



A RANDOMIZED COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF *GANDHAKADHYA MALAHARA* OVER *SARJARASADI LEPA* ALONG WITH *AROgyAVARDHINI VATI* IN THE MANAGEMENT OF *VIPADIKA* W.S.R TO PALMO-PLANTAR PSORIASIS

SUNITA BISHNOI¹, SANJAY KADLIMATTI²

¹Final year PG Scholar, Dept of Kayachikitsa, BLDEA'S AVS Ayurveda Mahavidhyalaya, Hospital and Research centre, Vijayapura, Karnataka, India. ²Professor, Dept of Kayachikitsa, BLDEA'S AVS Ayurveda Mahavidhyalaya, Hospital and Research centre, Vijayapura, Karnataka, India.

ABSTRACT

Vipadika is a common disorder of skin which affects the people irrespective of age and sex. It is not limited to any particular class in the society. It can be co-related to palmo-plantar psoriasis. *Vipadika* manifests in both *pani* and *pada* or alone in either *pani* or *pada* only. Due to its severity and chronicity, it hampers the daily activities of an individual. It can also be considered as a cosmetic problem in the society.

Vipadika is mentioned as a *kshudra kustha* as well as it is one of the *vataja nanatmaja vikara*. Its signs and symptoms according to *charaka* are *pani-pada sputana* and *teevra vedana*. *Gandhakadhyah malahara* is mentioned in the text of *Rasa tarangini* in the context of *kustha* for *chikitsa* of *vipadika*. Looking at the ingredients and its action, we can consider it under the *malahara kalpana*. The main aim was to know the efficacy of *Gandhakadhyah malahara*. Hence it was compared with a proven drug i.e., *Sarjarasadi Lepa* which is mentioned in the text of *Bhaishajya Ratnavali* under *kushta chikitsa*. Both of these are safe, economical, easy to use and suitable for the fast life of the people who have no time to spend for *shodhana* therapy. Hence the present work was undertaken as; “A Randomized Comparative Clinical Study to Evaluate the Efficacy of *Gandhakadhyah malahara* over *Sarjarasadi lepa* along with *Arogyavardhini vati* in the Management of *Vipadika* w.s.r to palmo-plantar psoriasis.”

Materials and Methods: A total of 40 Patients were selected from OPD and IPD of Department of Kayachikitsa, BLDEA'S AVS Ayurveda Mahavidhyalaya and Hospital Vijayapura after fulfilling inclusion and exclusion criteria. They were randomly divided into 2 groups of 20 each, Group A (*Gandhakadhya malahara* along with *Arogyavardhini vati*) and Group B (*Sarjarasadi lepa* along with *Arogyavardhini vati*). Assessment of results was done by considering the base line data of subjective and objective parameters; before, during and after treatment.

Results: The effect of *Gandhakadhya malahara* along with *Arogyavardhini vati* has shown statistically significant outcome, which means the *Gandhakadhya malahara* along with *Arogyavardhini vati* is more effective in the management of *Vipadika*.

Keywords-*Vipadika, Kushta, Palmo-plantar psoriasis, Gandhakadhya malahara, Sarjarasadi lepa.*

INTRODUCTION:

Skin is given due importance since time immemorial owing to the aesthetic value conferred upon skin, complexion and beauty by the society. Any sickness of the skin becomes a great dispute for an individual in the civilization. Ayurveda designates most of the skin diseases under the umbrella term of *Kushta Roga* and has pointed at its multifactorial etiology.

Vipadika is one of among the 11 types of *Kshudra kushta* characterized by *Panipada Sputana* (Fissures in palms and soles), *Tivra vedana* (severe pain) and *Daha* (burning sensation).¹⁻²

*Maharshi vagbhata*³ has also explained similarly with one more symptom as red patches over palm and sole. Because of the excessive friction or pressure over the skin *Vata* gets vitiated locally. Due to increase in the *Ruksha* nature of *Vata* the skin gets dry and becomes thickened. This results in the cracks. The condition may further worsen due to the absence of personal hygiene.

According to contemporary science, various disorders can cause cracked skin like hyperkeratosis palmo-plantaris, palmo-plantar psoriasis, anhidrosis, dermatitis, diabetic neuropathy, Eczema, hypothyroidism, psoriasis, cold weather, excessive exposure to hot water, detergent, chemicals and low humidity etc.⁴ The pH of healthy skin is slightly acidic, exposure to many commercial cleansers and hand soaps like substances with an alkaline pH also contribute to interruptions of skin integrity.

Malahara applied over the lesion gets absorbed and treats the *dushti* in *tvacha*. *Shamana Auoshadhi*'s will pacify vitiated *dosha* and *dushya*'s within the body. Hence based on this hypothesis an attempt is made to know the efficacy of *Gandhakadhya malahara* over *Sarjarasadi lepa* along with *Arogyavardhini vati* in the management of *Vipadika*.

AIM AND OBJECTIVES:

AIM:

- To evaluate the efficacy of *Gandhakadhya Malahara* over *Sarjarasadi Lepa* along with *Arogyavardhini Vati* in the management of *Vipadika*.

OBJECTIVES:

- To evaluate the efficacy of *Gandhakadhya Malahara* along with *Arogyavardhini Vati* in *Vipadika*.
- To validate the efficacy of *Sarjarasadi Lepa* along with *Arogyavardhini Vati* in *Vipadika*.
- To compare the efficacy of *Gandhakadhya Malahara* over *Sarjarasadi Lepa* along with *Arogyavardhini Vati* in *Vipadika*.

MATERIALS AND METHODS:

The study got approved by Institutional Ethics Committee (no.347/2022-2023, dated: October 15,2022) and trial was registered in Clinical Trial Registry of India (CTRI/2023/05/052405) Subjects visiting outpatient department of Kayachikitsa of BLDEA'S AVS Ayurveda Mahavidyalaya, Hospital and Research Centre, Vijayapur were thoroughly examined for clinical signs and symptoms of *Vipadika* along with necessary haematological investigations. Subjects were enrolled for the study considering the criteria of inclusion, exclusion and after getting the consent. The registered subjects were allocated into two groups, using the randomization. *Gandhakadhya malahara* along with *Arogyavardhini vati* in the dose of 250 mg twice a day with *sukhoshna jala* for 6 weeks in trial group A and *Sarjarasadi lepa* along with *Arogyavardhini vati* in the dose of 250 mg twice a day with *sukhoshna jala* for 6 weeks in trial group B for the age group of 17-70 years respectively.

DIAGNOSTIC CRITERIA:

Patients presenting with symptoms of *Vipadika*, characterized by,

- Vedana (pain)
- Kandu (itching)
- Panipada sphutana (cracks)
- No. of cracks
- Length of cracks

INCLUSION CRITERIA:

- Patients who fulfilled the diagnostic criteria i.e., presenting with classical signs and symptoms of *Vipadika* were selected for the study.
- Patients of age between 17-70 year, irrespective of sex, religion, occupation and economic status were selected.

EXCLUSION CRITERIA:

- Patients suffering from other severe skin diseases and systemic disorders.
- Pregnant women and Lactating mothers.

ASSESSMENT CRITERIA:

Assessment was done on the basis of changes in the gradation of both subjective and objective parameters before and after treatment.

Subjective parameters are: 1. *Vedana* (pain) 2. *Kandu* (itching)

Objective parameters are: 1. *Panipada sphutana*(cracks) 2. Number of cracks 3. Length of crack.

STATISTICAL ANALYSIS:

The data obtained were entered in a Microsoft Excel sheet, and statistical analysis was performed using statistical package for the social sciences (version 20). Results were presented as Mean+ SD, counts, percentage and diagrams. Paired data were compared using WILCOXON RANK SUM TEST. P value <0.01 was considered statistically significant.

OBSERVATIONS:

A total 42 subjects were registered, with 2 being dropped out from the study, and total 40 subjects were being included in the study. Subjects were selected randomly and divided in two groups Group A and Group-B, each group contains 20 subjects. The Group A subjects given with *Gandhakadhya malahara* along with *Arogyavardhini vati* and Group B subjects given with *Sarjarasadi lepa* along with *Arogyavardhini vati*.

The parameters were noted before and after treatment. Out of 40 maximum number of subjects were in the age group between 32 to 44 years (60.00%), 17 patients (42.5%) were male and 23 patients (57.5%) were female, 45% of the patients were found to be House wives, 35% patients were farmers, 21 patients (52.5%) found to be from lower Middle- class SES, 24 patients (60%) found to have *vata-kaphaja prakruti* and 62.5% of the patients had history of repeated washing i.e. more than 6 times a day.

RESULTS:

Both the group showed significant results in all the subjective and objective parameters. But comparatively group-A i.e *Gandhakadhya Malahara* along with *Arogyavardhini vati* was more effective in *Vipadika* and this might be due to the presence of *Rasa aushadhi*'s with their anti-microbial, antibacterial and analgesic action.

Table no.1 Comparison of the study parameters among the patients in group A

Parameter	Mean		Diff	SD	SE	z-value	P-value
	BT	AT					
<i>Vedana</i>	2.27	0.09	2.18	0.39	0.08	25.91	<0.0001 (HS)
<i>Kandu</i>	2.36	0.09	2.27	0.45	0.09	23.4	<0.0001 (HS)

<i>Sphutana</i>	2.00	0.20	1.80	0.41	0.09	17.0	<0.0001 (HS)
Number of cracks	2.70	0.20	2.50	0.51	0.11	21.9	<0.0001 (HS)
Length of cracks	2.50	0.20	2.30	0.92	0.20	11.3	<0.0001 (HS)

Figure no.1-2: Showing pictures before and after treatment in group-A



Fig-1



Fig-2

Table no.2 Comparison of the study parameters among the patients in group B

Parameters	Mean		Diff	SD	SE	z-value	P-value
	BT	AT					
Vedana	2.30	0.10	2.20	0.41	0.09	24.10	<0.0001(HS)

Kandu	2.30	0.10	2.20	0.37	0.11	25.2	<0.0001(HS)
Sphutana	2.00	0.30	1.70	0.47	0.10	16.5	<0.0001(HS)
Number of cracks	2.70	0.30	2.40	0.50	0.11	21.5	<0.0001(HS)
Length of cracks	2.55	0.35	2.20	1.05	0.23	9.5	<0.0001(HS)

Figure no.3-4: Showing pictures before and after treatment in group-B

Before treatment

After treatment



Fig-3



Fig-4

Over all response: Overall response was better in Group A as compared to Group B.

DISCUSSION:

Ayurveda includes all the skin disorders under the broad name *Kushta*. There are 18 types of *Kushta* described in *Ayurveda Samhitas*. Out of which 11 are *Kshudra Kushta* and *Vipadika* is one of them. It is included in *Kshudra kushta* with *Vata-Kapha Dosha* involvement and it is characterized by *Pani-Pada sphutna* (cracks in palms and

soles), Tivra Vedana (with severe pain) and *Kandu*. The treatment which is given in *Ayurveda* is *Shamana* and *Shodhana* which helps to cure the disease without recurrence of the disease.

In present clinical study the incidence of *Vipadika* was found more in the age group between 32 to 44 years. Total 24 (60.00%) patients belonged to this particular age group. This is probably because of excessive work load in field and at home, which ultimately causes *vata prakopa* in the body.

Vipadika was more seen in females than males, this might be due to the house hold work and frequent exposure to detergent and dust. Hence *Vipadika* is more prevalent in females than males. In this study most of the patients were found to be House wives i.e. 45% and farmers i.e. 35%. This might be due to the excessive exposure to detergent and dust in housewives and excessive exposure to fertilizers in farmers.

21 patients (52.5%) found to be from lower Middle- class families. this might be due to poor hygiene, excessive work load and nutritional deficiency. 24 patients (60%) found to have *vata-kaphaja prakruti*. This shows the involvement of *vata-kaphaja doshas* in etiopathogenesis of *vipadika*.

62.5% of the patients had history of repeated washing i.e. more than 6 times a day. Here we can say that repeatedly immersing hand or feet in water for longer duration of time may enhance the chances of getting *vipadika*.

In this clinical study almost all the patients of *vipadika* were exposed to some type of irritants like detergents, dust, fertilizers etc.

The *Vedana* in *Vipadika* is due to aggravated *Vata dosha*. In *Gandhakadhya malahara*, *snigdha*, *mrudu* and *ushna* properties of *Sikta* and *Gandhaka* helps in the pacification of *vata* and hence reduction in *Vedana*.⁵⁻⁶

Vedana Sthapaka action of *Tilataila*⁷, *Tankana* and *karpura*⁸ in *Gandhakadhya malahara* helps in reducing the *Vedana*. *Snigdha*, *picchila*, *ushna guna* of *guggulu*⁹ in *Sarjarasadi Lepa* helps in reducing the *vata* and hence reduces the *Vedana*. *Madhura*, *guru*, *Snigdha* and *mridu* properties of *Ghrita*¹⁰ helps in pacification of *vata* and hence reduces the *Vedana*. Analgesic effect of *Sarjarasa* and *Guggulu* helps in reducing the pain.

Shuddha Gandhaka, *Tankana*, *Girisindura* and *Tila taila* which are present as an ingredient in *Gandhakadhya malahara* are *Kaphavatahara*¹¹⁻¹²⁻¹³ because of their *tikta*, *katu rasa*, *ushna virya* and *Tikshna guna*. *Gandhaka* and *Girisindura* have *Kandughna* action. *Sarjarasa* and *Guda* in *Sarjarasadi Lepa* are *Vatakaphahara*¹⁴ in action and *Gairika* is *Kandughna*¹⁵ in action.

In *Gandhakadhya malahara*, *sikta*, *tila taila*, *gandhaka* and *girisindura* have *Vrana shodhana* and *Vrana ropana* properties. *Tila taila* is having *sandhaniya* properties, which helps in promoting the union of cracked parts. *Gandhaka*, *girisindura*, *tankana* and *karpura* have tissue repair action, good rejuvenating and good wound healing properties. *Shuddha tankana* helps in reducing the scaring. In *Sarjarasadi Lepa*- *sarjarasa*, *gairika* and *guggulu* is having *Vranashodhaka* properties. *Sarjarasa* is also having *sandhaniya*¹⁶ properties, which helps in promoting union of cracked parts. *Madhu*¹⁷, *Guggulu*¹⁸, *Goghrita*¹⁹ in *Sarjarasadi Lepa* is having antioxidant properties which helps in restoring the damaged skin and reduces the number of cracks and length of cracks.

Arogyavardhini vati is a herbo-mineral formulation mainly indicated in *Kushta roga*. It poses several pharmacological actions out of which *Kushtaghana* is the one²⁰.

CONCLUSION:

Vipadika is the disease affecting more to the individuals of age group between 32 to 44 years because of excessive work load in field and at home, which ultimately causes *vata prakopa* in the body. The victims of this disease are almost farmers and housewives. The *aharaja* and *viharaja nidana's* mentioned in the classics still holds true today, as the majority of patients in this clinical study were consuming *viruddha ahara* and exposed to irritants. So, *Gandhakadhya malahara* along with *arogyavardhini vati* and *Sarjarasadi Lepa* along with *arogyavardhini vati* were selected to treat the *vipadika*. Both the groups showed good results in treating the subjective and objective parameters. After the follow up few patients got reoccurrence of symptoms due to intake of causative factors. Reoccurrence was more seen in the group B, those who were given *Sarjarasadi Lepa* along with *Arogyavardhini vati*. Preventive aspects and patient's education played an important role in the management of *vipadika*. Guidelines about maintaining hygiene, following proper diet, wearing thick sole foot wear and avoiding irritants exposure really proved helpful in effective management. All the 40 patients responded well but comparatively group- A patients got more significant improvement then group B. Hence it can be concluded that *Gandhakadhya Malahara* along with *Arogyavardhini vati* is more effective in *Vipadika* and this might be due to the presence of *Rasa aushadhi's* with their anti-microbial, antibacterial and analgesic action.

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