

SAFETY AND EFFICACY OF AYURVEDIC FORMULATIONS IN THE MANAGEMENT OF PSORIASIS W.S.R TO EKAKUSHTHA – A SYSTEMIC REVIEW

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ABSTRACT

Background: Psoriasis is one among the most common skin disorders encountered in clinical practice. It is a chronic disease that has substantial psychological and social impact on a patient's life. Due to its invariable similarities in signs and symptoms, it is equated to *Ekakushtha* in Ayurveda. The prevalence of Psoriasis in India varies from 0.44 to 2.8%. **Material and Method:** Subject related published research articles from reputed journals were searched through four online search engines PubMed, AYU journal, Google scholar and AYUSH research portal. Total of 95 review articles were appeared from various sources in the management of Psoriasis. **Results:** Total selected 6 studies, 4 studies were Randomized controlled Trials (RCTs) and 2 studies were single controlled group. In these 4 RCTs studies, 2 studies were intervention given after *Virechana*. Psoriasis Symptoms like, Size of erythema, Scaling, Dryness, Itching, Burning sensation, Extensive lesions, No sweating were treated with significant effect and positive changes. **Conclusion:** It revealed the fact that all the therapies were found to be significantly effective and clinically safe as no adverse reaction were reported during treatment period among any of the screened studies.

Keywords: Ekakushtha, Psoriasis, Ayurvedic formulation

INTRODUCTION

Psoriasis is a long – lasting autoimmune disease characterized by patches of abnormal Skin. Skin reflects our emotions and some aspects of normal physiology. Changes in the skin colour may indicate homeostatic imbalances in the body. Patients with skin diseases always experience physical, psychological and socio-economic embarrassment in the society. It is a chronic inflammatory disease which aggravated by number of

triggering factors such as psychological (anxiety, stress, depression), dietary (incompatible diets), life-style disturbances, environmental changes, medications etc.¹ The prevalence of Psoriasis in India varies from 0.44 to 2.8% and it more common in males than females.²

According to Ayurveda, Skin disorders have been classified under *Kushtha Roga*. *Kushtha* (Skin disorders)

has been considered one among the *Ashtamahagada* (Major octa-ominous disorders) in *Ayurveda*. *Ekakushtha* is one of the subtypes of *Kshudra Kushtha*, which is equated with Psoriasis as they show similar manifestations.

Currently available management for psoriasis in modern system of medicine are not much promising and are reported to have associated adverse effects. *Ayurvedic* herbs and procedures viz. *Vamana* and *Virechana*, which are relatively potent, with negligible side effects are being successfully practiced by traditional physicians since millenniums to manage Psoriasis or *Ekakushtha*.³ In *Ayurveda*, many research works have been carried out with this regard. Here in, an effort has been made to analyse the various researches conducted at reputed institutes in the management of Psoriasis or *Ekakushtha* along with a critical analysis of its outcomes.

Material and Methods

Objectives: To evaluate the efficacy of *Ayurvedic* formulations on Psoriasis (*Ekakushtha*).

Search strategy

Published literatures on recent advancements in the safety and efficacy of *Ayurvedic* formulations on Psoriasis (*Ekakushtha*) were assessed which includes original articles and research papers. A literature search to collect relevant data was performed using the MeSH terms Psoriasis, *Ekakushtha* and clinical study on Psoriasis. A total of 95 abstracts appeared with this combination. Of these, for each retraction, a total of 6 articles were retrieved for review.

Search engine

- Google scholar
- PubMed
- AYU journal
- AYUSH portal
- DHARA online

RESULTS

The search yielded 95 abstracts and 63 full-text articles were independently assessed. Among these 63 articles, 6 articles were included for the review.

Figure 1: Flow diagram showing the number of studies identified, screened, assessed for eligibility, excluded and included in the systemic review.

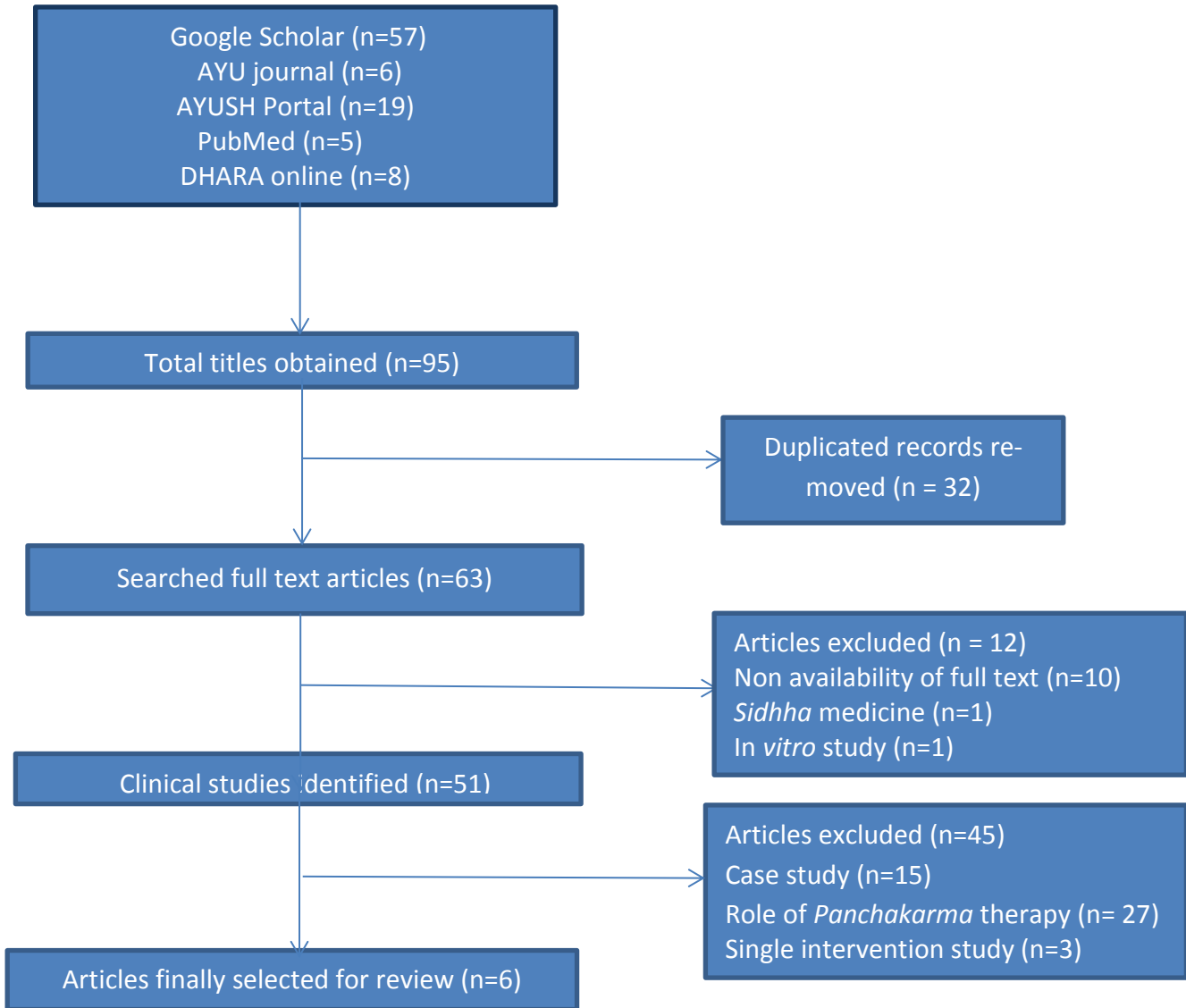


Table 1: Characteristics of the interventions, participants and outcomes in the included studies.

Kalpana Galani et al., 2009 ⁴	
Methods	<p>Design: Randomized clinical trial</p> <p>Duration: 60 Days</p> <p>Interval of assessment: Start and end of the study</p>
Participants	<p>Sample size: each group of 25 patients</p> <p>Age of Participants: 7-70 years OPD & IPD of <i>Kayachikitsa</i> department of IPGT & RA, Jamnagar</p> <p>Inclusion criteria: Diagnosed & assessed thoroughly based on Ayurvedic classical signs & symptoms. Further diagnosis was confirmed by the presence of other symptoms & signs of Psoriasis described in modern texts e.g. Auspitz sign, Koebner phenomenon etc.</p> <p>Exclusion criteria: Patients suffering from diabetes mellitus.</p>

Intervention	Group A:- <i>Darvyadi yamak malahar</i> – Q.S once daily Group B:- <i>Darvyadi yamak malahar & Saptasamo yoga</i> – 3 g Twice daily Group C:- Placebo group - 500 mg (1 capsule) twice daily
Outcomes	Both groups showed highly significant result on same symptoms, but Group B shows better results than Group A
Charmi S. Mehta et al.,2011^{5*}	
Methods	Design: Randomized clinical trial Duration: 90 Days Interval of assessment: Start and end of the study
Participants	Sample size: Total 111 patients, Group of A (45) Group B (49) patients Age of Participants: 13-70 years OPD & IPD of <i>Kayachikitsa</i> department of IPGT & RA, Jamnagar Inclusion criteria: (A) Cardinal symptoms of Eka kushtha. (b)Positive sign of psoriasis like Auspitz sign, Candle grease sign, etc. Exclusion criteria: Patients suffering from systemic diseases like Diabetes Mellitus, Cancer, AIDS, TB, etc. and other skin diseases like seborrheic dermatitis, lichen simplex chronicus, etc.
Intervention	Group A:- <i>Dhatryadhyo lepa and Navayasa Rasayana leha</i> - 2 g - twice a day Grou Group B:- <i>Dhatryadhyo lepa and Medhya Rasayana tablet</i> - 2 tablets twice a day
Outcomes	The Overall effects of therapy Group A showed 70.26% relief, whereas Group B showed 67.64% relief.
*Notes	Criteria for assessment: Dermatology life quality index (DLQI) and Psoriasis disability index (PDI)
Ittoop J Ancheril et al.,2015^{6*}	
Methods	Design: Single controlled group Duration: 14 Days Interval of assessment: 7 th & 14 th day
Participants	Sample size: 30 patients Age of Participants: 16-60 years OPD of SDMCA, Karnataka Inclusion criteria: Diagnostic criteria – clinical diagnosis of Psoriasis Exclusion criteria: 1) Subjects with uncontrolled metabolic disorders like diabetic dermopathy, pretibial myxedema 2) Pregnant women & lactating women
Interventions	External- <i>Karanjabeeja Taila</i> – Q.S once daily Internal- <i>Dooshivishari Agad</i> – 2 tablet Twice daily
Outcomes	Highly significant results in reducing main parameters like scaling by 84 % and thickness of lesions by 57 %. Highly significant results were obtained in all pair wise comparisons with P value of 0.000.
*Notes	Criteria for assessment: PASI Scoring
Yadu Narayanan Mooss et al.,2017⁷	
Methods	Design: Single controlled group Duration: 30 Days Interval of assessment: 15 th & 30 th day
Participants	Sample size: 30 patients Age of Participants: 18-60years OPD of SDMCA, Karnataka Inclusion criteria: economic status who are ready to sign the consent form. Exclusion criteria: 1) diabetic mellitus and hypertension 2) Extra dermal manifestations namely psoriatic arthritis.
Intervention	External- <i>BruhatDanatapala Taila</i> – Q.S once daily Internal- <i>Nishothamadi Ghanavati</i> – 2 tablets Twice daily
Outcomes	Statistically significant improvements in the signs & symptoms of <i>Ekakushtha</i> except for <i>Aswedana</i> (p<0.05).

*Notes	Criteria for assessment: PASI Scoring
Raghavendra Y et al., 2017⁸	
Methods	Design: Randomized clinical trial Duration: 30 Days Interval of assessment: Start and end of the study
Participants	Sample size: each group of 20 patients Age of Participants: 16-70 years OPD and IPD of KLEU's Ayurveda hospital, Shahapur, Belgaum. Inclusion criteria: Patients presenting with Signs and Symptoms of Ekakushtha Exclusion criteria: Pregnant and lactating women and Psoriasis patient presenting with other systemic disorders.
Intervention	Group A:- <i>Navakarshakakashaya Ghanasatwa</i> and '777' Oil - 2 Cap/ Bid and Q.S Twice a day Group B:- Placebo group and '777' Oil - 2 Cap/ Bid and Q.S Twice a day
Outcomes	In total Psoriasis Area and Severity Index 8.53% improvement was seen in Group A compared to Group B with significance of 0.0004
Notes	Criteria for assessment: PASI Scoring
Vipul Kanani et al., 2018⁹	
Methods	Design: single controlled group Duration: 60 Days Interval of assessment: Start and end of the study
Participants	Sample size: 12 patients Age of Participants: 16-70 years OPD of IPGT & RA, Jamnagar Inclusion criteria: The diagnosis was confirmed by the clinical tests such as Auspitz sign, candle grease sign and Kosbner phenomenon.
Intervention	The Internal: <i>Bhallataka Vati</i> - 1 gram three times a day External: <i>Jivantyadi Lepa powder</i> – Twice a day
Outcomes	Therapy provided Complete remission to 20%, Marked improvement to 30%, mild Moderate improvement to 40%, Mild improvement to 10%
*Notes	body surface area was determined by using the Lund-Brower method

DISCUSSION

There is no single variety of *Kushtha*, which can be rightly correlated to psoriasis. Psoriasis can be chiefly divided into four types based on its appearance namely- plaque, guttate, erythrodermic and pustular. Plaque psoriasis is characterized by well defined, non-inflammatory lesions covered with uniform scales, while guttate is characterized by multiple, small, oval, drop like lesions with scaling. The lesions of plaque type is also found all over the body and though small and drop like, guttate psoriasis is also found all over the body which can be correlated with *Ekakushtha*. Other striking similarity found was, scaling with characteristic shiny appearance found both in *Ekakushtha* and plaque –guttate types of psoriasis. The lesions of plaque and guttate type are dry and rough which can be correlated to *Ekakushtha*.

Also, other symptoms pertaining to *Vata* and *Kaphadosha* are present in both types. E.g. *Rukshata* (dry skin – *Vata*) and *Bahalatva* (macules and papules- *Kaphadosha*), *Kandu* (Itching-*Kaphadosha*) etc. Also, Bhavamishra has mentioned “*Chakrakara*” (round) appearance of *Ekakushtha* which is similar to drop-like lesion of the guttate psoriasis. Thus, we can find striking similarity between plaque – guttate psoriasis and *Ekakushtha* in Ayurveda.

Kalpna Galani et al., 2009. In this study, author used only external intervention in Group A and In Group B external and internal interventions used as a treatment. The effect on *Mandala* is statistically significant it may be referred that only use of external application was insignificant. One may think about this improvement effect as a clear indication of the efficacy of internal medicine for the disease *Ekakushtha*. The *Dipana* and

Pachana effect of *Trikatu* and *Bhallataka* corrects the vitiated *Bhrajaka Pitta* of the skin, via correction of *Pachaka Pitta*. *Sharkara* and *Goghrita* are having *Rasayana* properties which improve immunity status of skin thus total health of the skin improves and as a result *Mandala* decreases significantly.

Charmi S. Mehta et al., 2011. In this study, author had designed the study to find out the effect of *Navayasa Rasayana leha*, *Dhatryadhyo lepa* and *Medhya Rasayana* tablet in improving the Quality of Life in patients of psoriasis. It can be inferred that both the groups showed highly significant relief in all the questions of DLQI and PDI. On comparing the overall effect of therapy by χ^2 test, insignificant difference was found which proves that both the treatments were equally effective in improving the Quality of Life in patients.

Ittoop J Ancheril et al., 2015. In this article author used *Dooshivishari agada* as Treatment. The properties of this *Agad* are *Raktashodhaka* (blood purifying) and *Vishaghna* (antitoxic). *Raktashodhaka* property corrects the vitiated *Raktadhatu* (blood) and helps in maintaining normal functions of *Raktadhatu*. *Vishaghna* property helps in detoxifying the *Garavisha*, which is having *Alpavirya* (mild potency) and is deep seated in *Raktadhatu*. Hence, *Agadayogas* (anti-toxic formulations) can be effectively tried in *kushtha* and other related complications of *Dooshivisha*. The combination is highly effective in reducing scaling up to 84% and thickness of lesions up to 57 %. It is also effective in reducing erythema up to 20 % & degree of involvement of lesions up to 30 %.

Yadu Narayanan Mooss et al., 2017 In this study author used externally *Bruhat Dantapala Taila* which is an *Anubhuta Yoga*. Its ingredients are *Strikutaja*, *Jyotishmati* and *Bakuchi*. *Strikutaja* leaves are main ingredient which is having significant anti-psoriatic activity. *Jyotishmati* and *Bakuchi* are found to have significant antioxidant and anti-microbial activity. *Aswedana* occurs either due to *Swedavahasrotarodha* or *Pittavikruti*. There was no significant improvement in this symptom.

Raghavendra Y et al., 2017 In this study author used *Navakarshaka Kashaya Ghanasatwa* for psoriasis. In

Samhita Acharya mentioned *Navakarshaka Kashaya*. Here author was to evaluate the Efficacy of *Navakarshaka Kashaya Ghanasatwa*. After clinical trial result was found that highly significant improvement was there in *Matsyashakalopama* and *Shyava-arunavarna*. Good improvement of 70% ($P=0.0028$) was there in the head compared to other part of body.

Vipul Kanani et al., 2018 In this study author evaluate the efficacy of *Bhallataka Vati* administered internally and *Jivantyadi lepa* applied externally after *Shodhana* with *Virechana* on patients of Psoriasis. The therapy caused significant reduction in Auspitz sign and Candle grease signs, but it did not show significant effect in Koebner's reaction. The therapy provided significant relief in mental factors such as anxiety, fear, anger and grief.

CONCLUSION

In this systematic review, we conclude that Internal and external combined treatment with *Shodhana* procedure are very effective in management of Psoriasis. We also conclude that *Ayurvedic* formulations are improving the Quality of Life in patients of psoriasis. *Agadayogas* (anti-toxic formulations) can be effectively tried in *Kushtha* and other related complications of *Dooshivisha*. It revealed the fact that all the therapies were found to be significantly effective and clinically safe as no adverse reaction were reported during treatment period among any of the screened studies.

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