



# Non-Pharmacological Treatments of Psoriasis in Persian Medicine a Narrative Review

Farshad Mohammadian Rasanan<sup>1,2,3</sup>, Hoorieh Mohammadi Kenari<sup>1,2</sup>, Mohammadreza Ghassemi<sup>4</sup>, Ali Jabbari Sabbagh<sup>1,2,3</sup>, Jale Aliasl<sup>5</sup>, Ali Ghobadi<sup>1,2\*</sup>

<sup>1</sup>Research Institute for Islamic and Complementary Medicine, Iran University of Medical Sciences, Tehran, Iran

<sup>2</sup>School of Persian Medicine, Iran University of Medical Sciences, Tehran, Iran

<sup>3</sup>Student Research Committee, Iran University of Medical Sciences, Tehran, Iran

<sup>4</sup>Department of Dermatology, Rasool Akram Medical Complex Research Development Center (RCRDC), School of Medicine, Iran University of Medical Sciences (IUMS), Tehran, Iran

<sup>5</sup>Traditional Medicine Clinical Trial Research Center, Shahed University, Tehran, Iran

**Received** April 23, 2021  
**Reviewed** September 1, 2021  
**Accepted** December 29, 2021

**\*Corresponding Author**

Ali Ghobadi  
School of Persian Medicine, Iran  
University of Medical Sciences, Tehran  
1114733311, Iran  
Tel: +98-21-563966  
E-mail: [Alighobadi56@yahoo.com](mailto:Alighobadi56@yahoo.com),  
[Ghobadi.a@iums.ac.ir](mailto:Ghobadi.a@iums.ac.ir)

Psoriasis is a chronic disease that has no definitive cure. In this review study, the main sources of Persian Medicine (PM) such as the Canon of Medicine (by Avicenna) and *Al-Havi* (by Rhazes) were assessed to identify non-pharmacological treatments for psoriasis. Several treatments that are recommended for this disease include nutritional advice, lifestyle modifications, and manipulation therapy such as wet cupping (*Hijamah*), leech therapy, and phlebotomy (*Fasd*). These recommendations may help to prevent recurrence and be useful in improving psoriasis. The efficacy of PM recommendations to improve psoriasis should be evaluated in future studies.

**Keywords:** life style, nutrition, persian medicine, traditional medicine, psoriasis

## INTRODUCTION

Psoriasis is a common and chronic relapsing skin disease with a prevalence of 2-3% prevalence in the world [1, 2]. This disease is a serious global problem that affects people of all ages and in all countries [3]. The most common organ involved in this disease is the skin; however, other parts of the body, such as the joints, can be affected [1]. Psoriasis has a variety of clinical forms including scaly, red, and prominent plaques on the extensor areas of the body. Itching, burning, and irritation are other symptoms associated with varying degrees of psoriasis [4]. In general, the causes of this disease are multifactorial and include genetic, environmental, and immunologic factors [5]. The pathogenesis involves dysregulation of immunological cell function and disruption of keratinocyte proliferation and differentiation [5]. Psoriasis can affect a patient's life in a variety of ways by causing social stigma, physical disability, and emotional distress [6]. Unfortunately, there is no absolute cure [7]. Available treatments can be classified as topical treatment, systemic

treatment, and phototherapy [8]. For patients with mild psoriasis, topical medications such as topical corticosteroids, vitamin D analogues, calcineurin inhibitors, keratolytics, and coal tar have been used [9]. Patients with moderate-to-severe disease can be treated with biologics (such as etanercept, adalimumab, certolizumab, infliximab, ustekinumab, secukinumab and ixekizumab) and small molecules (apremilast) [10]. Methotrexate (MTX), cyclosporine A, and retinoids are traditional systemic treatment options for psoriasis [1]. Systemic therapies fail more often due to side effects such as hypertension and renal impairment, which increase the risk of infections and malignancies. In general, drug resistance, drug side effects, increased treatment costs, and rehabilitation are the most important problems in the treatment of chronic diseases such as psoriasis [11, 12]. Therefore, identifying less complicated treatments is necessary and logical. The use of complementary medicine has increased in recent years throughout the world [13]. Complementary and traditional medicine have been used for treatment of skin diseases for centuries [14]. The use of complementary and alter-



native medicine (CAM) is very common among patients with psoriasis. The most common reasons for using CAM include its natural and holistic approach and its fewer associated side effects than conventional medicine [15]. Persian Medicine (PM) is one of the most famous branches of CAM [16]. Furthermore, PM has many useful and practical recommendations for the prevention and treatment of various diseases [17]. The aim of this study is to investigate non-pharmacologic approaches of PM in the prevention and treatment of psoriasis.

## MATERIALS AND METHODS

In this literature review, we reviewed several main resources used by PM scholars such as the Canon of Medicine (by Avicenna), *Al-Havi* (by Rhazes), *ZakhireKhawrazmshahi* (by

Ismail Jorjani), *Sharh al-asbab va al-alamat* (by Ivaz Kirmani), *Kholasat-al-hekma* (by Mohammad Hosein AghiliShirazi), *ExirAzam* (by Hakim Azam Khan), and *Tebe Akbari* (by Mohammad Arzani) to identify appropriate treatments for psoriasis. In these resources on PM, a disease called psoriasis was not found. Therefore, the signs and symptoms of psoriasis including scaling (*Taghashore Jeld*), redness (*Homrat* or *Ghermezi*), dryness (*Koshonat* or *Khoshki*) and itching (*Hake* or *Kharesh*) were searched for to identify diseases that are similar psoriasis. Then, their treatments were extracted. Pharmacological treatments were excluded, and non-pharmacological treatments for these diseases including nutrition and lifestyle and manual therapies/practices (cupping, leech therapy, venesection, or phlebotomy) were summarized. These findings are presented in Table 1.

**Table 1. Non-pharmacological treatment of psoriasis in Persian medicine**

Kind of treatment	Explanation
Lifestyle modification [17-24]	
Dietary	
Recommended	Half-baked egg yolk, milk, butter, chicken, Lamb and goat broth, Mung bean, Spinach ( <i>Spinacia oleracea</i> ), pumpkin ( <i>Cucurbita pepo</i> ), <i>Prunus dulcis</i> , grape ( <i>Vitis vinifera</i> ), pomegranate juice and plum juice, tamarind ( <i>Tamarindus indica</i> ), fig ( <i>ficus carica</i> ) non-alcoholic beer, oxymel, <i>Vitis vinifera</i> [17-24]
Avoiding	Spicy, Very sour, and salty food, Beef, goat, duck, horse, rabbit, eggplant, lentils, Mushrooms, Cabbage, garlic and onion, dried and salted meat, Old cheese, hard-boiled eggs, dried fish, game meat, Honey, Old wine [17-20]
Sleep and awareness	Insomnia can exacerbate the disease, therefore treatment of insomnia is very important. Sweet almond eating, Humidifying foods like chicken, piper or yeonling that is cooked with squash, spinach ( <i>Spinacia oleracea</i> ), lettuce ( <i>Lactuca sativa</i> ), nasal use of almond and <i>Viola odorata</i> oil and Ma'aljobon are useful [17-20]
Air and climate	Very hot, cold and dry weather aggravates the symptoms of the disease. Increasing the humidity helps to improve the symptoms [17]
Activity and exercise	Exercise and strenuous physical and sexual activity aggravate the symptoms of the disease. Therefore, these activities should be balanced and reduced and the amount of rest should be increased [17].
Excretion of body wastes and retention of necessary materials	Constipation and excessive sweating lead to increased dryness and should be treated [17-20]. Daily Bath with sweet water (4 to five times per day) improve psoriasis symptoms. Duration of stay in the bath is very important. It is not convenient to stay in the bathroom too much. Prolonged stay in the bath can lead to dry skin [17].
Psychic features	Anger and rage lead to exacerbation of the disease. Moderate happiness is very effective in improving symptoms [17-20]. Some foods such as apple, Foods such as apples, Quince fruit, and roses have a positive effect and cause vitality and relaxation [17-20].
Manipulation [17-20]	
Wet Cupping (Hijamah), leech therapy Phlebotomy (Fasd) [17-20]	For excretion of abnormal humor was recommended [17-20].

## RESULTS

At first, the pathophysiology of diseases in PM is briefly expressed. In PM, the mechanism of most diseases involves dystemperament and humor imbalances [17-20]. Based on PM sources, there are 9 temperaments including the following: warm, cold, dry, wet, warm-dry, warm-wet, cold-dry, cold-wet, and moderate; there are also four types of humors in normal conditions including the following: *Dam*, *Balgham*, black bile (*Soda*), and yellow bile (*Safra*). The stomach and liver are the main production sites of humors, and disorders of these two organs can cause many diseases [17, 18, 21].

However, due to factors such as diet, climate, physical activity, sleep, and mental condition, these humors can be quantitatively or qualitatively imbalanced and lead to abnormal humor formation and cause disease [17-22]. On the other hand, all organs of the body have their own temperaments [17-21]. The skin has a moderate temperament in the body. Skin disease is caused by dystemperament and imbalanced humors [17-21]. There is no disease called psoriasis in PM, but the symptoms of this disease are very similar to *Barase asvad*, *Saafe yabes*, and *Ghooba* [17, 20, 23-26]. There is severe dry skin with itching and scaling similar to fish scales in *Baras asvad* due to increasing *Soda* (black bile) humor and its accumulation in the skin [17, 18, 23, 24]. In addition, in *Saafe yabes*, white scabs similar to dandruff are observed. This is caused by *Soda* humor mixed with *Balgham-e-Maleh* (salty phlegm humor) (or *Safra-y-e-Mohtareghe* (burned bile humor) [17, 18, 23, 24]. Another disease that is similar to psoriasis is *Ghooba*. Its symptoms include dry skin, redness, itching, and scaling due to *Balgham Booraghi* (salty phlegm) or *Dam-e-Sodavi* (blood mixed with soda humor) [17, 18, 23, 24]. In PM, imbalances in body temperament and humors lead to the onset of disease [27]. Due to increases in *Soda*, bile, and *Balgham-e-Maleh* dry dystemperament in the skin [17, 18]. In these three diseases, dry skin dystemperament occurs.

Therefore, treatment includes correction of skin and body temperament and excretion of abnormal humors that cause disease [17-20, 23, 24]. In other words, treatment involves three stages: dietary and lifestyle modifications, herbal and natural remedies, and manipulation therapies such as wet cupping, leech therapy and phlebotomy [17-20, 23, 24]. Consequently, factors that increase dryness should be avoided as much as possible. These factors include the following: excessive activity and exercise, insomnia, increased sexual activity, considerable anger,

many intellectual conflicts, extreme cold, excessive bathing and sweating, bathing with astringent water, excessive consumption of dry medicines and foods, extreme hunger, and very hot weather [17-19]. In fact, lifestyle must be changed and modified to decrease skin dryness. In PM, health maintenance depends on 6 essential factors (*Setteh Zarorieh*): air and climate, nutrition, exercise, sleep and awareness, excretion of body wastes and retention of necessary materials, and psychic features [17-19]. Improving nutrition and eating habits, avoiding heavy and concentrated foods, proper sleep, exercise, regular daily defecation, and avoidance stress and anxiety are also very important in the school of Iranian medicine and are performed as the first main steps to address all diseases [17-20, 22-24]. Excessive activity and exercise, excessive insomnia, consumption of dry food, extreme anger, extreme cold, use of astringent water, and excessive bathing and sweating aggravate dryness [17-20, 22-24]. Nutritional recommendations, frequent bathing in fresh water, moist air, and correction of sleep are important and are shown in Table 1. The duration of bathing is very important. A prolonged bath can lead to dry skin. This is partly because of loss of water due to sweating and dispersal of the breath. In contrast, a short bath produces a moistening effect [17].

## DISCUSSION

Due to the chronicity of psoriasis and its recurrence, complementary medicine treatments such as PM can be effective in controlling the disease and reducing recurrence.

Diet plays an important role in the treatment of psoriasis [28]. According to the pathophysiology of the disease in PM, nutritional and herbal recommendations and lifestyle modifications can be used to treat the disease and prevent recurrence [17-20]. Recent studies have also confirmed the effectiveness of lifestyle and nutrition modifications [29]. Spinach (*Spinacia oleracea*) is one of the recommended foods in PM for the treatment of psoriasis [17, 19, 23, 24]. The therapeutic effect of spinach has been investigated on psoriasis patches in rats [30]. Spinach has anti-inflammatory and anti-oxidant properties and contains vitamin A, B, C, and folate, which are necessary for skin health [30]. In PM, other treatments such as cupping and leech therapy are suggested [31]. Recent studies have emphasized the effectiveness of cupping [32, 33] and its lack of serious adverse effects [33]. Cupping has various immunological effects and has been shown to decrease serum IgE and IL-2 levels [34]. Psoriasis is a T cell-mediated autoimmune disease in which various pro-

inflammatory cytokines including IL-2 [35] and IgE [36, 37] have increased plasma concentrations. The effects of cupping have been investigated in one 30-year-old male patient with psoriasis; after 6 months of follow-up, his symptoms were noted to have greatly improved [38]. Based on a clinical study, moving cupping is also effective for psoriasis [39]. Therefore, cupping seems to be effective for psoriasis.

Another treatment method is leech therapy. In a clinical study of the effects of leech therapy, 40 patients with psoriasis were assessed and followed up for one year. The results showed that 31% of patients had symptomatic relief, and 9% had a complete cure without recurrence of the disease; however, 60% of patients showed a mixed response of transient symptom relief and subsequent relapse. No serious complications were reported [40]. In a case report, the therapeutic effects of leech therapy for psoriasis were confirmed [41]. Leech saliva contains substances such as complement C1 inhibitor and carboxypeptidase inhibitor, which have anti-inflammatory properties [42].

Therefore, leech therapy can be considered a potential treatment method for psoriasis. Another recommended treatment method for psoriasis treatment is phlebotomy (*Fasd*) in PM [17, 18, 20, 23, 24]. In PM, abnormal humors are considered to be removed from the body by phlebotomy and lead to improvement in psoriasis symptoms [17, 18, 20, 23, 24]. In general, phlebotomy, venesection, or bloodletting is routinely used for the treatment of hemochromatosis, polycythemia, and porphyria to reduce iron concentrations [43]. In addition, this method can improve liver histology in patients with nonalcoholic fatty liver disease [44] and decrease liver enzymes (alanine aminotransferase (ALT) and aspartate aminotransferase (AST)) [45]. However, no study has examined the therapeutic effects of phlebotomy for psoriasis.

Finally, in the view of PM, the first step in treatment is to observe the six essential factors (*Setteh Zarorieh*). These six principles can be effective in reducing the severity of symptoms and preventing the recurrence of psoriasis. Future clinical and experimental studies should be performed to evaluate the effectiveness of PM recommendations for psoriasis.

## CONCLUSION

In PM, there are several recommendation for psoriasis treatments including nutrition and lifestyle modifications, wet cupping (*Hijamah*), leech therapy, and phlebotomy (*Fasd*). Future studies should evaluate the efficacy of PM recommendations

for psoriasis.

## ACKNOWLEDGMENTS

This paper is based on the findings of a PhD thesis entitled 'Efficacy of Flax seed oil in treating mild to moderate Psoriasis Vulgaris comparing with topical Betamethasone: A randomized, double-blind, clinical trial' Granted by School of Persian Medicine and Research Institute for Islamic and Complementary Medicine, Iran University of Medical Sciences.

## CONFLICT OF INTEREST

The authors declare no conflict of interests.

## FUNDING

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

## ORCID

Farshad Mohammadian Rasanan, <https://orcid.org/0000-0002-5520-5949>  
 Hoorieh Mohammadi Kenari, <https://orcid.org/0000-0003-0658-5284>  
 Mohammadreza Ghassemi, <https://orcid.org/0000-0002-0706-554X>  
 Ali Jabbari Sabbagh, <https://orcid.org/0000-0002-0861-3448>  
 Jale Aliasl, <https://orcid.org/0000-0001-7189-8135>  
 Ali Ghobadi, <https://orcid.org/0000-0003-4311-4238>

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