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A Comparative Clinical Study to Evaluate the Efficacy of *Khadirashtak Kwath* & *Haridradi Lepa* with 777 oil along with *Virechana* in the Management of *Ekkushtha* w.s.r. to Psoriasis

Shweta Singh^{1*}, Om Prakash Singh², Dinesh Kumar Goyal³ and Punita Pandey⁴

¹⁻⁴P.G. Deptt. of Kayachikitsa, Rishikul Campus, Uttarakhand Ayurved University, Uttarakhand, India

ABSTRACT

Skin disorders are one of the burning problems of modern scientific era. The word 'Kushtha' is a broad term, which covers almost all skin disorder and it is further classified into *MahaKushtha* and *KshudraKushtha*¹. In Ayurveda "Ekkushta" has been described under the disease "KshudraKushtha". According to *Acharya Charak*, *Ekkushtha* is due to vitiation of *Vata* & *Kapha*. The clinical feature of *Ekkushtha* described by *Acharya Kashyap* represents remission, relapse and seasonal variation which are present in Psoriasis. There are many treatments available but because of its chronic recurrent nature psoriasis is a challenge to treat. Considering its chronic and recurrent nature a study entitled "A comparative clinical study to evaluate the efficacy of *Khadirashtak Kwath*² & *Haridradi Lepa*³ with 777 oil along with *Virechana* in the management of *Ekkushtha* w.s.r. to Psoriasis" was undertaken in 30 psoriatic patients for 2 months. The present study is aimed at finding effective treatment of *Ekkushtha*. Overall response of Group I was excellent in 14.28% patients and marked improvement in 28.57% patients, it was better than overall response of Group II which showed only mild improvement in maximum (66.67%) patients.

KEYWORDS

Ekkushtha, *Psoriasis*, *Kushtha*, *Tridosh*, *Khadirashtakkwath*



Greentree Group

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INTRODUCTION

Skin diseases are common manifestation in present era. The patients of skin disease are additionally prone to experience physical, emotional & socio-economic embarrassment in the society due to disfigured appearance.

In *Ayurveda*, all skin diseases are grouped under a broad heading of *Kushtha Roga*. In *Ayurveda*, *Kushtha* is considered as a *Bahudoshavastha-janya-vyadhi* and it has involvement of *Tridosha* and 4 *Dhatu* (*Tvak*, *Rakta*, *Lasika*, *Mamsa*) as its *Dushya* also. Thus ‘*Saptakodravya-sangrah*’ is responsible for each & every type of *Kushtha* to manifest⁴.

वातादयस्त्रयोदुष्टास्त्वग्वक्तंमांसमम्बुचदूषय

न्तिसकुष्ठानांसप्तकोद्रव्यसंग्रहः|च.चि.७/९

With the changing lifestyle of 21st century *Ekkushtha* (psoriasis) is becoming more prevalent in the society. Males & females of all age groups are equally affected. High prevalence of Psoriasis in the world approximates 1-2.5% of the total population. In India it is about 1.5% of the total population⁵.

Ekkushtha is one of such diseases explained under the heading of *KshudraKushtha*. According to *Acharya Charak*, *Ekkushtha* is due to vitiation of *Vata* & *Kapha*⁶. The classical symptoms of *Ekkushtha* are:

अस्वेदनम्महावास्तुयन्मत्स्यशकलोपम् | च.

चि.७/२१

The classical symptoms of *Ekkushtha* described in *Ayurveda* resembles with Psoriasis. The clinical feature of *Ekkushtha* described by *Acharya Kashyap* represents remission, relapse and seasonal variation which are present in Psoriasis. Psoriasis is notoriously chronic and is well known for its course of remission and exacerbation. The cause of psoriasis is not known, but it is believed to have a genetic component. Several factors are thought to aggravate psoriasis. These include stress, physical injury, digestive upsets, excessive alcohol consumption and smoking.

As *Ekkushtha* is chronic & relapsing in nature and also there is an involvement of *Tridosha* & *Tvaka*, *Rakta*, *Mansa*, *Lasika* & *Kleda*, hence repeated *Shodhana* is required for its treatment.

बहुदोषःसंशोध्यःकुष्ठीबहुशोऽनुरक्षताप्राणान्

दोषेअतिमात्राहतेवायुर्हन्यादबलमाशु ||

(च.चि.७/४१)

In *Ayurveda*, many approaches are in practice to treat *Ekkushtha* but still it remains a challenging problem. Hence, the study is planned for better management of



Ekkushtha patients with enhanced quality of life.

AIMS AND OBJECTIVES

The aim and objective of the study are:

- 1) To study the aetiopathogenesis of *Ekkushthavis-a-vis* Psoriasis.
- 3) To compare the efficacy of ***Haridradi lepa*** & ***Khadirashtak Kwath*** with **777oil** along with ***Virechana*** in *Ekkushtha*

MATERIALS AND METHODS

The study comprised of 30 patients suffering from psoriasis. The patients were selected from OPD and IPD of P.G Dept. of Kayachikitsa Rishikul campus, Haridwar and also from OPD of dermatology of Govt. Mela Hospital. These patients were randomly divided in 2 groups of 15 patients in each, on the basis of inclusion and exclusion criteria.

Ethical committee approval number later is UAU/R/C/IEC/2016-17/2

Number of clinical trial conducted is 1

Total number of registered Pt. Is 30.

Selection of Sample: -Randomized Sampling

Type of Study: Single Blind

Duration of Study: 60 days

Selection of Drug

1) ***Haridradi lepa***:-local application twice a day

2) ***Khadirashtak Kwath***:-40ml b.d.1 hour after meal.

3) **777 Oil**:- local application twice a day

Drug Trial Schedule

The selected patients for trial were randomly divided into following 2 groups:

GROUP 1 (N=15) -Patients were subjected through ***Virechana*** followed by local application of ***Haridradi Lepa*** along with ***Khadirashtak Kwath***.

GROUP 2 (N=15) - Patients were subjected through ***Virechana*** followed by local application of **777oil**.

Assessment & Follow Up

The assessment of the patients were done at the interval of **20 days** & the follow –up were done

1month after completion of treatment.

INCLUSION CRITERIA:

- Patients having the signs & symptoms of *Ekkushtha*.
- Age group between 15-60 years.
- Chronicity below 10 years.
- Patients willing to participate in above mentioned trial with informed consent.

EXCLUSION CRITERIA

- Age group less than 15 years and more than 60 years.



- Psoriatic patients with other systemic diseases like; Hypertension, Anemia, Diabeties Mellitus, Asthma, HIV etc
- Pregnant and lactating women.
- Patients with psoriatic complications.
- Patients taking other drugs for the treatment of Psoriasis.

ASSESSMENT CRITERIA

The assessment of the trial was done on the basis of following parameters:

1. Subjective
2. Objective

Subjective: The subjective assessment was done on the basis of improvement in signs

Table 1 Assessment of Subjective Parameters in 14 Patients

Symptoms	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
Scaling	3	1	-3.397 ^a	<0.001	65.7	HS
Mandal	2	1	-2.972 ^a	<0.01	38.7	Sig
Kandu	2	1	-3.357 ^a	<0.001	50.0	HS
Mahavastum	2	1	-3.051 ^a	<0.01	37.9	Sig
Asvedanam	1	0	-3.162 ^a	<0.01	46.1	Sig
Rukshata	1	1	-2.887 ^a	<0.01	54.5	Sig
Daha	1	0	-3.051 ^a	<0.01	73.3	Sig
Auspitz Sign	2	1	-3.397 ^a	<0.001	71.4	HS

Objective: The objective assessment was done on the basis of changes in relevant laboratory parameters and PASI score.

1. Biochemical parameters: Hb%, TLC, DLC, Blood sugar-F and PP, blood urea, sr. creatinine.

2. PASI Score

STATISTICAL ANALYSIS

- Wilcoxon Signed Rank Test was applied on the subjective parameters.

and symptoms of *Ekkushtha* (Psoriasis) as described in classics:

1. *Matsyashaklopamam* (Scaling)
2. *Mahavastum* (Area of body)
3. *Mandala* (Erythema)
4. *Kandu* (Itching)
5. *ASvednam* (Anhydrosis)
6. *Rukshata* (Dryness)
7. *Daha* (Burning Sensation)
8. Auspitz sign

All the symptoms were graded on the basis of their severity and were given scores ranging between 0-4. (Table 1)

- Paired t test was applied on Biochemical parameters.
- Mann-Whitney U test for intergroup comparison.
- Finally result were incorporated in terms of probability (p) as:
P> 0.05 Insignificant
P< 0.01 & <0.05 Significant

**Table 1** Assessment of Subjective Parameters in 14 Patients

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Auspitz Sign	2	1	-3.397 ^a	<0.001	71.4	HS

OBSERVATIONS

Total 30 patients were registered to complete the goal of study of 26 patients. The LAMA and Drop out patients were not considered in this study. All the 26 patients were randomly divided in to two groups to evaluate the efficacy of *Khadirashtak Kwath* and *Haridradi Lepa* in the management of *Ekkushtha*.

Group –I -In this group *Khadirashtak Kwath* was given to the patients after doing *Kosthashuddi* and *Haridradi lepa* for local application for 60 days. Total 15 patients were registered out of which one did LAMA.

Group –II - In this group patient were given 777 oil for local application for 60 days. Total 12 patients were registered out of which 3 patients were LAMA.(Table 2)

Table 3 Assessment of Subjective Parameters in 12 Patients

Symptoms	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
Scaling	2	1	-3.217^a	<0.001	60.0	HS
Mandal	2	1	-2.449 ^a	<0.01	31.6	Sig
Kandu	2	1	-2.919 ^a	<0.01	48.1	Sig
Mahavastum	1	1	-1.342 ^a	>0.05	16.7	NS
Asvedanam	1	0	-2.972 ^a	<0.01	39.2	Sig
Rukshata	1	0	-3.162 ^a	<0.01	46.7	Sig
Daha	0	0	-1.857 ^a	>0.05	66.7	NS
Auspitz Sign	2	1	-3.464 ^a	<0.001	50.0	HS

**Table 4** Assessment of Objective Parameters in 12 Patients

	Mean		SD		t-Value	P-Value	%Effect	Result
	BT	AT	BT	AT				
HB	12.7	12.7	0.82	0.86	-0.272	>0.05	0.3	NS
TLC	6700.0	6825.0	1040.10	1110.38	-1.005	>0.05	1.8	NS
BSL F	96.3	100.3	16.62	19.69	-2.555	<0.01	3.9	Sig
BSL PP	125.4	130.8	48.18	38.97	-1.628	>0.05	4.1	NS
Sr Creatinine	0.9	0.9	0.22	0.16	-0.164	>0.05	0.5	NS
Sr Urea	25.8	24.8	6.34	7.59	0.903	>0.05	4.1	NS
PASI Score	6.5	4.3	3.87	2.89	4.373	<0.01	34.5	Sig

RESULTS AND DISCUSSION

Group I (Khadirashtak Kwath & Haridradi lepa)

- Statistically highly significant result was found in subjective parameters like scaling, *Kandu* & Auspitz sign while significant result were observed in *Mandal Mahavastum Asvedanam Rukshata & Daha*.

- Statistically significant result was found on lowering the BSF & PASI score.

Group II(777 Oil)

- Statistically highly significant result was found in subjective parameters like scaling & Auspitz sign significant result was observed in *Mandal Kandu Asvedanam & Rukshata* while nonsignificant result was found in *Mahavastum* and *Daha*.

- Statistically significant result was found on lowering the BSF & PASI score.

Inter-group Comparison

- On inter group comparison by Mann Whitney U Tests it was found that group I

was more Statistically Significant than group II. (Table 5)

- On Comparative assessment of % relief in Subjective Parameters it was found that Group I had better result than the group II. (Table 6)

- Thus Overall effect of *Khadirashtak Kwath & Haridradi Lepa* was better than 777 Oil.

As *Ekkushtha* is chronic & relapsing in nature and also there is an involvement of *Tridosha & Tvaka, Rakta, Mansa, Lasika & Kleda*, hence repeated *Shodhanais* required for treatment. Thus it was assumed that purification mechanism in combination with oral medication and local application would be helpful in treatment of *Ekkushtha*.

PROBABLE MODE OF ACTION OF DRUGS

1) *Khadirashtak Kwath*

Khadirashtak Kwath has been mentioned by the Yogratanakar in *Kushthachikitsa*. It mainly contains drugs like *Khadira, Triphala, Nimb, Patola, Amrita and Vasa*



which are having *Raktaprasadana*, *Vishaghna*, *Kushthaghna*, *Kandughna*, *Dahaprashamana* and *Rasayana* properties. Almost all the drugs are having *Vatakapha*

Shamak properties. *Khadirashtak Kwath* is mainly *KatuTikta Rasa Pradhana*, *Laghu Ruksha Guna* and *KatuVipaka* through which it helps in management of *Ekkushtha*.

Table 5 Comparison between Group I And Group II subjective criteria

	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	P-Value	Result
Scaling	Group I	14	14.57	204.00	69.000	>0.05	NS
	Group II	12	12.25	147.00			
	Total	26					
Mandal	Group I	14	15.21	213.00	60.000	>0.05	NS
	Group II	12	11.50	138.00			
	Total	26					
Kandu	Group I	14	12.71	178.00	73.000	>0.05	NS
	Group II	12	14.42	173.00			
	Total	26					
Mahavastum	Group I	14	16.50	231.00	42.000	<0.01	Sig
	Group II	12	10.00	120.00			
	Total	26					
Asvedanam	Group I	14	14.43	188.00	40.000	>0.05	NS
	Group II	12	12.58	163.00			
	Total	26					
Rukshata	Group I	14	12.71	178.00	73.000	>0.05	NS
	Group II	12	14.42	173.00			
	Total	26					
Daha	Group I	14	15.21	213.00	60.000	>0.05	NS
	Group II	12	11.50	138.00			
	Total	26					
Auspitz Sign	Group I	14	16.07	225.00	48.000	<0.01	Sig
	Group II	12	10.50	126.00			
	Total	26					

It is said in *Charaka Samhita* that *Mann* (psyche) has *Samvaya Sambhandha* (permanent relationship) with the skin, and any pathology in skin automatically affects

the *Mann* (psyche) and causes psychosomatic diseases⁷. So it is necessary to administer drugs having effect over the psyche like *Rasayana*. *Khadir* and *Amrita*



are having *Rasayan* properties. This *Rasayana* property has the ability to promote mental health and thus preparing the patient to cope with stress and overcome it⁸.

2) *Haridradilepa*

Haridradilepa is mentioned by the Acharya Charak in *Aaragwadhiya Aadhyay* (Ch.Su.3/14) It contains drugs like *Haridra*, *Indrayava*, *Jatipatra*, *Karanja* which have *Tvakdoshahara* and *Kandughna* properties. Most of the contents of *Haridradi Lepa* are having *Kashaya Tikta rasa* pradhana and *Katu vipaka* & have *Tvakdoshahara*, *Kandughna* and *Lekhana* properties so it helps in management of *Ekkushtha*. As it is macerated with Gaumutra This *Lepa* is also having *Sukshma* property due to which

active principle of the *Lepa* reaches to deeper tissues through *Siramukha* & *Svedavahi Srotas* and show its effect by *Sukshma* and *Tikshna* property.

Karanja, *Karavira* and *Gaumutra* has *Ruksha* and *Tikshna Guna* so it can remove *Kaleda*, *Ama* and *Kapha* and improve in *Stroto-dushti* especially *Sanga*.

Haridra, *Daruharidra*, *Indrayava* are having **antioxidant & anti-inflammatory** activities.

3) 777 Oil

This formulation is first described by **Dr. J.R. Krishnamoorthy** and was later patented by CCRAS, New Delhi in 1987. 777 oil is a single herbal formulation prepared from oil extracts of ***Wrightia tinctoria* (*Swethakutaja*)**. It checks keratinocytes multiplication.

Table 6 Estimation of Overall Response in Each Group

STATUS	GROUP I (N= 14)		GROUP II (N= 12)	
	No.	%	No.	%
Excellent (>75%)	2	14.28%	1	8.33%
Marked improvement (50-74%)	4	28.57%	2	16.67%
Mild improvement (25-49%)	7	50%	8	66.67%
No improvement (<25%)	1	7.1%	1	8.33%
Excellent (>75%)	2	14.28%	1	8.33%

CONCLUSIONS

- *Ekkushtha* being a *Kshudra Kustha* has *Vata Kapha* dominance & even involvement of *Tridosha* can be evident from its signs & symptoms.
- *Ekkushtha* in modern medical science has similarity with Psoriasis.

- Most of the patients were reported in the chronic stage of Psoriasis. Negligence in early stage and recurrence of psoriasis is common phenomenon.
- Maximum patients had the history of *Virrudha-ahara* and constipated bowel



which clearly shows the role of *Ama* formation in pathogenesis of *Kushtha*.

- *Chinta* is *Mansika Nidana* which leads to *Vataprakopa* which was observed in maximum number of patients. Also maximum patients were found stressed and anxious. This observation clearly shows the psychosomatic nature of the disease.
- Family history was supporting in many patients which suggests that the disease is hereditary.
- Maximum number of patients had the chronicity of 1-4 years and had previously undergone allopathic treatment. It clearly shows the relapsing nature of the disease. It suggests that, long term treatment is necessary for eradication of the disease.
- Significant results were found in group I and group II but much better results were found in group I than group II.
- It suggests that the effect of *Khadirshtak Kwath* after *Virechana* along with external application of *Haridradilepa* is quite better than only external application of 777oil. As *Ekkushtha* is not only a skin disease but it also involves *Rasa*, *Rakta*, *Mamsa* and *Svedavaha Srotas* along with *Manovaha Srotas*, both internal and external medicine is necessary for its management.



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