



Aragwadha (Cassia Fistula)- A Miracledrug In The Management Of Vicharchika (Eczema).

Dr. Prashant Sasane¹, Prof. Ram Kishor Joshi²

*1. Dr. Prashant Sasane, Ph.D. Scholar, Department of Kayachikitsa, NIA Jaipur, Rajasthan.

2. Prof. Ram Kishor Joshi, M.D.(Ay.), Ph.D.(Ay.), Professor & HOD, Department of Kayachikitsa, NIA Jaipur, (Raj)

Corresponds Address:

Dr Prashant Uttam Sasane,

PhD Scholar, Deptt. Of Kayachikitsa,

National institute of Ayurveda Jaipur, Rajasthan

Email ID – drprash86@gmail.com

Abstract -

Context: Due to ignorance towards dietetic, seasonal and daily regimen, these days people are more prone to various kinds of skin disorders. Eczema (Vicharchika) is the most common skin disorders. Presently, the potent topical or systemic corticosteroids and anti-histaminics are the main stay in this condition however; they have serious adverse effects and have limitations for a long term therapy. Hence, there is a need for drugs having good efficacy with low toxic profile in this debilitating disorder. A number of indigenous drugs have been claimed to be effective in the treatment of Vicharchika (Eczema). Aragwadhapatra (Cassia fistula leaves) Lepa, is one such preparation which has been prepared from the Ayurvedic text. Aim & Objective: Conceptual & Clinical study on Vicharchika (Eczema) & to evaluate the efficacy of Aragwadha patra Lepa. **Methods and Material:** 30 registered patients of eczema from the OPD/IPD department of Kayachikitsa, National Institute of Ayurveda, Jaipur and treated with Aragwadhapatra Lepa once in a day on the lesion of Vicharchika (Eczema) for 15 days. Study Design- Single centered; Open label, clinical trial using pre and post-test design. Results: In this study significant results were obtained in Kandu (Pruritis), Daha (Burning), Srava (Oozing), Rukshata (Dryness), Pidikotpatti (eruption), Vaivaranyata (Discoloration), & EASI score, without any adverse effects. In this study complete remission (37.5%), major improvement (33.3%), moderate improvement (16.6%), minor improvement (8.3%), and no improvement (4.1%) was observed. **Conclusions:** Therapy in the form of Aragwadhapatra Lepa are safe and effective in the management of Vicharchika (Eczema).

Keywords – Vicharchika, Eczema, Aragwadha patra Lepa, Kandu, Daha, Srava, Rukshata, Pidikotpatti, Vaivaranyata & EASI score.

INTRODUCTION:

A healthy skin is the mirror image of a good health. Skin diseases though afflicts bodily but gives lot of psychological conflicts and can harm affected individual in a number of ways like discomfort, disfigurement, disability, and death. Vicharchika is a variety of *Kshudra Kustha*. Though the disease, Vicharchika is not a life threatening, it makes the patient worried due to its appearance, severe itching, disturbing routine and its chronic nature.

Characteristics of Vicharchika, as mentioned in the Brihat - Trayi are *Ati Kandu*, *Shyava - Pidika*, *Bahu - Srava*¹ (*Lasikadhya*)² or *Rukshata* and *Raji*³.

The features of Eczema are somewhat similar with that of *Vicharchika* mentioned in *Ayurveda*. Symptoms of *Vicharchika* mentioned by *AcharyaCharaka* & *Vagbhatta* correlate with wet Eczema or acute Eczema & symptoms mentioned by *AcharyaSushruta* correlate with dry Eczema or chronic Eczema.

Eczema or dermatitis is a group of inflammatory skin diseases provoked by a wide variety of stimuli, i.e. direct injury from toxic chemicals, mechanical trauma and immunological reactions.⁴With a prevalence of 2-5% (in children and young adults approximately 10%), atopic Eczema is one of the most commonly seen dermatoses. (World Allergy Organization)

The global burden of diseases (GBD) Study 2010 estimated the GBD attributable to 15 categories of skin disease from 1992 to 2010 for 187 countries and Eczema fell in to top 50 diseases. Globally Eczema affected approximately 230 million people(3.5% of population as of 2010)

Eczema is a clinical and histological pattern of inflammation of the skin seen in a variety of dermatoses with widely diverse aetiologies. Clinically, Eczematous dermatoses are characterized by variable intensity of itching, soreness and, in variable degrees, a range of signs including dryness, erythema, excoriation, exudation, fissuring, hyperkeratosis, lichenification, papulation, scaling and vesiculation. Histologically, the clinical signs are reflected by a range of epidermal changes including spongiosis (epidermal oedema) with varying degrees of acanthosis and hyperkeratosis, accompanied by a lymphohistiocytic infiltrate in the dermis⁵.

Eczema is a specific type of deregulation of an antigen-specific immune response and results due to an antigen antibody reaction. It is resultant of delayed type hypersensitivity mediated by memory T lymphocytes in the skin and the clinical lesions may be acute (wet and edematous) or chronic (dry, thickened, and scaly), depending on the persistence of the insult. Therefore in this condition, anti-inflammatory, mast cell stabilizer, anti-allergic drug and anti oxidants seems to play an important role in its management.

The modern treatments given for Eczema have their own limitations and side effects. *Vicharchika* is manifested in *Twak* (skin) and *Ayurveda* equally emphasizes on treating the *Sthana*. Therefore local application is essential part in the management of *Vicharchika*. It provides highest drug concentration at the site of action; it can be frequently used and does not interfere with gastric environment. Considering all these points, the present study was planned with the aim to evaluate the role of *Aragvadha patra Lepa*⁶ in the management of *Vicharchika* (Eczema).

AIMS & OBJECTIVES:

1. Conceptual & clinical study on *Vicharchika* (Eczema).
2. To evaluate the efficacy of *Aragwadha patra Lepa* in the management of *Vicharchika* (Eczema).

MATERIAL & METHODS:

[A] Selection of Cases:A total 30 patients of *Vicharchika* (Eczema) were selected for the present study, from the *Kayachikitsa* OPD and IPD of NIA, Jaipur.

[B] Inclusion criteria:

1. The patients whose ages in between 20 – 60 years were selected.
2. The patients having clinical signs and symptoms of Eczema.
3. The patients having complained less than 5 year duration.

[C]Exclusion criteria:

1. Patients below the age of 20 years and above 60 years.
2. Patients with illness >5 year.
3. Patients with long term Oral Steroid and cytotoxic treatment.

[D]Criteria for diagnosis:

1. Classical signs & symptoms of *Vicharchika* (Eczema) according to *Ayurveda* and Modern system of medicine.

2. A special Performa was prepared incorporating all the signs & symptoms of *Vicharchika* and Eczema as well as the *Dushti Lakshana* of *Dosha, Dushya, Srotas* and *Agni* etc. On the basis of the Performa, all the patients of the present study were examined in detail.

[E] Grouping and Administration of drug-

- GROUP A-30 clinically diagnosed and registered patient of *Vicharchika*. were treated with *Aragwadha Lepa* for local application once in a day for 15 days, on the lesions.

Preparation of *Aragvadha patra Lepa*: The above drugs were cleaned and paste was made with the help of *Takra*. This formed paste is locally applied over the affected area till drying. After drying it is washed with Luke warm water. This procedure is repeated daily once in a day for 15 days.

[F] CRITERIA FOR ASSESSMENT

Subjective parameter

Ayurveda is a subjective science. To give results, objectively and for statistical analysis, following signs and symptoms of *Vicharchika* was adopted:

Assessment of symptoms was done pre and post trial on severity grading scale

1. *Kandu* (Pruritis)

Sr. No.	Symptoms	Grading
1.	No itching	00
2.	Mild itching not disturbing normal activity	01
3.	Occasional itching disturbs normal activity	02
4.	Itching present continuously & even disturbing sleep	03

2. *Daha* (Burning)

Sr. No.	Symptoms	Grading
1.	No burning sensation	00
2.	Mild type of burning not disturbing normal activity	01
3.	Occasionally burning disturbing normal activity	02
4.	Burning present continuously & even disturbing sleep	03

3. *Srava* (Oozing)

Sr. No.	Symptoms	Grading
1.	No discharge	00

2.	Occasional discharge after itching.	01
3.	Occasional oozing without itching.	02
4.	Excessive oozing making clothes wet	03

4. Rukshata(Dryness)

Sr. No.	Symptoms	Grading
1.	No dryness	00
2.	Dryness with rough skin (<i>Ruksha</i>)	01
3.	Dryness with scaling (<i>Khara</i>)	02
4.	Dryness with cracking (<i>Parusha</i>)	03

5. Pidikotpatti (Eruption)

Sr. No.	Symptoms	Grading
1.	No eruption in the lesion	00
2.	Scanty eruptions in few lesions	01
3.	Scanty eruptions in at least half of the lesion	02
4.	All the lesions full of eruption	03

6. Vaivaranyata(Discoloration)

Sr. No.	Symptoms	Grading
1.	Nearly normal skin colour	00
2.	Brownish red discoloration	01
3.	Blackish red discoloration	02
4.	Blackish discoloration	03

7. Raji (Thickening of skin)

Sr. No.	Symptoms	Grading
1.	No thickening of skin	00
2.	Thickening of skin but no criss-cross marking	01
3.	Thickening with criss-cross marking	02
4.	Severe lichenification	03

EASI (Eczema Area and Severity Index) score⁷:

Area of involvement

0	1	2	3	4	5	6
No eruption	< 10%	10-29%	30-49%	50-69%	70-89%	90-100%

Erythema	(E)
0	None
1-Mild	Faintly detectable erythema: very light pink
2- Moderate	Dull red clearly distinguishable
3-Severe	Deep/ dark red
Infiltration/ population	(I)
0	None
1-Mild	Barely perceptible elevation
2- Moderate	Clearly perceptible elevation but not extensive
3-Severe	Marked and extensive elevation
Excoriation	(Ex)
0	None
1-Mild	Scant evidence of excoriation with no sign of deeper skin damage (erosion,crust)
2- Moderate	Severe linear marks of skin with showing evidence of deeper skin injury (erosion,crust)
3-Severe	May erosive or crustly lesion
Lichenfication	(L)
0	None
1-Mild	Slight thickening of the skin dissemble only by touch and with skin marking minimally exaggerated
2- Moderate	Define thickening of the skin with skin marking exaggerated so that they form a Criss-cross pattern
3-Severe	Thickened indurated skin with skin marking visibly portraying an exaggerated Criss – cross pattern

Calculation of EASI Score

Head/ Neck	E+I+Ex+LxAreax0.1	(+ + +)x x0.1	
Upper limb	E+I+Ex+LxAreax0.2	(+ + +)x x0.2	
Trunk	E+I+Ex+LxAreax0.3	(+ + +)x x0.3	

Lower limb	E+I+Ex+LxArea \times 0.4	(+ + +) \times x0.4	
EASI	Sum of all above body area		Total score

Interpretation:

Minimum score – 0

Maximum score – 72

OBSERVATION & RESULTS

Study had shown that Maximum number of patients i.e. 30% was belonged to the age group of 20-30 years and (27.50%) patients were from age group 31-40 years , 55 % of the patients were male, 77.50% patients from Hindu community, 77.50% were married, maximum numbers of patients 25% were found in UG & 20% uneducated educational status, max. patients 47.50% were belonged to lower middle socio- economic status, maximum numbers of patients i.e. 37.00 % were doing householdworks and 30% were labour; 62.50% of patients were not having any particular History of Atopy,Maximum patients i.e. 50 % were having this disease from 1-3 years. Maximum no. of patients 57.75% had gradual onset. Maximum numbers of patients i.e. 30% were suffered more itching in lesion in winter, Maximum no. of patients 55 % patients in this study were having *Sravitype* of *Vicharchika*,In present status 57.75% of patients were having *Vata* dominance (Spreading), Maximum numbers 42.50% of patients had lesions on upper extremities, 58.33 % of the patients were having some sort of tension, maximum 55% patients were mixed type of diet, maximum no. of patients i.e. 56.66% were having disturbed sleep.

In the present study the data reveals that, maximum 42.50 % patients were having *Kapha pittaja Prakruti*. Maximum number of patients i.e.70% were of *MadhyamaSara*, 71.50% were of *MadhyamaSamhanana* and 78.33% patients were of *Madhyama Pramana*, Maximum number 73.33% of patients from *Madhyama Satmya*, Maximum numbers of the patients 41.66% were having *Avara Satva*, 38.33% patients were having *Madhyama Abhyavaharana Shakti*, 50% were having *Avara Jarana Shakti*, 53.33% patients were having *Madhyama Vyayama Shakti*,

RESULTS:

All the Results are calculated by using Software: In Stat Graph Pad 3.

The results were considered as bellow-

Insignificant/Non significant : P >0.05

Significant : P <0.05

Highly significant : P < 0.01, P < 0.001, P <0.0001

Table No. 1: Showing effect of Therapy in Subjective Parameters.

(Wilcoxon matched-pairs signed ranks test)

Variable	Mean		Mean diffr.	% Relief	S.D. \pm	S.E. \pm	P	S
	B.T.	A.T.						
Kandu	2.6	0.35	2.25	86.53%	0.64	0.14	<0.0001	HS
Daha	1.75	0.70	1.05	60%	0.94	0.21	<0.0001	HS
Srava	0.80	0.15	0.65	81.25%	0.87	0.19	<0.01	HS
Rukshata	1.70	0.65	1.05	61.76%	0.60	0.14	<0.0001	HS
Pidika	2.25	0.75	1.50	66.66%	0.60	0.13	<0.0001	HS
Vaivaranyta	2.25	1.55	.700	31.11%	0.47	0.10	<0.0001	HS
Raji	2.05	1.25	0.800	39.02%	0.76	0.17	<0.001	HS
EASI Score	11.29	3.56	7.72	68.37%	8.02	1.79	<0.0001	HS

(BT:Before treatment, AT: After treatment, Diff.: Difference, SD : Standard Deviation, SE: Standard Error, P: P value ,S :Significance level, HS: Highly Significant S: Significant,)

% Relief-

Table No. OR 2: Showing the % Relief in Subjective parameters:

Subjective parameters	% Relief
Kandu(Pruritis)	86.53%
Daha(Burning)	60%
Srava(Oozing)	81.25%
Rukshata(Dryness)	61.76%
Pidika(Eruption)	66.66%
Vaivaranyta(Discolouration)	31.11%
Raji(Thickening of skin)	39.02%
EASI Score	68.37%

DISCUSSION

The manifestation of Eczema occurs in skin, where in the sensitivity of the local cells is disturbed. Further, *Ayurveda* emphasizes on managing the *Sthana* (place of the lesion), therefore *Aragvadha Patra Lepa* mixed with fresh *Takra* was selected for external use as *Lepa* (local application on the lesion).

Takra (Buttermilk) has *Vata- Kaphaghna* and *Ushna Veerya* properties & can be used locally to treat the *Vicharchika* (Eczema) which has *Vata Kapha* dominance. Buttermilk contains large amount of lactic acid. It is scientifically proved that lactic acid is used to moisten & barrier-repairing effect.⁸

Aragvadha has been described by *Acharya Charaka* to be *Kusthaghana, Kandughana, Tiktaskandha* and *Kaphapittashamak.* & have *Madhura Rasa, Guru, Snigdha,* and *Shita Veerya.* These properties provide proper moisture and nutrition to epidermis it resulting in rapid recovery of epithelial barrier and reduce sensitivity of the local cells to the allergic factors. Thus through these properties act on *Vicharchika*.

Aragvadha shows Antioxidant Activity⁹, Free radical scavenging activity¹⁰, Antibacterial and Antifungal activities¹¹, wound healing activity¹², Anti-inflammatory activity.¹³

Upon topical application, the active principle of the *Lepa* reaches to the deeper tissues through *Siramukha & Swedavahi Srotasa* by virtue of its stains it with its *Sukshma & Tikshna* property. Due to its *Ushna, Laghu, Ruksha* properties it removes the obstruction in *Swedavahi Srotasa* & allows the local toxins to flow out through the *Sweda*, thus clearing out the micro channels. In most of the patients *Kandu* which is main symptom of disease, was relieved significantly due to the *Kusthaghna* and *Kandughna* properties of drugs of *Lepa*.

Lepa therapy operates directly on the epidermis, and may influence the Keratinocytes and their protective quality as well as the Melanocytes which are responsible for colour and complexion of the skin. Under the epidermis lies the dermis which is essentially the connective tissue element and embraces nerves, blood vessels, lymphatic's, glands and certain specific types of cells such as Mast cells, Fibroblasts and Histiocytes. Mast cells form an important assembly which is known to produce Histamine a humour intimately concerned with vasomotor activity, allergic reactions and control of several secretory functions. Histamine is the mediator of skin allergies including Urticaria. Presumably the *Lepa* may have direct Mast cell stabilizing effect besides Mast Cell cleansing effect, anti-histaminic and anti-inflammatory which may help in curing skin allergies like Eczema.

CONCLUSION

- Sedentary lifestyle, stress, faulty dietary habits, intake of fast and junk food leads to marked rise in incidence of *Vicharchika* (Eczema).
- *Vitiated Kapha and Pitta Dosha* are the main causative factors *Vicharchika* (Eczema).
- Men having *Vata or Pitta or Kapha -Pitta Sharira Prakriti* are more prone to suffer by *Vicharchika* (Eczema).

Finally, it can be concluded that Ayurvedic trial drug 'Aragwadhapatra Lepa' also shows Highly significant results (68.37 %) in reducing EASI Score. And, highly significant ($P < 0.0001$) results regarding subjective parameters— *Kandu Daha Srava Rukshata Pidika Vaivaranyta, Raji*.

Aragwadha Patra Lepa's effective in reducing the severity of symptoms of *Vicharchika*. Route of administration is easy and effective in the patients, as it is safe, cost effective & free from any side effects. It also prevents the relapse considerably.

• **Future Recommendation for the Study-**

- Study should be planned with all parameters like skin biopsy
- The study should be carried out on a large sample size to prove it statistically more authentic.

References:

1. Agnivesha, *Charaka Samhita*, revised by Charaka & Dridhabala with Elaborated vidyotini hindi commentary by Pt. Kashinath shastri Dr. Gorakhanath chaturvedi Edition 2009 Chaukhambha Bharati Academy, Varanasi, Chikitsasthana 7/26 pg no. 252.
2. Vagbhata, *Astanga Hridayam* Edited with the vidyotini hindi commentary by atrideva gupta edited by Vaidya Yadunandana Upadhyaya, edition 2012 chaukhambha prakashana, Varanasi, Nidanasthana 14/18 pg no. 370
3. Sushruta, *Sushruta Samhita*, Edited with ayurveda tatva sandipika by Kaviraja Ambikadutt shastri, edition 2011 Chaukamba Sanskrit samsthana, Varanasi Nidanasthana 5/5 pg no. 322.
4. YP munjal, *API Textbook of medicine*, 9th Edition, Edited by: SK Sharma, AK Agarwal Vol 1 page no. 480
5. Rook's *Textbook of Dermatology*, 8th edition. Edited by DA Burns, SM Breathnach, NH Cox and CEM Griffiths. chapter 23 page no. 212
6. Agnivesha, *Charaka Samhita*, revised by Charaka & Dridabala with Elaborated vidyotini hindi commentary by Pt. Kashinath shastri Dr. Gorakhanath chaturvedi Edition 2009 Chaukhambha Bharati Academy, Varanasi, Sutrasthana 3/17 pg no. 61.
7. Hanifin JM, et al, The Eczema area and severity index (EASI): assessment of reliability in atopic dermatitis. EASI Evaluator Group. *Exp Dermatol*. 2001 Feb; 10(1):11-8.
8. A.V. Rawlings et al, Effect of lactic acid isomers on keratinocyte ceramide synthesis, stratum corneum lipid levels and stratum corneum barrier function, *Arch Dermatol Res* (1996) 288 : 383–390
9. Chinnasamy Kalaiyarasi, et al, *In vitro* anti-oxidant activity of various solvent fractions of *Cassia fistula* L. pods *Journal of Pharmacognosy and Phytochemistry* 2014; 3(4): 73-76
10. Theeshan Bahorun et al, Phytochemical constituents of *Cassia fistula*, *African Journal of Biotechnology* Vol. 4 (13), pp. 1530-1540, December 2005
11. Nayan R. Bhalodia and V. J. Shukla, antibacterial and antifungal activity from leaf extract of *Cassia fistula*; An ethnomedicinal plant, *Adv Pharm Technol Res*. 2011 Apr-Jun; 2(2): 104–109.
12. Sushma Kainsa, Praveen Kumar and Poonam Rani, 2012. Pharmacological Potentials of *Cassia auriculata* and *Cassia fistula* Plants: A Review. *Pakistan Journal of Biological Sciences*, 15: 408-417
13. Shivjeet Singh, Sandeep Kumar Singh, Ashutosh Yadav Department of Pharmacology Babu Banarasi Das University Lucknow (UP) A Review on *Cassia* species: Pharmacological, Traditional and Medicinal Aspects in Various Countries *AJPCT* 1[3] [2013] 291-312