

A clinical study of *Vamana Karma* with *Madanaphala Kashaya Yoga* through oral route and *Madanaphala Ghreya Yoga* through nasal route in the management of *Ekakushtha* (Psoriasis)

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Abstract

Background: In *Ayurveda*, the word “*Twacha*” or “*Charma*” used for skin. Skin is considered one of the most important parts of the body. Skin is a link between internal and external environment and is also the seat of complexion, which maintains beauty and personality. Any disorder which affects the skin needs primary attention as it reflects the pathology inside the body and can cause physical, emotional, and socioeconomic embarrassment in the society. All the skin diseases in *Ayurveda* have been discussed under the broad headings of “*Kushtha*”. There are two types of *Kushtha* described in *Ayurveda* classics –*Mahakushtha* and *Kshudrakushtha*. *Ekakushtha*, a type of *Kshudrakushtha* characterized by *Aswedanam* (Absence of Perspiration), *Mahavastu* (Extensive localization), *Matsyashakalopam* (resembles the scales of fish). The signs and symptoms of *Ekakushtha* bear similarities to “Psoriasis” in modern medicine. Modern medical science treats Psoriasis with PUVA, corticosteroids, etc. However, these therapies give serious side effects such as hepatic and nephrotoxicity and bone marrow depression. For the management of *Ekakushtha*, *Ayurveda* offers a range of treatment approaches, with *Panchakarma* being considered the most effective. *Panchakarma* aims to address the root causes of the disease and enhance overall well-being. *Vamana Karma*, which is one among *Panchkarma*s used mainly for detoxification purpose, which eliminates the morbid *Kapha dosha* through oral route. **Aim:** The aim of the study was to analyze the comparative efficacy of *Vamana* with “*Madanaphala Kashaya Yoga*” through oral route and “*Madanaphala Ghreya Yoga*” through nasal route for *Shodhana* karma on affected area of skin in the management of *Ekakushtha* (Psoriasis). **Materials and Methods:** A research study was carried out on 30 patients with *Ekakushtha*, they were divided into two groups. These groups received treatment, followed by a follow-up evaluation conducted on the 16th day, 30th day, 45th day, and 60th days of treatment. In both groups, *Deepana-Pachana* was given with *Panchkola Churna* and *Snehapana* was given with *Go-Ghrita*. In Group A *Vamana* was conducted by *Madanaphala Kashaya Yoga*, which is composed of *Madanaphala*, *Yahstimadhu*, *Saindhava*, and *Madhu*. In Group B, *Vamana* was conducted by *Madanaphala Ghreya Yoga*, which was composed of *Madanaphala*, *Yahstimadhu*, *Saindhava*, *Madhu*. **Statistical Analysis:** The results were statistically interpreted using different tests such as Wilcoxon signed-rank test, Mann–Whitney U test, Paired t-test, and Unpaired t-test to assess the statistical significance. **Results:** The study’s results indicated that *Vamana Karma* administered to Group A showed greater effectiveness in *Aswedanam*, *Mahavastu*, *Matsyashakalopam*, *Rukshata*, *Varna*, *Kandu*, *Vedana*, and PASI Score. **Conclusions:** *Vamana Karma* with *Madanaphala Kashaya Yoga* through oral route is more effective than *Madanaphala Ghreya Yoga* through nasal route in the management of *Ekakushtha* (Psoriasis).

Key words: *Ekakushtha*, *Madanaphala Ghreya Yoga*, *Madanaphala Kashaya Yoga*, Psoriasis, *Vamana Karma*

INTRODUCTION

This is the era of hurry, worry, and curry. Everyone wants to stand first in the race of Life. Means for achieving money, power, and position people forget the actual style of living. In this era, people compromise with their food habits and routine life schedule and getting so many psychosomatic disorders.

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In this scenario, with its continuous changing lifestyles, environment and dietary habits have made man as main victim of many diseases including skin diseases. The patient always experiences physical, psychological, and socioeconomic embarrassment in the society.

The skin is extremely compound organ. It is one of the five *Gyanendriya* as described in *Ayurvedic* texts, which is responsible for *Sparsha Gyana* or tactile sensation. In the real sense, skin is not only an envelope of internal structure but also plays a key role in body's general working and protects us against mechanical, chemical, and biological hazards.

All the skin diseases in *Ayurveda* have been discussed under the broad heading of "*Kushtha*". Which are further divided in *Mahakushtha* and *Kshudrakushtha*. *Ekakushtha* is considered one of the *Kshudrakushtha* in *Ayurvedic* texts. *Ayurvedic* classics have considered each type of *Kushtha* to be a *Tridoshaja* manifestation. Their *Doshika* identity can be established on the basis of dominance of *Dosha* in the *Samprapti*. Thus, *Ekakushtha* is *Vata-Kaphaja* phenomenon.

Psoriasis is a papulo-squamous disorder of the skin, characterized by sharply defined erythematous-squamous lesions. They vary in size from pinpoint to large plaques. At times, it may manifest as localized or generalized pustular eruption. It is indeed an immune-mediated, genetically determined dermatological disorder that commonly affects the skin, nails, and joints. It is characterized by the development of red, scaly patches on the skin, which can be itchy and painful. Psoriasis has been associated with various systemic conditions, such as psoriatic arthritis, cardiovascular disease, metabolic syndrome, and mental health disorders.

Ayurvedic texts do not give a direct reference toward a single disease which can be compared with the modern disease "Psoriasis". Many entities such as "*Kitibha*", "*Charmadala*" and "*Ekakushtha*" are compared with it. The disease "*Kitibha*" does not have scaling as such but *Shyava Varna* and *Khara Sparsha* can be noted. "*Charmadala*" on the other hand has *Sphota* and *Ruja* as the important signs along with scaling. *Ekakushtha* consists of the signs and symptoms, that is, *Aswedanam*, *Mahavastu*, and *Matsyashakalopam* which can be compared with Psoriasis and hence, it has been taken as the analogue to psoriasis in the present research work.

Psoriasis is one of the most dreaded full dermatological conditions affecting up to 2.5% population of world and approximately 0.8% Indian population. Charming personality and good looks are free prerequisite for success in 21st century.^[1,2] Number of skin disease increased markedly nowadays because of changed work culture, heavy workload, faulty food habits, lack of exercise, and changing lifestyle, increasing pollution. Due to lack of proper treatment and wide prevalence of Psoriasis in modern medicine, affordable, economical, safe and effective treatment procedure is highly needed.

In *Ayurveda Panchakarma* has a very important role in the management of various chronic, autoimmune, degenerative, hormonal, and metabolic disorders, and it is gaining global reorganization for its preventive and curative effect. Therefore, in the present study for the first time, the comparative efficacy of *Vamana Karma* with *Madanaphala Kashaya Yoga* through oral route and *Madanaphala Ghreya Yoga* through nasal route was taken in the management of *Ekakushtha* (Psoriasis).

METHODOLOGY

Ethical Clearance and CTRI Registration: The clinical study was started after the approval of Institutional ethics committee (IEC No.- DSRRAU/UPGIAS&R/IEC/20-21/404) and the research work has been registered in Clinical Trial Registry of India-(CTRI/2022/10/046580).

Selection of Patients

All patients fulfilling the inclusion criteria were selected from the OPD of *Panchkarma* Department, PGIA Jodhpur, patients were included in the study after taking a written consent and details of the patients were recorded in specially prepared proforma case report format (CRF).

Sampling Method

This was a lottery randomization method.

Procedure, Drug, Dose and Duration

- GROUP A (As shown in Table 1)
- GROUP B (As shown in Table 2)

Follow up Study

Follow-up for further advice would be done on 16th, 30th days, 45th days, and 60th days.

Inclusion Criteria

The following criteria were included in the study:

- Diagnosed and confirmed cases of *Ekakushtha* (Psoriasis), as per CRF and on the basis of the sign and symptoms.
- Patients between the age group of 20 and 45 years of either sex.
- Clinically Fit for *Vamana karma*.
- Patients without Malignancy or patient without going through treatment.
- Subjects willing to follow the procedures as per the study protocol and voluntarily sign an informed consent proforma.
- Patients with worse symptoms of psoriasis during cold weather or winter.

Exclusion Criteria

The following criteria were excluded from the study:

- i. Pregnant and lactating woman.
- ii. Subjects contra-indicated for *Vamana*.
- iii. Patients suffering with Guttate psoriasis.
- iv. Patients suffering with other systemic chronic disorders such as malignancy, cardiac, and renal disease.

Withdrawal Criteria

- i. Progressive worsening of disease and development of complication during trial.
- ii. Non-compliance of patients.

Assessment Criteria

Assessment of patient was carried out before, during, and after completion of trial. The assessment was done on the basis of subjective and objective criteria.

Subjective Criteria

As shown in Table 3 subjective criteria grading.

Objective Criteria

1. Assessment of Clinical Photographic changes in psoriasis lesion (Scaling, Intensity and Thickness).
2. Sign of samyaka Lakshan of *Vamana*
3. *Candle grease sign*-When a Psoriatic lesion is scratched with the point of a dissecting forceps or a sharp edge like Knife, scales are collected on that and they are having greasy nature.
4. *Auspitz sign*-On complete removal of the scales, a red, moist surface is seen. On further scraping, punctate bleeding points are seen.

Grade	Score
Absent	0
Improving	1
Present	2

5. Psoriasis area and severity index (PASI) Score^[5] 6: PASI is a quantitative rating score for measuring the severity of psoriatic lesions based on area coverage and plaque appearance. PASI score will be evaluated and observed before and after treatment.
6. Laboratory Investigation:
 - a. Complete blood count
 - b. Erythrocyte sedimentation rate (ESR)

OBSERVATIONS AND RESULTS

In the clinical study, 30 individuals who had been clinically diagnosed and confirmed to have *Ekakushtha* (Psoriasis) were

enrolled based on the Case Report Format (CRF). Among these 30 patients, three patients discontinued the treatment. It is noteworthy that all the patients who underwent *Vamana Karma* with *Madanaphala Kashaya Yoga* through oral route and *Vamana Karma* with *Madanaphala Ghreya Yoga* through nasal route responded positively to the treatment, and there were no observed side effects or toxic reactions during the trial. In the present study in demographic data that maximum numbers of patients were, for age 20–30 years (46.67%), Males (66.67%), Hindus (100%), Married (66.67%), Students (26.67%), Pure vegetarian (66.67%), Urban Habitat (60.00%), Graduate (60.00%), Socioeconomic status-Upper Middle class (53.33%), Tea addicted (36.67%), Were living with Good hygiene (50.00%) Treatment history – taken allopathic treatment (50%), *Madhyama Sharir* (73.33%), *Mandagni* (56.67%), *KrooraKostha* (53.33%), Irregular bowel habit (70.00%), *Vata-PittaSharir Prakriti* (66.67%), *RajasikaMansika prakriti* (83.33%), *Samyaka Nidra* (66.67%), *Madhyama Sara* (86.67%), *Madhyama Samhana* (80.00%), *Madhyama Pramana* (83.33%), *MadhyamaSatmya* (80.00%), *Madhyama Satva* (56.67%), *PravaraAbhyavaharan Shakti* (63.33%), *Madhyama Jarana Shakti* (63.33%), *Madhyama Vyayama Shakti* (60.00%), and *Madhyama vaya* (56.67%) observed. Photographic changes are also seen in Figures 1-8.

Data Related to Disease

A maximum number of patients, that is, 43.33% patients were having chronicity between 1 and 2 years, 70.00% were having gradual onset of disease, 86.67% were having Plaque type of Psoriasis, 53.33% were having winter as precipitating season, 100% were having lesions on scalp region, 23.33% were having positive family history, 53.33% were having normal psychological condition.

Data Related to *Vamana Karma*

A maximum number of patients, that is, 63.33% were having *Samyaka Snigdha Lakshana* on 7th day of *Snehapana*, 83.33% were having *Vatanulomanaand Snigdha Varchaas Samyaka Snigdha Lakshana*, 80.00% were having *Hridaya Shuddhi* and *Parshwa Shuddhi* as *Samyaka Vamita Lakshana*, 63.33% were having *Pittanta Vamana*, and 36.67% were having *Avara Shuddhi* [Table 4].

Table shows that the patients of Group A and B showed statistically extremely significant result in *Aswedanam*, *Mahavastu*, *Matsyashakalopam*, *Kandu*, *Varna*, and *Rukshataand* in *Vedana*. Group A showed extremely significant result and Group B showed Not Significant.

Since observations are on ordinal scale (gradations), we have used Wilcoxon Signed-rank test to test efficacy in Group A and B. From above table, we can observe that *P*-value for all parameters is <0.05 except for *Vedana* in Group for which

P-value is more than 0.05 Hence, we can conclude that effect observed in all parameters is significant for both groups except for *Vedana* in Group B.

Table 1: Treatment plan for Group A

Procedure	Drug and doses	Duration
<i>Deepana and Pachana</i>	<i>PanchkolaChurna</i> -5 g/2 times a day with warm water	3–5 Days
<i>Snehapana</i>	Plain <i>Go-Ghrita</i> (as per <i>Koshtha and Agni</i>)	3–7 Days
<i>Abhyanga and Swedana</i>	<i>Tila Taila</i>	2 Days
<i>Vamana Karma</i>	<i>Madanaphala Kashaya Yoga</i> ^[3] : 100 mL <i>Madanaphala</i> , <i>Yashtimadhu</i> , <i>Saindhav</i> , Honey	1 Day
<i>Samsarjana Karma</i>	Diet (as per <i>Shuddhi</i>)	3–7 Days

Table 2: Treatment plan for Group B

Procedure	Drug and doses	Duration
<i>Deepana and Pachana</i>	<i>PanchkolaChurna</i> -5 g/2 times a day with warm water	3–5 Days
<i>Snehapana</i>	Plain <i>Go-Ghrita</i> (as per <i>Koshtha and Agni</i>)	3–7 Days
<i>Abhyanga and Swedana</i>	<i>Tila Taila</i>	2 Days
<i>Vamana Karma</i>	<i>MadanaphalaGhreya Yoga</i> ^[4] : 1 tola/10 g.	1 Day
<i>Samsarjana Karma</i>	Diet (as per <i>Shuddhi</i>)	3–7 Days

Mann–Whitney U Test is carried out for comparison between Group A and Group B. From above table, we can observe that, *P*-value for all parameters is <0.05. Hence, we can conclude that there is a significant difference between Group A and Group B.

Further, we can observe that mean rank for Group A is greater than Group B. Hence, we can conclude that effect observed in Group A is better than Group B as shown in Table 5.

Table 6 shows that the patients of Group A and B showed statistically significant result in Candle Grease Sign and Auspitz Sign.

Since observations are on ordinal scale (gradations), we have used Wilcoxon Signed-rank test to test efficacy in Group A and B. From above table, we can observe that, *P*-value for all parameters is <0.05. Hence, we can conclude that effect observed in all parameters is significant for both groups.

Mann–Whitney U Test is carried out for comparison between Group A and Group B. From above table, we can observe that *P*-value for all parameters is <0.05. Hence, we can conclude that there is a significant difference between Group A and Group B. Further, we can observe that mean rank for Group A is greater than Group B. Hence, we can conclude that effect observed in Group A is better than Group B As shown in Table 7.

Table 8 shows that the patients of Group A showed statistically significant result in PASI ($P = 0.010372$), HB ($P = 0.006968$), TLC ($P = 0.045325$), ESR ($P = 0.0027$), and Statistically Not Significant in PLATELETS COUNT ($P = 0.727236$).

Table 3: Subjective criteria grading

Symptoms	Grade				
	0	1	2	3	4
<i>Aswedanam</i>	Normal	Mild sweating	Mild sweating after exercise	No sweating after exercise	<i>Aswedanam</i>
<i>Mahavastu</i>	No lesions	Lesions on Partial part of Hand, leg, neck, scalp, back	Lesions on most part of Hand, leg, neck, scalp, back	Lesions on whole Part of Hand, leg, neck, scalp, back	Whole body
<i>Matsyashakalopam</i> (Scaling)	No scaling	Mild scaling by rubbing or itching from some lesions	Moderate scaling by rubbing or itching from some lesions	Severe scaling by rubbing or itching from some lesions	Without itching severe scaling
<i>Kandu</i> (Itching)	No itching	Occasional itching	Frequent but tolerable itching	Very severe itching	Very severe itching disturbing sleep and day to day activities
<i>Rukshata</i>	Normal skin	Slightly dry skin	Excessively dry skin	Lichenified skin	Bleeding through skin
<i>Varna</i>	Normal coloration	Slight discoloration	Reddish discoloration	Slight reddish black discoloration	Black disc discoloration
<i>Vedana</i>	Absent	Mild	Moderate	Severe	Very Severe

Table 4: Effect of therapeutic trial on clinical symptomatology in 30 patients of *Ekakushtha* in Group A and B (Wilcoxon signed-rank test)

Symptoms	Group A				Group B			
	Mean±SD		P-value	Result	Mean±SD		P-value	Result
	BT	AT			BT	AT		
<i>Aswedanam</i>	2.50±0.52	0.93±0.83	0.0012	Sig	2.38±0.51	1.69±0.48	0.0139	Sig
<i>Mahavastu</i>	2.50±0.52	0.79±0.70	0.0008	Sig	2.46±0.66	1.69±0.95	0.0083	Sig
<i>Matsyashakalopam</i>	2.57±0.65	0.57±0.76	0.0008	Sig	2.54±0.52	1.69±0.48	0.0009	Sig
<i>Kandu</i>	2.50±0.65	0.36±0.63	0.0007	Sig	2.38±0.51	1.69±0.48	0.0027	Sig
<i>Varna</i>	1.57±0.85	0.29±0.47	0.0017	Sig	1.38±0.77	0.92±0.76	0.0143	Sig
<i>Rukshata</i>	2.43±0.51	0.14±0.36	0.0007	Sig	2.23±0.60	1.46±0.52	0.0039	Sig
<i>Vedana</i>	0.64±0.84	0.07±0.27	0.0384	Sig	0.31±0.63	0.23±0.44	0.3173	NS

SD: Standard deviation, BT: Before treatment, AT: After treatment, Sig: Significant, NS: Not significant

Table 5: Effect of therapeutic trial on clinical symptomatology in 30 patients of *Ekakushtha* based on intergroup comparison (Mann–Whitney U Test)

Variable	Group	Mean rank	Sum of ranks	Mann–Whitney U	P-value
<i>Aswedanam</i>	Group A	17.50	245.00	42.000	0.01212
	Group B	10.23	133.00		
<i>Mahavastu</i>	Group A	17.93	251.00	36.000	0.00445
	Group B	9.77	127.00		
<i>Matsyashakalopam</i>	Group A	18.93	265.00	22.000	0.00021
	Group B	8.69	113.00		
<i>Kandu</i>	Group A	19.86	278.00	9.000	0.00003
	Group B	7.69	100.00		
<i>Varna</i>	Group A	17.64	247.00	40.000	0.00724
	Group B	10.08	131.00		
<i>Rukshta</i>	Group A	19.86	278.00	9.000	0.00003
	Group B	7.69	100.00		
<i>Vedana</i>	Group A	15.93	223.00	64.000	0.04123
	Group B	11.92	155.00		

Table 6: Effect of therapeutic trial on objective criteria in 30 patients of *Ekakushtha* in Group A and B (Wilcoxon signed-rank test)

Sign	Group A (objective)				Group B (objective)			
	Mean±SD		P-value	Result	Mean±SD		P-value	Result
	BT	AT			BT	AT		
Candle grease sign	1.86±0.53	0.50±0.65	0.0016	Sig	1.69±0.75	1.15±0.80	0.0196	Sig
Auspitz sign	1.71±0.73	0.50±0.65	0.0026	Sig	1.69±0.75	1.15±0.69	0.0082	Sig

Table 7: Effect of therapeutic trial on objective criteria in 30 patients of *Ekakushtha* based on intergroup comparison (Mann–Whitney U Test)

Variable	Group	Mean rank	Sum of ranks	Mann–Whitney U	P-value
Candle grease sign	Group A	17.64	247.00	40.000	0.00861
	Group B	10.08	131.00		
	Total				
Auspitz sign	Group A	17.11	239.50	47.500	0.02326
	Group B	10.65	138.50		
	Total				

Table 8: Effect of therapeutic trial on PASI score and laboratory parameters in 30 patients of *Ekakushtha* in Group A and B (Paired t-test)

Parameters	Group A				Group B			
	Mean±SD	t-Value	P-value	Result	Mean±SD	t-value	P-value	Result
PASI								
BT	26.77±3.96	9.021	0.000001	Sig	23.62±6.41	2.355	0.036361	Sig
AT	13.08±6.55				22.72±7.21			
HB								
BT	13.66±1.28	-3.200	0.006968	Sig	13.10±0.68	0.451	0.660374	NS
AT	13.89±1.28				13.07±0.62			
TLC								
BT	6275.71±2075.35	2.214	0.045325	Sig	6256.54±1563.50	0.171	0.867314	NS
AT	5796.21±2249.13				6229.77±1469.13			
Platelets count								
BT	2.07±0.31	-0.356	0.727236	NS	2.15±0.43	-0.009	0.993146	NS
AT	2.09±0.28				2.15±0.44			
ESR								
BT	27.07±12.16	2.993	0.010372	Sig	28.54±12.04	0.491	0.632426	NS
AT	17.21±8.95				27.69±11.64			

Table 9: Effect of therapeutic trial on PASI score and laboratory parameters in 30 patients of *Ekakushtha* based on intergroup comparison (unpaired t-test)

Variable	Group	Mean Diff	SD	t-value	P-value	Result
PASI	Group A	13.74	5.57	7.915	0.000	Sig
	Group B	1.34	0.94			
HB	Group A	0.31	0.15	1.995	0.057	NS
	Group B	0.22	0.11			
TLC	Group A	711.93	598.76	1.569	0.129	NS
	Group B	407.38	375.15			
Platelets Count	Group A	0.12	0.11	-0.491	0.628	NS
	Group B	0.14	0.12			
ESR	Group A	12.43	9.49	2.655	0.014	Sig
	Group B	5.00	3.51			

Table 10: % Relief in subjective parameters for Group A and B

Parameters	% Effect	
	Group A	Group B
Aswedanam	62.86	29.03
Mahavastu	68.57	31.25
Matsyashakalopam	77.78	33.33
Kandu	85.71	29.03
Varna	81.82	33.33
Rukshta	94.12	34.48
Vedana	88.89	25.00
Average % Effect	79.96	30.78

Paired t-test is carried out to test significance in Group A. From above table, we can observe that *P*-value for PASI, Hb, TLC, and ESR is <0.05.

Hence, we can conclude that there is a significant result observed in PASI, Hb, TLC, and ESR for Group A.

Table shows that the patients of Group B showed statistically significant results in PASI (*P* = 0.036361), and Statistically Not Significant in HB (*P* = 0.660374), TLC (*P* = 0.867314), ESR (*P* = 0.632426), and in PLATELETS COUNT (*P* = 0.993146).

Paired t-test is carried out to test significance in Group B. From above table, we can observe that, *P*-value for PASI

Table 11: % Relief in objective parameters for Group A and B

Objective parameters	% Effect	
	Group A	Group B
PASI	51.15	3.84
HB	1.67	0.23
Platelets count	0.77	0.02
ESR	36.41	2.96
Total Cholesterol	4.56	2.57
Triglycerides	4.22	1.21
LDL	3.77	1.40
HDL	5.72	3.32
VLDL	8.64	2.02
TLC	7.64	0.43
Candle grease SIGN	73.08	31.82
Auspitz SIGN	70.83	31.82
Average % effect	22.37	6.80

Table 12: Overall effect of clinical trial for Group A and B

Overall effect	Group A		Group B	
	%		%	
Marked improvement	64.29	0.00		
Moderate improvement	28.57	0.00		
Mild improvement	7.14	61.54		
No change	0.00	38.46		
Total	100.00	100.00		

**Figure 1: Before treatment**

is <0.05 and more than 0.05 for Hb, TLC, Platelet count, ESR.

Hence, we can conclude that, there is a significant result observed in PASI and not significant result observed in Hb, TLC, Platelet count, and ESR for Group B.

**Figure 2: After treatment****Figure 3: Before treatment**

Unpaired t-test is carried out for comparison between Group A and Group B. From above table, we can observe that P -value for PASI and ESR is <0.05 as shown in Table 9. Hence, we can conclude that there is a significant difference observed in Group A and Group B for PASI and ESR.

Mean difference for Group A is greater than Group B. Hence, we can conclude that effect observed in Group A for PASI and ESR is better than Group B.

p -value for HB, TLC, Platelets is >0.05 . Hence, we can conclude that there is no significant difference observed in Group A and Group B for these parameters.

Table 10 reveals that symptomatically 79.96% relief was observed in Group A and 30.78% relief was observed in Group B.

On comparing effect on both Groups, it is clear that patients from Group A showed maximum percentage relief as compared to Group B.

Table 11 reveals that 22.37% relief was observed in Group A and 6.80% relief was observed in Group B.



Figure 4: After treatment



Figure 7: Before treatment



Figure 5: Before treatment



Figure 8: After treatment



Figure 6: After treatment

On comparing effect on both Groups, it is clear that patients from Group A showed maximum percentage relief as compared to Group B.

Table 12 reveals that in GROUP A, 64.29% of Patients showed marked improvement, 28.57% of patients showed

moderate improvement, and 7.14% of patients showed mild improvement.

In Group B, 61.54% of patients showed mild improvement, and 38.46% of patients had no changes.

DISCUSSION

A scientific correlation between *Ekakushtha* and psoriasis can be established based on their shared cardinal feature of *Aswedanam*, *Mahavastu*, and *Matsyashakalopam*. It can be concluded that *Vata-Kapha* is the predominant *Dosha* involved in *Ekakushtha*. The distinction between *Ekakushtha* and other skin-related conditions such as *Kitibha* and *Mandala*, primarily relies on the distinctive characteristic of absence of perspiration and scaling.

The way in which the experimental drugs operate can be grasped through an examination of their inherent characteristics, which allows us to make assumptions about their pharmacodynamics as follows:

Mode of Action of *Vamana Karma* with *Madanaphala Kashaya Yoga*^[6]

Vamana Dravya having the properties such as *Ushna*, *Tikshna*, *Sukshma*, *Vyavayi*, and *Vikasi*, reaches to *Hridaya* by virtue of its *Veerya* then to *Dhamani* even to the *Anu Strotas* due to *Sukshma Guna* and throughout the body due to *Vyavayi* and *Vikasi Guna*. Later does the *Vishyandana* of the *Dosha* by *Agneya Guna* and *Vicchindana* by *Tikshna Guna*. By *Agni* and *Vayu Mahabhoota Pradhanyata* and *Urdhvabhagahara Prabhava*, *Doshas* are expelled through the *Mukha Marga*.

Mechanism of Vomiting^[7]

Vamana drugs are mild irritant to the stomach and the intestinal mucosa, respectively; to cause inflammation. This medically produced mild inflammation facilitates quick absorption of the active principles (*Veerya*) of the drug in initial stage. Later on, it facilitates the excretion of the morbid matters, which generally are not supposed to be excreted out through the mucosa of gut. It is possible only because inflammation increases the permeability of the capillaries, which in turn allow the absorption, as well as excretion of such substances, which are not allowed in normal condition (Gurdeep Singh, 2003).

Mode of Action of *Madanaphala Ghreya Yoga*^[8]

Ghrana

As per *Parishadya Shabdarta Shareera*, *Ghrana* has been explained as that specific part of the *Nasa* which gives shelter for *Ghranendriya*. That which perceives smell is said as *Ghrana*. It is also the site of *Phana Marma* injury to which leads to *Gandha Ajnana* (anosmia). Thus, *Ghrana* can be taken as the olfactory portion of the nose.

Gandhavaha Dhamani

They are enumerated as 2. They have been equated with olfactory nerves.

Hridaya

The term *Hridaya* refers to not only *Uro-Hridaya* but also *ShiroHridaya*. Some of the points which substantiate this statement are as follows: The *Sthana* and *Karma* of *Prana Vata* denotes both *Shiro* and *Uro-Hridaya*. *Vyana Vata Karma* implies the involvement of both nervous system and circulatory system. *Shiro Hridaya* is the seat of *Sthana* and *Karma* of *Sadhaka Pitta*. The act of *Nindra* in vowing *Hridaya* definitely points out *Shiro Hridaya*.

Ghreya Madanaphala Yoga was prepared by giving 21 times *bhavana* to *Madanaphala Pippali Churna* with *Madanaphala Kashaya* leading to enhancement of its potency because of the *bhavana samskara*. Thus, the *Ghreya Yoga* differs

significantly from *Madanaphala Pippali Churna*. Such a *Ghreya Yoga* when given for inhalation is perceived by the *Ghranendriya* located in the *Nasa* and carried by the *Gandhavaha Dhamani* the *Shiro Hridaya* (higher centers in the brain) Initiates *Vyana Vata* to bring *Dosha* from *Shakha* to *Koshtha*. Due to *Urdhvabhagahara Prabhava* and stimulation of *Udana Vata*, *Vamana Vega* occurred.

CONCLUSION

Observation of the current study reveals that Psoriasis has peak incidence at 2nd to 4th decade of life, affecting more males than females with ratio 2:1. Environment changes, stress, depression and anxiety and addiction such as tea and smoking plays the major role in the development of disease. In the clinical analysis, both Group A and Group B demonstrated notable improvement across maximum parameters. These findings suggested that both groups were effective in managing *Ekakushthain* nearly all aspects. The comparison between Group A and Group B revealed significant outcomes. However, with Group A, showing superior result in the following parameters: *Aswedanam*, *Mahavastu*, *Matsyashakalopam*, *Kandu*, *Rukshata*, *Varna*, *Vedana*, *PASI Score*, and *ESR*.

Therefore, it can be concluded that *Vamana Karma* with “*Madanaphala Kashaya Yoga*” through oral route is more effective than “*Madanaphala Ghreya Yoga*” through Nasal route in the management of *Ekakushtha* (Psoriasis).

Limitations of this Study

- Current clinical trial is done on small sample size and for short duration. An extended study on larger sample size and of longer duration is much needed.
- Role of TNF and Interleukins is widely accepted in the development of Psoriasis. Hence, a further study with particular focus on immunological assay of human physiology is needed.
- Seasonal changes play a very important role in aggravations and cure of Psoriasis. Hence, a time-bound study focusing on one particular season, especially winter and summer for at least 5–7 years is needed.
- Along with external therapy, some internal medication should also be given.
- Public awareness should be created for early approach to *Ayurveda* treatments to stop the progression of disease.

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