

## TO EVALUATE THE EFFICACEY OF KUSHTHAGHNA MAHAKASHAYA IN PSORIASIS

Anjana Singh<sup>1</sup>, P C Chaudhary<sup>2</sup>, Nripendra Singh<sup>3</sup>

<sup>1</sup>Department of Kaya Chikitsa, A.U.A.M.C. Aligarh, Uttar Pradesh, India

<sup>2</sup>Department of Roga Vigyan, S.A.C. Lucknow, Uttar Pradesh, India

<sup>3</sup>Department of Community Medicine, L.L.R.M. Medical College, Uttar Pradesh, India

### ABSTRACT

**Background:** Skin is the largest organ of the body which protects the body from the outer environment is the organ, that reflects many internal disease by changing it's character. Psoriasis is an auto immune papulosquamous disorder that represent an inflammation pattern of the skin to various stimuli. It is characterized by sharply demarcated erythematous plaque/patches/papules covered with silvery scaling. Psoriasis is a common dermatological problem affecting up to 2.5% of the world population. It is more prevalent in the temperate climate & among white races. It is most common in North America, Western Europe, Kenya and Uganda & uncommon in Mongoloid Asians, Negroes of East Africa and Japanese. In India it has 1% incidence. Psoriasis can affect both male & female. The age group often attack is 15 to 40 year. While various researches have been made in the field of Medical Science, but still there is no absolute, simple, safe & invariably effective permanent cure of Psoriasis has been attain. In Ayurveda Acharya Charak has described a decoction, Kushthaghna Mahakashaya for skin diseases. Because there are very limited drugs for Psoriasis and those present have very side effects. So we have planned the Kushthaghna Mahakashaya for the patients of Psoriasis. It gives a ray of hope to the patients of Psoriasis. **Aim:** To evaluate the effect of Kushthaghna Mahakashaya in Psoriasis. **Method:** We had registered 20 patients randomly for the trial with Kushthaghna Mahakashaya from OPD, Department of Kaya Chikitsa, S.A.C. Lucknow. The Period of study was from March 2007 to May 2008. **Result:** After 4 months of treatment with Kushthaghna Mahakashaya 15 patients (75%) were relieved 5 patients(25%) were improved. **Conclusion:** The Kushthaghna Mahakashaya is safe & effective for the patients of Psoriasis. No side effects have been observed during the trial.

**Keywords:** Skin, Ayurveda, Psoriasis, Kushthaghna Mahakashaya.

### INTRODUCTION

Skin is the largest organ of the body which protects the body from the outer environment. It is the organ, that reflects many internal disease by changing it's character. Psoriasis is an auto immune papulosquamous disorder that represent an inflammation pattern of the skin to various stimuli. It is characterized by sharply demarcated

erythematous plaque/patches/papules covered with silvery scaling<sup>1</sup>.

Psoriasis is a common dermatological problem affecting up to 2.5% of the world population. It is more prevalent in the temperate climate & among white races. It is most common in North America, Western Europe, Kenya and Uganda & uncommon in

Mongoloid Asians, Negroes of East Africa and Japanese. In India it has 1% incidence. Psoriasis can affect both male & female. The age group often attack is 15 to 30 year<sup>2</sup>.

While various researches have been made in the field of Medical Science, but still there is no absolute, simple, safe & invariably effective permanent cure of Psoriasis has been attained till today. In Psoriasis the topically applied drugs are very limited and produces many side effects whenever used. So there is a need of hour to have a drug, which give very good result with minimal recurrence and with less side effects.

In Ayurveda many skin disease have been described under the umbrella of Kushtha. Kushtha has two major division i.e. Mahakushtha & Kshudrakushtha. Eka-kushtha has been enumerated first in the list of Kshudrakushtha<sup>3</sup>. The features of Eka-kushtha as described by Acharya Charak<sup>4</sup> are Aswedanam (loss of sweating), Mahavastu (spread of lesion) & Matsyashakalopamam (silvery scaling). Another feature i.e. Krishna-arun varnata (Blackish red discoloration) has also been described by Acharya Sushruta<sup>5</sup>. These features resemble as Psoriasis in Modern Medicine.

As Acharyas have described Samshodhan<sup>6</sup> & Samshaman<sup>7</sup> as the treatment of choice in Psoriasis. Samshodhan (Panchakarma) therapy is the key therapy. Samshaman (local application & internal medication) also play a major role in treating the Psoriasis.

In Ayurveda, Acharyas have formulated many Samshaman drugs i.e. Bahaya Samshaman (drugs for external use lepa etc.) & Abhyantar Samshaman (drugs for internal administration) for the treatment of Skin

diseases. The Kushthaghna Mahakashaya is described by the Acharya Charak in Sutra Sthan 4<sup>th</sup> Chapter named Shadvirechanshata-shatiya<sup>8</sup>. It is prepared by cleaned, dried & yavkut drugs { Khadir (*Acacia catechu*), Haritaki (*Terminalia chebula*), Amlaki (*Embellia officinales*), Haridra (*Curcuma longum*), Bhallatak (*Semicarpus anacardium*), Saptaparna (*Alastonia scholaris*), Aaragvadhha (*Cassia fistula*), Karvir (*Nerium indicum*), Vidanga (*Embelia ribes*), Jati (*Jasminum officinale*) }<sup>9,10</sup> boiling with 16 times of water till it remains 1/8<sup>th</sup>.<sup>11</sup> The preparation and usage of Kushthaghna Mahakashaya is very easy. It is very effective and has no side effects on internal administration.

## AIM & OBJECTIVE

To evaluate the effect of Kushthaghna Mahakashaya in Psoriasis.

## MATERIAL & METHOD

### Case selection & Study design

We had registered 20 patients randomly for the trial with Kushthaghna Mahakashaya from OPD, Department of Kaya Chikitsa, S.A.C. Lucknow. The period of study was from March 2007 to May 2008. Student paired t test applied for statistical analysis.

### Inclusion Criteria

Patients having 50% or more of the following clinical symptoms were selected for the trial.

1. Aswedanam (loss of sweating)
2. Mahavastu (spread of lesions)
3. Matsyashakalopamam (silvery scaling)
4. Krishna-arun varnata (blackish red discoloration)

### Exclusion Criteria

1. Complicated cases of Psoriasis with superadded infections.

2. Cases under high doses of corticosteroids.

### Criteria of Diagnosis

Cases of Psoriasis diagnosed according to clinical features of Eka-kushtha i.e. Aswedanam (loss of sweating), Mahavastu (spread of lesion) & Matsyashakalopamam (silvery scaling) & Krishna arun varnata (Blackish-red discoloration).

### Grading of Symptoms

Symptoms are graded according to severity of disease as O (nil), + (mild), ++ (moderate) & +++ (severe).

#### 1. Aswedanam (loss of sweating)

Nil - O (normal sweating)  
Mild - + (little sweating even in hot climate at the site of lesion)  
Moderate - ++ (much less sweating even in hot climate at the site of lesion)  
Severe - +++ (no sweating at all even in hot climate & skin becomes dry)

#### 2. Mahavastu (spread of lesions)

##### 2A. No of lesions –

Nil - O (absent of lesion)  
Mild - + (1-5 lesions)  
Moderate - ++ (6-10 lesions)  
Severe - +++ (>10 lesions)

##### 2B. Size of lesions-

Nil - O (absent of lesion)  
Mild - + (<5 cm in size)  
Moderate - ++ (5-10 cm in size)  
Severe - +++ (>10 cm in size)

#### 3. Matshyashakalopamam (silvery scaling)

Nil - O (absent of symptoms)  
Mild - + (scales sometime appear at the site of lesion)  
Moderate - ++ (scales does not remove on scraping)  
Severe - +++ (scales itself remove on lying)

### Krishna-arun varnata (Blackish- red discoloration)

Nil -O (absent of symptoms)  
Mild -+ (redness at the site of lesion )  
Moderate-++ (blackness at the site of lesion)  
Severe-+++ (reddish blackness at the site of lesion)

### Trial Regimen & Dosages

Patients of Psoriasis have been given Kushathaghna Mahakashaya for internal administration for a period of 4 month. It is given in the dosage of 40 ml BD after meals.

### Preparation method of Kushathaghna Mahakashaya

#### Ingredients<sup>9,10</sup>.

Khadir (*Acacia catechu*), Haritaki (*Terminalia chebula*), Amlaki (*Embellia officinales*), Haridra (*Curcuma longum*), Bhallatak (*Semicarpus anacardium*), Saptaparna (*Alastonia scholaris*), Aaragvadha (*Cassia fistula*), Karvir (*Nerium indicum*), Vidanga (*Embelia ribes*), Jati (*Jasminum officinale*).

In the present clinical trial we have taken Bhallatak (*Semicarpus anacardium*) after proper shodhan (purification)<sup>12</sup>.

We have taken the root bark (mooltwak) of Karvir (*Nerium indicum*) which is nontoxic in therapeutic dosages<sup>13</sup>.

#### Method:

All the ingredients of Kushthaghna Mahakashaya were cleaned, dried, yavkut & mixed in equal quantity and kept in packing of 250 gm each & was used as decoction for the purpose of internal administration.

#### Follow Up

Patients of Psoriasis have been called for 1 month interval for 4 month.

**Assessment Criteria**

Assessment of clinical improvement was done according to severity of signs & symptoms. To assess the severity symptoms grading scales was used. Difference in scaling before & after treatment and during follow up was tested for significantly bio-statistical methods.

**RESULT**

The result was assessed on the basis of improvement in clinical feature in terms

of Aarogya (Relieved), Kinchit Aarogya (Improved) & Anaarogya (Unchanged).

1. Aarogya (Relieved) - more than 70% relief in clinical feature.)
2. Kinchit Aarogya ( Improved) - 50-70% relief in clinical features
3. Unaarogya (Unchanged) - less than 50% relief in clinical features

**Table 1: Showing the Response of Kushthaghna Mahakashaya on Aswedanam (loss of sweating) in Patients of Psoriasis**

Severity	Severe	Mod	Mild	Nil	%age	No of Cases Improved	No of Cases Relieved	%age Relieved	X <sup>2</sup>	P	
<i>n=20</i>	Before Tt	14	5	1	0	0	5	15	75	63.84	<0.001(s)
After 1 <sup>st</sup> Month	12	4	2	0+2	10						
After 2 <sup>nd</sup> Month	8	5	3	0+4	20						
After 3 <sup>rd</sup> Month	0	2	9	0+9	45						
After 4 <sup>th</sup> month	0	1	4	0+15	75						

**Table 2A: Showing the Response of Kushthaghna Mahakashaya on Mahavastu(No of lesion) in Patients of Psoriasis**

Severity	Severe	Mod	Mild	Nil	%age	No of Cases Improved	No of Cases Relieved	%age Relieved	X <sup>2</sup>	P	
<i>n=20</i>	Before Tt	3	15	2	0	0	6	14	70	44.22	<0.001(s)
After 1 <sup>st</sup> Month	2	12	4	0+2	10						
After 2 <sup>nd</sup> Month	1	8	6	0+5	25						
After 3 <sup>rd</sup> Month	0	4	7	0+9	45						
After 4 <sup>th</sup> month	0	2	4	0+14	70						

**Table 2B: Showing the Response of Kushthaghna Mahakashaya on Mahavastu(Size of lesion) in Patients of Psoriasis**

Severity	Severe	Mod	Mild	Nil	%age	No of Cases Improved	No of Cases Relieved	%age Relieved	X <sup>2</sup>	P
<i>n=20</i>	Before	2	15	3	0	0				

n=20	Tt										
	After 1 <sup>st</sup> Month	1	13	4	0+2	10	6	14	70	46.64	<0.001(s)
	After 2 <sup>nd</sup> Month	0	8	8	0+4	20					
	After 3 <sup>rd</sup> Month	0	5	9	0+6	30					
After 4 <sup>th</sup> month	0	2	4	0+16	70						

**Table 3: Showing the Response of Kushtaghna Mahakashaya on Matshyshalopamam (Silvery Scaling) in Patients of Psoriasis**

Severity	Severe	Mod	Mild	Nil	%age	No of Cases Improved	No of Cases Relieved	%age Relieved	X <sup>2</sup>	P
Before Tt	15	4	1	0	0	5	15	75	63.68	<0.001(s)
After 1 <sup>st</sup> Month	13	3	2	0+2	10					
After 2 <sup>nd</sup> Month	9	4	3	0+4	20					
After 3 <sup>rd</sup> Month	0	3	9	0+8	40					
After 4 <sup>th</sup> month	0	1	4	0+15	75					

**Table 4: Showing the Response of Kushtaghna Mahakashaya on Krishna-arun varnata (Blackish-red Discoloration) in Patients of Psoriasis**

Severity	Severe	Mod	Mild	Nil	%age	No of Cases Improved	No of Cases Relieved	%age Relieved	X <sup>2</sup>	P
Before Tt	4	12	1	3	15	6	14	70	30.26	<0.001(s)
After 1 <sup>st</sup> Month	2	10	3	3+2	10					
After 2 <sup>nd</sup> Month	1	8	4	3+4	20					
After 3 <sup>rd</sup> Month	0	4	5	3+8	40					
After 4 <sup>th</sup> month	0	2	4	3+11	55					

**Table 5: Showing the overall Improvement after 4 month of treatment with Kushthaghna Mahakashaya**

S.N.	Result	No of patients	%age
1.	Aarogya (Relieved)	15	75
2.	Kinchit Aarogya (Improved)	5	25
3.	Anaarogya (Unchanged)	0	0

## DISCUSSION

In Ayurvedic Classics all skin diseases have been described under the heading of Kush-

tha. The word Kushtha denotes 'Kushnati vapu iti kushtham'<sup>14</sup> means the conditions which

deforms the skin is called Kushtha. Kushtha is broadly divided into Mahakushtha & Kshudrakushtha. Eka-kushtha has been enlisted first in the list of Kshudrakushtha, it may be due to its predominance & prevalence in the society.

The clinical features of the Psoriasis are loss of sweating or dryness, erythematous plaques & scaling, and these features mimic the features of Eka-kushtha i. e. Aswedanam (loss of sweating), Mahavastu (spread of lesion) & Matsyashakalopamam (silvery scaling). So it can be correlated with Psoriasis. In some Research Institution, Psoriasis is correlated with Kitibha<sup>15</sup> & Sidhma<sup>16</sup>. All Acharyas have advocated Samshodhan followed by Samshaman Chikitsa for the patients of Eka-kushtha. Though Samshodhan is the best therapy, but Samshaman therapy also plays a major role in Psoriasis.

We have given Kushthaghna Mahakashaya for a period of 4 months for internal administration in patients of Psoriasis. The drugs of Kushthaghna Mahakashaya [Khadir (*Acacia catechu*), Haritaki (*Terminalia chebula*), Amlaki (*Embellia officinalis*), Haridra (*Curcuma longum*), Bhallatak (*Semicarpus anacardium*), Saptaparna (*Alstonia scholaris*), Aaragvadh (*Cassia fistula*), Karver (*Nerium indicum*), Vidanga (*Embelia ribes*), Jati (*Jasminum officinale*)] have Kushthaghna, Krimighna, Sothahar, Varnaprasadan, Deepan, Raktashodhak properties<sup>17</sup>.

Before treatment Aswedanam (Loss of sweating) was present in almost all 20 cases of Psoriasis and after treatment it was relieved in 15 patients and remained in 5 patients. Overall percentage of improvement was 75% ( $x^2=63.84$ ,  $p<0.001$ , S) (Table 1).

Out of 20 patients, before treatment 2 patients were of severe grade, 15 patients were of mod grade and 3 patients were of mild grade of severity of Mahavastu (Size of lesion) and after treatment it was relieved in 14 patients and 4 patients and 2 patients were shifted to mild

and mod grade of severity, respectively. Overall percentage of improvement was 70% ( $x^2=44.22$ ,  $p<0.001$ , S) (Table 2A).

Out of 20 patients, before treatment 2 patients were of severe grade, 15 patients were of mod grade and 3 patients were of mild grade of severity of Mahavastu (No of lesion) and after treatment it was relieved in 14 patients and 4 patients and 2 patients shifted to mild and mod grade of severity, respectively. Overall improvement was 70% ( $x^2=46.64$ ,  $p<0.001$ , S) (Table 2B).

Out of 20 patients, before treatment 15 patients were of severe grade and 1 patient of mild grade & 4 patients were of mod grade of severity of Matsyashakalopamam (Silvery scaling) and after treatment it was relieved in 15 patients and 4 patients and 1 patient shifted to mild and mod grade of severity, respectively. Overall improvement was 75% ( $x^2=63.68$ ,  $p<0.001$ , S) (Table 3).

Out of 20 patients, before treatment 4 patients were of severe grade, 12 patients were of mod grade and 1 patient was of mild grade of severity of Krishna-arunvarnata (Blackish-red discoloration) and after treatment it was relieved in 11 patients and 4 patients and 2 patients were shifted to mild and mod grade of severity, respectively. Overall improvement was 70% ( $x^2=30.26$ ,  $p<0.001$ , S) (Table 4). So after four months of treatment with Kushthaghna Mahakashaya 15 patients (75%) were relieved, 5 patients (25%) were improved (Table 5).

## CONCLUSION

The following conclusion have been drawn after 4 month of trial with Kushthaghna Mahakashaya in patients of Psoriasis :

1. After the end of trial the clinical features were subsided as Aswedanam (Loss of sweating) 71.43%, Mahavastu (Size & no. of lesion) 66.67% & Matsyashakalopamam (Silvery scaling) 71.43% & Krishna arunvarnata (Blackish-reddiscoloration) 66.67%.

2. No side effects have been observed during the trial with *Kushthaghna Mahakashaya*.

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## CORRESPONDING AUTHOR

**Dr. Anjana Singh**

Department of Kaya Chikitsa,

A.U.A.M.C. Aligarh, Uttar Pradesh, India

**Email:** dranjanavns@gmail.com