13	<i>Mala</i>	<i>Badhata</i>	25	24	<i>Gadha varchas</i>
14	<i>Mutra</i>	<i>Prakruta</i>	35	35	Less involvement in disease manifestation
15	<i>Sweda</i>	<i>Asweda</i>	20	2	At lesion bcoz of <i>sanga</i>
		<i>Atisweda</i>	9	9	At lesion bcoz of <i>Pitta</i> involvement
16	<i>Poorva Rupa</i>	<i>Vaivarnya</i>	33	33	<i>Stana samshraya</i> of doshas with impaired <i>Pitta</i> and <i>Rakta dushiti</i>
		<i>Kandu</i>	35	35	<i>Kapha</i> and <i>Vata Pradhanya dushiti</i>
		<i>Kharatwa</i>	32	31	<i>Vata pradhanyata dushiti</i>
		<i>Daha</i>	5	6	<i>Pitta Pradhanyata dushiti</i>
		<i>Krishnata</i>	29	28	<i>Vata dushiti</i>
		<i>Toda</i>	10	11	<i>Vata Pradhanyata dushiti</i>
		<i>Sparsha Ajnatwa</i>	6	6	<i>Vata Pradhanyata dushiti</i>
17	<i>Rupa</i>	<i>Srava</i>	13	15	<i>Pitta and Kapha</i>

		Daha	27	29	Pitta Pradhanyata dushti
18	Kala	Summer			Ushna vata pitta prakopa
		Winter			Sheeta vata kapha prakopa

Table no 2 showing Results of subjective and objective parameters through Paired t test stat

Variables	Parameters	Groups	Mean	SD	Wilcoxon-Signed rank Test Value	P-Value
Kandu	G-A	BT	3.457	0.657	630	< 0.001
		AT	1.714	0.667		
	G-B	BT	3.143	0.810	595	< 0.001
		AT	1.371	0.690		
Srava	G-A	BT	1.457	1.094	394.5	< .001
		AT	0.543	0.657		
	G-B	BT	1.171	1.071	235	< 0.001
		AT	0.429	0.502		
Pidika	G-A	BT	2.343	0.684	561	< .001
		AT	1.286	0.572		
	G-B	BT	2.057	0.639	452	< 0.001
		AT	1.114	0.631		
Vaivarnya	G-A	BT	3.343	0.838	595	< .001
		AT	1.514	0.742		
	G-B	BT	2.857	0.912	561	< 0.001
		AT	1.400	0.651		
Rukshata	G-A	BT	3.486	0.612	630	< .001
		AT	1.343	0.639		
	G-B	BT	2.829	0.923	528	< 0.001
		AT	1.343	0.639		
Rajyo	G-A	BT	2.257	0.701	465	< .001
		AT	1.257	0.561		
	G-B	BT	1.886	0.867	300	< 0.001
		AT	1.114	0.583		
Vedana	G-A	BT	2.514	0.887	528	< .001
		AT	1.057	0.639		
	G-B	BT	1.971	1.071	456	< 0.001
		AT	0.943	0.539		
Daha	G-A	BT	1.657	0.838	561	< .001
		AT	0.600	0.651		
	G-B	BT	1.743	0.980	378	< 0.001
		AT	0.743	0.780		
Shotha	G-A	BT	1.914	0.887	435	< .001
		AT	0.914	0.742		
	G-B	BT	1.657	1.027	190	< 0.001
		AT	0.914	0.612		
EASI	G-A	BT	3.657	1.784	630	< .001
		AT	1.909	1.568		
	G-B	BT	1.657	1.027	563	< 0.001
		AT	0.914	0.612		

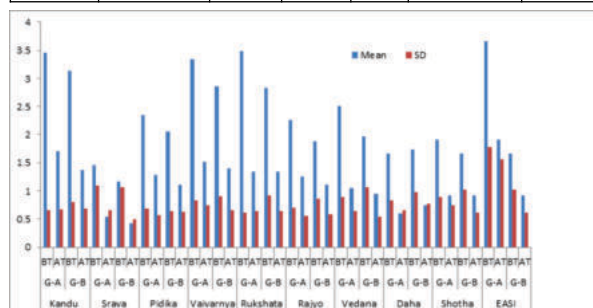


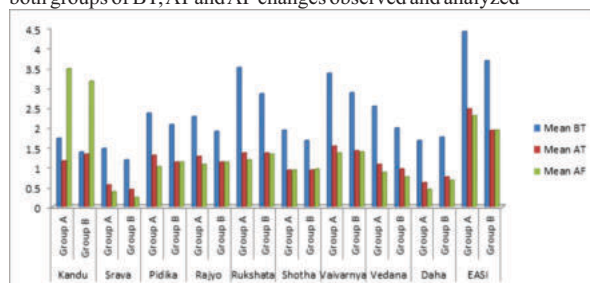
Figure no 1 Results of Subjective and Objective Parameters of both groups BT AT through Paired 't' Test

Table no 3 showing the results of both groups BT, AT & AF data's of all Parameters.

Sl.no	Parameters	Mean			Friedman's test	Df-2 P-Value
1	Kandu	BT	AT	AF		
	Group A	1.714	1.143	3.457	65.2	0.01932

	Group B	1.371	1.314	3.143	63.416	0.01486
2	Srava					
	Group A	1.457	0.543	0.371	46.103	0.1096
	Group B	1.171	0.429	0.229	36.025	0.000
3	Pidika					
	Group A	2.343	1.286	1	61.78	0.02909
	Group B	2.057	1.114	1.114	51.851	0.083
4	Rajyo					
	Group A	2.257	1.257	1.057	56.68	0.02756
	Group B	1.886	1.114	1.114	47.395	0.05748
5	Rukshata					
	Group A	3.486	1.343	1.171	66.865	0.00840
	Group B	2.829	1.343	1.314	62.081	0.02318
6	Shotha					
	Group A	1.914	0.914	0.914	58	0.014
	Group B	1.657	0.914	0.943	35.414	0.000
7	Vaivarnya					
	Group A	3.343	1.514	1.343	65.29	0.018
	Group B	2.857	1.4	1.371	62.248	0.0230
8	Vedana					
	Group A	2.514	1.057	0.857	61.429	0.03466
	Group B	1.971	0.943	0.743	42.146	0.2151
9	Daha					
	Group A	1.657	0.6	0.429	62.914	0.0165
	Group B	1.743	0.743	0.657	50.274	0.01361
10	EASI					
	Group A	4.389	2.449	2.277	67.725	0.005470
	Group B	3.657	1.909	1.914	61.14	0.040

Graph no 2 showing results of signs and symptom of Vicharchika of both groups of BT, AT and AF changes observed and analyzed



In all parameters of both groups P value < .001 shows significant effect. Group A results: in parameters Kandu, Srava, Rajyo, Shotha, EASI score P value < 0.001 shows significant effect in treating these signs of Vicharchika.

Group B results: in parameters Kandu, Vaivarnya, Daha, Rukshata, EASI score P value < 0.001

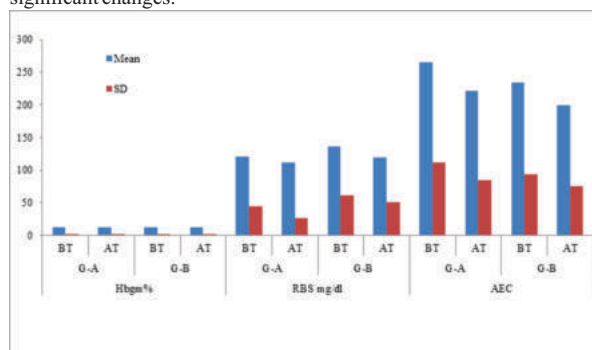
Recurrences of the symptoms are seen in both groups during AF where assessment done without medication.

Table no 4 showing the results of Lab Investigations of both groups of BT and AT by Paired 't' Test

	Group	Mean	SD	T-test value/Mann-Whitney U Test Value	p-value
BT RBS	A	127.242	48.833	483.5	0.880
	B	135.667	64.424		
AT RBS	A	269.265	110.453	623	0.130
	B	228.333	91.564		
BT Hb%	A	12.335	1.546	184.5	0.514
	B	12.707	1.576		
AT Hb%	A	111.19	19.109	233	0.763
	B	119.19	52.022		
BT AEC	A	216.905	76.392	305.5	0.033
	B	172.667	51.025		
AT AEC	A	12.46	1.651	0.466	0.643
	B	12.231	2.2		

Figure no 3 showing the results of Lab Investigations of both groups of BT and AT by Paired 't' Test Hb% of both the groups had not showed significant changes. RBS investigations of both groups had showed minimal significant changes. AEC of both groups had showed

significant changes.



P-value of both group is less than 01 its shows significant effect in reducing inflammation of the lesions.

Overall Results

Table No 6: Showing The Overall Improvement After Study.

Improvement	Group A	%	Group B	%
Marked improvement	16	46	13	37
Moderate improvement	14	40	16	46
Poor improvement	4	11	6	17
Cured	1	3		

DISCUSSION:

Review of Literature:

According to *Ayurveda Nidana Parivarjana meva chikitsa*. Searching the cause for the disease is must before planning the treatment especially in *Kushta*. *Shodhana* and *Shamana* measures are proved there efficacy in treating *Vicharchika*. *Rakta doshti* is the basic reason for skin manifestations. According to *Acharya Sushruta*, if *Kushta* is located in *twak*, *Shodhan* and *Lepa* should be used and instructed that the Thickness of *Lepa* should be equivalent to moist buffalo's skin. It is 4-5 mm approximately.

Recurring skin rashes, redness, skin oedema, itching, dryness, crusting flaking, blistering, cracking, oozing or bleeding are the typical clinical manifestations of Atopic Dermatitis. It's an outcome of hypersensitivity reaction.

Drug Review *Vatsnabha Shodhana* second day morning after *Gomutra Nimajjana* (soaked) in *Gomutra* converted into foul smell froth, indicates toxic chemicals cleansing from raw drug. Studies showed the reduced in pH of *Gomutra* from first to third day^[12]. *Shodhana* process essential to reduce the toxic contents and to enhance the therapeutic values of *Visha dravyas*. Studies shows that the diterpene alkaloids such as hyaconitine, aconitine, and mesaconite are poisonous components present in the root tubers, which is converted into less toxic alkaloids such as aconine, benzoylaconine, and pyroaconine by alkaline treatment, heating or through deacylation and oxidation reaction.^[11]

Aragwada has *Kushthagna* (anti-skin diseases), *Kandughna* (anti-itching), *Kriminashaka* (anti microbial), and *Rakta Shodhaka* (blood Purifier) properties due to which it acts on *Vicharchika* by virtue of its antibacterial and anti fungal activities, anti – itching activity, wound healing and anti-inflammatory activity. *Aragwadha Lepa* with *Takra* penetrates early due its *Ushna drava sara guna* into the skin and provides early improvement.

Components like saponin, triterpenoids, steroids, glycosides, anthraquinone, flavonoids, proteins, amino acids and rich in Tannin, phenolic compounds posses antimicrobial activities against a number of microorganisms^[12,13].

Observation Of Causative Factors In Studied Samples:

Few of the specific causative factors of the studied sample noticed. Fermented food had *Klinnata Picchilata*, guna which leads *kapha dushti*. Curd is having an *abhishyandhi guna* that vitiates the *Kapha*. The *klina*, *gadhatra Srava*, *durgandha* in the lesions in *Vicharchika* it's because of *kapha pitta* and *rakta dushti*. Regular consumption of Spicy food, especially red and green chili, onion, garlic is having *ushna veerya* vitiates the *pitta*. Contact with cement, grease, coloring agents, and dust, granite powder, pesticides, and artificial ornaments, seasonal changes are causative and aggravating factors of *Vicharchika*.

Effect in Blood Investigations.

As the treatment is just external application we can't accept much change in the blood investigations results of before and after treatment. AEC test had showed minimal variation because of *Pathya palana* and *stanika dosha shudhi*.

Effect of Therapy Group A: *Stanika doshadushti* (local infection) can be treated by *Lepa*. *Aragwada rakta shodhaka* as it is generally used for *Vruna prakshalana* (cleaning the wound) it increases the healing capacity of wound. *Vatsnabha* does the *Pachana* of *Stanika Doshas*. *Katu*, *Tikta Rasa Laghu*, *Ruksha*, *Teekshana Guna*, *Vavayi Vikasi Guna* and *Ushna Veerya* acts *Sroto Shodhaka*, *Kapha Vata Shamaka*. *Visha Aragwadhaadi Agada Lepa* eliminates the *Sanga* at the level of *Raktadhatwagni* and scrapes the licehified (hyperplastic tissues) and reduces the thickness of the skin lesions. *Takra ushna veerya*, *katu*, *kashya rasa* dries the *klinata* and *srava*.

Group B: *Gandhaka*, *Girisindhura*, *Tila Taila*, *Tankana* are *teekshna* (deep penetrating) *Vyavayi* (quick spreading) *kapha vata shamak*, *kanduhara*, *kushtghna*, *vishghna*, *krimighna*, *Vruna shodhaka* properties. Nano particles penetrate deeply into to the tissues early and heal the lesions. They are having antifungal, antibacterial property reduced the signs like dryness, discoloration and itching.

Kandu: is the main factors which exacerbate the disease condition like responsive inflammation, anti bacterial and antifungal property of both groups had showed significant effect in reducing itching. *Pidika*: continues application of medicine in both group no new eruptions continued and formed eruptions sizes get shrinked. *Vaivarnya*: Group A darkness of the lesions reduced due. Group B redness of the lesions reduced due *tikta rasa*. *Raji and Shota*: Group A showed reduced due to scaling of hyper plastic tissues by its cleansing property. Group B showed minimal changes in reducing the thickness of lesions

Srava: Both Groups due *Katu tikta kashya rasas* secretions at the lesions reduced

Rukshta: Group B had reduced the dryness well compared to Group A because of *Tila Taila*.

Daha: local burning sensation reduced well in Group B compare to A.

EASI score: size and thickness of the lesions reduced after applications so *EASI score* showed good effective changes.

Do's- Twice the *Lepa* should be applied, *Lepa* should be washed properly and keep it dry. Clothes should be dried under sunlight.

Don'ts- Not to use soaps to affected areas, junk foods

CONCLUSION:

1. *Visha Aragwadhaadi Agada Lepa* had showed good effect in relieving *Kandu*, *Srava*, *Daha* and heals the wounds of *Vicharchika* lesions.
2. *Gandhakaadya Malahar* had showed good effect in treating *Rookshta* and *Vaivarnya* of the *Vicharchika* lesions.

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