



Review Article

Review On: Alternative Natural Treatment For Psoriasis

G. V. Salunke*, A. D. Khajekar, A. K. Hatkar, R. M. Kawade

Nandkumar Shinde College Of Pharmacy, Aghur, Vaijapur, 423701 Dist - Aurangabad, Maharashtra

ARTICLE INFO

Received: 25 Nov 2023

Accepted: 27 Nov 2023

Published: 01 Dec 2023

Keywords:

psoriasis, inflammation,
herbal medicines

DOI:

10.5281/zenodo.10245819

ABSTRACT

Psoriasis is a rather common inflammatory skin disease that is characterized by the appearance of red scaly plaques and may affect any part of the body. It mainly affects all of the body parts especially hand, foot, and limbs. Approximately one-third of all traditional medicines are for treatment of skin disease, compared to only 1-3% of modern drugs. Skin disease are classified in acute and chronic conditions. Generally chronic skin disease typically aren't curable, but they can be managed using drugs. But so many medicinal plants are also used for treating skin disease.

INTRODUCTION

Psoriasis is a chronic autoimmune and non communicable inflammatory disease of skin and joints. The word psoriasis comes from Greek word Psora which means being itchy means a condition.[1] Psoriasis is a long lasting, Non contagious autoimmune disease characterized by patches of abnormal skin. These areas are red, pink, or purple, dry, itchy and scaly. It is topically lifelong condition which is not having a permanent cure, but various treatment can be implemented for controlling symptoms produced by it. Psoriasis is a hyper proliferative, autoimmune skin disorder affecting 1-3% of the world's population. Psoriasis affects both males and females, with earlier onset in females and those with a family history. Psoriasis is generally through to be a genetic

disease that is triggered by environmental factors. These is no known cure for psoriasis, but various treatment can helps to control the symptoms. These treatment include steroids creams ,vitamin D3 creams, ultraviolet light, immunosuppressive drugs, such as methotrexate, cyclosporins, etc and herbal medicines, such as Aloe Vera etc. Psoriasis is a disease known in Medical text from Greek times, and these patient's were cast out from societies. The main reason for this was a misconception, as people feared that psoriasis was an infectious disease. In addition to this misconception, medical practitioners of previous eras failed to recognize psoriasis as a non infectious chronic dermatological disease.[2] Psoriasis is long term condition, psoriasis is not infectious, but psoriatic can't affect all areas of the

*Corresponding Author: G. V. Salunke

Address: Nandkumar Shinde College Of Pharmacy, Aghur, Vaijapur, 423701 Dist - Aurangabad, Maharashtra

Email ✉: salunkegayatri105@gmail.com

Relevant conflicts of interest/financial disclosures: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.



skin. Psoriasis can range from being a very mild to a very serious condition. At the moment there is no cure for psoriasis, but it can be well controlled by using a variety of treatments.[3]

The disease has a worldwide prevalence of about 4.6% in developed countries.[4]

Which organs affect psoriasis?

A psoriasis rash can show up anywhere on your skin. Psoriasis is common on your:

- Elbows
- Face and inside your mouth
- Fingernails
- Toenails
- Lower back
- Scalp
- Palms and feet

Causes of psoriasis

- Stress
- Skin injuries
- Infection, such as strep throat
- Weather, especially cold, dry weather
- Alcohol- heavy drinking
- Hormonal change
- Smoking
- An injury to your skin, such as a cut, scrape, insect bite or sunburn.
- Medications, including blood pressure medication, antimalarial drugs, lithium and other mood stabilizers, antibiotics, and NSAIDs

Symptoms of psoriasis

People may experience:

- Pain areas: In the joints
- Skin: rashes, dryness, fissures, redness
- Also common:
 - Depression
 - Itching
 - Small dents in nails
 - Burning or soreness

Psoriasis complications

Psoriasis may come with a number of complications. Ask your doctor if you get the diagnosis:

- Eye condition like pinkeye
- Psoriatic arthritis
- Certain cancers
- Obesity
- Heart disease

Types of psoriasis

There are various types of psoriasis

1) Plaque psoriasis

Plaque psoriasis is the most common type of psoriasis which affects 85% to 90% of patients. It causes thick patches on your skin. They usually appear on elbows, knees, lower back etc. It normally presents with red patches with white scales.



2) Guttate psoriasis

Guttate psoriasis, also called eruptive psoriasis, is commonly seen in children after an upper respiratory tract infection with streptococcal organisms. It presents with erythematous and scaly raindrop-shaped lesions, mainly on the trunk and back.



3) Inverse psoriasis

Inverse psoriasis is a skin condition that affects the folds of your skin. If you have inverse psoriasis, you'll notice red, shiny patches in certain places. Like your armpits, skin folds around your genital and between your buttocks and also under your breast. The skin may be moist, macerated, and may contain fissures that may be malodorous, pruritic, or both. Inverse psoriasis also called as flexural psoriasis or intertriginous psoriasis.



4) Pustular psoriasis

Pustular psoriasis is a type of psoriasis that causes pus-filled blisters on plaque. Pustular psoriasis is common on your hands and feet. It is two types localized and generalized. Generalized pustular psoriasis is associated with hypocalcemia and presents with sterile pustules on an erythematous plaque involving the whole body.



5) Erythrodermic psoriasis

Erythrodermic psoriasis is a rare skin condition that causes a red rash to form over most of your body. The least common type of psoriasis, Erythrodermic psoriasis can cover the entire body with a peeling rash that can itch or burn intensely. It can be acute or chronic conditions of psoriasis. Erythrodermic psoriasis presents with widespread inflammation in the form of erythema and exfoliation of the skin covering more than 90% of the body area. It is associated with severe itching, swelling, and pain.



6) Nail psoriasis

Psoriasis can affect your nails, too. When it does it's called nail psoriasis. Nail psoriasis also known as psoriatic nail dystrophy. Fingernails and toenails can be affected by nail psoriasis. It causes abnormal nail growth and discoloration. Nail changes in psoriasis are seen as pitting, oil spots, subungual hyperkeratosis, nail dystrophy, and ankylosis.

If you have Psoriasis, it's important to check your fingernails and toenails for signs of nail psoriasis. Common signs include:

- Tiny dents in your nails
- White, yellow, or brown discoloration
- Crumbling nails
- Nail (s) separating from your finger
- Build up beneath your nail
- Blood under your nail



ALTERNATIVE NATURAL TREATMENT FOR PSORIASIS

The herbal medicines not have more side effects as compared to synthetic drugs. Now a days, herbal resources Play a very important role in the management of the skin and inflammatory disease. the herbal medicines is easily available. some studies suggest that psoriasis symptoms can be relieved by change in diet and life style.

Some herbal alternatives for natural psoriasis treatment and the possible rationale of their anti-psoriatic activity.

1. Aloe Vera

Family – Liliaceae

Common name – Aloes, kathalai

Plant parts used – leaf

Aloe Vera is a popular plants used in cosmetic care and used in care of thermal injuries. the leaves are thick and fleshy, green to grey green. Aloe Vera gel may theoretically help to reduce inflammation that leads to skin and joint symptoms in psoriasis. Aloe Vera contains antraquinones, steroids, saponins and salicylic acid have antibacterial activity. The active agents have shown considerable analgesic, antipruritic, wound healing

and anti-inflammatory properties, thus justifying consideration of Aloe Vera as an effective remedy for the treatment of psoriasis.[5,6]

2. Angelica sinensis

Family – Apiaceae

Common name – chinese angelica

Plant parts used – root

It is commonly known as dong quay. Angelicas are biennials or short – lived perennials belonging to the Apiaceae family. koo & Arain, 1998 studied patient's with psoriasis, two-third patient's got complete relief from their disease after oral treatment with this plant extracts[7,8,9].

3. Azadirachta indica

Family – Meliaceae

Common name – Neem, veppam

Plant parts used – leaves ,bark and stem

The stem bark is burnt and ash is applied topically on boils. Decoction of leaves is used to bath for treatment of body infection. It's Decoction also taken orally for the treatment of the same. The seed oil is utilised to kill lice and treat dandruff.[10]The leaves and bark has antibacterial and antiviral properties.

4. Alpinia galanga

Family – zingiberaceae

Common name – Thai Ginger, akkulati

Plant parts used- Rhizome

Thai Ginger grows to height of about 5 feet, leaves long. Galanga had been traditionally used for many years to treat several different disease, including psoriasis, inflammation And microbial infection and it is also works as an antioxidant and anti cancer agent. chanachai et al (2009) reported the plant Alpinia galanga, curcuma longa and Annona squamosa for their anti-psoriatic effect.[11]

5. Curcuma Longa

Family – zingiberaceae

Common name – Termeric

Plant parts used – rhizome

Termeric is a rhizomatous herb, The plant grows to a height of 3to 5ft. The rhizome is the portion of

the plant used medicinally. It is also reported decreased phk activity in curcumin and calcipotriol treated groups corresponded to severity of parakeratosis, decreased in keratinocyte transferrin receptor expression and density of epidermal CD8+T cells.[12]

6. *Matricaria recutita*

Family – Asteraceae

Common name – chamomile, mookuthi poo

Plant parts used – flowers

M. chamomilla had a branched, erect smooth stem, long and narrow leaves. These is Evidence supporting the role of increased LTB4 formation in psoriasis plaques.[13,14]

7. *Mahonia aquifolium*

Family – Berberidaceae

Common name – oregon grape

Plant parts used – stem and leaves

Mahonia aquifolium is a flowering plant that comes from the mahonia shrub. It is very popular plant used in skin disorders, especially in psoriatic plaques. It is also called as barberry or oregon grape. The stem and leaves of the plant can be ground into a powder or distilled into an extract that is then used to make a topical skin cream. *Mahonia aquifolium* contains berberine, which may help to suppress some of the inflammation that psoriasis causes. The plant also had antiproliferative effects, meaning it can slow down the growth of skin cells.

8. *Nigella sativa*

Family- Ranunculaceae

Common name – Black cumin, karunjiragam

Plant part used- seeds

The seeds are externally applied for eruption of skin. The seeds are used traditionally for psoriasis tropicus with general pain and eruption of patches.[15] pharmacological investigations of the seed extract reveal a wide spectrum of activities including anti- inflammatory, antibacterial, antifungal and antihelmenthic.[16]

9. *Phyllanthus simplex*

Family- phyllanthaceae

Common name- seed under leaf

Plant part used- whole plant

Seed under leaf is a slender, branched, hairless herbs, Woody in the lower part, growing to 60 cm tall.flowers are tiny, hanging from slender stalks.[17]

10. *Silibum marianum*

Family – Asteraceae

Common name – Milk thistle, vishnu kranti

Milk thistle has been shown to inhibit human T-cell activation, which occurs in psoriasis.[18] it is commonly known as milk thistle. this plant is very well known for its hepatoprotective activity.

11. *Smilax china*

Family – smilacaceae

Common name- china root parangichekkai

Plant part used – rhizome

Smilax china Linn. Used in various disease such as rheumatism, gout, epilepsy,skin disease, chronic nervous disease,syphilis, flatulence, dyspepsia,colic, neuralgia, constipation , psoriasis and seminal weakness.[19,20]

12. *Thespesia populnea*

Family- Malvaceae

Common name- Indian tulip tree puvarasu

Plant part used- bark

The plant Indian tulip tree *Thespesia populnea* traditionally claimed to be useful in the treatment of cutaneous affections such as psoriasis, ringworm, eczema and herpetic diseases.Oil prepared by boiling the ground bark in coconut oil is applied externally in psoriasis.[21]

13. *Ulmus rubhra*

Family- Ulmaceae

Common name- slippery elm

Plant part used – barks

It is commonly known as slippery elm, named so for it's mucilage component, derived from the inner bark of the elm. Natuve Americans used this extract as a poultice for boils and wound and plaque – type psoriasis.[22]



14. *Urgenia indica*

Family – Liliaceae

Common name – Indian squil, I Narivengayam

Plant part used- Bulbs

Has been used for treating psoriasis.[23]

15. *Wrightia tinctoria* L.

Family – Apocynaceae

Common name- sweet Indrajao, paalai

Reported the hydroalcoholic extract of *wrightia tinctoria* leaves showed significant anti-psoriatic effect on mouse test model, as compared to isotretinoin acid as standard.

They found the extract to produce significant orthokeratosis, prominent antioxidant activity in DPPH, Nitric oxide and hydrogen peroxide scavenging assay.[24,25]

CONCLUSION

Psoriasis remains a prevalent disease in the dermatological community, but is still considered under-diagnosed and not properly managed due to many factors. The synthetic drugs used to treat it are having side effects and it has been seen that some of the synthetic drugs have psoriasis as adverse effects. In that case, the herbal natural remedy is the obvious alternative, which is safe and equally effective as the synthetic drugs. Most of the modern medicines are directly or indirectly derived from plant sources. Several plant sources have been highlighted in this article on the basis of traditional knowledge and reports of different researches. The investigative parameters which are the major aspects for herbal drug screening have also been mentioned somewhere in the paper, which will hopefully help the researches working in this area.

REFERENCES

1. Ritchlin, Christopher; Fitzgerald, Oliver. *Psoriatic and Reactive Arthritis: A Companion to Rheumatology* (1st ed.). Maryland Heights, Miss: Mosby; 2007. P.4. ISBN 978-0-323-03622.
2. Boehncke, W. H., & Schön, M. P. Disease burden and epidemiology. *Lancet*. 2015;386, 983-994.
3. <https://www.sign.ac.uk/pdf/pat121.pdf>
4. Parisi R, Symmons DPM, Griffiths CEM, Ashcroft DM. The Identification and Management of Psoriasis and Associated Comorbidity project Team. Global epidemiology of psoriasis: a Systematic review of incidence and prevalence. *J Invest Dermatol* 2013;133:377-85.
5. Dhanabal SP, Priyanka Dwarampudi L, Muruganatham N, Vadivelan R. (2012) Evaluation of the antipsoriatic Activity of Aloe vera leaf extract using a mouse tail Model of psoriasis. *Phytother Res*. 26:617–19.
6. Klein AD, Penneys NS. Aloe vera. (1988) *J Am Acad Dermatol*. 18:714-720.
7. Thitiporn Charueksereesakul Visa Thongrakard and Tewin Tencomnao, (2011) In Vitro Effect of Thai herbal Extracts with anti-psoriatic activity on the expression of Caspase 9 *J. Chem. Pharm. Res*. 3(4):196-203.
8. Bhuchar S, Katta R, Wolf J. (2012) Complementary and Alternative medicine in dermatology: An overview of Selected modalities for the practicing dermatologist. *Am J Clin Dermatol*. 13:311-317.
9. Koo J, Arain S. (1998) Traditional Chinese medicine for The treatment of dermatologic disorders. *Arch Dermatol*. 134: 1388- 1393.
10. Mundada et al. A. S. Mundada, m.s. Mahajan, h.h. Gangurde, v.s. Borkar, v. S. Gulecha, r.a. Khandare (2009) formulation and evaluation of polyherbal Antipsoriatic cream *pharmacologyonline*2: 1185-1191
11. Saelee C, Thongrakard V, Pencomnao T. (2011) Effects Of high medicinal herb extract with anti-psoriatic Activity on the expression of NF-KB signaling Biomarkers in HaCaT keratinocytes. *Molecules*.16:3908-32.



12. Joe B, Lokesh BR. (1997) Effect of curcumin and Capsaicin on arachidonic acid metabolism and Lysosomal enzyme secretion by rat peritoneal Macrophages. *Lipids*, 32:1173-1180.
13. Murti K, Panchal MA, Gajera V, Solanki J. (2012) Pharmacological properties of *Matricaria recutita*: A Review. *Pharmacologia*, 3:348-51.
14. Safayhi H, Sabieraj J, Sailer ER, Ammon HP. Chamazulene: (1994) an antioxidant-type inhibitor of Leukotriene B4 formation. *Planta Medica*, 60:410-413.
15. Dwarampudi LP, Palaniswamy D, Nithyanantham M, Raghu PS. (2012) Anti-psoriatic activity and cytotoxicity Of ethanolic extract of *Nigella sativa* seed. *Pharmacogn Mag.* 8:268-72. 120.
16. Ghosheh OA, Houdi AA, Crooks PA. (1999) High Performance liquid chromatographic analysis of the Pharmacologically active quinones and related Compounds in the oil of the black seed (*Nigella sativa* L.) *J Pharm Biomed Anal.* 19:757–62.
17. Sushil K. Chouhan HS, Sahu AN, Narayan G. Singh (2015) Assessment of in vitro antipsoriatic activity of Selected Indian medicinal plants *Pharmaceutical Biology* Volume 53, Issue 9, pages 1295-1301.
18. Sabir S, Arsshad M, Asif S, Chaudhari SK. (2014) An Insight into medicinal and therapeutic potential of *Silybum marianum* (L.) Gaertn. *Int J Biosci.* 4:104-15.
19. Vaidyaratnam PS, Variers. (1996) *Indian medicinal Plants a compendium of 500 species*, Vol 5., New Delhi, Orient Longman Limited, 143-8.
20. Anonymous. *Wealth of India*. Vol 4. New Delhi, National Institute of Science Communication CSIR; 366, 1972.
21. Vijayalakshmi A, Ravichandiran V, Malarkadi V, Nirmala S, Jaykumari S. (2012) Screening of flavonoid “quercetin” from the rhizome of *Smilax china* Linn. For Anti-psoriatic activity. *Asian Pac J Trop Biomed*, 269- 275.
22. Nadkarni AK,. *Indian Materia Medica*. Vol 1: Bombay, India: Popular Prakashan ppp-1229-32, 1976.
23. Brown AC, Hairfield M, Richards DG, McMillin DL, Mein EA, Nelson CD. (2004) Medical nutrition therapy as a Potential complementary treatment for psoriasis – Five Case reports. *Altern Med Rev.* 9: 297-307.
24. M.N. Shiva Kameshwari and G. Paramasivam (2012) *Urginea indica* and its role in psoriasis: A Review *Int. J. Of Pharm. & Life Sci. (IJPLS)*, Vol. 3, Issue 12(Suppl.):December: 2236-2242.
25. Dhanabal SP, Anand R, Muruganantham N, Praveen TK, Raghu PS. (2012) Screening of *Wrightia tinctoria* Leaves for Anti-psoriatic activity. *Hygeia J D Med.* 4:73-78..

HOW TO CITE: G. V. Salunke*, A. D. Khajekar, A. K. Hatkar, R. M. Kawade, Review On: Alternative Natural Treatment For Psoriasis, *Int. J. in Pharm. Sci.*, 2023, Vol 1, Issue 12, 14-20. <https://doi.org/10.5281/zenodo.10245819>

