

A CLINICAL STUDY OF EDAGAJADI LEPA IN THE MANAGEMENT OF DADRU KUSHTA

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ABSTRACT

Skin diseases are common manifestation in present era and more so frequent in the elder age. The patients of skin disease are additionally prone to experience physical, emotional & socio-economic embarrassment in the society due to disfigured appearance. Normally 10 - 15% of the general practitioners encounter with skin disorders in their day today practice. *Kustha* a type of skin disorder mentioned in Ayurveda is a *Tridoshaja Vyadhi* where *Rasa*, *Rakta*, *Mamsa* and *Ambu* are the main *Dushyas*. *Dadru* (Fungal skin infection), one of the most common but miserable variety of *Kushta* affects the population of all the age group and stands as a challenge to different medical systems in spite of many advances. *Dadru*, is a *Kapha Pitta Pradhan Vyadhi* and the management of which includes *Shodhana*, *Shamana* and *Bahiparimarjana Chikitsa* among them *Shamana* measure in the form of *Lepa* has shown appreciable result in many prior research studies. Present study was conducted on 30 diagnosed patients of *Dadru* in whom *Edagajadi Lepa* was applied. The ingredients of which are the drugs possessing *Shodhana & Kustahar a* property. The results revealed significant effect of *Lepa* in various subjective parameters like *Kandu*, colour and number of *Mandala*, number of *Pidika* after treatment. The effect of the drug also continued during follow up period of 15 days which suggested the sustained effect of the combination

Keywords: *Dadru Kushta, Edagajadi Lepa, Bahiparimarjana Chikitsa*

INTRODUCTION

Dadru [1] (Ringworm) is one of the most common but miserable *Twak Vikar* affecting all the ages of population still stands as a challenge to different medical systems. Many research works have been done on skin disorders in modern medical science but no drug has yet been claimed to cure this skin disease completely and prevent its recurrence.

Dadru is a *Kapha pitta pradhanavyadhi* [2] which is managed by *Shodhana*, *Shamana* and *Bahiparimarjana* (topical) *Chikitsa*. Local application works faster due to physiological effect of heat on the skin. As per the need of fast life of today's society, *Bahiparimarjana* in the form of

Lepa was selected which is easily done and act as *Sthanika Chikitsa* for fast relief [3]. Despite *Edagajadi Lepa*, being mentioned as '*Sadyah Siddhi Karaka*' (immediate relief provider) by *Acharya Charaka* no scientific research work has been carried out to understand the efficacy of this *Yoga* [4]. The current study was undertaken with an aim to evaluate the role of *Edagajadi Lepa* in *Dadru Kushta*.

MATERIAL AND METHODS

a) Source of Data: 30 patients within the age group 7 to 60 years diagnosed as suffering from *Dadru* were selected from O.P.D. and I.P.D of Dr. B.N.M.E. Ayurveda College Hospital & Post

Graduate research Centre, Bijapur and camps were conducted in the city of Bijapur.

b) Study design: Randomized, Single blind clinical study on the efficacy of *Edagajadi Lepa* on *Dadru*

CRITERIA FOR SELECTION OF PATIENTS:

c) INCLUSIVE CRITERIA:

- Patients with classical signs and symptoms of *Dadru*.
- Patients of either sex.
- Patients of age group between 7 to 60 years.

d) EXCLUSIVE CRITERIA:

- Patient aged below 7 & above 60 years.
- Patients with other systemic disorders like diabetes mellitus, obesity etc.

e) INTERVENTION:

Drug: *Edagajadi Lepa*

Method : External application on affected area

Time: Morning and evening

Treatment duration : 30 days

Follow up during treatment: After every 10days

Follow up after Treatment: 45th day

f) Preparation of *Edagajadi Lepa*:

Ingredients: *Edagajabeeja* (*Chakramarda*) *Choorna* (*Cassia tora* Linn), *Kushta Choorna* (*Saussurealappa*), *Vidanga Choorna* (*Embeliaribes* Burm.), *Sarshapa Choorna* (*Brassica campestris* Linn), *Saindhavlavana* (sodium chloride, impure rock salt) and *Sauveerkam* (Yava preparation). *Choorna* of all the drugs were mixed together and applied by adding *Souvirakam* (as per requirement) as mentioned in the classics.

g) ASSESSMENT OF VARIABLES:

Clinical assessment was made for severity of diseases and for the clinical improvement.

h) CRITERIA FOR ASSESSMENT AND GRADING:

Criteria for assessment:

- 1) *Kandu*
- 2) *Raga*
- 3) *Pidika*
- 4) Number of *mandala*
- 5) Size of *Mandala*

➤ **Grading(G) of criteria:**

Sr.No.	Criteria	G ₁	G ₂	G ₃	G ₄
1	<i>Kandu</i>	No <i>Kandu</i>	<i>Ishat Kandu</i>	<i>Bahu Kandu</i>	<i>Ugra Kandu</i>
2	<i>Raga</i>	Normal skin colour	Faint and near to normal	Blanching and red colour	Red colour
3	<i>Pidika</i>	No <i>pidika</i>	1-3 <i>pidika</i>	4-6 <i>pidika</i>	>7 <i>pidika</i>
4	Number of <i>Mandala</i> 's	No <i>Mandala</i>	1-3 <i>mandala</i>	4-6 <i>mandala</i>	>7 <i>mandala</i>
5	Size of <i>Mandala</i>	Zero cm	<5 cm	5-10 cm	>10 cm

OBSERVATIONS AND RESULTS:

Maximum number of patients (42.50%) was from the age group of 21-30 years. Highest incidence of *Dadru* was found in age group of 21-30 yrs. which represents the onset was more in youth and middle aged. 70% of patients were male and 30% were females. 22% of patients were from lower middle class, 46.5% were from semi urban area and remaining 31.5% were

from rural area. Maximum patients i.e. 60% were vegetarian while the rest 40% were having mixed diet habit. In present study, majority of patients i.e., 42.5% were of *Vata Pittaja Prakriti*, 30% were of *Vata Kaphaja* and remaining 27.5% were of *Pitta Kaphaja Prokriti*. 42.5% of patients had *Mandagni* and 42.5% of them had *Teekshanagni*. 42.5% were from *Kapha Dosh*a dominancy. Maximum patients i.e.

41.5% were children and 27.5% patients were labour worker 17.5 % housewives and 13.5% service persons were occupational wise dominancy. Majority patient 33.5% were from VA (Virudhaahara)+ vishamashan 43.5% were from Va+Agantuja and 23% were Nidana wise dominancy.

RESULTS: After administered of *Edagajadi Lepa*, statistically significant changes were observed in *Kandu*, colour of *Mandala* and Number of *Mandala*. A mild change was observed in Number of *Pidika* and Size of *Mandala*.

	MEAN	STANDARD ER-ROR	Unpaired 't' test	'P' value
BT	2.30	0.10	1.00	<0.33*
10 TH DAY	2.25	0.09		
BT	2.30	0.10	2.17	<0.04*
20 TH DAY	3.45	0.16		
BT	2.30	0.10	2.85	<0.01*
30 TH DAY	2.0	0.12		
BT	2.3	0.10	3.58	<0.002***
45 TH DAY	1.75	0.09		

1) Kandu :

After treatment, color *Kandu* was reduced remarkably with P values $<0.01^*$ which were statistically significant.

After follow up, period the result suggested highly significant changes with P values <0.002 .

2) Color of Mandala:

	MEAN	STANDARD ER-ROR	Unpaired 't' test	'P' value
BT	3.65	0.15	1.45	<0.16*
10 TH DAY	2.25	0.09		
BT	3.65	0.15	1.83	<0.08**
20 TH DAY	2.20	0.09		
BT	3.65	0.15	2.17	<0.04**
30 TH DAY	3.45	0.16		
BT	3.65	0.15	3.94	<0.001***
45 TH DAY	1.90	0.06		

After treatment, color of *mandala* was reduced remarkably with P values $<0.04^*$ which were statistically significant.

After follow up, period the result suggested highly significant changes with P values <0.001 .

3) No. Of Pidika:

	MEAN	STANDARD ER-ROR	Unpaired 't' test	'P' value
BT	2.40	0.13	1.00	<0.330*
10 TH DAY	2.30	0.10		
BT	2.40	0.13	1.37	<0.186*
20 TH DAY	2.25	0.09		
BT	2.40	0.13	2.43	<0.025**
30 TH DAY	1.95	0.11		
BT	2.40	0.13	2.97	<0.008***

45TH DAY	1.85	0.10		
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After treatment, number of *Pidika* was reduced remarkably with P values $<0.025^*$ which were statistically significant.

After follow up, period the result suggested highly significant changes with P values <0.008 .

4) No. Of Mandala

	MEAN	STANDARD ROR	ER-	Unpaired 't' test	'P' value
BT	2.20	0.09		1.00	$<0.33^*$
10TH DAY	2.10	0.10			
BT	2.20	0.09		2.34	$<0.030^{**}$
20TH DAY	1.90	0.10			
BT	2.20	0.09		2.66	$<0.015^{**}$
30TH DAY	1.85	0.08			
BT	2.20	0.09		2.99	$<0.008^{***}$
45TH DAY	1.80	0.09			

After treatment, number of mandala was reduced remarkably with P values $<0.015^*$ which were statistically significant.

After follow up, period the result suggested highly significant changes with P values <0.008 .

5) Size Of Mandala:

	MEAN	STANDARD ROR	ER-	Unpaired 't' test	'P' value
BT	2.35	0.10		0.00	$<1.00^*$
10TH DAY	2.35	0.10			
BT	2.35	0.10		1.45	$<0.16^*$
20TH DAY	2.25	0.09			
BT	2.35	0.10		1.83	$<0.08^{**}$
30TH DAY	2.20	0.09			
BT	2.35	0.10		3.94	$<0.001^{***}$
45TH DAY	1.90	0.06			

After treatment, size of mandala was reduced remarkably with P values $<0.08^*$ which was not statistically significant. But After follow up, it showed highly significant changes with P values <0.001 .

Kapha dominant disease besides its *Rasagata* manifestation. [5] Hence considering this *Acharya* Sushruta has described their treatment as application of *Shodhana Lepa*. [6]The disease mainly involves only *Rasavaha & Raktavaha Srotas* without further involvement of successive *Srotas*. *Acharya* Sushruta describes the color of the lesions in *Dadru* more specifically like that of copper or the flower of *Atasi* and mentions that its *Pidaka* are in the form of *Parimandala* having spreading nature (*Visarpanshila*) but slow in progress or chronic in nature (*Chirrottham*) with *Kandu*. [7]

DISCUSSION

The present study was aimed at finding a safe and effective method for managing *Dadru Kushta*. *Dadru* is manifested by appearance of discoid lesions within tractable itching. These diseases are chronic in nature, relapses after successful treatment is common & hence difficult to cure. It mostly occurs in those people who don't follow the hygienic norms or those who are immuno-compromised. *Dadru* is

Dermatophytoses is a clinical entity caused by the members of the imperfect genera. Trichophyton, Microsporum & Epidermophyton. The natural history of dermatophyte infection is the same initially in all types of disease. Colonization begins in the horny layer of the skin & the ultimate outcome depends on the host, strain, species variation & anatomic site. On the glabrous skin, the infection spreads centrifugally showing the classic 'Ringworm' pattern. The host reaction may be limited to patchy scaling or proceed to a toxic eczematous form eruption. Later an inflammatory reaction may occur. [8]

The contents of *Edagajadi Lepa* Viz. seeds of *Chakramarda*, *Kushta*, *Sarshapa*, *Vidanga* and *Saindhava lavana* are mixed with *Sauveerkam* which possess *Ushna*, *Tikshna*, *Laghu*, *Ruksha*, *Vishada Guna*, *Ushna Virya* & *Katu Vipaka* properties. The *Lepa* is said to be *Sukshmain* nature as it is macerated with *Sauveerkam* for two times. Upon topical application, the active principles of the *Lepa* reach to the deeper tissues through *siramukha* & *swedavahi srotas* & stain it with its *Sukshma* & *Tikshna* property.[9]

Due to its *Ushna*, *Tikshna*, *Vishada* & *Sukshma* properties it blocks the obstruction in *swedavahi srotas* & allows the local toxins to flow out through the *Sweda*, thus clearing out the micro channels. The *Ushna Virya* of *Edagajadi lepa* & *Snigdha Guna* of its vehicle i.e. *Sauveerkam* causes pacification of *Kapha* which forms the *samprapti* thus alleviating the symptoms. In most of the patients *Kandu* was relieved significantly was due to the *Kandughna* property of *Chakramarda* & *Kushta*. The abatement in scaling can be attributed to the Anti-scaling property of *Sauveerkam* [10]

The effects of *Bahiparimarjana* (External application) were assessed on each cardinal symptoms of the disease. These symptoms were assessed on the basis of scoring pattern, which was given before, after and follow up of the treatment and were assessed statistically. After treatment in *Kandu* was reduced remarkably which was statistically significant the changes persisted even after follow up study. The colour, size, number of mandala, was reduced remarkably which was statistically significant. After the application of *Edagajadi Lepa*, number of *Pidika* was reduced remarkably and changes were more significant statistically even after follow up period.

Tropical preparation applied might have acted by its *Ruksha* and *Lekhana* property for pacifying the *Kapha Doshas* locally and maintained the equilibrium the other *Doshas*. The *Suskshma* property of drugs used might have penetrated into deeper *Srotas* and dissolved the *Sanga*. After acting locally, the impaired *Dhatwagni* of *Rasa* and *Rakta* might be corrected to some extent by the *Agnideepana* property of the ingredients present in the *Lepa*. By this *Dhatu Shaithilya* might have resolved and provided nourishment to *Twacha*. [11]

When a *Lepa* is applied over the surface of skin opposite to the direction of hairs on it, through a proper base, the active principles of the ingredients of *Lepa* are released into that base. After that, this combination enters the *Romkupa* & further gets absorbed through the *Swedavahi Srotas* & *Siramukh* it does the Cutaneous Biotransformation and which will pacify the *Doshas* and leads to breaking of *Samprapti*. However, it should be kept in mind that the pilosebaceous uptake i.e. absorption of *Lepa* differs as per the site variation, skin condition &

more important is the base through which it is applied. [12]

CONCLUSION:

The results suggested that *Edagajadi lepa* showed significant result after treatment in *Kandu*, color of *mandala*, no of *pidika*, no of *mandala* variables and the efficacy of the treatment was highly significant even during follow up. All the patients enrolled in the study completed the full course of treatment without any adverse reaction to drug. Hence it can be suggested that *Edagajadi Lepa* can be used in the patients suffering from *Dadru Kushta*.

REFERENCES

1. Sushruta Samhita commentary of Dalhana's edited by P.V. Sharma reprint- 2013 chaukhambha vishvabharti , Varanasi chapter-5 nidansthan
2. Charak Samhita of Agnivesh revised by Charaka Redacted By Drudbala with vaidyamanorama' hindi commentary edited by Acharya Vidyadhar Shukla and Ravi Dutt Tripathi Chaukambha Sanskrit pratishthan, Delhi reprint-2011 chapter- 7 chikitsasthan shloka- 29-30 page no-185
3. Charak Samhita of Agnivesh revised by Charaka Redacted By Drudbala with Vaidyamanorama' hindi commentary edited by Acharya Vidyadhar Shukla and Ravi Dutt Tripathi Chaukambha Sanskrit Pratishthan, Delhi reprint-2012 chapter- 7 chikitsasthan shloka- 39-40 page no-186
4. Charak Samhita of Agnivesh revised by Charaka Redacted By Drudbala with Vaidyamanorama' hindi commentary edited by Acharya Vidyadhar Shukla and Ravi Dutt Tripathi Chaukambha Sanskrit Pratishthan, Varanasi, reprint-2012 chapter- 7 chikitsasthan shloka- 11-12 page no-182
5. Charak Samhita of Agnivesh revised by Charaka Redacted By Drudbala with Vaidyamanorama' hindi commentary edited by Acharya Vidyadhar Shukla and Ravi Dutt Tripathi Chaukambha Sanskrit Pratishthan, Delhi reprint-2012 chapter- 7 Nidana sthanashloka- 5/4 page no-184
6. Sushruta Samhita commentary of Dalhana's edited by P.V. Sharma reprint- 2013 Chaukhambha vishvabharti , Varanasi chapter-5/8 Chikitsasthan Page No-253
7. Sushruta Samhita commentary of Dalhana's edited by P.V. Sharma reprint- 2013 Chaukhambha vishvabharti , Varanasi chapter-5/8 Nidana sthana-Page No-495
8. Davidson's Principles and Practice of Medicine, 21nd Edition, Edited by Nicki R. Colledge, Churchill Livingstone UK Publishers, Page No: 391&1291
9. Charak Samhita, Vol-2, Agnivesh revised by Charaka Redacted By Drudbala with Vaidyamanorama' hindi commentary edited by Acharya Vidyadhar Shukla and Ravi Dutt Tripathi Chaukambha Sanskrit Pratishthan, Varanasi reprint-2012 chapter- 7 Chikitsa sthanshloka- 39-40page no-197
10. Sushruta Samhita commentary of Dalhana's edited by P.V. Sharma reprint- 2013 Chaukhambha vishvabharti , Varanasi chapter-5/11Chikitsasthan Page No-184
11. Charak Samhita, Vol-2, Agnivesh revised by Charaka Redacted By Drudbala with Vaidyamanorama' hindi commentary edited by Acharya Vidyadhar Shukla, Chaukambha Sanskrit Pratishthan, Varanasi reprint-2012

chapter- 7 Chikitsasthan shloka- 39-40
page no-186

12. Sushruta Samhita commentary of
Dalhana's edited by P.V. Sharma re-
print- 2013 Chaukhambha vishvabharti

, Varanasi chapter-15/3 Sutrasta sthan
Page No-11

**APPLICATION OF EDAGAJADI LE-
PA**

A



BEFORE TREATMENT

B



EDAGAJADI LEPA APPLICATION

C



AFTER 10TH DAY

E

D



AFTER 20TH DAY

F



AFTER 30TH DAY



AFTER 45TH DAY

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Source of support: Nil

Conflict of interest: None Declared