

ROLE OF LEECH THERAPY AND PANCHATIKTA GHRITA IN THE MANAGEMENT OF PSORIASIS

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ABSTRACT

Psoriasis is a common chronic dermatitis affecting as many as 1% to 2% percent of the world's population. It is most common in Europe and North America. India has an incidence approaching 1% which is less than European countries. It may start at any age but rare under 10 years and often seen between 15 and 40 years. The aetiology of psoriasis is still poorly understood, but there is clearly a genetic component to the disease. There is no proper management in modern science while the great value of *Ayurveda* therapy in this particular disease, considering the high prevalence of this disease, a clinical trial with Leech therapy and oral medicine – *Panchatikta Ghrita* conducted at P.G. Dept. of *Shalya Tantra*, NIA Jaipur. In this clinical trial 10 patients of group-A (*Leech* Therapy) have got 45% relief, 10 patients of group-B (*Panchatikta Ghrita*) have got 47% relief and 10 patients of group-C [*Leech* Therapy (*Jalaukacharana*) + *Panchatikta Ghrita*] have got 65% relief, showing the importance of combined therapy i.e. *Leech* Therapy (*Jalaukacharana*) + Oral medicine (*Panchatikta Ghrita*) in Psoriasis.

Keywords: Psoriasis, Leech Therapy, *Jalaukacharana*, *Panchatikta Ghrita*.

INTRODUCTION

All type of the skin diseases in ancient Indian classics have been described under the broad heading of '*Kushtha*', which are further divided into *Maha Kushtha* and *Kshudra Kushtha*¹. *Kushtha* runs as a chronic disease which is generally considered as difficult to cure & even if it is cured relapses is common. In *Ayurvedic* classics, all types of *Kushtha* have been described as '*Rakta Pradoshaja*' *Vikara*². It is difficult to say what psoriasis is in terms of *Ayurveda*. There is no disease in *Ayurveda*, which can exactly be correlated with Psoriasis. *Acharyas* having mentioned the *Chikitsa as raktamokshana by Jalauka in Alpa doshayukta Kushtha*³.

Psoriasis is one of the most common dermatologic diseases, affecting up to 2.5% of the world's population. In India an estimated 0.8% population is suffering

from Psoriasis⁴. It is a papulo-squamous disorder of the skin. It is a chronic inflammatory skin disorder clinically characterized by erythematous squamous, sharply demarcated papules and rounded plaques, covered by silvery micaceous scale⁵. The exact etiology is still unknown. It tends to run in families and is precipitated by climate, Streptococcal infections; etc⁶.

Psychological stress is emphasized as one of the major triggering factor in the exacerbation of the disease⁷. Modern medical science treats psoriasis with PUVA, corticosteroids and Anti mitotic drugs⁸. But the therapy gives serious side effects like liver & kidney failure, bone marrow depletion etc⁹.

Nowadays, whole world is gradually turning towards *Ayurveda* for safe and complete cure of diseases. Especially in

the field of skin problems *Ayurveda* can contribute remarkably. *Shodhana* (bio-purification), *Shamana* (pacification) and *Nidana Parivarjanam* are main route of treatment for any disease. So, in the present study, *Jalaukavacharana* has been selected as *Shodhana*, *Panchatikta ghrita* has been selected as *Shamana*, *Nidana Parivarjanam* and *Pathya- Apathya* has been advised to the patients.

AIMS AND OBJECTIVES

To compare the efficacy of *Shodhana karma* (Leech Application) and *Shamana karma (Panchatikta Ghrita)* in the patients of Psoriasis

MATERIALS AND METHODS

Thirty patients attending the O.P.D. and I.P.D. of N.I.A. Hospital, Jaipur, fulfilling the criteria of the disease were randomly selected and equally distributed in Group A (Leech therapy), Group B *Panchatikta Ghrita* and Group C (Leech therapy and *Panchatikta Ghrita*) irrespective of their age, occupation, religion etc. for present study.

Inclusion criteria

- Age between 16 to 60 years.
- Not under any other medication.
- Classical symptoms of Psoriasis.
- Not suffering from systemic disorders.

Exclusion criteria

- Leprosy, Tuberculosis, and Paralysis.
- Pregnant women and lactating mother.
- Uncontrolled Hypertension/Cardiac problem/ DM/ any systemic disorders.

Criteria for assessment

- Subjective criteria-It was assessed mainly on the basis of improvement in sign and symptoms of Psoriasis like – Itching and Indurations.
- Objective criteria-Scaling, Erythema (Redness) and number of patches.

Psoriasis Area Severity Index (PASI) is the most widely used tool for the measurement of severity of psoriasis¹⁰. None:0, Mild: 1, Moderate: 2, Severe: 3 and Very severe: 4

Area of skin involved: For each section, the percent of area of skin involved, is estimated and then transformed into a grade from 0 to 6: 0%: 0, < 10%: 1, 10-29%: 2, 30-49%: 3, 50-69%: 4, 70-89%: 5, 90-100%: 6.

Severity: Within each area, the severity is estimated by three clinical signs: erythema (redness), induration (thickness) and desquamation (scaling) and graded as 0-4. The sum of all three severity parameters is then calculated for each section of skin, multiplied by the area score for that area and multiplied by weight of respective section.

Table 1: Showing the Skin section and severity score

Skin sections	Severity Score *	Area Score	% of Skin Section	Total
Head	(E-head+I-head+D-head)	x A-head	x 0.1	= Total head
Arms	(E-arms+I-arms+D-arms)	x A-arms	x 0.2	= Total arms
Trunk	(E- Trunk +I- Trunk +D- Trunk)	x A- trunk	x 0.3	= Total Trunk
Legs	(E-legs+I-legs+D-legs)	x A-legs	x 0.4	= Total legs

Finally, the PASI is Total-head+Total-arms+Total-Trunk+Total-legs. {*E-Erythema, (Redness), I-induration (thickness), D-desquamation (scaling)}

Dose and duration: Duration of treating patients was three months. Dose of *Panchatikta ghrita* in the quantity of 1 TSF-B.D. Leech application was once a week for three months.

Drug review: *Panchatikta Ghrita* was selected for *Shamana* therapy in present study, because it is specially indicated in classics for *Kushtha*¹¹. The ingredients¹² of the formulation are tabulated in Table 2.

Table 2: Ingredients of Panchatikta Ghrita

Sl. No.	Drug Name	Latin Name	Used Part
1	<i>Vrisha</i>	<i>Adhatoda vasica</i>	Leaves
2	<i>Nimba</i>	<i>Azadirachta indica</i>	Leaves
3	<i>Amrita</i>	<i>Tinospora cardifolia</i>	Whole Plant
4	<i>Vyaghri</i>	<i>Solanum surattense</i>	Leaves
5	<i>Patola</i>	<i>Trichosanthes dioica</i>	Leaves
6	<i>Go-Ghrita</i>	(Clarified Butter)	Ghee

OBSERVATIONS AND RESULTS

Table 3: Showing the clinical improvement on Group A

Features	BT	AT	M. D.	% change	SD	SE	t	p	Result
Head Erythema	2.2	1.4	0.8	36.36	0.63	0.2	4	<0.01	S.
Head Scaling	1.7	1.1	0.6	35.29	0.69	0.22	2.71	<0.05	M.S.
Head Thickness	1.3	0.8	0.5	38.46	0.52	0.16	3	<0.02	Mo.S.
Head S. Area	1.9	1	0.9	47.36	0.31	0.1	9	<0.001	H.S.
Head Total PASI	1.06	0.39	0.67	63.2	0.37	0.12	5.66	<0.001	H.S.
Arm Erythema	1.9	1	0.9	47.36	0.74	0.23	3.85	<0.01	S.
Arm Scaling	2.1	1.2	0.9	42.85	0.74	0.23	3.85	<0.01	S.
Arm Thickness	1.8	1	0.8	44	0.42	0.13	6	<0.001	H.S.
Arm S. Area	2.2	1.4	0.8	36.36	0.79	0.25	3.21	<0.02	Mo.S.
Arm Total PASI	2.68	0.94	1.74	64.92	1.23	0.39	4.48	<0.01	S.
Trunk Erythema	2.2	1.2	1	45.45	0.67	0.21	4.74	<0.01	S.
Trunk Scaling	2.1	1.1	1	47.61	0.67	0.21	4.74	<0.01	S.
Trunk Thickness	1.4	0.9	0.5	35.71	0.53	0.17	3	<0.02	Mo.S.
Trunk S. Area	2.2	1.3	0.9	40.9	0.57	0.18	5.01	<0.001	H.S.
Trunk Total PASI	3.72	1.26	2.46	66	1.22	0.39	6.36	<0.001	H.S.
Leg Erythema	2.1	1.3	0.8	38	0.63	0.2	4	<0.01	S.
Leg Scaling	2	1.2	0.8	40	0.63	0.2	4	<0.01	S.
Leg Thickness	1.6	1	0.6	37.5	0.52	0.16	3.67	<0.02	Mo.S.
Leg S. Area	1.9	1.2	0.7	36.84	0.48	0.15	4.58	<0.01	S.
Leg Total PASI	4.6	1.92	2.68	58.26	1.63	0.52	5.18	<0.001	H.S.
Total PASI	12.0	4.51	7.55	62.6	2.74	0.87	8.69	<0.001	H.S.
Itching	2.1	1.4	0.7	33.33	0.48	0.15	4.58	<0.01	S.

Table 4: Showing the clinical improvement on Group B

Features	BT	AT	M. D.	% change	SD	SE	t	p	Result
Head Erythema	2.1	1.1	1	47.61	0.47	0.15	6.70	<0.001	H.S.
Head Scaling	1.8	1	0.8	44.44	0.42	0.13	6	<0.001	H.S.
Head Thickness	1.3	0.6	0.7	53.84	0.48	0.15	4.58	<0.01	S.
Head S. Area	2	1.3	0.7	35	0.67	0.21	3.27	<0.02	Mo.S.
Head Total PASI	1.06	0.35	0.71	66.98	0.45	0.14	4.92	<0.001	H.S.
Arm Erythema	1.9	1	0.9	47.37	0.57	0.18	5.01	<0.001	H.S.
Arm Scaling	2	1	1	50	0.67	0.21	4.74	<0.01	S.
Arm Thickness	1.7	1.1	0.6	35	3.16	0.16	3.67	<0.02	Mo.S.
Arm S. Area	2.3	1.6	0.7	30.43	0.67	0.21	3.27	<0.02	Mo.S.
Arm Total PASI	2.4	0.86	1.54	64	0.88	0.28	5.53	<0.001	H.S.
Trunk Erythema	2	1.3	0.7	35	0.48	0.15	4.58	<0.01	S.
Trunk Scaling	2.3	1.4	0.9	39.13	0.74	0.23	3.85	<0.01	S.
Trunk Thickness	1.7	1	0.7	41	0.48	0.15	4.58	<0.01	S.
Trunk S. Area	2.5	1.5	1	40	0.47	0.15	6.70	<0.001	H.S.
Trunk Total PASI	4.35	1.62	2.73	62.75	1.33	0.42	6.49	<0.001	H.S.
Leg Erythema	1.9	1.1	0.8	42	0.63	0.2	4	<0.01	S.
Leg Scaling	2.8	1.6	1.2	42.85	0.63	0.2	6	<0.001	H.S.
Leg Thickness	2.1	1.2	0.9	42.85	0.74	0.23	3.85	<0.01	S.
Leg S. Area	2.6	1.6	1	38.46	0.67	0.21	4.74	<0.01	S.
Leg Total PASI	7.16	2.68	4.48	62.56	2.06	0.65	6.86	<0.001	H.S.
Total PASI	14.97	5.51	9.46	63.2	3.25	1.03	9.18	<0.001	H.S.
Itching	2	0.9	1.1	55	0.57	0.18	6.12	<0.01	S.

Table 5: Showing the clinical improvement on Group C

Features	BT	AT	M. D.	% change	SD	SE	t	p	Result
Head Erythema	2.7	0.8	1.9	70.37	0.87	0.27	6.86	<0.001	H.S.
Head Scaling	2.3	1	1.3	56.52	0.48	0.15	8.51	<0.001	H.S.
Head Thickness	1.8	0.6	1.2	66.66	0.63	0.2	6	<0.001	H.S.
Head S. Area	2.3	0.9	1.4	60.86	0.69	0.22	6.33	<0.001	H.S.
Head Total PASI	1.6	0.22	1.38	86.25	0.68	0.22	6.37	<0.001	H.S.
Arm Erythema	2	0.7	1.3	65	0.67	0.21	6.09	<0.001	H.S.
Arm Scaling	2.4	0.9	1.5	62.5	0.71	0.22	6.71	<0.001	H.S.
Arm Thickness	1.8	0.6	1.2	66	0.63	0.2	6	<0.001	H.S.
Arm S. Area	2	1	1	50	0.47	0.15	6.71	<0.001	H.S.
Arm Total PASI	2.42	0.48	1.94	80	0.82	0.26	7.51	<0.001	H.S.
Trunk Erythema	2.2	0.9	1.3	59	0.67	0.21	6.09	<0.001	H.S.
Trunk Scaling	2.5	1	1.5	60	0.53	0.17	9	<0.001	H.S.
Trunk Thickness	1.8	0.7	1.1	61	0.74	0.23	4.71	<0.01	S.
Trunk S. Area	2.5	1.2	1.3	52	0.48	0.15	8.51	<0.001	H.S.
Trunk Total PASI	4.98	0.96	4.02	80.72	1.66	0.53	7.62	<0.001	H.S.
Leg Erythema	2.5	1	1.5	60	0.71	0.22	6.71	<0.001	H.S.
Leg Scaling	2.7	1	1.7	62.96	0.82	0.26	6.53	<0.001	H.S.
Leg Thickness	2.3	0.9	1.4	60.86	0.52	0.16	8.57	<0.001	H.S.
Leg S. Area	2.4	1	1.4	58.33	0.52	0.16	8.57	<0.001	H.S.
Leg Total PASI	7.36	1.36	6	81.52	2.11	0.67	8.96	<0.001	H.S.
Total PASI	16.36	3.02	13.34	81.54	3.40	1.08	12.39	<0.001	H.S.
Itching	2.5	0.9	1.6	64	0.69	0.22	7.2	<0.001	H.S.

S-Significant (P Value<0.01), HS-Highly Significant (P Value<0.001), MoS-Moderate Significant (P Value<0.02)

DISCUSSION

Demographic Data:

Age: In this clinical trial, maximum no. of patients was in the age group of 16-30 yrs. i.e. 40% followed by 26.7% of the age group 31-40 yrs. It holds well the explanation given in contemporary science that Psoriasis can occur at any age but is most common in people in their 20s, 30s, and 40s.

Sex: In this Study, Majority of the patients i.e. 70% patients were male and 30% patients were female. This reveals the fact that prevalence rate is more in males than in females. The probable reason may be that the males are more exposed to different types of contact and environments. However, Psoriasis affects both men and women¹³.

Total PSAI of Psoriasis:

Effect of therapy on Total PASI: Total PASI was reduced by 63.6%, 63.2% and 81.54% respectively in Group A, B and C which was statistically highly significant in group A, B & C. Maximum reduction was noted in the patients of Group C.

Effect of therapy on Itching: Itching was reduced by 33.33%, 55% and 64% respectively in Group A, B and C which was statistically significant ($P < 0.01$) in group A and group B while highly significant ($P < 0.001$) in group C. Maximum percentage relief was noted in the patients of Group C. Itching is the self properties of pitta and kapha doshas¹⁴. Some contents of *Panchatikta Ghrita* are *tridosha shamaka*. Therefore due to these properties, *Panchatikta Ghrita* and *Jalaukavacharana* are effective on reducing the itching symptom.

CONCLUSION

On the basis of observed results it can be concluded that all group of treatment provided significant improvement in

the sign and symptom of the patient of Psoriasis and significant improvement on the PASI SCORE. Patients of Psoriasis when treated with combined therapy i.e. *Panchatikta Ghrita* and Leech application have shown best results (65%) than individual groups on both subjective and objective parameters. Patients of Psoriasis when treated with *Panchatikta Ghrita* independently have shown better results (47%) than the patients treated with Leech Application (45%). Drugs used in *Shamana* and *Shodhana* possess Keratolytic, Anti-proliferative, Anti-inflammatory, anti-pruritic, emollient and immunomodulatory effects. No side effects have been reported by the patients during the course of treatment.

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