

EFFECT OF VIRECHANA KARMA (THERAPEUTIC PURGATION) AND TAKRADHARA (SHIRODHARA) IN *EKAKUSHTHA* (PSORIASIS)

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ABSTRACT:

Psoriasis is a non infectious chronic inflammatory disease of skin characterized by well defined erythematous plaques with silvery scale. It resembles with *Ekakushtha* in *Ayurveda*. Stress is most important factor to precipitate the disease. The aim of present study is to evaluate clinical efficacy of *Takradhara* & *Virechana* in the patient of psoriasis. For present study patients of Psoriasis in between the age of 16 to 60 years, attending the O.P.D and I.P.D of Gujarat Ayurved University, Jamnagar was selected. Total 29 patients were registered and divided into two groups A & B. in group A classical *Virechana* is given and in group B *Takradhara* therapy was given for duration of 14 days. Clinical efficacy of *Virechana Karma* and *Takradhara* were assessed by special proforma based on PASI (psoriasis area severity index) scale, both treatments were effective in treating patients of psoriasis. *Virechana* had given statistically better result in psoriasis related physical symptoms whereas *Takradhara* had given better result in stress related symptoms of psoriasis.

Key Words: *Ekakushtha*, Psoriasis, *Takradhara*, *Virechana*,

INTRODUCTION: Skin diseases like psoriasis, lichen planus, eczema have direct relation to the state of mind. Psoriasis is a disease with profound impact on the psychological and social aspect of the patient, particularly because of its visibility. Data published on World Psoriasis Day, 29th October 2010, there are 125 million people with psoriasis around the world & Incidence rate in India is 0.7%¹.

Ekakushtha comes under Kushtha Roga (skin disorders)². Psoriasis clinically resemblance to *Ekakushtha*. It has symptoms like *Aswedanam* (Anhydrous), *Mahavastum* (Spreading over large area of body & deeply rooted), *Matsya Shakalopam*³ (Erythematous and elevated skin lesion), *Krishna Aruna Varna*⁴ (Black & Reddish lesions), *Mandala-Abhrakapatrasama*⁵ (Round and with scaling like mica).

In *Ayurveda*, *Dhara* therapy is indicated in *Vata- Pitta* disorders⁶; previous research works show that it gives good results in stress related lifestyle disorders like hypertension, ulcerative colitis, psoriasis & other psychosomatic diseases etc⁷. When *Takra* (Buttermilk) is poured on head is called *Takradhara*. *Takra* has *Vata- Kaphaghna* properties⁸ & can be used locally & internally to treat the *Ekakushtha* (Psoriasis) which has *Vata Kapha* dominance⁹. Many studies document the disruptive impact psoriasis has on patients' lives. The stress might act as a precipitating factor in onset or exacerbation of skin disease through psychosomatic mechanisms¹⁰. As various studies conducted on *Dhara* therapy in general and *Takradhara* in the form of *Shirodhara* had shown significant results in relieving the stress induced disorder. *Takradhara as Shirodhara* was given to

relieve stress which is most triggering factor of psoriasis. Buttermilk contains large amount of lactic acid. It is scientifically proved that lactic acid is used to moisten & lessen the appearance of thickened psoriatic scales. There are so many medicaments in the market which contain lactic acid & salicylic acid, e.g. salex, Amlactin.¹¹ Acharya Charaka mentioned that *Kustha* is the *Raktaj vyadhi*.¹² In all the *Twaka Vikara*, the vitiation of *Rakta* and *Pitta* is mentioned. *Ekakushtha* particular is also having the excessive accumulation of *Dosha* and *Chirakari* in nature¹³. *Virechana karma* was taken as it acts on all *Dosha* in general and *Pitta* and *Rakta* in particular.

AIMS AND OBJECTIVES:

- To evaluate clinical efficacy of *Takradhara* in the patient of psoriasis.
- To evaluate the effect of *Virechana* in psoriasis.

MATERIALS & METHODS:

- **Selection of patient:** Patients suffering from psoriasis were selected from the O.P.D. & I.P.D. of I.P.G.T. & R.A. Hospital, Jamnagar irrespective of religion, sex, occupation & caste etc.
- **Inclusion criteria:** age-16 to 60 and patients having classical signs & symptoms of *Ekakushtha* (psoriasis) were selected.
- **Exclusion criteria:** psoriasis associated with Hypertension, Diabetes mellitus, Carcinoma asthma & other systemic diseases.
- **Laboratory investigation:** Following investigation were carried out before & after treatment.
- Haematological examination :(TLC, DLC, HB% ,CT ,BT, ESR)
- Bio-chemical examination.(FBS, PPBS, LDL, HDL, Total Triglyceride, Total Protein, S.Creatinin, S.Urea, S. calcium)
- **Drug, dose and duration:**

Group A: Virechana Karma (Therapeutic purgation)

Virechana Karma was given in following manner;

- *Deepana & Pachana* – by *Panchakola Churna*¹⁴ dose-2 to 3 gm- for 7 days.
- Drug for *Snehpana* – By *Panchatikta Ghrita*
- Dose & duration – As per *Kostha & Prakriti Snehpana* (30-40ml) has been given in increasing dose till *Samyaksnigdha Lakshna* & up to 7 days.
- *Sarvanga Abhayanga* of *Bala Taila & Mridu Sarvanga Sweda (Bashpa Sweda)* was carried out after getting *Samyaksnigdha Lakshana*.

Drugs for Virechana Karma:

Virechana Yoga was prepared using following drugs having purgative property. Decoction of these drugs was prepared by adding 16 times of water & it reduces to 1/8.

- *Triphala* [Equal part *Amalaki(Embllica officinalis Gaertn.)*, *Bibhitaki(Terminalia bellerica, Gaertn Roxb)* & *Haritaki(Terminalia chebula Retz.)*] -100 gm
- *Trivrit (Operculina turpethum)* -50 gm
- *Kutaki (Picrorrhiza Kurroa)*-25 gm
- *Erand Taila (Ricinus communis Linn.)* -50-100 ml
- *Samsarjana Karma* was carried out on the basis of *Shuddhi* up to 7 days.

Group B; Takradhara

Takradhara as a *Shirodhara* was given for 14 days, Time - 30 -45 min

- **Drug for Takradhara**
- Cow Milk-1.5 lit,
- *Amalaki (Embllica officinalis Gaertn.)*-200 gm,
- *Musta (Cyperus rotundus Linn.)*- 100 gm

- Procedure: *Takra* was prepared by fermenting *Musta Shirapaka* overnight & next morning *Amalaki* decoction was added in to it & churned. After removing total cream *Takra* was used for *Dhara*.
- Identification of thesis drugs was done by department of Pharmacology IPGT & RA, GAU, Jamnagar.

GROUPING:

GROUP A- in this group classical *Virechana Karma* was administered .Total 15 patients were registered in Group A, out of which 13 patients completed treatment schedules & 2 patients dropped out.

GROUP B- in this group *Takradhara* as a *Shirodhara* was given. Total 14 patients were registered in Group B, out of which 12 patients completed treatment schedules & 2 patients dropped out.

Sampling method: Random sampling method was applied in this comparative clinical study.

Statistical analysis: Paired 't' test method was applied for the analysis and presentation of data.

Ethical Clearance: Before the initiation of the study, the study protocol & related documents were reviewed & approved by with the approval of Institutional Ethical Committee of IPGT & RA, GAU, Jamnagar. A well informed consent was taken from each participant explaining all study details.

Criteria for diagnosis: Patients were diagnosed and assessed thoroughly on the basis of classical signs and symptoms of *Ekakushtha* (psoriasis) along with positive signs like Auspitz sign, Candle grease sign, and Koebner phenomenon.

OBJECTIVE AND SUBJECTIVE CRITERIA FOR ASSESSMENT: A special proforma was prepared incorporating the classical signs and

symptoms of *Ekakushtha* and special scoring pattern including PASI was adopted for the assessment of results.

OBSERVATIONS & RESULTS : For clinical trial total 29 patients were registered. 15 patients were registered in group A, out of which 13 patients had completed the treatment course and 9 patients get moderate relief in chief complaints (table no 3) and 2 patients became LAMA due to personal reason. In group B, total 14 patients were registered out of which 12 patients had completed the treatment course and 7 patients get moderate relief in chief complaints and 2 patients became LAMA due to personal reason..

General observation: Maximum number of patients i.e. 32.3% belongs to age group of 31 -40 yrs, Psoriasis can be developed at any age, any time. Statistically, there are two age peaks when psoriasis is likely to start 13-25 years old and 50-60 years old¹⁵. It may be due to hormonal changes in puberty & less immunity during old age and stressful life style. Maximum number of patients (55%) were male. Psoriasis equally affect male and female. But in some Indian studies male ratio is greater than female¹⁶. 12.9% patients had positive family history. According to research survey done by National Psoriasis foundation, around one-third of people with Psoriasis report a family history of the disease. 90.3% patients reported climatic changes as a triggering factor of the disease. Studies indicate that cold weather may be a predisposing factor or trigger for psoriasis, in contradiction to hot and sunny climate that appears to be beneficial. Maximum (48.4 %) patients were having *Vata-Kapha-Prakriti* &

(83.87%) of patients were having *Rajasika Prakriti*.

Maximum no. of patients (94%) were taking *Ati Madhura Aahara* (excessive sweet diet) which lead to *Kapha Prakopa* & *Aama* (free radicals/ toxins) production. Maximum 84 % patients were taking *Vishamasana* (irregular diet.) which lead to the *Vata Prakopa*. Researches shows that 60% of people with psoriasis also have disorders of carbohydrate metabolism. Toxic substances produced by faulty digestion include polyamines which prevent the body from making cyclic AMP, regulators of metabolism in the cells. Most of the patients i.e. (64.5%) were having Disturbed sleep & Dreams. Recent NPF report indicating that - 49% of psoriasis patients say that their disease interferes with sleep¹⁷ Erythema, scaling & itching was found in 100% of patients. Whereas 77.4% patients were complaining burning sensation in the psoriatic lesions. Prevalence of pruritus in psoriasis, ranging from 63 to 84%, has been reported from different parts of the world¹⁸. Pruritus is more common in plaque-type psoriasis compared with other types of psoriasis such as guttate, pustular or erythrodermic.

22.6% patients were complaining joint pain. Various survey studies show that 30-40% of people with psoriasis may develop psoriatic arthritis. Psoriatic arthritis usually develops between the age of 30-50. Plaque psoriasis was found in 72.4% whereas 12.9% & 9.7% patients were of erythrodermic & guttate type of psoriasis respectively. According to modern science Incidence of Plaque Psoriasis was about 80% (the most common type of psoriasis. Candlegrease Sign & Auspitz sign was found in 100%,

of patients & Koebner's phenomenon was found in 6.4% of patients. 93.5% patients were complained stressful condition aggravate the symptoms. Maximum 74% patients were having tension. 64 % patients were under depression & anxiety. Suicidal tendency was found in 9.68 % patients Stress can also weaken ordinary immune systems, interfering with the body's natural defense.

DISCUSSION :In ancient text of *Ayurveda* all the skin disorders come under the broad heading of *kushtha Vyadhi*. Among them Psoriasis (*Ekakushtha*) is one of the most common disorder. Psoriasis is an immune mediated genetically determined common dermatological disorder, which have high impact on the health-related quality of life.

Discussion on effect of therapy: In group A maximum 76.9 % relief was observed in *Srava* (Discharge) after *Virechana*. In group B 72.7 % relief was observed in discharge after *Takradhara*. *Srava* (Discharge) is due to Property of *Kapha* & *Pitta*, *Virechana* eliminates excessive accumulation of *Kapha* and *Pitta* & reduces *Srava*. *Takra* by its *Rukshya Guna* reduces the *Srava* (Discharge).

In group A, 35.9 % relief was observed in scaling after *Virechana* while in group B 48.5% relief was observed in scaling after *Takradhara*. Lactic acid present in *Takra* moisten & lessen the appearance of thickened psoriatic scales.

In group A the *Daha* (Burning sensation) was relieved by 36% after *Virechana* & in Group B it was relieved by 64% after *Takradhara*. *Daha* (Burning sensation) is mainly due to *Pitta Dosha*. Both *Virechana* & *Takradhara* specifically indicated for *Pitta Dosha*. *Takradhara* group has better result due to *Raktapitta-*

Prasadak properties & anti-inflammatory action of Takradhara drugs.

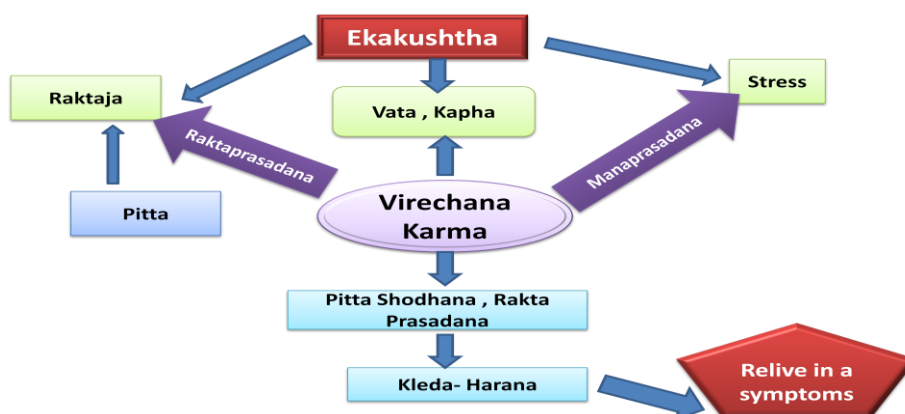
In group A Bahalatva (Epidermal thickening) was reduced by 36% after Virechana & in group B it was reduced by 40% after Takradhara. Bahalatva (Epidermal thickening) is mainly due to Hyperkeratinization of skin. Virechana eliminates excessive accumulation of doshas & due to Srotoshuddhi nutrition to skin is maintained & Takradhara has anti-inflammatory action & regulate cell proliferation. All these results were statistically highly significant ($P < 0.001$).

Effect on Biochemical parameters: It was observed that in Group A Serum Triglyceride was increased by 20.06% & (fig. no. 1)

Blood Urea is Decrease by 18.8% while in Group B Serum Triglyceride was decreased by 13.79%. In both groups all the biochemical and hematological results were statistically insignificant $P < 0.05$.

Probable mode of action of Virechana Karma in psoriasis:

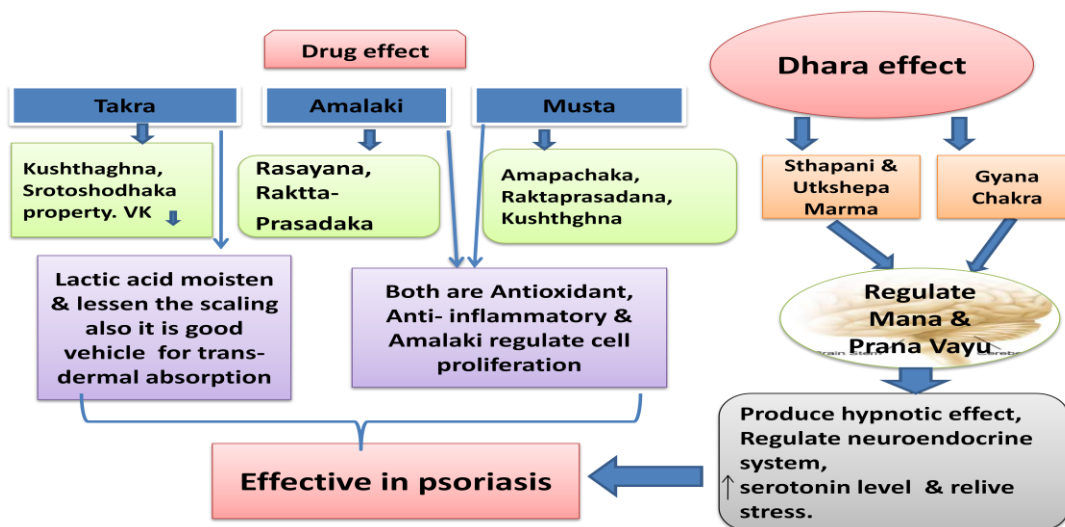
In Virechana Karma maximum ingredient have Katu Rasa, Laghu, Rukshya Guna, Ushna Virya and Katu Vipaka, Vatakaphashamaka, Karshana, Lekhaniya, Medorogahara, Amapachana, which normalize the state of Agni. Thus, regulated Jatharagni, Dhātu-Shoshana properties due Raktaprasadak property it normalize Pitta lead to Kleda Harna & give relief in the symptoms of psoriasis.



Probable mode of action of Takradhara: In Ayurveda, Dhara therapy is indicated in Vata- Pitta disorders; previous research works show that it gives good results in stress related lifestyle disorders like hypertension, ulcerative colitis, psoriasis & other psychosomatic diseases etc. Buttermilk contains large amount of lactic acid. It is scientifically proved that lactic acid is used to moisten &

lessen the appearance of thickened psoriatic scales.¹⁹ In Shirodhara Continuous pouring of liquid may effect on Sthapani, Utkshepa Marma & stimulate Gyanchakra in the brain which regulate the rhythm Mana & Prana Vayu which Produce hypnotic effect & regulate neuroendocrine system, it also relieve stress and give relief in symptoms of psoriasis.

(fig. no. 2):



CONCLUSION: Considering the psychosomatic nature of disease stress is most predisposing factor of disease. The Virechana is the bio-purification therapy for body which has *Raktaprasadaka* and *Kleda Harna* property it normalize *Pitta Rakta* and other *Dosha* while *Takradhara*

is external therapy which may act through Psychoneuro-endocrine-immune-axis. *Virechana* has given better result in physical symptoms of body. Whereas *Takradhara* has given better result in stress related symptoms of psoriasis.

(Table no.1) Overall effect of therapies:

ASSESSMENT	Virechana group		Takradhara group	
	No. of patients	% relief	No. of patients	% relief
Complete remission	0	0	0	0
Marked improvement	4	30.76	2	16.67
Moderate improvement	9	69.34	7	58.33
Minor improvement	0	0	3	25

(Table no.2) Effect of therapy in group A, n=13

Symptoms of <i>Ekakushtha</i>	% Relief	S.D.	S.E.	t	p
Scaling	35.9	0.64	0.177	6.06	<0.001
Itching	32.4	0.68	0.19	4.42	<0.001
Erythema	34.3	0.49	0.13	6.74	<0.001
Epidermal thickening	36.1	0.66	0.19	3.02	<0.01
Aswedana	51.9	0.49	0.13	7.86	<0.001
Burning Sensation	36	0.48	0.13	5.19	<0.001
Discharge	76.9	0.438	0.12	6.32	<0.001
Elevation	34.8	0.506	0.14	4.38	<0.001
Sleep	44	0.50	0.14	4.38	<0.001
Candlegrease Sign	48	0.27	0.07	12	<0.001
Auspitz Sign	50	0.27	0.07	12	<0.001

Kobeners Phenomenon	50	0.37	0.10	1.47	>0.05
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(table no.3) Effect of therapy in group B, n=12

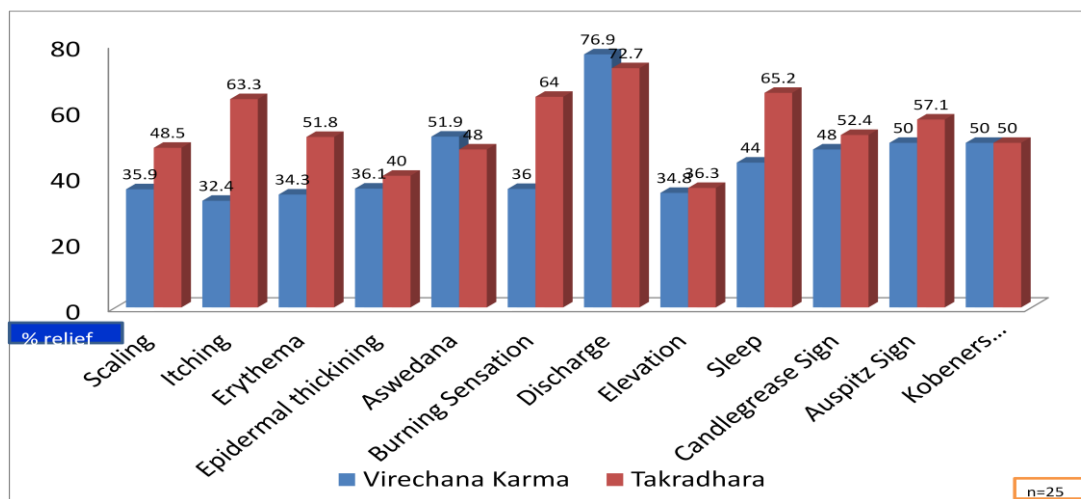
Symptoms of Ekakushtha	% Relief	S.D.	S.E.	t	p
Scaling	48.5	0.52	0.15	9.23	<0.001
Itching	63.3	0.78	0.237	7.28	<0.001
Erythema	51.8	0.64	0.19	6.52	<0.001
Epidermal thickening	40	0.64	0.19	3.730	<0.001
Aswedana	48	0.30	0.09	12	<0.001
Burning Sensation	64	0.82	0.25	5.8	<0.001
Discharge	72.7	0.64	0.19	3.7	<0.01
Elevation	36.3	0.46	0.14	5.16	<0.001
Sleep	65.2	0.80	0.24	5.59	<0.001
Candlegrease Sign	52.4	0.646	0.19	6.52	<0.001
Auspitz Sign	57.1	0.301	0.090	12	<0.001
Kobeners Phenomenon	50	0.40	0.12	1.49	>0.05

(table no.4) Overall effect of therapies:

ASSESSMENT	Virechana group n=13		Takradhara group n=12	
	No. of patients	% relief	No. of patients	% relief
Complete remission	0	0	0	0
Marked improvement	4	30.76	2	16.67
Moderate improvement	9	69.34	7	58.33
Minor improvement	0	0	3	25

(Chart no. 1) Effect of therapy on symptoms of psoriasis in both treatments groups

Effect therapy on symptoms



Effect of Virechana and Takradhara therapies on psoriatic lesions in group A and B

Virechana Group A

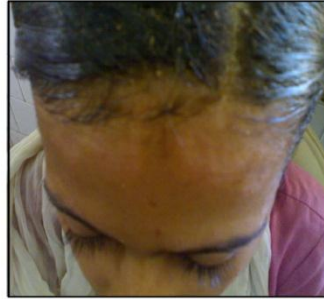


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Takradhara Group B



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