

# A systematic review on efficacy of Virechan karma on Psoriasis w.s.r to Ek-kustha

## Review Article

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### Abstract

Background of the study: The reported prevalence of Psoriasis in countries ranges between 0.09% and 11.43%, making Psoriasis a serious global problem with at least 100 million individuals affected worldwide. It is far more than 'just a skin disease' it has an unpredictable course of symptoms, a number of external triggers and significant co-morbidities, including arthritis, cardiovascular diseases, metabolic syndrome, inflammatory bowel disease and depression. In spite of having recent development in modern medicine there is no specific medication for cure of Psoriasis it can be managed but not cured. *Panchkarma* (pentad therapy) and *Shaman Chikitsa* (pacification therapy) in Ayurveda may fill the gaps that exist regarding treatment. This systematic review analyses the role of *Virechan karma* (medicated purgation therapy) in the management of Psoriasis based on outcome of published research. Objective: Effectiveness of *Virechan karma* in management of Psoriasis. Method: Published research data were obtained from different E- databases eg. Pubmed, Google scholar, Research gate, Scopus, Web of science. The inclusion criteria of the selection of papers includes the studies conducted on the symptoms of Ek kustha, PASI scoring, standard protocol followed for *Virechan Karma* and the papers were excluded from the study which included only *Nitya Virechan karma*, only *Shnehan karma* (oleation therapy), other *Panchkarma* (pentad therapy) modality like *Basti* (medicated Enema) etc. Result and Conclusion: The maximum incidence of Psoriasis disease was found in subjects belonging to 30-40 year age group having *Vata-Pitta* dominant *Sharirik Prakriti* (somatic constituent) and *Rajsika Mansika Prakriti* (Psychic constituent). *Virechan karma* with *Shaman Chikitsa* showed significant improvement in Psoriasis patients than *Vaman karma* (medicated emesis) & *Virechan karma*.

**Key Words:** *Ek-kustha, Kustha, Psoriasis, Panchkarma, Virechan karma, Virechan with Shaman Chikitsa.*

### Introduction

Psoriasis being a serious problem globally affects at least 100 million individuals has reported prevalence in between 0.09% to 11.43%. Psoriasis is far more than 'just a skin disease' it has an unpredictable course of symptoms, several external triggers and co-morbidities, including arthritis, cardiovascular diseases, metabolic syndrome, inflammatory bowel disease and depression. (1) Psoriasis is a chronic inflammatory skin disease with a strong genetic predisposition and autoimmune pathogenic traits. By knowing the role of immunity in Psoriasis and the interplay between the innate and adaptive immune system it has helped to manage this complex disease. (2) Due to excessive multiplication of cells in the basal layers there is increased epidermal proliferation in case of Psoriasis (3). Due to chronic and recurrent nature of Psoriasis in spite of availability of many treatments still it is challenging to treat Psoriasis.

Modern medical science treats Psoriasis with PUVA (psoralen and ultraviolet A radiation) and corticosteroids which produces side effects like liver and kidney failure, bone marrow depletion etc. Hence it is the need of time to find out safe and effective management for Psoriasis mentioned in Ayurveda and explore it on scientific basis. In Ayurvedic texts, all type of skin diseases has been described under the *Kustha Roga* (skin disorders). Psoriasis is considered as a type of *Kustha* and recent Ayurveda scholars have equated it to *Ek-kustha* based on clinical sign and symptoms. *Kustha* is *Rakta Pradosha Vyadhi* (blood related disorder) and *Ek-kustha* is *Vata-Kapha* dominant disease, therefore *Virechan Karma* may provide better result for the restoration of the physiology in cases of Psoriasis. Till now, there are no systematic reviews on effectiveness of *Virechan karma* in Psoriasis. However, several literary reviews on Psoriasis w.s.r to *Ek-kustha* are available. Hence, this review is undertaken to analyse the efficacy of *Virechan karma* on Psoriasis.

The objective of the review: To assess the effectiveness of *Virechan karma* in management of Psoriasis.

### Material & methods

The review of literature was carried out using from the different E-databases, Google scholar, Scopus, PubMed central, Research gate, Web of science and Hand search. Hand search is searching for the articles

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from cross-references of the articles selected for review and is meant to purposefully select articles as per their content and suitability. This process was undertaken at the stage of eligibility and inclusion and helps in recognizing articles that did not typically undergo the method of identification and screening.

### Inclusion criteria

- **Types of participants:** studies containing diagnosed cases of any type of Psoriasis, including both sexes and Psoriasis comparable to *Ek-kustha*.
- **Types of intervention:** Ayurvedic interventions including *Shaman* drugs, *Virechan* drugs or *Virechan* along with *Shaman* drugs were considered.
- **Types of outcome measures:** Both subjective and objective criteria having sign and symptoms of *Ek-kustha* and PASI scoring were considered to know the improvement obtained by using different therapies in Psoriasis. *Prakriti*(psychosomatic constitution) type was also considered to know the association of manifestation of Psoriasis with *Prakriti*(psychosomatic constitution) types.
- **Types of study:** study selected for this review included pre-post comparisons, RCT, controlled before and after therapy, M.D thesis available on online portal i.e., ARD(Ayurveda research database), dissertation or abstract having appropriate data was included in this review.

### Exclusion criteria

Laboratory or nonhuman experiments, healthy volunteer studies of antipsoriatic drugs, studies including cases of psoriatic arthritis were also excluded, those with insufficient details regarding diagnostic criteria, articles containing *Nitya Virechan karma*(daily

medicated purgation), Case study articles, studies in which *Virechan* therapy was not given but followed other *Panchkarma* modality like Basti etc were excluded.

### Data sources and Search strategy

A search strategy was then developed and performed by using certain Key words like Psoriasis, *Virechan*, *Ek-kustha*, *Shodhan Chikitsa*, Clinical trials. Further, more specific search was performed using '*Virechan karma* in Psoriasis' as key word in different E-databases e.g., Google scholar, Research gate, PubMed central, Scopus, Web of science, Hand search and Thesis to ensure that no key references were missed. Finally, a search was conducted for "Psoriasis and *Virechan karma* systematic reviews."

### Selection of research data

#### Data extraction and analysis

In the first phase, the articles available on the selected topic from year 1962 to 2020 were included in the search based on inclusion criteria, In the second phase, total 380 articles were searched and pooled together for the purpose of screening by reading the titles and thereafter the abstracts. Articles which were not satisfying the inclusion criteria were excluded at this stage. The eligible research works were further assessed by reading the complete texts and those not meeting the inclusion criteria were excluded, out of which only 5 research works strictly followed inclusion criteria rest were excluded from the study and 5 thesis work were available on ARD (Ayurveda research database) portal, thus total 10 research work were taken for this review.

## Observations

**Table no.1. Author of the study and the title of articles selected for this review**

Sn.no	Author name	Title name
1	A.K Parida et.al (2008) (4)	A Comparative Study of <i>Vamana &amp; Virechan karma</i> in <i>Ekakushtha</i> w.s.r to Psoriasis
2	P.N Shah (2008) (5)	A Comparative Study of two <i>Virechan yoga</i> in the management of <i>Ekakushtha</i> (Psoriasis)
3	M. Anila (2009) (6)	Role of <i>Panchatikta Ghrita</i> as <i>Shodhanartha Snehapana</i> in the management of <i>Ekakushtha</i>
4	M.N Girija (2011) (7)	Role of <i>Virechan karma</i> in management of Psoriasis
5	CM. Gulhane (2011) (8)	A Clinical study of <i>Virechan Karma, Takradhara and Makandi</i> ( <i>Coleus forskohlii</i> ) <i>Ghanavati</i> in the management of <i>Ekakushtha</i> (w.s.r. to Psoriasis)
6	R.Mehta et.al (2017) (9)	Efficacy of <i>Arohana Krama Snehapana</i> and <i>Sadyo-snehana</i> for <i>Virechan Karma</i> in <i>Eka Kushtha</i> with special reference in to Psoriasis –a comparative study
7	R. Mishra (2018) (10)	A Clinical Study to Evaluate and Compare the Efficacy of <i>Vamana, Virechan</i> and <i>Shaman</i> in <i>Ekakushtha</i> w.s.r. to Psoriasis
8	Y.A.jadega (2018) (11)	A clinical study on <i>Patoladi Kwatha</i> with <i>Virechan Karma</i> in the management of <i>Ekakushtha</i> (Psoriasis)
9	S.J. Ruparel et.al (2018)(12)	Role of <i>Virechan Purvaka Shaman Snehana</i> with <i>Rasayana</i> drugs in Psoriasis.
10	V. Kanani et.al (2018)(13)	Clinical Study on Efficacy of <i>Panchatikta Ghrita</i> and <i>Virechan</i> on patients of Psoriasis ( <i>Eka kushtha</i> )

**Table no.2: Distribution of study subjects as per Age and Prakriti**

Author name	Age group range (year)	Age group belonging to maximum no of patients(year)	Dominant Sharirik Prakriti (Somatic constitution)	Dominant Manasik Prakriti (Psychic constitution)
A.K Parida (2008)	16 – 60	32 to 40	Vata – kaphaja	Rajasika
P.N Shah (2008)	16-70	41 to 60	Vata- pittaja & pitta-kapha	-
M. Anila (2009)	12- 60	35 to 45	Vata- pittaja	-
M.N Girija (2011)	15-70	36 to 45	Vata – kaphaja	-
CM. Gulhane (2011)	16 -60	30 to 40	Vata- pittaja	Rajasika
R.Mehta (2017) Arohan karma	16-60	31-40	Vata- pittaja	-
R.Mehta (2017) sadyo-karma	16-60	31-40	Pitta-kapha	-
R. Mishra (2018)	16-60 yrs	36 to 45	Vata – kaphaja	Rajasika
Y.A jadega (2018)	16-60 yrs	31 to 40	Vata- pittaja	Rajasika
S.J. Ruparel (2018)	20-60 yrs	-	-	Rajasika
V. Kanani (2018)	-	-	-	-

**Table no.3. showing management protocol of Psoriasis used in different studies**

Author name	Management adopted
A.K Parida (2008)	<i>Virechan yoga Triphala Yavakuta Churna 100 Grams</i> <i>Kutaki Yavakuta Churna 50 Grams</i> <i>Trivrita yavakuta 50 Grams</i> <i>Ichhabhedhi Rasa 250 mg (2 Tablets)</i> <i>Vaman yoga Ghrita, Madanphala, Vacha, Yastimadhu, Saindhav lavan, Madhu.</i> <i>External application Jibantyadi Yamak</i> <i>Shaman yoga Arogyavardhani rasa, Rasamanikya, Guduchi churna</i>
P.N Shah (2008)	Group 1 <i>Virechan yoga Ichhabhedhi ras</i> Group 2 <i>Virechan yoga Trivritadi churna</i>
M. Anila (fixed group) (2009)	<i>Virechan yoga Trivrita Lehya 80 gram</i>
M. Anila (Nonfixed group) (2009)	<i>Virechan yoga Trivrita Lehya 80 gram</i>
M.N Girija (2011)	<i>Virechan yoga Abhyadi modak</i>
CM gulhane (2011)	Group A <i>Virechan Karma (Triphala Yavakuta Churna 100gm, Kutaki Churna 25gm, Trivrita churna 50gm, Erand Taila 50-100 ml)</i> was administered followed by <i>Shaman yoga (Makandi Ghanavati)</i> Group B <i>Takradhara (Takra medicated with Musta and Amalaki)</i> as a <i>Shirodhara</i> was given followed by <i>shaman yoga (Makandi Ghanavati)</i> .
R. Mehta (2017) Group A (Arohan krama)	<i>Virechan yoga Trivrita Avalehya</i>
R.Mehta(2017) Group B (Sadyo snehan)	<i>Virechan yoga Trivrita Avalehya</i>
R. Mishra (2018)	<i>Virechan yoga Trivrita, Danti and Triphala kwatha</i> all together 90 ml was given. <i>Vaman yoga Madanphal, kutaj, Madhuk, Nimba, Patola kwatha</i> all together 100 ml was given <i>Shaman yoga Tiktashatpal Ghrita</i>
Y.A jadega (2018)	Group A <i>Virechan yoga Trivrita, Danti, Haritaki, Bibhitaki Amalaki 10 gm each</i> Group B <i>Virechan followed by Patoladi Kwatha</i>
S.J. Ruparel (2018)	Group-A ( <i>Virechan with Shaman</i> ) <i>Ichhabhedhi Rasa 250-500mg with Triphala Kwatha (100-200 ml)</i> with <i>Erand Sneha (10-30ml)</i> . Group-B ( <i>Shaman</i> ): internal yoga <i>Triphladi Rasayana Vati - 6gm</i> External yoga: <i>Erand shneha</i> for 2 months.
V.Kanani (2018)	<i>Virechan yoga, Triphala Kwatha (150 to 200 ml), Erand taila (20 to 20 ml)</i> and <i>Ichhabhedhi Ras (500 mg)</i> in the doses depending on <i>Kostha (viscera)</i> and <i>Agni (digestive fire)</i> .



## Discussion

This review highlights incidence of *Ek-kustha* comparable to Psoriasis in different age group as per Prakriti types and efficacy of different treatment modalities. Different research articles, dissertation and online thesis, papers were selected, analysed and inferences were drawn based on percentage relief in different sign and symptoms.

Researchers have considered Psoriasis as *Ek-kustha* which comes under the category of skindisorders which is described in Ayurveda under *Kustha roga*. Since the characteristics of Psoriasis resembles with that of *Ek-kustha*(14) like *Matsyashlopanam* (silvery scales), *Aswedanam* (lack of sweating), *Mahavastu* (thickness).

The maximum incidence of Psoriasis disease was found in subjects belonging to 30-40 years age group having *Vata-Pitta* dominant *Sharirik Prakriti* and *Rajsika Mansika Prakriti*. According to *Charak* this age group has predominance of *Pitta Dosha*(15) and also *Kustha roga* comes under the *Rakta pradoshaja vikara*(16)*Rakta*(blood) has *Ashrya-Ashryai*(abode-content) relation with the *Pitta*(17) and *Virechan* is mentioned that for the treatment of blood related disorders therefore it could be inferred that this age group is more prone to *Kustha roga*. *Charak* has also mentioned that for the treatment of blood related disorders *Virechan* (therapeutic purgation) is considered.(18)

According to *Vagbhata*, Ayurveda emphasizes mainly two types of therapeutic management of the diseases viz; *Shodhan* (purification) i.e. method of eliminating/purifying the aggravated *Dosha* from the body forcibly, and *Shaman* (pacification) i.e., to mitigate the aggravated *Dosha* within the body itself(19) or to eliminate *Dosha* left after *Shodhan* therapy (purification process).(20)*Vagbhata* has given prime importance to *Shodhan* therapy(purification process), quoted that the *Dosha* which are mitigated by *Shaman*(pacification) therapies might sometimes become aggravated again but those which are expelled out by *Shodhan* therapies will not get aggravated again(21). This effect of *Shodhan* therapy is helpful in prevention of recurrence of diseases.

Therefore, this review mainly focuses on the efficacy of *Virechan Karma* on *Ek-kustha*, here *Virechan* therapy is compared with other *Shaman* drugs and *Vaman karma*(therapeutic Emesis) one of the *Panchkarma* procedure.

*Shaman* drugs administered orally in different studies were different, includes *Arogyavardhani Rasa*, *Rasamanikya*, *Guduchi Churna*, *Tiktashatpal Ghrita*, *Makandi Ghanavati*, *Triphladi Rasayana Vati* and *Erand shneha* was used for external application.

*Shodhan* therapy considered in this review includes, *Purva karma* (pre requisite) *Deepan*, *Pachan*; *Snehan* (oleation); *Swedan karma* (sudation process). Among *Pradhan karma* (main procedure) the *Virechan Karma* was common in all studies except that Parida A.K et.al also considered *Vaman Karma*, *Paschata*

*karma* (post-requisite), *Sansarjan karma*(dietary regulation).

In case of *Snehan karma* (oleation therapy), the *Sneha* (oil) was administered orally in the morning on empty stomach, there was difference in the method adopted for *Snehan* process. some followed Fixed dose *Arohana matra* (30ml of ghrita was given on first day and same dose is added to the previous dose on next day till attainment of proper oleated features i.e.,30,60,90ml etc of *Ghrita* in increasing order) while other group took Non fixed dose *Arohana matra* (30ml of *Sneha* was given and next day dose was calculated using formula(Next day Dose = P. D. D X 9 ÷ /T.T T.T=Time taken in hours for the digestion of *Sneha* of previous day in hours P.D.D. = previous day dose)(8) in which the next day dose was always dependent on dose of the previous day of *Ghrita* in increasing order.) When overall effects of both the therapies were assessed on the characteristics of *Ek-kushta*, it was observed that non fixed *Arohana Matra* group showed better relief. In Mehta R et.al *Virechan karma* when given by adopting *Sadyo-Sneha* (single dose administration) and *Arohana krama snehapan* (administration of *Ghrita* in increasing doses), results of *Virechan karma* were significant but the method adopted for *Snehapan* process did not bring statistically significant difference in the efficacy, it may be due to the reason that both the mode i.e., administration of *Ghrita* in increasing doses and single dose administration of *Ghrita* are capable for attaining proper oleation benefits to the body. However, *Vangsen* has quoted that *Arohana Krama* has more beneficial effect than that of *Sadyo-snehan krama*.

When the effects of *Virechan* and *Vaman karma* were compared, *Virechan karma* was found more effective for management of *Ek Kustha*. This finding is consistent with the description of *Vagbhata* about the *Virechan*. He has suggested that even though *Virechan* is the specific therapy for morbid *Pitta dosha*, it can also be used for elimination of *Kapha Dosha* and *Vata Dosha*. *Virechan* is a therapeutic medicated purgative therapy, meant for expelling out vitiated *Dosha* and *Mala* (waste material) through the anal route. This therapy is specified for bio-purification and detoxification of body in various diseased conditions as well as for healthy entities too as proactive measure. It is less complex procedure than *Vaman*, has less probability of complications and more effective, so it is widely utilised as *Sodhan* therapy in routine. Studies here had not considered *Dosha Anubandha* (interdependence) this may be the reason for heterogeneity.

In this review most of the studies had administered oral formulations having *Trivrita leha* or *Trivrita* as one constituent for purgation therapy. Since, *Trivrita* root is considered the best among the purgative drugs,(23) it is an astringent and sweet in taste, dry (not oily or creamy) and pungent in *Vipaka*(post digestive effect). Due to its dry property, it pacifies *Kapha* and *Pitta* and aggravates *Vata*. Even then, when utilized along with drugs which pacify *Vata*, *Pitta* and *Kapha* and depending upon the combinations used in

various pharmaceutical preparations, this drug attains the capacity of curing all types of diseases.(24)

PASI scoring is the only objective criteria considered by some of the researchers, moderate improvement was seen in PASI scoring after *Virechan karma*, however, marked improvement in scoring was reported when *Virechan karma* was followed with administration of *Shaman* drug.

## Conclusion

Psoriasis is a long lasting, noncontagious autoimmune disease characterized by raised areas of abnormal skin and abnormally excessive and rapid growth of the epidermal layer of the skin. From above data it could be inferred that majority of patients belonged to 31-40 years followed by 36-45 years age group. Maximum patients had *Vata-Pitta Sharirik Prakriti* and *Rajasik Manas Prakriti*. Based on the analysis of above studies it can be said that *Vaman karma* provided mild relief in some cases but when given with *Shaman* drug provided moderate relief. However, *Virechan karma* was found more effective in majority of cases than with *Vaman karma*. *Virechan Karma* gave moderate relief in symptoms of *Ek-Kustha* but *Virechan Karma* along *Shaman* gave moderate and marked relief in symptoms of *Ek-Kustha*. So, it would be preferable to administer *Shaman Aushadha Yoga* after *Shodhan Karma*.

## Limitations

On critical analysis of all these studies it has been found that there is large number of heterogeneities like number of subjective & objective criteria, no research data shows recurrence of the disease. Since sufficient research studies are not available having common parameters therefore it becomes difficult to draw inference from it. Standard *Kostha & Prakriti* assessment tools may be used with standard research protocol having specific objective criteria related to Psoriasis which may be helpful to conduct a systematic review.

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## Conflict of interest

Author has no conflict of interest

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## Authors' Contributions

Articles falling in the inclusion criteria were extracted and generalised search using keywords was done by SS, pooling of selected articles and more specific search was done by VV and AA. All authors provided critical feedback and helped in preparation of manuscript. The authors read and approved the final manuscript.

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