

Title- “CLINICAL EFFICACY OF VAMANA & VIRECHANA KARMA ALONG WITH ARAGWADHA PATRA LEPA WITH SHAMANA YOGA LELITAKA (GANDHAKA) IN KITIBHA KUSHTHA W.S.R. TO PSORIASIS”

*** Dr. Govind Narayan ** Dr. Hardik Chudasama *** Dr. Gopesh Mangal**

ABSTRACT –

Due to ignorance towards dietetic, seasonal and daily regimen people are more prone to various kinds of skin disorders. Psoriasis is one the most dreadful dermatological condition affecting up to 3.5% of the worlds and approximately 0.44% to 2.8% in Indian population. It is a common, chronic and non- infectious skin disease characterized by well defined slightly raised, dry erythematous macules with silvery scales. In *Ayurveda* all dermatological conditions are grouped under broad term *Kushtha* which again have two divisions *Mahakushtha* and *Kshudrakushtha* on the basis of their symptoms, severity & involvement of deeper *Dhatu*. The present study was conducted on 30 registered patients of *Kitibha Kushtha* (Psoriasis) were randomly divided into 2 Groups of 15 each as **Group A:** In this group *Vamana karma* followed by *Argvadha Patra Kalka Lepa* along with *Shamana Yoga Lelitka (Gandhaka)* in the dose of 500 mg B.D. for 15 days will be given. **Group B:** In this group *Virechana Karma* followed by *Argvadha Patra Kalka Lepa* along with *Shamana Yoga Lelitka (Gandhaka)* in the dose of 500 mg B.D. for 15 days will be given. After 30 days of trial significant response were found.

Key words: - *Kitibha Kushtha, Vamana Karma, Virechana Karma, Shamana Yoga*

* PG Scholar, PG department of Panchakarma, National Institute of Ayurveda, Jaipur.
Email-id govindnarayan1988@gmail.com

** PG Scholar, PG department of Sharir kriya, National Institute of Ayurveda, Jaipur.
Email-id chudasamahardik1991@gmail.com

***Assistant Professor and Head (I/C), PG department of Panchakarma, National Institute of Ayurveda, Jaipur. Email-id gmangal108@gmail.com

सारांश - कितिभ कुष्ठ के प्रबंधन में वमन और विरेचन के साथ आरग्वध पत्र कल्क लेप एवं शमन योग शुद्ध गंधक की प्रभावकारिता का नैदानिक मूल्यांकन - एक यादृच्छिक नियंत्रित परीक्षण ।

आहार -विहार, दैनिक दिनचर्या के प्रति अनदेखी के कारण लोग विभिन्न प्रकार के त्वचा संबंधित रोगों की ओर प्रवृत्त हो रहे हैं, त्वचागत विकारों में सोरायसिस एक भयानक परिस्थिति है जिसमें 3.5% समग्र विश्व एवं 0.44% to 2.8% भारतीय समुदायों को प्रभावग्रस्त किया गया है एवं लम्बे समय तक चलने वाली ,यह एक सामान्य | किन्न्व एवं गीली त्वचा की परत नीकलती ,इस व्याधि में रुक्ष ,गैरसंक्रामक बीमारी है आयुर्वेद में त्वचागत सभी विकारो का समावेश कुष्ठ में किया जाता है जिसके मुख्यत्व दो भेद महाकुष्ठ और क्षुद्र कुष्ठ उनके चिहनों एवं धातु दुष्टि के आधार पर , स्तुत शोध पत्र में किटिभ कुष्ठ से पीड़ितप्र किये गए है | 30 रोगीयो को पंजीकृत करके उसके 2 ग्रुप में विभक्त किये गए है प्रथम ग्रुप A को वमन कर्म तथा आरग्वधपत्र कल्क लेप एवं लेलितक शमन (गंधक) योग 500 मि.ग्रा. 15 दिनों के लिए तथा द्वितीय ग्रुप B को विरेचन कर्म तथा आरग्वधपत्र कल्क लेप एवं लेलितक शमन योग (गंधक)500 मि.ग्रा. 15 दिनों के लिए दीये गए| 30 दिनों के चिकित्सा कर्म के बाद अच्छे परिणाम प्राप्त हुआ |

मुख्य शब्द : किटिभ कुष्ठ, वमन कर्म, विरेचन कर्म, आरग्वध पत्र लेप, शमन योग

INTRODUCTION-

Skin is the largest protective organ of the body. A healthy skin is the mirror image of a good health. The colour of the skin is important biologically, cosmetically and socially. It acts as an effective barrier against the entry of diseases. Skin is the first organ of the body interacting with the environmental agents like physical, chemical & biological agents. Skin ailments affects all ages from the neonates to the elderly & cause harm in a number of ways, such as discomfort, disfigurement, disability, etc.

Psoriasis is one the most dreadful dermatological condition affecting up to 3.5% of the world's¹ and approximately 0.44% to 2.8% in Indian population². It is a common, chronic and non- infectious skin disease characterized by well defined slightly raised, dry erythematous macules with silvery scales and typical extensor distribution affecting any sex and having incidence at any time throughout the life

since incidence from childhood to aged one has been reported. Peak incidence period is 3rd and 4th decade of life due to which patients find themselves helpless to do daily routine work. Social embarrassment is a key factor to these patients due to which they gets frustedeted and suicidal tendency developed to large extent.

In *Ayurveda* all dermatological conditions are grouped under broad term *Kushtha* which again have two divisions *Mahakushtha* and *Kshudrakushtha* on the basis of their symptoms, severity & involvement of deeper *Dhatu*. *Kushtha* is described since time of *Veda*. The psoriasis has a wide range of presentation from just a single spot to involvement of whole body. Careful analysis of the nature of disease shows a close resemblance of symptoms between Psoriasis and *Kitibha-Kushtha*. *Ayurveda* has its own systemic approach to treat diseases. In the case of treating *Kushtha*, *Acharya* has specifically emphasized on *Shodhana Chikitsa* because of its repeated relapse. So *Acharya* had specially mentioned that for overcome the relapse *Shodhana* Therapy has a distinct advantage over *Shamana* therapy.

Many theories have been put forward with new hypothesis describing this disorder in *Ayurveda* as well as in other system of medical sciences., still there is enough scope on the management of *Kitibha Kushtha*. So, Present research work has been under taking with following...

AIMS AND OBJECTIVES –

- To evaluate the effect of *Vamana Karma* followed by *Aragwadha Patra Lepa* with *Shamana Yoga Lelitaka (Gandhaka)* on *Kitibha Kushtha*.
- To evaluate the effect of *Virechana Karma* followed by *Aragwadha Patra Lepa* with *Shamana Yoga Lelitaka (Gandhaka)* on *Kitibha Kushtha*.
- To compare the effect of *Vamana Karma* and *Virechana Karma* and followed by *Aragwadha Patra Lepa* with *Shamana Yoga Lelitaka (Gandhaka)* on *Kitibha Kushtha*.

MATERIAL AND METHODS:

[A] Selection of Cases

The study was conducted on 30 clinically diagnosed & confirmed cases of Psoriasis from OPD & IPD section of National institute of Ayurveda, Jaipur.

[B] Inclusion criteria:

- Patients who were willing for trial.
- Patients in the age group of 16– 60 years.
- Patient who were fit for *Vamana* and *Virechana karma*

[C] Exclusion criteria:

- Patients with age below 16 & above 60 yrs.
- Pregnant women's & lactating mothers.
- Patients suffering from serious systemic disorders like Diabetes Mellitus, Cardiac & Renal Disorders, Malignant disease, Major liver disorders, immuno-compromised host, etc.
- Patients having complication of Psoriasis like Psoriatic Arthropathy etc.
- Patients Contra indicated for *Vamana Karma* and *Virechana karma* as per classical *Ayurvedic* texts.

[D] Study design: Single Centre, Open label, Randomized, Interventional & Comparative study.

Ethical clearance: This study was approved by Institutional Ethical Committee (IEC) of National Institute of Ayurveda, Jaipur vide letter no. IEC/ACA/2016/34; dated 26.05.2016, before starting the clinical trial on patients of *Kitibha Kushtha* (Psoriasis).

[E] GROUPING AND ADMINISTRATION OF DRUG-

30 registered patients were randomly divided into two groups named as Group A & Group B consisting 15 patients each.

- **Group A:** In this group *Vamana karma* followed by *Aragwadha Patra Kalka Lepa* along with *Shamana yoga Lelitka (Gandhaka)* in the dose of 500 mg B.D. for 15 days was given.
- **Group B:** In this group *Virechana karma* followed by *Aragwadha Patra Kalka Lepa* along with *Shamana yoga Lelitka (Gandhaka)* in the dose of 500 mg B.D. for 15 days was given.

Trial Drugs-

In the present study, for internal use and for external application. '*Shamana yoga Lelitka(Gandhaka): Gandhaka Shuddhikarana* was done per instructions in *Rasashastra*. Dose and duration: 500mg twice a day for 15 days.' '*Aragwadha Patra Kalka Lepa:* Firstly paste (*Kalka*) of *Argvadha patra* was made with the help of water, after this above formed paste was locally applied over the affected area till drying. After drying it was washed with luke warm water.'

Procedure Protocol:

Vamana Karma:

Procedure of *Vamana* was carried out as follows.

- *Deepana Pachana* with ***Panchkola Churna*** 3 g BD for 3 days,
- *Snehpana* was done with ***Tiktashatpala Ghritam*** till *Samyak Sneha lakshana* were observed.
- *Sarvanga Abhyanga* with *Dashmoola Taila* and *Sarvanga Svedana* with *Dasmoola Kwatha* were done for 1 day.
- *Vamana* was induced by ***Vamaka Yoga*** after that *Dhoompana* & *Sansarjana Karma* was carried out.

Virechana Karma :

- Procedure of *Virechana* was carried out as follows.
- *Deepana Pachana* with ***Panchkola Churna*** 3 g BD for 3 days,
- *Snehpana* was done with ***Tiktashatpala Ghritam*** till *Samyak Sneha lakshana* were observed.
- *Sarvanga Abhyanga* with *Dashmoola Taila* and *Sarvanga Svedana* with *Dasmoola Kwatha* were done for 3 days.
- *Virechana* was induced by ***Virechaka Yoga*** after that *Sansarjana Karma* was carried out.

Follow-up Study: –

Follow-up of patient was done on 15th and 30th days of treatment. Improvement in the symptoms if any and other effects were noted down.

Laboratory investigations were repeated in Group A and Group B after completion of the treatment.

[G]CRITERIA FOR ASSESSMENT:- All the patients were assessed for relief in signs & symptoms and objective parameters after the completion of trial. For subjective parameters grading/scoring pattern were adopted which is as follows –

1. Subjective parameters:

1. PASI Score (Psoriasis Area & Severity Index):

PASI Score was considered as both subjective & objective criteria as it covers both subjective as scaling, indurations and objective parameters as coverage area. For the calculation of score we used **Online PASI Calculator Software**.

Elements:

- A. Body regions as percent of body surface area
- B. Extent of body region affected
- C. Extent of psoriatic changes

A. Body regions as percent of body surface area:

Body Regions	Code	% Body surface area
Head	H	10
Trunk	T	30
Upper extremities	U	20
Lower extremities	L	40

B. Extent of body region affected:

Different Body regions & their extend indicator was tabulated as follows.

Percentage of body region affected	Extend indicator
0 – 5%	0
5 – 25%	1
25 – 45%	2
45 – 55%	3
55 – 75%	4
75 – 95%	5
95-100%	6

C. Extent of psoriatic changes:

This graded as follows given in the table.

Symptoms	Code	Extend
Erythema	E	0 – 4
Infiltration	I	0 – 4
Desquamation	D	0 – 4

PASI = SUM (percent BSA in body region)* (extent Erythema in region) + (extent infiltration in region) + (extent desquamation in region)* (extent of body region affected) = [0.1* (Erythema head) + (infiltration head) + (desquamation head)* (extent of head affected)] + [0.3*(Erythema trunk) + (infiltration trunk) +

(desquamation trunk)* (extent of trunk affected)] + [0.2*(Erythema upper extremities) + (infiltration upper extremities) + (desquamation upper extremities)* (extent of upper extremities affected)] + [0.4* (Erythema lower extremities) + (infiltration lower extremities) + (desquamation lower extremities)* (extent of lower extremities affected)]

Interpretation: Minimum score – 0; Maximum score – 72

Subjective parameters as per Ayurvedic classics (*Charak Chikitsa Sthana 7/22*)

1. **(Blackish discoloration) *Shyavavarna***
2. **(sdrynes) *Kharasparsha***
3. **(Hardness) *Kathina***
4. **(scretion) *Srava***
5. **(severe itching) *Ugrakandu***
6. **(Scale) *Kina***

1. *Shyavavarna* (Blackish discoloration)

- 0- Nearly normal skin colour
- 1 - Brownish red discoloration
- 2 - Blackish red discoloration
- 3 - Blackish discoloration

2. *Kina* (Scaling)

- 0- No scaling
- 1- Mild scaling by rubbing/by itching (scaling from some lesions)
- 2- Moderate scaling by rubbing/by itching (from all lesions)
- 3- Severe scaling by rubbing/by itching (from all lesions)

3. *Kharasparsha* (Dryness)

- 0- No dryness
- 1- Dryness with rough skin (*Ruksha*)
- 2- Dryness with scaling (*Khara*)
- 3- Dryness with cracking (*Parusha*)

4. *Kathina* (Hardness)

- 0 - No hardening of skin
- 1 - Hardening of skin but no criss-cross marking
- 2 - Hardening with criss-cross marking
- 3 - Severe lichenification

5. *Strava* (Oozing)

- 0 - No discharge
- 1 - Occasional discharge after itching.
- 2- Occasional oozing without itching.
- 3- Excessive oozing making clothes wet

6. *Kandu* (Itching)

- 0 - No itching
- 1 - Mild itching not disturbing normal activity
- 2 - Occasional itching disturbs normal activity
- 3 - Itching present continuously & even disturbing sleep

Objective parameters: Objective parameters were assessed before and after the findings of laboratory parameters-

Haematological Investigations:

- Hb%, TLC, ESR , BSL(R)
- Renal Function Test: Sr. Creatinine, Blood Urea
- Liver Function Test : SGOT, SGPT
- Lipid Profile : Sr. Triglycerids, LDL, HDL, VLDL

Overall Effect of Therapy

Each patient was assessed on the basis of signs & Symptoms of the disease on the basis of grading pattern as well as percentage relief, patients were classified as follows:

Showing criteria of overall effect:

Complete improvement	100% relief
Marked improvement	More than 75% relief
Moderate improvement	50 to 75 % relief
Mild Improvement	25 to 50 % relief
No Improvement	Below 25 % or no relief

Statistical Analysis:

The information gathered on the basis of observation made about various parameters was subjected to statistical analysis in terms of Mean, Standard Deviation and Standard error. **In Stat Graph Pad 3** software was used & For nonparametric data **Wilcoxon matched-pairs signed ranks test** is used, while for parametric Data **Paired 't' Test** is used.

For intergroup comparisons, of **nonparametric variables** we used **Mann-Whitney Test** for statistical analysis & for the **parametric data**, we used **Unpaired t test** .The results were calculated.

- Not significant : P >0.05
- Significant : P <0.05
- Highly significant : P < 0.01, P < 0.001, P<0.0001.

OBSERVATION-

Maximum 43.33% of patients were from the age group of 21-30 years, 80% were male, 56.67% were married, 96.67% were of Hindu religion, 66.67% were graduates, 30% were unemployed(students), 56.67% were urban habitat, 53.33% were from middle class, 66.67% were of vegetarian, 56.67% were having *Vishmagni*, 56.67% were having *Kroora Koshtha*, 56.67% belonged to *Vata-Kapha Prakriti*, 63.33% belonged to *Rajasa-Tamasa Mansika Prakriti*, 40% were having *Avara Satva*, 43.33% were having *Madhyama Satmya*, 86.67% were having *Madhyama Pramana*, 80% were having *Madhyama Samhanana*. *Vyayama Shakti* was *Madhyama* in 56.67%, 100% patients were having addiction to tea alone.

Data related to disease:

10% Patients were having the positive family history, 70% each patients were having chronicity history of in between 0 to 5 year, 96.67% were gradual onset, 96.67% patients were Plaque Psoriasis, 100% of patient were taking Allopathic treatment regularly, 56.66% were Psoriasis aggravated in winter season and 66.67% were triggered by environmental allergen and 60% were emotional stress.

RESULTS-

TABLE NO.1: SHOWING EFFECT OF THERAPY ON SUBJECTIVE PARAMETERS. (WILCOXON MATCHED PAIRS SINGLE RANKED TEST)

Variable	Gr.	Mean		Mean Diff.	% Relief	SD±	SE±	p value	S
		BT	AT						
<i>Shyava-varna</i>	Gr. A	1.60	1.40	0.20	12.50%	0.676	0.175	> 0.05	NS
	Gr. B	1.40	1.20	0.20	14.28%	0.561	0.145	> 0.05	NS
<i>Khara-sparsha</i>	Gr. A	2.13	1.67	0.47	22.06 %	0.743	0.192	> 0.05	NS
	Gr. B	2.33	1.93	0.40	17.16 %	0.737	0.190	> 0.05	NS
<i>Kathina</i>	Gr. A	1.80	1.13	0.67	37.22 %	0.488	0.126	< 0.001	HS
	Gr. B	2.27	1.80	0.47	20.70%	0.640	0.165	< 0.05	S
<i>Srava</i>	Gr. A	1.27	0.87	0.40	31.49%	0.634	0.163	> 0.05	NS
	Gr. B	1.93	1.40	0.53	27.46%	0.640	0.165	< 0.05	S
<i>Ugra-kandu</i>	Gr. A	2.60	0.73	1.87	71.92 %	0.516	0.133	< 0.0001	HS
	Gr. B	0.88	0.60	0.28	31.81%	0.458	0.091	< 0.05	S
<i>Kina</i>	Gr. A	2.33	0.67	1.67	71.67%	0.488	0.126	< 0.0001	HS
	Gr. B	1.87	1.40	0.47	25.13%	0.640	0.165	< 0.05	S
PASI Score	Gr. A	13.73	6.05	7.69	56 %	7.02	1.43	< 0.0001	HS
	Gr. B	15.12	12.6	2.43	16.07%	3.159	0.813	< 0.05	S

(HS: Highly Significant S: Significant NS: Non Significant)

TABLE NO.2: SHOWING EFFECT OF THERAPY ON LABORATORY PARAMETERS (OBJECTIVE PARAMETERS): (PAIRED ‘T’ TEST)

Variable	Gr.	Mean		Mean Diff.	% Relief	SD±	SE±	t value	P value	S
		BT	AT							
Hb% (Gm %)	A	14.95	15.17	0.227	1.45%	1.160	0.299	0.757	> 0.05	NS
	B	14.24	14.20	0.040	0.002%	0.453	0.117	0.342	> 0.05	NS

TLC	A	7466	6613	853	11.42%	1654	427.2	1.998	> 0.05	NS
	B	7400	7186	214	2.88%	1707	440.8	0.484	> 0.05	NS
ESR	A	9.53	4.80	4.73	49.47%	11.08	2.861	1.654	> 0.05	NS
	B	13.00	14.53	-1.53	11.8 %	13.23	3.415	0.449	> 0.05	NS
S.TG.	A	150.9	145.6	5.27	3.49%	23.28	6.013	0.876	> 0.05	NS
	B	181.0	164.8	16.20	8.95%	44.53	11.49	1.409	> 0.05	NS
RBS	A	94.00	92.93	1.07	1.13%	10.53	2.719	0.392	> 0.05	NS
	B	98.33	99.60	-1.27	1.29 %	7.667	1.980	0.639	> 0.05	NS
SGOT	A	31.06	30.06	1.00	3.19%	7.735	1.997	0.497	> 0.05	NS
	B	52.27	33.33	18.93	36.2 %	27.76	7.167	2.642	< 0.05	S
SGPT	A	31.76	31.73	0.027	0.01 %	9.721	1.661	2.510	> 0.05	NS
	B	51.00	32.93	18.07	35.4 %	27.03	6.979	2.589	< 0.05	S
B.Urea	A	25.40	24.93	0.47	1.85 %	4.941	1.276	0.366	> 0.05	NS
	B	28.87	28.67	0.20	0.70 %	6.581	1.699	0.118	> 0.05	NS
S.Cret.	A	1.03	0.987	0.047	4.85 %	0.213	0.055	0.847	> 0.05	NS
	B	1.05	0.973	0.073	6.66 %	0.198	0.051	1.434	> 0.05	NS
LDL	A	134.5	110.0	24.5	18.19%	47.49	12.26	1.997	> 0.05	NS
	B	123.4	127.3	-3.87	3.13%	45.36	11.71	0.330	> 0.05	NS
HDL	A	48.40	47.87	0.533	1.09%	1.685	0.435	1.226	> 0.05	NS
	B	50.80	51.00	-0.20	0.40%	3.167	0.818	0.246	> 0.05	NS
VLDL	A	29.35	29.05	0.293	1.03%	4.263	1.101	0.267	> 0.05	NS
	B	34.81	31.73	3.08	8.85%	8.713	2.250	1.369	> 0.05	NS

(**Hb**- Haemoglobin; **TLC**-Total Leucocytes Count; **ESR**-Erythrocyte Sedimentation Rate; **RBS**-Random Blood Sugar; **LDL**-Low Density Lipid; **HDL**-High Density Lipid **VLDL**-Very Low Density Lipid)

Intergroup Comparison:

TABLE NO.3: INTERGROUP COMPARISON IN SUBJECTIVE PARAMETERS OF GROUP A & B (MANN-WHITNEY TEST)

Variable	Group	(AT-BT) Diff. mean	SD±	SE±	P	S
<i>Shyava-varna</i>	A	0.467	0.516	0.133	> 0.05	NS
	B	0.333	0.488	0.126		
<i>Khara-sparsha</i>	A	0.733	0.458	0.118	> 0.05	NS
	B	0.733	0.458	0.118		
<i>Kathina</i>	A	1.000	0.535	0.138	> 0.05	NS
	B	0.667	0.488	0.126		
<i>Srava</i>	A	0.533	0.516	0.133	> 0.05	NS
	B	0.467	0.516	0.133		
<i>Ugra-kandu</i>	A	1.867	0.516	0.133	> 0.05	NS
	B	1.800	0.676	0.175		
<i>Kina</i>	A	1.667	0.488	0.126	< 0.0001	HS
	B	0.733	0.458	0.118		
PASI Score	A	12.033	5.118	1.321	> 0.05	NS
	B	13.760	3.785	0.977		

(HS: Highly Significant

S: Significant

NS: Non Significant)

TABLE NO. 4 : INTERGROUP COMPARISON IN LAB INVESTIGATION (OBJECTIVES PARAMETERS) OF BOTH GROUPS: (UNPAIRED‘T’ TEST)

Variable	Gr.	(AT-BT) Diff. mean	SD±	SE±	t value	P	S
Hb%	A	0.8133	0.8323	0.2149	2.472	< 0.05	S
	B	0.2267	0.3900	0.1007			
TLC	A	1133.3	1463.2	377.80	0.4342	> 0.05	NS
	B	1346.7	1216.5	314.09			
ESR	A	5.000	10.954	2.828	0.7490	> 0.05	NS
	B	7.933	10.491	2.709			
S.TG.	A	17.267	15.895	4.104	1.223	> 0.05	NS
	B	24.600	16.940	4.374			
RBS	A	6.333	8.287	2.140	0.6505	> 0.05	NS
	B	4.600	6.150	1.588			
SGOT	A	4.740	5.808	1.500	1.938	> 0.05	NS
	B	18.933	27.758	7.167			
SGPT	A	5.893	7.569	1.954	1.578	> 0.05	NS
	B	17.267	26.877	6.940			
B.Urea	A	3.000	3.873	1.000	0.5592	> 0.05	NS
	B	3.933	5.175	1.336			
S.Cret.	A	0.1667	0.1345	0.0347	0.9300	> 0.05	NS
	B	0.1133	0.1767	0.0456			
LDL	A	32.653	42.105	10.871	0.0227	> 0.05	NS
	B	32.347	30.859	7.968			
HDL	A	1.067	1.387	0.3581	1.422	> 0.05	NS
	B	2.067	2.344	0.6053			

VLDL	A	3.200	2.701	0.6975	1.648	> 0.05	NS
	B	6.253	6.647	1.716			

(HS: Highly Significant S: Significant NS: Non Significant)

TABLE NO. 5 : Showing the %relief in both the groups in Subjective Parameters

Subjective Parameters	% Relief in Group A	% Relief in Group B
<i>Shyava- varna</i>	12.50%	14.28%
<i>Khara-sparsha</i>	22.06%	17.06%
<i>Kathina</i>	37.22%	20.70%
<i>Srava</i>	31.49%	27.46%
<i>Ugra-kandu</i>	71.92%	31.81%
<i>Kina</i>	71.67%	25.13%
PASI Score	56.00%	16.07%

TABLE NO.6: Showing the % relief in both the groups in Objective Parameters.

Objective Parameters	% Relief in Group A	% Relief in Group B
Hb%	1.45%	0.002%
TLC	11.42%	2.88%
ESR	49.47%	11.8%
RBS	1.13%	1.29%
Sr.Cret	4.85%	6.66%
B.Urea	1.85%	0.70%
SGOT	3.19%	36.2%
SGPT	0.01%	35.4%
Sr.TG.	3.49%	8.95%
LDL	18.19%	3.13%
HDL	1.09%	0.40%
VLDL	1.03%	8.85%

Follow-Up Study-

Regular follow up during the trial & after 1 months of successful completion of trial was done. Regular follow up after trial was done after **15 days & 30days**. . From that data the results obtained were as bellow:

- It revealed that in Group A out of 15 patients at the end of 1 month only 06 patients (**42.02%**) had signs of remission.
- While in Group B, 04 out of 15 patients (**29%**) had signs of remission.

DISCUSSION:

Probable modes of actions of the drug:-

1. *Aragwadha Patra kalk Lepa* :-

It is useful as a good laxative and anti- dermatosis drug. It is used for its medical properties of emetic, purgative, febrifuge, lenitive, and expectorant, diuretic, anti-phlogistic, anodyne, carminative and digestive and cardiac tonic. It is useful in boils, wounds, ulcers, scabies, itchy and other skin infection, urticaria, leprocy, pruritis, constipation, abdominal disorder, colic, bowel complain, habitual constipation, indigestion, blood impurities. Because of these properties of *Aragwadh* it is well effective in skin disorder.

Pharmacological Action and Uses: The anti-inflammatory activity of aqueous extract of leaves and fruits of *Cassia fistula* reported. In-vitro antibacterial activity observed in leaf and root extract.

2. *Gandhaka (Lelitaka)*:-

Gandhak has *Amadoshahara, Deepana, Pachana, Dhatvagnivardhaka, Krimighna, Balya, Dadru-Garavisha-Kushtha, Kandu* and *Visarpahara* properties.

As per pharmacology Sulphar has antibacterial and anti fungal properties.

3. *Tiktashatpala Ghrita*³:-

Tiktashatpala Ghritam has been selected for *Snehana* in present study, because *Ghrita* is mentioned as *Vata pitta Shamaka, Rakta Vikarhara* etc. and has a remarkable property to assimilate the properties of other substances when added to it (*Sanskarsya Anuvartanam*). For *Utkleshana* of *Dosha Tiktashatpala Ghritam* is more effective than other *Sanskarita Ghrita*, which is essential for *Shodhana (Vamana or Virechana)*. *Ghrita* is mentioned as *Vatapittashamaka, varnaprasadan, medhya Rasayana*, etc. and has a remarkable property to assimilate the properties of other substances when added to it (*Sanskarsya Anuvartanam*). So adding drugs which have potent *Kushthagna Kandughna, Varnya, Kaphapittashamak Rasayan* properties along with anti-inflammatory, Analgesic, Antioxidant properties can shows synergistic effect & ultimately results in early recovery of patients.

➤ **Mode of action of Shodhana (Vamana & Virechana):-**

- *Panchkarma* is a set of unique procedures described by *Ayurveda*. It includes *Vamana, Virechana, Nasya, Anuvasana Basti and Asthapana Basti* by *Acharya Charaka*. Out of these five procedures *Vamana & Virechana* were selected as *Shodhana* Therapy.
- *Samshodhana* therapy has its key strength in preventing relapse of disease. *Acharya Charaka* has specifically mentioned that there is a chance of recurrence of disease when treated with only *Shamana* Therapy (Internal medicine) but when *Samshodhana* is done there is no chance of recurrence or it is reduced significantly⁴ as recurrent relapse is the major problem for Psoriasis patients so the *Vamana & Virechana* were proved beneficial in preventing relapse.
- *Vamana* is indicated for *Kapha* predominant disease & *Virechana* is carried out for *Pitta & Rakta* Vitiated diseases. *Kushtha* is a *Raktapradoshaj Vikara & Kitibha-Kushtha* is *Vata-Kapha* predominant type of *Kushtha*. So *Vamana & Virechana* ultimately pacify the basic causative factors (*Dosha & Shithila dhatu*) which result into early recovery.
- *Acharya Charaka* specifically emphasized on extensive *Shodhana* in *Bahudhosh* avastha of *Kushtha*. While *Acharya Vagbhata* recommend *Vamana* on every 15th day, *Virechana* once in a month, *Nasya* on every 3rd day & *Raktamokshana* once in a 6th month⁵.
- *Vamana & Virechana* shows a significant reduction in level of Malondialdehyde (MDA) which is a free radical & significant increase in Super oxide Dismutase (SOD) & Glutathione reductase (GSH) which proves potent action of these two procedures in reducing the oxidative stress⁶.
- *Vamana & Virechana* acts on microcellular level, eliminates the toxins (Vitiated *Dosha*) from body & helps in maintaining normal functioning of body. It strengthens the immune mechanism and helps in preventing relapse. It is just act as medicated purification of the body so eliminate *Dushit Dosha-Dushya* and prevent recurrence of disease.
- So from *Shodhan Karma*, we conducted *Vamana* and *Virechana* for this trial and as a *Shamana* therapy *Shuddha Gandhaka* was administered along with *Argwadha Patra Kalka Lepa* only after successful completion of *Samshodhana*.

CONCLUSION:

- ❖ It can be concluded that there is no any single disease in *Ayurveda* which can be exactly co-related with Psoriasis but according to symptoms of *Kitibha-Kushtha*, it can be consider as Psoriasis.
- ❖ *Kitibha-Kushtha* comes under the umbrella of *Kshudra Kushtha*, it has *Vata-Kapha* dominance & even involvement of *Tridosha* can be evident from its signs & symptoms.
- ❖ Comparing the symptomatic improvement in all two groups it was found that average percentage of relief was higher in **Group A (*Vamana Karma*)** followed by **Group B (*Virechana Karma*)** and **both group administrated by *Aragwadha Patra Kalka Lepa* along with *Shuddha Gandhaka*. It shows that effect of therapy was more in group A in comparison to group B.**
- ❖ No untoward toxic effects were observed during and after treatment.
- ❖ Therefore it can be conclude that *Shodhana (Vamana & Virechana)* followed by *Aragwadha Patra Kalka Lepa* administration of *Shamana aushadhi (Shuddha Gandhaka)* are effective in management of *Kitibha-Kushtha* (Psoriasis) as these are safe, cost effective and free from any side effects.

Recommendations for future research work:-

Current clinical trial is done on small sample size & for short duration so to evaluate the significance of the trial extended study on larger sample & longer duration is very much needed.

REFERENCES:-

1. Kurd SK, Gelfand JM. The prevalence of previously diagnosed and undiagnosed psoriasis in US adults: results from NHANES 2003-2004. J AM Acad Dermatol.2009; 60(2):218-24.
2. Dogra S, Yadav S. Psoriasis in India: prevalence and pattern. Indian j Dermatol Venereol Leprol.2013; 76(6):595-601.
3. B.R.54/257-260,Ambikadatta Shastri et al. Edition2013,Chaukhamba Prakashan ,Varanasi.
4. Ch.Su.16/20, Brahmanand Tripathi, volume I, Edition2013Chaukhamba publishing House, Varanasi. page323, ISBN:9789381484753(Vol I).
5. A.H.Chi 19/96, Brahmanand Tripathi, Edition2009, page 789 Edition2013Chaukhamba publishing House, New Delhi
6. .Evam vishudhya kosthasys Sansodhana chikitsa w.s.r.to oxidative Stress: Chetan Mehta, PG Deptt. of Panchkarma NIA Jaipur.