

COMPARATIVE CLINICAL STUDY TO EVALUATE EFFICACY OF LAKSHADI LEPA AND DURVADI LEPA IN THE MANAGEMENT OF DADRU (TINEA CORPOSIS)

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ABSTRACT

All the skin diseases in *Ayurveda* have been classified under the broad heading of '*Kushtha*' which are further categorized in to *Mahakushtha* & *Kshudrakushtha*. *Dadru* is one of among the *kushtarogas* which is identified by symptoms such as *kandu*, *mandala*, *rag*, *pidakas* with predominance of *kapha dosha*. *Dadru Kushtha* is the *Kshudrakushtha*. *Dadru* is curable but very tenacious in nature, hence they should be treated continuously 20 days otherwise relapses are very common. **Aim and Objective:** To compare and evaluate the efficacy of *Lakshadi Lepa* and *Durvadi Lepa* in the management of *Dadru*. **Methodology:** For these total number of 40 patients were selected dividing 20 in each group. Group A treated with *Lakshadi Lepa* and Group B treated with *Durvadi Lepa* for 28 days. **Results and Conclusion:** *Lakshadi Lepa* and *Durvadi Lepa* have showed good results in their respective *Kalpas* but when we compare with each other group efficacy there is no statically significant results is found. But clinically *Durvadi Lepa* shown more efficacy than *Lakshadi Lepa*.

Keywords: *Dadru*, Tinea Corporis, *Lakshadi Lepa* and *Durvadi Lepa*

INTRODUCTION

Skin is the largest organ of human body. It's size and external location makes it susceptible to a wide variety of disorders. In recent years, there has been a considerable increase in the incidence of skin problems in the tropical and developing countries like India due to various reasons like poverty, poor sanitation, unhygienic, pollution, harmful chemicals, exposure to extreme environmental conditions of cold, heat. Nowadays skin diseases are very common. Though skin diseases are common at any age of the individual, they are particularly frequent in the elderly.

All the skin diseases in *Ayurveda* have been classified under the broad heading of '*Kushtha*' which are further categorized in to *Mahakushtha* & *Kshudrakushtha*. *Dadru* is one of among the *kushtarogas* which is identified by symptoms such as *Kandu*, *Mandala*, *Rag*, *Pidakas* with predominance of *Kapha Dosha*. *Dadru Kushtha* is the *Kshudrakushtha*. *Dadru* is curable but very tenacious in nature, hence they should be treated continuously 20 days otherwise relapses are very common.

Dadru can be correlated with Tinea infections according to Modern. In recent years, there has been a con-

siderable increase in the incidence of skin problems. 10-20% of world population is suffering from it^[1]. In the tropical and developing countries like India due to various reasons like poverty, poor sanitation, unhygienic, pollution, exposure to extreme environmental conditions of cold, heat, Tinea infections are very common. There can be involvement of hairs, nails, skin of face, hands, feet and trunk. Tinea is classified in tinea corporis, tinea capitis, tinea barbae, tinea faciei, tinea pedis, tinea manuum, tinea cruris and tinea unguium according to region of the body.⁽²⁾ Here Tinea corporis is taken for study.

Incompatible foods and activities which are mentioned in *Ayurveda* is also an important cause for *Dadru*. *Ayurvedic* Classics have considered each type of *Kushtha* to be a *Tridoshaja* manifestation. Nonetheless their *Doshik* identity can be established based on dominance of *Dosha* in the *samprapti*. *Dadru* is purely *Kaphaja* Phenomenon. *Acharya Sushruta* has mentioned the treatment as '*Lepana* or *Shodhana*' type because external application is the best way to treat *Kushtha*. Furthermore, *Acharya Charaka* has described *Lepana* as *SadyahSiddhi Karaka*'.

Acharya Vridhdha Vagbhata has described "*Durvadi Lepa*" in *Dadru* treatment⁽³⁾. *Acharya Sushruta*⁽⁴⁾ and *Acharya Vridhdha Vagbhata*⁽⁵⁾ has described "*Lakshadi Lepa*" in *Dadru Kushta*. Research work on *Dadru Kushta* is done very less. Hence *Lakshadi Lepa* and *Durvadi Lepa* is selected here for research purpose.

Materials and Methods

a) **Source of Data:** 20 patients in each group coming under inclusion criteria approaching the OPD and camps conducted by of Shri J.G.C.H.S *Ayurvedic* medical college and Hospital Ghataprabha.

b) Diagnostic criteria:

A. Subjective parameter:

1. *Kandu*
2. *Raaga*

3. Number of *Mandal*

4. Size of *Mandal*

5. *Pidika*

B. Objective parameter:

1. The amount of reddish discolouration.
2. Number of patches.
3. Size of patches.
4. Severity of the itching

c) Inclusion criteria:

1. Patient diagnosed as *Dadru* as per the clinical features like *Kandu*, *Raaga*, *Mandal*, *Pidika* in *Ayurvedic* text were included in the study.
2. Age group above 16 to 60 years randomly included for study.

d) Exclusive criteria:

1. Patients under a long-standing medication.
2. Pregnant woman and lactating woman
3. Chronicity more than 2 years.
4. Age group: below 16 years to below 60 years.
5. Patient suffering from DM.

e) **Study Design:** It is a randomized single blind comparative study with pre-test and post-test design.

f) Withdrawal criteria:

Any adverse drug reaction on patient whether localized or generalised.

g) Sample size:

Totally 40 patients were selected to clinical trials. Patients were assigned into two groups.

- 1) Group A: In this group, 20 patients were treated with *Lakshadi Lepa*.
- 2) Group B: In this group, 20 patients were treated with *Durvadi Lepa*.

h) **Duration of treatment:** For 28 days.

i) **Follow up:** Every week During and after treatment.

j) Statistical analysis

Statistical analysis will be made using unpaired student's "t" test.

A) TRIAL GROUP:

Table 1:

a) Composition of the Lakshadi Lepa:

Sl.no	Sanskrita name	Botanical Name	Part used	Proportion
1	Laksha	Laccifer Lucca	Nirayasa	1 part
2	Chakramarda	CaesalTora	Phala	1 part
3	Shrivesta	CommiphoraMukul	Nirayas	1 part
4	Kusta	SaussureaLeppa	Moola	1 part
5	Sidhdhartha	BrasciaNigralinn	Beeja	1 part
6	Haridra	Curcuma Longa	Moola	1 part
7	Patol	TrichasanthusDivica	Phala	1 part
8	Sunti	ZingiberOfficanale	Moola	1 part
9	Pippali	Piper Nigrum	Phala	1 part
10	Takra	-	-	-

b) Preparation of medicine:

- All the ingredients were taken 1 part each
- Ingredients were dried and preparing fine *Choor-na* according *Choor-na Kalpana*
- All *Choor-na* were added together and then *Takra* were added in it and the final *Lepa* were applied.
- The thickness of the *Lepa* were $\frac{1}{4}$ *Angula*^[6].

B) CONTROL GROUP:

Table 2: a) Composition of the Durvadi Lepa:

Sl.no	Sanskrita name	Botanical Name	Part used	Proportion
1	Durva	CynodonDactylon	Patra	1 part
2	Haritaki	TerminaliaChebula	Beeja	1 part
3	Saindhavlan	SodiiChlorodum	-	1 part
4	Chakramarda	CasealTora	Beeja	1 part
5	Tulasi	Oscimum Sanctum	Patra	1 part
6	Kanji	-	-	a.q
7	Takra	-	-	a.q

b) Preparation of the Medicine:

- Tulasi Patra* and *Durva* were taken 1 part each and formation of the *Kalka* were done.
- Haritaki*, *Saindhavalavan* and *Chakramarda* were in *Choor-na* form 1 part each.
- All *Choor-na* were added together in *Kalka*.
- The final mixture was added in *Takra* and *Kanji* and the *Lepa* were applied.
- The thickness of the *lepa* were $\frac{1}{4}$ *Angula*^[6].

Table 3: Intervention chart:

Groups	TYPE OF MEDICINE	QUANTITY AND TIME	DURATION
Group A	Lakshadi (Lepa)	$\frac{1}{2}$ <i>Angula</i> thick ^[15] in the Morning	28 Days
Group B	Durvadi (Lepa)	$\frac{1}{2}$ <i>Angula</i> thick ^[15] in the Morning	28 Days
	Follow up		Every week during and after treatment.

RESULTS

Group A

Table 4: Showing the effect of *Lakshadi lepa* in 20 patients of *Dadru* in Group A

Sr. No	Symptoms	Mean		Difference	%	SD		SE		t – Test	p – value
		BT	AT			BT	AT	BT	AT		
1	<i>Kandu</i>	2.75	0.90	1.85	67.27	0.44	0.72	0.11	0.16	11.10	<0.001
2	<i>Raaga</i>	2.55	1.10	1.45	56.86	0.51	0.64	0.11	0.14	12.70	<0.001
3	Number of <i>Mandal</i>	2.75	1.55	1.2	43.63	0.44	0.51	0.10	0.11	13.07	<0.001
4	Size of <i>Mandal</i>	2.65	1.10	1.55	58.49	0.49	0.79	0.11	0.18	11.46	<0.001
5	<i>Pidika</i>	2.55	0.95	1.6	62.74	0.51	0.69	0.11	0.15	11.96	<0.001
6	The Amount of Reddish Discolouration	2.55	1.05	1.5	58.82	0.51	0.60	0.11	0.14	13.07	<0.001
7.	Number of Patches	2.55	0.90	1.65	64.70	0.51	0.64	0.11	0.14	12.56	<0.001
8.	Size of Patches	2.75	1.45	1.3	47.27	0.44	0.60	0.10	0.14	10.17	<0.001
9.	Severity of The Itching	2.55	1.10	1.45	56.86	0.51	0.55	0.11	0.12	12.70	<0.001

Group B

Table 5: Showing the effect of *Durvadi lepa* in 20 patients of *Dadru* in Group B

Sr. No	Symptoms	Mean		Difference	%	SD		SE		t – Test	p –value
		BT	AT			BT	AT	BT	AT		
1	<i>Kandu</i>	2.20	0.55	1.65	75	0.77	0.51	0.17	0.11	15.07	<0.0001
2	<i>Raaga</i>	2.00	0.70	1.3	65	0.56	0.57	0.13	0.13	12.36	<0.0001
3	Number of <i>Mandal</i>	2.20	0.45	1.75	79.54	0.41	0.51	0.09	0.11	17.61	<0.0001
4	Size of <i>Mandal</i>	2.50	0.85	1.65	66	0.51	0.75	0.11	0.17	15.07	<0.001
5	<i>Pidika</i>	1.95	0.20	1.75	89.74	0.60	0.41	0.14	0.09	17.61	<0.001
6	The Amount of Reddish Discolouration	2.20	0.35	1.85	84.09	0.70	0.67	0.16	0.15	12.33	<0.001
7	Number of Patches	2.60	0.85	1.75	67.30	0.50	0.59	0.11	0.13	12.25	<0.001
8.	Size of Patches	2.15	0.10	2.05	95.34	0.67	0.31	0.15	0.07	15.15	<0.001
9.	Severity of The Itching	2.30	1.5	2.15	93.47	0.66	0.37	0.15	0.08	16.37	<0.001

Observation:

In above study I have observed that 16 - 60 yrs age group is more commonly affected by *Dadru*. Females are more prone, people with middle socio-economic status are more affected. Vegetarians are more prone, *Vata Pittaja prakruti* person are more affected. Persons with *Heena Ahara* are more prone for *Dadru*. It is observed and confirms in applied clinical study that aggravated all *Doshas* along with vitiated *Rakta Dhatu* are mainly responsible for the actual manifestation of disease. The treatment consists of *Lepa*. Modern science also gives the treatment comprising of oral and topical anti-biotic and retinoid, corticosteroids. But no treatment is so far found to be effective or with minimum side effects.

DISCUSSION

After treatment the study shows statically and clinically significant results within the Trial Group (Group A) and Control Group (Group B) but after following up i.e. without any treatment for 30 days of observation follow up there is no statically significant results seen in group B. There are clinically significant reduction of signs occurs in the *Kandu*, *Raaga*, *Mandal*, *Pidika* of patient. As shown in table number 4 and table number 5 we can see the significant changes occurs during and after the treatment between group A and group B.

Kandu in group A showed 67.27% of relief whereas in group B showed 75%. group B showed good results compared to group A.

Raaga in group A showed 56.86% of relief whereas in group B showed 65% in this group B showed good results compared to group A.

Mandal in group A showed 43.53% of relief whereas in group B showed 79.54% in this parameter group B showed good results compared to group A.

Pidika in group A showed 89.74% of relief whereas in group B showed 62.74% in this group A showed good results compared to group B.

The amount of reddish discoloration in group A showed 58.82% of relief whereas in group B showed 84.09% in this group B showed good results compared to group A.

Severity of itching in group A showed 56.86% of relief whereas in group B showed 93.47% in this group B showed good results compared to group A.

Size of patches in group A showed 95.34% of relief whereas in group B showed 47.27% in this group A showed good results compared to group Ba.

Number of patches in group A showed 64.70% of relief whereas in group B showed 67.30% in this group B showed good results compared to group A.

CONCLUSION

Overall conclusion from this study says that when we compare Trial Group with Control Group i.e. *Lakshadi Lepa* and *Durvadi Lepa* has showed good results in their respective *Kalp*s but when we compare with each other group efficacy there is no statically significant results is found. But clinically *Durvadi Lepa* shown more efficacy than *Lakshadi Lepa*. *Durvadi Lepa* is more effective in reducing the *Dadru* in compared with *Lakshadi Lepa*.

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Source of Support: Nil

Conflict of Interest: None Declared

How to cite this URL: Gaurav Mahant & Shobha. R. Itnal: Comparative Clinical Study to Evaluate Efficacy of Lakshadi Lepa And Durvadi Lepa In The Management of Dadru (Tinea Corposis). International Ayurvedic Medical Journal {online} 2019 {cited December, 2019} Available from: http://www.iamj.in/posts/images/upload/2165_2169.pdf