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# To evaluate the efficacy of *Jalaukavacharana* followed by *Khadira Prayoga* in *Vicharchika* w.s.r. to Eczema

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# ABSTRACT

*Vicharchika* (Eczema) is a skin disorder with predominance of *Pitta Kapha Dosha*, with clinical features like *Kandu, Srava, Pidaka, Shyavata, Rookshata, Raji, Ruja* and *Daha* mainly in the extremities. It is the second commonest skin disease affecting all age groups, with incidence rate of 2-3% and high rate of recurrence. *Ayurveda* emphasizes *Shodhana* therapy as the main line of treatment in skin disorders. *Raktamokshana* is indicated as *Rakta* is mainly involved in *Vicharchika*. In the present study, two treatment modalities were selected to find out which is more appropriate.

Key words: Vicharchika, Eczema, Raktamokshana, Bloodletting, Khadira, Acacia catechu.

#### INTRODUCTION

Skin is the vital organ that covers the entire outside of the body forming a protective barrier against pathogens and injuries from the environment. It is the body's largest organ and arguably the most complex one, known as an integument in the world of clinical anatomy. A healthy, attractive, supple and blemish free skin is the need of the present generation.<sup>[1]</sup>

*Vicharchika* is a type of *Kshudra Kushta*<sup>[2]</sup> which is due to *Raktadushti*<sup>[3]</sup> with the dominance of *Pittakapha*. It is also mentioned under *Kshudra Roga*.<sup>[4]</sup> Even though it is a *Kshudra Kushta*, it runs a chronic course and has a tendency of exacerbation. It can be correlated with eczema which is a form of dermatitis. Eczema or dermatitis is a pattern of the inflammatory response

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of the skin, which is characterised by erythema, edema, vesiculation, exudation and crust formation.<sup>[5]</sup>

*Vicharchika* can be treated by *Jalaukavacharana* which is a type of Bloodletting and is indicated in *Vicharchika*.<sup>[6]</sup> *Khadira* being *Kushtaghna*<sup>[7]</sup> is easily available, cost effective, has multifold benefits and has no known side effects on prolonged use. Local *Parisheka* of *Khadira Kashaya* is found to be efficacious in skin disorders to abate the local discomfort by easy and fast absorption and thereby will check the localized *Dosha*. *Khadira* when administered internally helps in normalizing the deranged *Dosha*.<sup>[8]</sup>

#### **OBJECTIVES OF THE STUDY**

To establish the significance of combined efficacy of *Jalaukavacharana* followed by *Khadira Prayoga* in the management of *Vicharchika* by comparing the same with the efficacy of *Jalaukavacharana* alone which has been established previously.

#### **MATERIALS AND METHODS**

#### Source of data

Patients suffering from classical features of *Vicharchika* which can be corelated to eczema were selected from OPD and IPD of Sri Jayachamarajendra Institute of Indian Medicine Hospital, Bangalore-09.

#### Method of collection of data

#### **Inclusion Criteria**

Patients with clinical features of *Vicharchika* (wet and dry eczema) namely *Kandu, Pidaka, Srava (Lasika), Shyavata, Rukshata, Raji, Ruja* (mild-moderate) and *Daha* occurring on upper/lower extremities, devoid of complications/secondary infection were included.

#### **Exclusion Criteria**

*Vicharchika* associated with other skin disorders. Systemic disorders, that came in the way of disease and treatment and pregnant patients were excluded from the study.

#### **Study Design**

A total of 40 cases of *Vicharchika* after considering the above mentioned criteria were included for the study. These cases included were randomly allotted into two groups namely Group-A and Group-B with 20 patients in each group. The patients of Group A were treated with *Jalaukavacharana* followed by *Khadira Prayoga*. The patients of Group B were treated with *Jalaukavacharana*.

#### **Materials**

- Khadira Kashaya 150 ml per patient / day
- Steel glass (200ml) for Parisheka 1
- Sterile cotton swabs sufficient numbers
- Surgical gloves sufficient numbers
- Sponge holding forceps 1
- Nirvisha Jalauka sufficient numbers.
- Haridra powder sufficient quantity
- Saindhavalavana sufficient quantity
- Sterile needles 22 no. sufficient numbers.
- Plastic containers to store Jalauka sufficient numbers.
- Sterile gauze sufficient numbers.
- Enamel kidney trays 3.
- Warm water sufficient quantity

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Cold water - sufficient quantity

#### **Procedure in Group A**

#### Jalaukavachara followed by Khadira Kashaya Parisheka and Paana

#### Jalaukavacharana

Based on the number and size of the lesion(s), the number of *Jalauka* were used. Lesions up to one *Hasta Pramana*<sup>[9]</sup> were subjected to *Rakthamokshana* with one *Jalauka*.

*Poorvakarma*: For one *Muhurtha Kala* (approximately 45 min.), *Jalauka* was gently taken from the container and placed in a kidney tray containing turmeric water. It was then transferred to a kidney tray containing plain water. After it regained the natural vivacity and freshness, it was utilized.

Pradhanakarma: The patient who was subjected to Jalaukavacharana was made to lie down / sit comfortably in a chair. The Jalauka which was subjected to Poorvakarma was gently lifted and the anterior part of the Jalauka was brought into contact with the affected area and was made to bite that part. The biting and sucking of blood by the Jalauka was confirmed by the posture i.e., at the neck the Jalauka resembled a horse shoe shape, raised and arched. In cases where the Jalauka did not bite, the affected area was pricked at a suitable spot with a sterile needle to bring about oozing of little blood, following which the Jalauka was brought into contact with the blood thus facilitating biting. It was then covered with sterile gauze dipped in plain cold water which was moistened at intervals till the end of the procedure. During the procedure the Jalauka was observed for proper biting and sucking of the blood at the site. The patient was also observed regarding any untoward effects during the procedure and the same were dealt with suitably. The procedure was continued till the Jalauka dropped off by itself or removed by applying Saindhava Lavana to the anterior end of mouth of the Jalauka in case where Jalauka did not drop off by itself within one and half hours or when the patient complained of discomfort such as burning sensation, pricking pain, giddiness etc.

#### Paschatkarma:

Management of the patient - The area of bite was wiped thoroughly clearing the secretions and blood from the area. The area was smeared with turmeric powder and sterile absorbent pressure dressing was applied. The patient was observed for soakage of the dressing with blood due to excessive bleeding and in such cases they were suitably dealt with.

**Management of the** *Jalauka* - The *Jalauka* was subjected to vomiting for which the mouth of the leech was smeared with turmeric powder repeatedly with simultaneous gentle massage of the leech from the tail towards the mouth so as to expel the sucked blood. After confirming the complete expulsion of the blood, it was put into turmeric water to cleanse and activate it. Once the leech began to actively move around, it was transferred into clean water and then into the container having a lid with holes which was appropriately closed and labeled with the name of the patient and the date of application.

#### Khadira Kashaya (decoction) Preparation

One *Pala* of coarsely powdered drug is boiled with 16 parts of water in an earthern pot, over a mild fire till the liquid is reduced to 1/8 of original quantity. This liquid is known as *Shrta*, *Qwatha*, *Kashaya* or *Niryuha* (decoction). Ancient physicians advise its administration after the digestion of food in doses of 2 *Palas*, per time, slightly warmed.<sup>[10]</sup>

#### Parisheka

Based on the number and size of the lesion the quantity of the decoction was decided. The decoction was poured on to the lesion in the following way,

*Poorvakarma*: The lesion was cleaned properly with sterile swabs dipped in clean warm water and the area was allowed to dry up.

**Pradhanakarma:** Sufficient quantity of decoction was poured over the lesion with the help of a steel glass (200 ml) and care was taken not to extend the *Parisheka* over the normal skin from a height of twelve *Angula* on the affected site once a day. Continuous pouring of the decoction with recollection and reuse for 5 mins for 28 days.

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*Paschatkarma*: After the procedure the area was moistened with and cleaned with warm water and mopped up with dry sterile gauze. The area was then dressed with plain gauze to avoid exposure to dust etc.

*Paana* (oral intake): 30 ml of Luke warm decoction was administered orally twice a day for 28 days.

Observations regarding the changes in the subjective and objective parameters during the study period were done before the treatment, on 7<sup>th</sup>, 14<sup>th</sup>, 21<sup>st</sup>, 28<sup>th</sup> day and the same were recorded in the proforma of case sheet prepared for the study. In case where total relief was observed with the signs and symptoms before 28 days, further treatment was stopped. For observing the possibility of recurrence in case where total relief was obtained, duration of two months was fixed as a follow up period and the same was recorded in the proforma of case sheet prepared for the study.

Pathyaapathya was advised to the patient during and after the treatment. The result obtained was statistically analyzed and conclusions were drawn.

#### **Procedure in Group B**

#### Jalaukavacharana

Based on the number and size of the lesion(s), the numbers of *Jalauka* were used. Lesions up to one *Hasta Pramana* were subjected to *Raktamokshana* with one *Jalauka*.

*Poorva, Pradhana and Paschat Karma* were followed same as that of Group A.

#### **Assessment Criteria**

The results were evaluated by subjective and objective parameters mainly based on clinical observations by grading method

#### **Grading of parameters**

#### **Subjective Criteria**

#### 1. Kandu (Itching)

Severity	Score
Absent	0
Mild (Not disturbing daily	1

activities)	
Moderate (Disturbing daily activities)	2
Severe (Disturbing daily activities and sleep)	3

#### 2. Ruja

Severity	Score
Absent	0
Present	1

#### 3. Daha

Severity	Score
Absent	0
Present	1

#### **Objective Criteria**

#### 1. Pidaka

Severity	Score
Absent	0
Present	1

#### 2. Srava (discharge)

Severity	Score
Absent	0
Mild	1
Moderate	2
Profuse	3

#### 3. Shyava Varna

Severity	Score
Normal skin color	0
Brownish red discoloration	1
Blackish red discoloration	2
Blackish discolouration	3

## 4. Rookshata

Severity	Score
Absent (Normal skin)	0
Mild (dry with rough skin)	1

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Moderate (dry with scaling)	2
Severe (dry with cracking)	3

#### 5. Raji

Severity	Score
Absent	0
Present	1

#### Assessment of total effect

Based on the overall changes in the parameters the percentage was calculated for the following grades.

- Poor Response : Upto 50 %
- Good Response : 51 75 %
- Excellent Response : 76 99 %
- Cured : 100 %

The results were also statistically analysed by t test, chi square test, F test and conclusions were drawn.

#### **OBSERVATIONS AND RESULTS**

Age - Majority of the patients belonged to age group of 41-50 years, with the incidence of 45% in Group A and 35 % in Group B.

Gender - Maximum number of patients with incidence of 60 % were Females and 40 % male in Group A. In Group B 65% were male, 35% were females.

Socio economic status - Higher incidence of 55% in Group A, 45% in Group B were belonging to lower class

Chronicity - The maximum number of patients (45%) were reported with the chronicity of 1-2 years in both the groups

Diet - Maximum number of patients having mixed diet were with the incidence of 85% in Group A, and 75% in Group B.

*Kandu* - In Group A, Maximum number of 20 (100%) were having severe *Kandu*. In Group B, Maximum number of 18 (90%) were having Severe *Kandu*, two patients (10%) were having moderate *Kandu*.

*Pidaka* - In Group A, 19 patients (95%) presented with *Pidaka* and 1 patient (5%) did not present with *Pidaka*. In group B 17 patients (85%) presented with

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*Pidaka* and 3 patients (15%) did not presented with *Pidakas*.

*Srava* - In Group A, Maximum number of 5 (25%) patients presented with profuse *Srava*, 2 patients (10%) with moderate *Srava*, and 1 patient with mild *Srava*. In Group B, Maximum of 6 (30%) patients presented with profuse *Srava*, 3 patients (15%) with moderate *Srava*.

In Group A, Maximum of 20 (100%) patients presented with *Shyavata* (Blackish discoloration). In Group B - Maximum of 19 (95%) patients presented with *Shyavata* and one patient with blackish red discoloration.

In Group A, Maximum of 7 (35%) patients showed severe *Rookshata*, 3 (15%) patients showed moderate *Rookshata*. In Group B, Maximum of 6 (30%) patients showed severe *Rookshata*, 5 (25%) patients showed moderate *Rookshata*.

In Group A, Maximum of 15 (75%) patients were presented with *Raji* before treatment. In group B, Maximum of 11 (55%) patients were presented with *Raji* before treatment.

In Group A, Maximum of 14 (70%) patients presented with *Ruja* before treatment. In Group B, Maximum of 11 (55%) patients presented with *Ruja* before treatment.

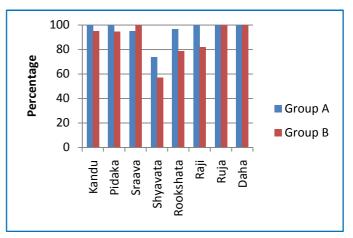
In Group A, Maximum of 10 (50%) patients presented with *Daha* at site of lesion. In Group B, Maximum of 10 (50%) patients presented with *Daha* at lesion.

Table 1: Overall Mean score percentage in bothgroups.

Characterstics	Group A			Group B			
Signs and symptoms	Mean score		% of Relief	Mean score		% of Relief	
	BT	AT		ВТ	AT		
Kandu	3	0	100	2.9	0.15	94.82	
Pidaka	0.95	0	100	0.9	0.05	94.44	
Srava	1	0.05	95	1.2	0	100	
Shyavata	3.6	0.95	73.61	3.25	1.4	56.92	

Rookshata	1.5	0.05	96.66	1.4	0.3	78.57
Raji	0.75	0	100	0.55	0.1	81.81
Ruja	0.7	0	100	0.55	0	100
Daha	0.5	0	100	0.5	0	100

# Graph 1: Overall mean score percentage in both groups.



Overall mean score percentage of relief in Group A was 100% with respect to *Kandu, Pidaka, Raji, Ruja* and *Daha*. With respect to *Srava* it was 95%, *Shyavata* was 73.61% and *Rookshata* was 96.66%.

In Group B, it was 100% with respect to *Srava, Ruja* and *Daha*. With respect to *Kandu* it was 94.82%, *Pidaka* was 94.44%, *Shyavata* was 56.92%, *Rookshata* was 78.57% and *Raji* was 81.81%.

# Table 2: Comparative results of Group A and GroupB.

Group A	Group B	Mean difference	SE (±)	'ť'	'P'
95.65	88.32	7.33	6.260	1.172	0.260

Comparative results of group A and group B revealed the insignificancy. (t=1.172 and p=0.260)

#### Results

Based on the changes in the parameters during the treatment and at the end of the treatment, the overall effect of relief was 95% in *Jalaukavacharana* followed by *Khadira Prayoga* and 88% in *Jalaukavacharana* alone.

# B. Graph 2: Comparative results of Group A and Group B. Group A Group A Group A Group B Total

#### DISCUSSION

Totally 46 patients were registered, of which 40 patients completed the treatment. 6 patients discontinued the treatment, among them 2 patients wanted oral medications only and 4 patients took one sitting of leech therapy but did not come for second sitting. Higher incidence was seen in middle aged patients, due to work load, mental stress, and exposure to occupational and environmental allergens, untimely and unwholesome food which is evident from etiology of Kustha. Generally eczema may occur in any stage of life but most common in infant. In present study no any infant case was reported. Majority of the patients i.e. 55% in this study belong to lower economic status, 45% were belonging to middle class. This may be due to poor hygienic conditions and lack of awareness regarding hygienic condition. Maximum numbers of patients (85%) were of mixed diet, and 15 % of vegetarian diet, so who regularly have Mixed diet pattern, especially non vegetarian (Anupa Mamsa, Matsya etc.) which are heavy for digestion are prone for the manifestation of eczema, which is evident from etiologies of Kushta. Kandu was relieved in 100% subjects in Group A and in 85% subjects in Group B. Pidaka was relieved in 95% subjects in Group A and in 80% subjects in Group B. Srava was relieved in 95% subjects in Group A and in 100% subjects in Group B. In Group B, out of 20 patients, 12 patients got brownish discoloration from blackish discoloration, but none of the patients regained normal color of the skin, this may be due to the lack of local treatment to underlying skin layers with pigmented cells

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(melanocytes). In group A, out of 20 patients with blackish discoloration, 3 patients regained normal color of the skin and 12 patients were with brownish discoloration. *Rookshata* was relieved in 95% subjects in Group A and in 60 % subjects in Group B, *Raji* was relieved in 100% subjects in Group A and in 90% subjects in Group B, *Ruja* was relieved in 100% subjects in Group A and in 100% subjects in Group B. *Daha* was relieved in 100% subjects in Group A and in 100% subjects in Group B.

#### Probable mode of action of Jalaukavacharna

Jalaukavachrana is a procedure of Raktamokshana which is indicated in expelling the Dushita Rakta in one Hasta Pramana. This can be considered as one Hasta in all the direction from the lesion. By this procedure a localized bloodletting from the area of the lesion is achieved, thus decongesting the localized circulation. Thus a drastic removal of the vitiated matter from the site/s of lesion could ultimately bring about a faster relief in the discomfort and discoloration locally. Regeneration of new blood vessels enriches the area with a flow of fresh blood that flushes out the toxins and the localized derangement is reduced. The saliva of leech, rich in properties also medicinal aids in improving microcirculation.

# Probable mode of action of *Khadira kashaya* Parisheka

Parisheka being one among the sixty procedures, increases local blood circulation. Local deranged Doshas are brought to normalcy, as Khadira is Kushtaghna drug with special action on Pitta and Kapha. This might have resulted in relieving the features of Vicharchika. Parisheka might have helped the active principles to enter the Twakgata Dhamanis, which are connected to Romakupa and Swedavaha Srotas there by absorbed and transferred to the deeper layers with the help of Bhrajaka Pitta. Tikta and Kashaya Rasa, Rooksha Guna, Sheeta Veerya of Khadira helps in pacifying Pitta Kapha Dosha which is causative factor of Vicharchika. By Prabhava Khadira is Kushtaghna. This property of Khadira helps in mitigating dryness of skin, which is main cause in the onset of Eczema. The active principle helps in

debriding the dead cells, allowing proper nutrition to local tissues and *Sthambana* property helps in relieving the discharge.

#### Probable mode of action of Khadira Kashaya Paana

Tikta and Kashaya Rasa, Sheeta Veerya and Katu Vipaka of Khadira helps in pacifying Pitta Kapha Dosha when consumed internally, which is causative factor of Vicharchika. By Prabhava, Khadira is Kushtaghna. Thus systemic Doshas are brought to normalcy.

#### **CONCLUSION**

Both the treatment modalities i.e. Jalaukavacharana followed by Khadira prayoga and Jalaukavacharana alone are efficacious in treating Vicharchika. Clinically there is a difference in the overall effect between the two groups where in Jalaukavacharana followed by Khadira prayoga fared better results than Jalaukavacharana alone in the management of Vicharchika (eczema).

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