

**A CLINICAL STUDY ON THE ROPANA (PADADARI) KARMA OF
SNUHI (EUPHORBIA NERIIFOLIA LINN) SIDDA MALAHARA****Jangam Dhana Lakshmi*¹ and M. Paramkusha Rao²**¹PG Scholar, Department of Dravya Guna, S.V. A Yurvedic College, Tirupati, A.P. India.²PG professor and Head (Rt), Department of Dravyaguna, S.V. A Yurvedic College, Tirupati.Article Received on
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A.P., India.**ABSTRACT**

Padadari is a disease described in Ayurveda under kshudraroga. It can be correlated to cracked feet. Cracked feet are a common cosmetic problem and a nuisance to most people. But when the fissures or cracks are deep, they are painful to stand on and the skin can bleed and in severe cases this can become infected. Common cause for crack foot include fashionable high healed and improper fitting shoe, excessive walking involving athletics, psoriasis, diabetes and reduced humidity and dries out the skin. The disease involves the vrudha vata dosha leading to dryness, cracks and fissures. The symptoms may include vedana, kandu, daha, raktasrava. So the line of treatment is controlling vata, overwhelming dryness and healing the cracks, which is possible

by cleaning, drying and applying sneha dravya to the affected area. Acharyas have mentioned number of single and compound drugs to treat Padadari most of them developed by practice. Euphorbia neriifolia is an herb extensively used in the Indian system of medicine. Snuhi kshira is one among renowned Ayurvedic herbal drug which is believed to be effective in Padadari. The present study was taken from the Vaidyamanorama. In this study 45 patients were divided in to 3 groups. Snuhi kshira malahara (SKM) Group-1, Snuhi swarasa malahara (SSM) group-2 and placebo (Wheat powder) was given to group-3. Group-1 patients have shown better percentage of relief when compared to other 2 groups. That means snuhi kshira malahara is more effective than other forms. The results with group-2 that snuhi swarasa malahara has shown next better results. Placebo (Wheat powder) group has shown minimal results.

KEYWORDS: Padadari, Snuhi Kshira, Rakta Srava, Psoriasis, Snuhi Kshira Malahara, Snuhi Swarasa Malahara etc.

INTRODUCTION

Ayurveda is the science of life, which always emphasize on maintenance of healthy body, in fact its first aim itself is “Swastasya swastya rakshanam”

To fulfil its aim, the science has explained many protective measures in certain regimens such as Dinacharya and Rutucharya. In Dinacharya care for every part is explained including eyes, ears, nose, oral cavity, head, skin etc. For skin Abhyanga i.e. oil massage is explained. By massaging oil in the feet, roughness, immobility, dryness, fatigue and numbness are instantaneously cured; tenderness, strength and steadiness of feet are effected; the eyes sight becomes clear and vata (vitiated) is relived thereby. Prevention from sciatica, cracking of feet, constriction of vessels and ligaments of feet is ensured if (oil) massage is applied to the feet.^[1]

Habitual use of padabhyanga leads to even Drishtiprasada (good for eyes) and sustain the health of foot, which clearly signifies pada is important. But in this hurried life people are unable to spare time to the protection, nourishment of even the vital parts such as head and eyes and thus least to the pada. This negligence leads to the disease padadari.

In persons who are in the habit of walking too much. Vata becomes very dry, produces cracks/fissures in the soles which is painful; this is known as padadari.^[2] So the line of treatment is controlling vata, overwhelming dryness and healing the cracks, which is possible by cleaning, drying and applying sneha dravya to the affected area.

The present study was taken from the Vaidyamanorama.

स्नुक्क्षीरपलसंसिद्धतैलसैन्धवलेपनात् I

रोहेत् सहस्रधा भिन्नमपि पादतलं क्षणात् II (V.D.11/57)

According to vaidhyamanorama prepare a *sidda taila* with the mixture of *saindhavalavana*, 50gm of *snuhi ksheera* and *tilataila*. Use it for external application on *Padadari*.^[3] (V.D.11/57).

Plan of action

1. Patients suffering from Padadari were selected on the basis of classical signs and symptoms described in classical texts.
2. Patient attending O.P.D. of Dravyaguna, S.V Ayurvedic hospital, Tirupati. were selected randomly irrespective of their age, sex and religion etc.

GROUPING OF PATIENTS

1. Group (SKM):-*Saindavalavanam* + *Tilatailam*+ *snuhi ksheera* +add1/6 of madhucchista made into ointment and applied locally.
2. Group (SSM): - *Saindavalavanam*+*Tilatailam*+*Snuhi swarasam*+add 1/6 of *Madhucchista* made into ointment.
3. Group (Placebo):- Wheat powder.

MATERIAL AND METHODS

1. *Snuhi Ksheera*
2. *Saindavalavana*
3. *Tilataila*
4. *Madhucchista*
5. *Snuhi swarasam*
6. *Wheat powder*

Drug administration

1. Advised to the patient wash legs thoroughly in Luke warm water to remove the dust and make the area clean.
2. Using a clean towel, dry the feet well paying close attention to drying the skin between the toes. This is needed because moist area between the toes can act as a rostrum for breeding bacteria and conduce to infections.
3. Then apply the lepa evenly.
4. Duration of the treatment 40days.

Form : The drug was given in the form of Lepa
Route : External application
Duration : 40 days

Inclusion Criteria

1. The patients having cracks/fissures in with or without pain and itching were included.
2. Patients of either sex will be included.
3. All age groups are included.

Exclusion Criteria

Patient suffering with following diseases is excluded in the study.

- Psoriasis

- Hyperkeratotic eczema
- Nutritional disorders
- Diabetes

Parameters

Criteria for Assessment

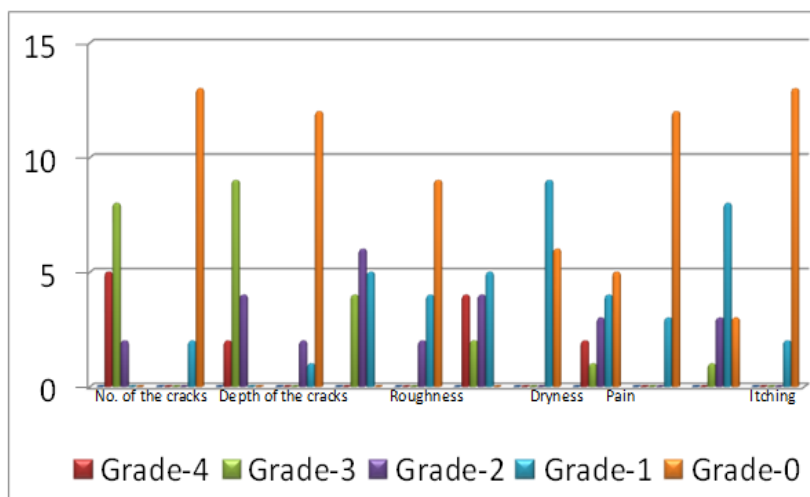
Responses to the treatment were evaluated by using a specially prepared grading scale for clinical features.

1. No .of cracks in the feet
2. Depth of the cracks
3. Roughness
4. Dryness
5. Pain
6. Itching sensation

OBSERVATION AND RESULTS

Gradiation of Symptoms Before and After Treatment Gradiation of Symptoms Before and After Treatment In Group -1(SKM).

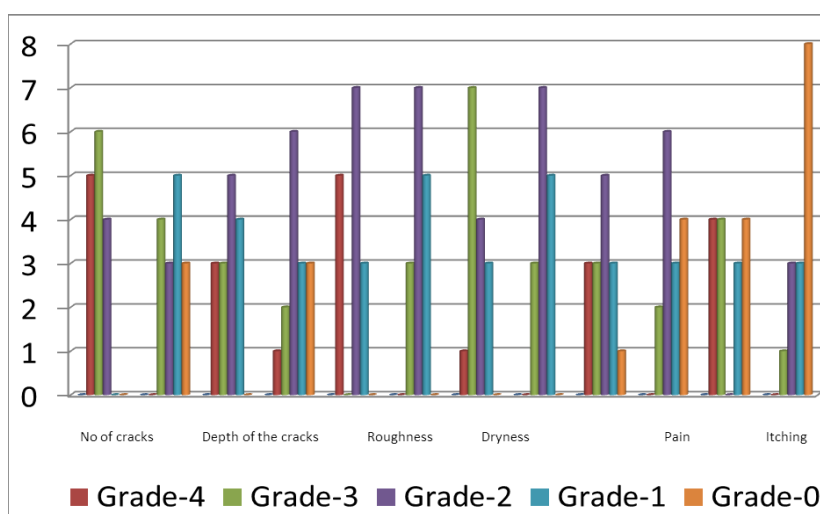
Symptoms		No. of patients with grade-4	No of patients with grade-3	No. of patients with grade-2	No. of patients with grade-2	No. of patients with grade-0
No. of cracks	BT	5	8	2	0	0
	AT	0	0	0	2	13
Depth of the cracks	BT	2	9	4	0	0
	AT	0	0	2	1	12
Roughness	BT	0	4	6	5	0
	AT	0	0	2	4	9
Dryness	BT	4	2	4	5	0
	AT	0	0	0	9	6
Pain	BT	2	1	3	4	5
	AT	0	0	0	3	12
Itching	BT	0	1	3	8	3
	AT	0	0	0	2	13



Symptoms Before and After Treatment of Group-1 (SKM).

Gradation of Symptoms Before and After Treatment in Group -2 (SSM).

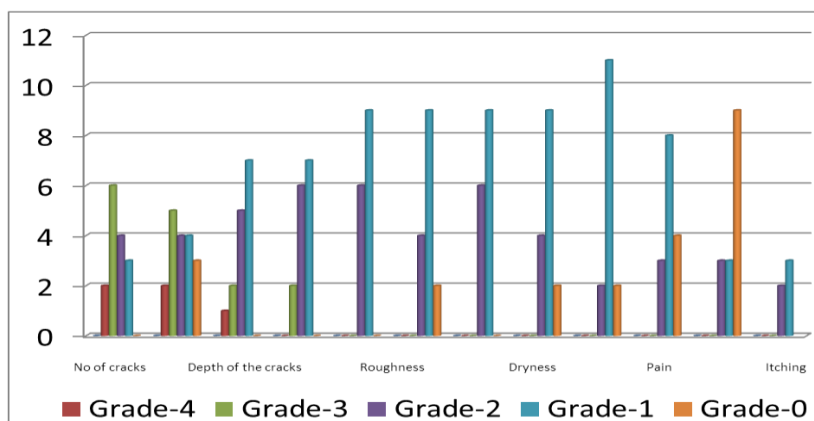
Symptoms		No. of patients with grade-4	No. of patients with grade-3	No. of patients with grade-2	No. of patients with grade-1	No of patients with grade-0
No. of cracks	BT	5	8	2	0	0
	AT	0	0	0	2	13
Depth of the cracks	BT	2	9	4	0	0
	AT	0	0	2	1	12
Roughness	BT	0	4	6	5	0
	AT	0	0	2	4	9
Dryness	BT	4	2	4	5	0
	AT	0	0	0	9	6
Pain	BT	2	1	3	4	5
	AT	0	0	0	3	12
Itching	BT	0	1	3	8	3
	AT	0	0	0	2	13



Symptoms Before and After Treatment of Group-2 (SSM).

Gradation of Symptoms Before and After Treatment in Group -3 (PL).

Symptoms		No. of patients with grade-4	No. of patients with grade-3	No. of patients with grade-2	No. of patients with grade-1	No. of patients with grade-0
No. of cracks	BT	2	6	4	3	0
	AT	2	5	4	4	3
Depth of the cracks	BT	1	2	5	7	0
	AT	0	0	6	7	0
Roughness	BT	0	0	6	9	0
	AT	0	0	4	9	2
Dryness	BT	0	0	6	9	0
	AT	0	0	4	9	2
Pain	BT	0	0	2	11	2
	AT	0	0	3	8	4
Itching sensation	BT	0	0	3	3	9
	AT	0	0	2	3	10



Symptoms Before and After Treatment of Group-3 (PL).

Statistical analysis of data statistical comparison of group-1 statistical analysis of data

Table No.63 Statistical comparison of Group-1.

Parameter	Mean		Mean Diff	% of relief	S.D		S.E		t-value	P value	Significance
	B.T	A.T			B.T	A.T	B.T	A.T			
No. cracks	3.20	0.13	3.07	95.93	0.68	0.35	0.17	0.09	20.008	<0.0001	Extremely significant
Depth of the cracks	2.87	0.33	2.54	88.50	0.64	0.72	0.17	0.19	19.000	<0.0001	Extremely significant
Roughness	1.93	0.53	1.4	72.53	0.80	0.74	0.21	0.19	10.6927	<0.0001	Extremely Significant
Dryness	2.33	0.66	1.67	71.67	1.23	0.51	0.32	0.13	6.9845	<0.0003	Extremely significant
Pain	1.40	0.20	1.20	85.71	1.40	0.41	0.36	0.11	4.2941	<0.0007	Extremely significant
Itching	1.13	0.13	1	88.49	0.83	0.35	0.22	0.09	5.9161	<0.0001	Extremely Significant

Above table shows reduction of Cracks symptoms statistically in Group-1.

Effect of Snuhi kshira malahara (SKM) on no.cracks/fissures in the feett: Snuhi ksheera malahara reduced no. cracks in the feet by 95.93% which was statistically extremely significant ($p<0.0001$).

Effect of Snuhi kshira malahara (SKM) on Depth of the cracks in the feet: Snuhi ksheera malahara reduced Depth of the cracks in the feet by 88.50% which was statistically extremely significant ($p<0.0001$).

Effect of Snuhi kshira malahara (SKM) on Roughness of the feet: Snuhi kshhera malahara reduced roughness of the feet by 72.53% which was statistically very significant ($p<0.0001$).

Effect of Snuhi kshira malahara (SKM) on Dryness of the feet: Snuhi ksheera malahara reduced Dryness of the feet by 71.67% which was statistically extremely significant ($p<0.0001$).

Effect of Snuhi kshira malahara (SKM) on Pain of cracks: Snuhi ksheera malahara reduced pain by 85.71% which was statistically extremely significant (<0.0007).

Effect of Snuhi kshira malahara (SKM) on Itching of cracks: Snuhi ksheera malahara reduced itching sensation of cracks by 88.49% which was statistically very significant ($p<0.0001$).

Table No.64 Statistical comparison of Group-2.

Parameter	Mean		Mean Diff	% of relief	S.D		S.E		t-value	P value	Significance
	B.T	A.T			B.T	A.T	B.T	A.T			
No. cracks	3.07	1.53	1.54	50.16	0.80	1.13	0.21	0.29	11.500	<0.0001	Extremely significant
Depth of the cracks	2.33	1.67	0.66	28.32	1.11	1.18	0.29	0.30	3.2915	0.0001	Extremely significant
Roughness	2.47	1.87	0.6	24.29	1.19	0.74	0.31	0.19	3.1539	<0.0017	Very significant
Dryness	2.40	1.87	0.53	22.08	0.01	0.74	0.24	0.19	4.0000	0.0013	Very significant
Pain	2.33	1.27	1.06	45.49	1.11	0.88	0.29	0.23	2.9074	<0.0017	Very significant
Itching	1.73	0.93	0.8	46.24	1.49	1.03	0.38	0.27	4.5826	0.0004	Very significant

Above table shows reduction of Cracks symptoms statistically in Group-2

Effect of Snuhi Swarasa malahara (SSM) on no.cracks/fissures in the feett: Snuhi swarasa malahara reduced no. cracks in the feet by 50.16% which was statistically extremely significant ($p<0.0001$).

Effect of Snuhi Swarasa malahara (SSM) on Depth of the cracks in the feet: Snuhi swarasa malahara reduced Depth of the cracks in the feet by 28.32% which was statistically not significant ($p=0.0001$).

Effect of Snuhi Swarasa malahara (SSM) on Roughness of the feet: Snuhi swarasa malahara reduced roughness of the feet by 24.29% which was statistically very significant ($p<0.0071$).

Effect of Snuhi Swarasa malahara (SSM) on Dryness of the feet: Snuhi swarasa malahara reduced dryness of the feet by 24.29% which was statistically very significant ($p<0.0071$).

Effect of Snuhi Swarasa malahara (SSM) on Pain of cracks: Snuhi Swarasa malahara reduced pain by 45.49% which was statistically very significant (<0.0017).

Effect of Snuhi Swarasa malahara (SSM) on Itching of cracks: Snuhi swarasa malahara reduced itching sensation of cracks by 46.24% which was statistically extremely significant (0.0004).

Table No. 65 Statistical comparison of Group-3.

Parameter	Mean		Mean Diff	% of relief	S.D		S.E		t-value	P value	Significance
	B.T	A.T			B.T	A.T	B.T	A.T			
No. cracks	2.47	2.33	0.14	5.66	0.99	1.05	0.26	0.27	1.4676	0.1643	Not significant
Depth of the cracks	1.80	1.67	0.13	7.22	0.94	0.72	0.24	0.19	1.4676	0.1643	Not significant
Roughness	1.40	1.20	0.2	14.28	0.51	0.68	0.13	0.17	1.8708	0.0824	Not Significant
Dryness	1.33	1.13	0.2	15.03	0.49	0.52	0.13	0.13	1.8708	0.08248	Not quite significant
Pain	1.00	0.87	0.13	21.66	0.53	0.52	0.14	0.13	1.4676	0.1643	Not significant
Itching	0.60	0.47	0.13	7.8	0.83	0.74	0.21	0.21	1.4676	0.1643	Not Significant

Above table shows reduction of Cracks symptoms statistically in Group-3

Effect of Placebo (P.L) on no. cracks/fissures in the feet

Placebo (Wheat powder) reduced no. cracks in the feet by 5.66% which was statistically not significant ($p=1643$).

Effect of Placebo (P.L) on Depth of the cracks in the feet: Placebo (Wheat powder) reduced Depth of the cracks in the feet by 7.22% which was statistically not significant ($p=0.1643$).

Effect of Placebo (P.L) on Roughness of the feet: Placebo (Wheat powder) reduced roughness of the feet by 14.28% which was statistically not significant ($p=0.0824$).

Effect of Placebo (P.L) on Dryness of the feet: Placebo (Wheat powder) reduced Dryness of the feet by 15.03% which was statistically not quite significant ($p=0.8248$).

Effect of Placebo (P.L) on Pain of cracks: Placebo (Wheat powder) reduced pain by 21.66% which was statistically Not significant ($p=0.1643$).

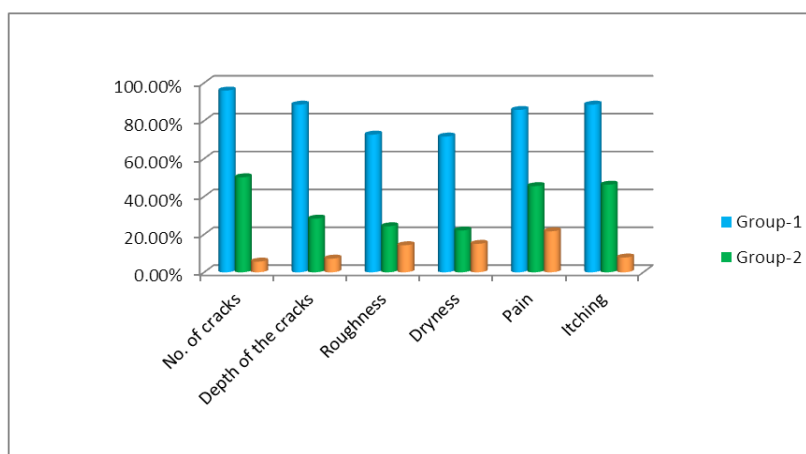
Effect of Placebo (P.L) on Itching of cracks: Placebo (Wheat powder) reduced itching sensation of cracks by 7.8% which was statistically not significant (0.1643).

Table No: 66

OVER ALL RESULT OF THE STUDY

Parameter	% of Relief		
	Group-1	Group-2	Group-3
No. of cracks	95.93	50.16	5.66
Depth of the cracks	88.50	28.32	7.22
Roughness	72.53	24.29	14.28
Dryness	71.67	22.08	15.03
Pain	85.71	45.49	21.66
Itching	88.49	46.24	7.8

Above table shows reduction of cracks symptoms statistically in 3 groups.



Graph no: 26 overall result of the study according to % of relief.

Above Graph shows statistically Group-1 patients have shown better percentage of result when compared with Group-2 and Group-3, because Snuhi ksheera is more effective than other Snuhi swarasa and wheat powder.

Table No: 67 Inter Group Comparison (ANOVA Single Factor Result).

S .No	Symptom	F-Value	P-Value	Significance
1	No. of cracks	22.4482	2.34E-07	Extremely significant
2	Depth of the cracks	10.9803	0.00014	Extremely significant
3	Roughness	13.2515	3.45E-05	Extremely Significant
4	Dryness	14.9296	1.26E-05	Extremely Significant
5	Pain	8.4378	0.00083	Extremely significant
6.	Itching	4.1693	0.02229	Significant

The results of a ANOVA statistical test for all symptoms of Padadari is significant

Image No: 31

Photos of Before & After Treatment



Before Treatment.



After Treatment

Case No.: 5 (Group.1).



Before Treatment



After Treatment

Case No.15 (GROUP-1).



Before Treatment



After Treatment

Case No. 3 (Group-2).



Before Treatment



After Treatment

Case No. 8. (Group-2).

**Before Treatment****After Treatment****Case No. 1 (Group-3).**

DISCUSSION

Vaidhyamanorama mentioned a *sidda taila* with the mixture of *saindhavalavana*, *snuhi ksheera* and *tilataila*. Use it for external application on *Padadari*. (V.D.11/57).

Snuhi ksheera malahara has shown very effective results on the basis of the above discussions and it has been found very effective in all the symptoms of cracks with a probability $P < 0.0001$.

Mode of action

The disease involves the *vriddha vata dosha*, leading to dryness, cracks and fissures. The symptoms may include *vedana*, *kandu*, *daha*, *raktasrava*. So the line of treatment is controlling *vata*, overcoming dryness and applying *snehadravya* to the *vata*. Snuhi ksheera has *vrana hara* property and it acts as an anti-inflammatory and analgesic because of triterpenes.

euphol, nerifoliol and cytoartenol are present in snuhi ksheera. Wound healing activity, Tila tailam has madhura, tikta, kashaya rasa, vata hara property and vrana ropana, saindavalavana has madhura rasa, snigdha guna, vrana hara property. Above all the properties snuhi ksheera malahara very effective in cracks when compared with other two groups.

CONCLUSION

1. Padadari is a frequent problem in women as well as men in protective atmosphere.
2. Padadari is a very common disease among House wives, farmers as result of less care to foot; Unhygienic conditions and hard shoes and climatic conditions etc.
3. Padadari is not a problem, but the people belong in to poor suffer more. The cracks are given in to parasites in to blood cells.
4. Therefore in order to “healing cracks in the feet is a first step heel to health.”
5. It is a cosmetic problem as a psychological as well as creates an inferiority complex particularly in women.
6. Cracks may lead to ulcer some times; heavy bleed making a real problem of health.
7. Susrutha is the first person who made a separate category for kshudra roga and explained the disease padadari under this as it is having mild causes and symptoms, pathogenesis but worsens on severity.
8. If the patients suffering Diabetes entering to serious problems like non- healing ulcers there by disease like Madhura foot problems.
9. Therefore the study has provided a simple and easy treatment for cracks feet. That is a boon for people working in the glamorous world.

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