

**MANAGEMENT OF PSORIASIS BY RAKTAMOKSHAN: A
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ABSTRACT

Background: Psoriasis is a chronic, immune-mediated inflammatory skin disorder characterized by well-defined erythematous plaques covered with silvery-white scales. It affects approximately 2–3% of the global population and has a significant impact on the physical, psychological, and social well-being of affected individuals. The disease is characterized by recurrent exacerbations and remissions, making long-term management challenging. In Ayurveda, psoriasis is commonly correlated with Kitibha Kushtha, a type of Kshudra Kushtha, in which the vitiation of Vata, Kapha, and Rakta plays a predominant role in disease manifestation. Classical Ayurvedic texts advocate both Shamana and Shodhana therapies for the management of Kushtha, among which Raktamokshan (therapeutic bloodletting) occupies a unique position due to its

ability to eliminate vitiated blood (Rakta Dushti) and restore physiological balance.

KEYWORDS: Psoriasis, Kitibha Kushtha, Raktamokshan, Ayurveda, Jalaukavacharana, Siravyadha.

INTRODUCTION

Psoriasis is a chronic, immune-mediated, inflammatory skin disorder characterized by

erythematous, sharply demarcated plaques covered with adherent silvery-white scales. It is a multifactorial disease resulting from a complex interaction between genetic susceptibility, immune dysregulation, and environmental triggers. The disease follows a chronic relapsing and remitting course, significantly affecting the physical, psychological, social, and occupational well-being of affected individuals. Although psoriasis primarily involves the skin, it is now recognized as a systemic inflammatory disorder associated with several comorbidities, including psoriatic arthritis, metabolic syndrome, obesity, diabetes mellitus, cardiovascular disease, inflammatory bowel disease, and depression. Consequently, psoriasis imposes a substantial burden on both patients and healthcare systems worldwide.

Globally, psoriasis affects nearly 2–3% of the population, although its prevalence varies considerably among different geographical regions and ethnic groups. The disease may occur at any age, with peak incidences observed between 20–30 years and 50–60 years. Men and women are affected almost equally. The clinical presentation ranges from localized plaques to extensive erythrodermic involvement, depending upon disease severity. Plaque psoriasis (psoriasis vulgaris) is the most common clinical variant, accounting for approximately 80–90% of all cases. Other clinical variants include guttate, pustular, inverse, and erythrodermic psoriasis, each differing in morphology and severity.

The exact etiopathogenesis of psoriasis remains incompletely understood. Current evidence suggests that psoriasis develops through an intricate interaction between genetic predisposition, environmental factors, and immune-mediated inflammatory pathways. Activation of dendritic cells and T lymphocytes results in excessive production of pro-inflammatory cytokines, including tumour necrosis factor-alpha (TNF- α), interleukin (IL)-17, IL-23, and IL-22. These cytokines promote keratinocyte hyperproliferation, abnormal epidermal differentiation, angiogenesis, and chronic inflammation, leading to the characteristic histopathological and clinical manifestations of psoriasis. Histopathological examination typically demonstrates hyperkeratosis, parakeratosis, acanthosis, elongation of rete ridges, thinning of the suprapapillary plates, dilated capillaries within the papillary dermis, and neutrophilic collections in the epidermis.

Management of psoriasis remains challenging because of its chronic nature and frequent relapses. Conventional treatment includes topical corticosteroids, vitamin D analogues, keratolytic agents, systemic immunosuppressants, retinoids, phototherapy, and biological agents. Although these therapies are effective in controlling symptoms, they are often

associated with adverse effects, high cost, prolonged treatment duration, and disease recurrence after discontinuation. Long-term administration of systemic drugs also necessitates careful monitoring because of potential hepatic, renal, hematological, and immunological complications. Therefore, there is an increasing demand for complementary and integrative therapeutic approaches that are safe, cost-effective, and capable of providing sustained clinical improvement.

Ayurveda describes all skin disorders under the broad heading of Kushtha, which arise due to the simultaneous vitiation of Tridosha along with involvement of Twak, Rakta, Mamsa, and Lasika. Depending upon the predominance of Doshas and clinical manifestations, Kushtha is classified into Mahakushtha and Kshudra Kushtha. Kitibha Kushtha, classified under Kshudra Kushtha, closely resembles psoriasis because of its characteristic features such as Shyava Varna (blackish-brown discoloration), Khara Sparsha (roughness), Parushata (hardness), Rukshata (dryness), and Kandu (itching). The pathogenesis involves predominance of Vata and Kapha Dosha, with significant involvement of Rakta Dhatu, resulting in chronic skin lesions.

According to Ayurvedic principles, the management of Kushtha involves both Shodhana (bio-purificatory therapies) and Shamana (pacifying therapies). Acharya Charaka and Acharya Sushruta have emphasized repeated purification therapies for chronic skin disorders because of their recurrent nature. Among these therapies, Raktamokshan (therapeutic bloodletting) occupies a distinctive position, particularly in diseases associated with Rakta Dushti. It is considered one of the most effective procedures for eliminating vitiated blood, reducing local inflammation, improving microcirculation, and restoring normal tissue physiology. Classical Ayurvedic texts recommend various methods of Raktamokshan, including Jalaukavacharana (leech therapy), Siravyadha (venesection), Shringa, Alabu, and Prachchhana, each selected according to the predominance of Dosha, site of lesion, and strength of the patient.

In recent years, growing scientific interest has focused on the possible mechanisms underlying the beneficial effects of Raktamokshan. Leech saliva contains numerous biologically active substances, such as hirudin, calin, eglins, bdellins, hyaluronidase, and vasodilatory compounds, which possess anticoagulant, anti-inflammatory, analgesic, antimicrobial, and microcirculatory enhancing properties. These pharmacological actions may contribute to reduction of inflammation, improvement of tissue perfusion, and

acceleration of healing in chronic inflammatory dermatoses, including psoriasis. Emerging clinical studies have reported encouraging outcomes following Raktamokshan, particularly Jalaukavacharana, either as an independent therapy or in combination with internal Ayurvedic medications.

Considering the increasing global prevalence of psoriasis, the limitations of conventional therapy, and the growing acceptance of evidence-based traditional medicine, there is a need to comprehensively review the therapeutic potential of Raktamokshan in the management of psoriasis. The present review aims to compile classical Ayurvedic concepts, correlate them with contemporary scientific understanding, and critically discuss the available evidence regarding the role of Raktamokshan as a safe, holistic, and integrative therapeutic modality in the management of psoriasis.

EPIDEMIOLOGY OF PSORIASIS

Psoriasis is a common, chronic, immune-mediated inflammatory skin disease affecting individuals of all ages, sexes, and ethnic groups worldwide. It is estimated to affect approximately 2–3% of the global population, although the prevalence varies considerably across different geographical regions due to genetic, environmental, and ethnic factors. Higher prevalence rates have been reported in Northern Europe and North America, whereas lower rates are observed in East Asia and certain African countries. The World Health Organization (WHO) recognizes psoriasis as a serious non-communicable disease because of its substantial physical, psychological, and socioeconomic impact.

In India, the prevalence of psoriasis ranges from 0.44% to 2.8%, with variation observed among different regions and hospital-based studies. The disease can occur at any age; however, two peak age groups are commonly recognized: Type I psoriasis, with onset between 15 and 40 years, and Type II psoriasis, with onset after 40 years of age. Early-onset psoriasis is more frequently associated with a positive family history and tends to have a more severe clinical course. Both males and females are affected, although some Indian studies have reported a slight male predominance.

Plaque psoriasis (psoriasis vulgaris) is the most common clinical subtype, accounting for approximately 80–90% of all cases. Other clinical variants include guttate, pustular, inverse, and erythrodermic psoriasis, each differing in morphology, severity, and prognosis. Psoriasis is also associated with several systemic comorbidities, including psoriatic arthritis, obesity,

metabolic syndrome, diabetes mellitus, hypertension, dyslipidaemia, cardiovascular disease, inflammatory bowel disease, and depression, contributing significantly to morbidity and reduced quality of life.

The burden of psoriasis extends beyond cutaneous manifestations, affecting patients' emotional health, social interactions, work productivity, and healthcare expenditure. Owing to its chronic relapsing nature and frequent recurrences, psoriasis remains an important global public health concern. Early diagnosis, comprehensive management, and long-term follow-up are essential to reduce disease severity, prevent complications, and improve patients' overall quality of life.

ETIOPATHOGENESIS OF PSORIASIS

Psoriasis is a chronic, immune-mediated inflammatory skin disorder with a multifactorial etiology involving a complex interplay between genetic susceptibility, immune dysregulation, environmental factors, and abnormal keratinocyte proliferation. Although the precise cause of psoriasis remains incompletely understood, current evidence suggests that the disease results from an exaggerated immune response in genetically predisposed individuals following exposure to various triggering factors.

Genetic Factors

Genetic predisposition plays a significant role in the development of psoriasis. A positive family history is observed in approximately one-third of affected individuals, indicating a strong hereditary component. Several susceptibility loci, collectively known as psoriasis susceptibility (PSORS) genes, have been identified, among which PSORS1 located on chromosome 6p21 within the major histocompatibility complex (MHC) is the most important. The HLA-C*06:02 allele is strongly associated with early-onset psoriasis and severe disease. Multiple genes regulating innate and adaptive immunity, cytokine production, and epidermal differentiation also contribute to disease susceptibility.

Immunological Mechanisms

Psoriasis is primarily a T-cell-mediated autoimmune disease characterized by persistent activation of both innate and adaptive immune responses. Environmental triggers activate keratinocytes and dendritic cells, resulting in the release of inflammatory mediators such as interferon- α (IFN- α), tumour necrosis factor- α (TNF- α), interleukin (IL)-1, IL-6, and IL-23. Activated dendritic cells stimulate differentiation and proliferation of T helper (Th1 and

Th17) lymphocytes, which play a central role in disease pathogenesis. Th17 cells produce IL-17A, IL-17F, IL-22, and IL-21, whereas Th1 cells secrete interferon- γ (IFN- γ) and TNF- α . These cytokines induce excessive keratinocyte proliferation, abnormal epidermal differentiation, increased angiogenesis, recruitment of inflammatory cells, and sustained inflammation. The IL-23/Th17 axis is now recognized as the principal immunological pathway responsible for the initiation and maintenance of psoriatic lesions.

Keratinocyte Hyperproliferation

One of the characteristic pathological features of psoriasis is accelerated epidermal turnover. Under normal physiological conditions, keratinocytes require approximately 28 days to migrate from the basal layer to the stratum corneum. In psoriasis, this process is shortened to 3–5 days, resulting in excessive accumulation of immature keratinocytes on the skin surface. This accelerated proliferation produces thick erythematous plaques covered with characteristic silvery-white scales.

Histopathological examination of psoriatic lesions commonly reveals hyperkeratosis, parakeratosis, acanthosis, elongation of rete ridges (psoriasiform hyperplasia), thinning of the suprapapillary plates, diminished granular layer, dilated and tortuous capillaries in the papillary dermis, and Munro's microabscesses, which consist of collections of neutrophils within the stratum corneum. Spongiform pustules of Kogoj, representing intraepidermal neutrophilic aggregates, may also be observed in active lesions.

Environmental Triggering Factors

Several environmental factors can precipitate psoriasis in genetically susceptible individuals or exacerbate pre-existing disease. These include streptococcal throat infections, viral infections, skin trauma (Koebner phenomenon), emotional stress, smoking, alcohol consumption, obesity, climatic changes, and certain medications such as beta-blockers, lithium, antimalarials, non-steroidal anti-inflammatory drugs (NSAIDs), and rapid withdrawal of systemic corticosteroids. Hormonal alterations and metabolic disturbances may also influence disease activity. The Koebner phenomenon, in which new psoriatic lesions develop at sites of cutaneous injury, is a characteristic feature observed in many patients. Mechanical trauma, surgical wounds, burns, tattoos, and insect bites may initiate lesion development through activation of local inflammatory pathways.

Angiogenesis and Inflammatory Cascade

Psoriatic lesions exhibit marked angiogenesis characterized by dilated, elongated, and tortuous capillaries within the papillary dermis. Vascular endothelial growth factor (VEGF) released from activated keratinocytes and inflammatory cells promotes neovascularization and increases vascular permeability. These vascular changes contribute to erythema, inflammatory cell infiltration, and maintenance of chronic inflammation. Activated neutrophils, macrophages, dendritic cells, and T lymphocytes continuously release cytokines, chemokines, and growth factors that perpetuate the inflammatory cycle. This self-sustaining immune response results in persistent epidermal hyperplasia and chronic plaque formation.

Systemic Nature of Psoriasis

Psoriasis is currently regarded as a systemic inflammatory disease rather than merely a localized skin disorder. Persistent systemic inflammation contributes to the increased risk of psoriatic arthritis, obesity, metabolic syndrome, diabetes mellitus, hypertension, dyslipidaemia, cardiovascular disease, non-alcoholic fatty liver disease, inflammatory bowel disease, anxiety, and depression. These associated comorbidities substantially increase disease burden and adversely affect patients' quality of life. Thus, the etiopathogenesis of psoriasis involves a dynamic interaction between genetic predisposition, environmental triggers, immune dysregulation, abnormal keratinocyte proliferation, angiogenesis, and chronic systemic inflammation. Understanding these mechanisms has facilitated the development of targeted therapeutic approaches and provides a scientific basis for integrating conventional treatments with complementary modalities such as Ayurveda in the comprehensive management of psoriasis.

CLINICAL FEATURES AND DIAGNOSIS OF PSORIASIS

Psoriasis is characterized by chronic, recurrent, well-demarcated erythematous plaques covered with thick, dry, silvery-white scales. The lesions are usually symmetrical and commonly involve the extensor surfaces of the elbows and knees, scalp, lumbosacral region, and umbilical area. The severity of the disease ranges from localized plaques to generalized involvement of the skin.

The most common symptoms include itching, dryness, scaling, erythema, burning sensation, and occasional pain due to fissuring. Nail involvement is observed in approximately 50% of patients and may present as pitting, onycholysis, subungual hyperkeratosis, oil-drop discoloration, and nail plate dystrophy. Approximately 20–30% of patients develop psoriatic

arthritis, characterized by pain, stiffness, swelling, and deformity of peripheral joints or the axial skeleton.

Clinical diagnosis is generally based on characteristic morphology and distribution of lesions. Important clinical signs include Auspitz sign, in which pinpoint bleeding occurs after removal of scales due to exposure of dilated dermal capillaries, and the Koebner phenomenon, where new lesions develop at sites of trauma. Dermoscopy may demonstrate regularly distributed dotted vessels with diffuse white scales.

Histopathological examination remains the gold standard when the diagnosis is uncertain. Typical findings include hyperkeratosis, parakeratosis, acanthosis, regular elongation of rete ridges (psoriasiform hyperplasia), thinning of the suprapapillary plates, diminished granular layer, dilated capillaries within the papillary dermis, and neutrophilic collections forming Munro's microabscesses and spongiform pustules of Kogoj. Disease severity is commonly assessed using the Psoriasis Area and Severity Index (PASI), Body Surface Area (BSA), and Dermatology Life Quality Index (DLQI).

AYURVEDIC CONCEPT OF KITIBHA KUSHTHA

In Ayurveda, all skin disorders are collectively described under the term Kushtha. Acharya Charaka, Sushruta, and Vagbhata have described Kushtha as a disease resulting from the simultaneous vitiation of all three Doshas along with the involvement of Twak, Rakta, Mamsa, and Lasika. Kushtha is broadly classified into Mahakushtha and Kshudra Kushtha. Kitibha Kushtha, one of the Kshudra Kushthas, closely resembles psoriasis due to similarities in clinical manifestations such as roughness, dryness, scaling, discoloration, and itching.

Nidana (Etiological Factors)

According to Ayurvedic classics, Kitibha Kushtha develops due to prolonged indulgence in Viruddha Ahara (incompatible diet), excessive intake of Guru, Snigdha, Abhishyandi, Amla, Lavana, and Katu Ahara, irregular dietary habits, overeating, suppression of natural urges, day sleep, night awakening, psychological stress, excessive physical exertion, and improper Panchakarma procedures. These factors result in vitiation of Vata, Kapha, and Rakta, ultimately affecting the skin and deeper tissues. Continuous exposure to these causative factors leads to impairment of Agni, formation of Ama, and obstruction of body channels (Srotorodha), initiating the disease process.

Samprapti (Pathogenesis)

The pathogenesis of Kitibha Kushtha begins with derangement of Agni due to improper diet and lifestyle. This leads to the formation of Ama, which vitiates primarily Vata and Kapha Doshas. Simultaneously, Rakta Dhatu becomes vitiated, resulting in the involvement of Twak, Mamsa, and Lasika. The vitiated Doshas circulate through Rasavaha and Raktavaha Srotas and localize in the skin due to Khavaigunya (tissue susceptibility). Their interaction with the affected Dhatus produces characteristic cutaneous lesions. Vata contributes to dryness, roughness, fissuring, and scaling, while Kapha causes thickening, induration, and chronicity of lesions. Rakta Dushti promotes discoloration, inflammation, and persistence of the disease. Thus, Kitibha Kushtha manifests as a chronic, relapsing disorder with recurrent episodes.

Lakshana (Clinical Features)

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- Shyava Varna – Blackish-brown or dark discoloration
- Khara Sparsha – Rough surface on palpation
- Parushata – Hardness and thickening of skin
- Rukshata – Excessive dryness
- Kandu – Itching of variable intensity
- Matsya Shakala Sadrusha Twak – Fish scale-like appearance
- Twak Sankocha and Vivarnata – Thickened, discoloured skin with scaling.

These features closely resemble the clinical manifestations observed in chronic plaque psoriasis.

Dosha–Dushya Involvement

Kitibha Kushtha is predominantly a Vata-Kaphaja disorder with significant involvement of Rakta. Although all three Doshas participate in the pathogenesis of Kushtha, Vata and Kapha are considered predominant in Kitibha Kushtha.

- Predominant Doshas: Vata and Kapha with associated Rakta Dushti
- Affected Dushyas: Twak, Rakta, Mamsa and Lasika
- Involved Srotas: Rasavaha, Raktavaha and Mamsavaha Srotas
- Adhithana: Twak (skin)

The predominance of Vata produces dryness, roughness, fissuring, and scaling, whereas

Kapha is responsible for thickening, induration, and chronicity of lesions. Rakta Dushti contributes to discoloration, inflammation, and recurrence. Understanding the Dosha–Dushya involvement forms the basis for selecting appropriate Ayurvedic treatment modalities, particularly Shodhana therapies such as Raktamokshan, which is considered highly effective in disorders associated with vitiated Rakta.

CONCEPT OF RAKTAMOKSHAN

Definition

Raktamokshan is one of the important Shodhana (bio-purificatory) therapies described in Ayurveda for the management of diseases caused by vitiated blood (Rakta Dushti). The term is derived from the Sanskrit words Rakta (blood) and Mokshana (elimination or release), meaning the therapeutic removal of vitiated blood from the body. Acharya Sushruta, regarded as the father of surgery, has described Raktamokshan as an effective treatment for various disorders involving Rakta and Pitta, particularly skin diseases (Kushtha), inflammatory conditions, abscesses, localized swelling, and vascular disorders. According to Ayurvedic principles, impure or vitiated blood acts as a pathogenic factor that aggravates disease processes. Elimination of this vitiated blood restores the equilibrium of Doshas, improves tissue nourishment, and promotes healing.

Among the various treatment modalities for Kushtha, Raktamokshan occupies a unique place because of the close association of skin disorders with Rakta Dhatu. Classical texts recommend repeated purification procedures, including Raktamokshan, in chronic and recurrent skin diseases to prevent relapse and improve long-term outcomes.

Types of Raktamokshan

Acharya Sushruta has classified Raktamokshan into two major categories based on the method employed.

1. Shastra Visravana (Bloodletting by Sharp Instruments)
 - Siravyadha (Venesection): Blood is withdrawn by puncturing an appropriate vein. It is considered suitable for generalized disorders involving vitiated blood.
 - Prachchhana (Scarification): Multiple superficial incisions are made over the affected area to facilitate the removal of impure blood. It is commonly indicated in localized skin lesions.
2. Anushastra Visravana (Bloodletting without Sharp Instruments)
 - Jalaukavacharana (Leech Therapy): Medicinal leeches are applied to suck vitiated blood.

This method is considered gentle and is preferred for delicate individuals, children, elderly patients, and lesions involving sensitive areas.

- Shringa Avacharana (Cow Horn Application): Primarily indicated in Vata-dominant conditions.
- Alabu Avacharana (Bottle Gourd/Cupping Method): Recommended mainly for Kapha-dominant disorders.
- Ghati Yantra or similar suction methods: Used in selected localized conditions as described in Ayurvedic surgical practice.

Among these methods, Jalaukavacharana has gained significant clinical importance in dermatology because of its minimally invasive nature, safety, and therapeutic efficacy.

Indications

Raktamokshan is indicated in diseases where Rakta Dushti plays a major pathogenic role. Classical indications include.

- Kushtha, including Kitibha Kushtha
- Vicharchika, Dadru, Pidika and Visarpa
- Acne and chronic inflammatory dermatoses
- Localized swelling and inflammatory conditions
- Varicose veins and vascular congestion
- Gout and certain musculoskeletal disorders
- Non-healing ulcers
- Localized pain associated with blood stagnation

In psoriasis, where chronic inflammation, erythema, scaling, and recurrent lesions predominate, Raktamokshan is considered beneficial for reducing vitiated Rakta, improving local circulation, and alleviating symptoms.

Contraindications

- Severe anaemia
- Children and very elderly individuals, except carefully selected leech therapy cases
- Pregnancy
- Generalized debility and cachexia
- Active bleeding disorders
- Hypotension and severe dehydration
- Uncontrolled systemic illnesses

- Use of anticoagulant therapy without medical evaluation
- Severe fear, anxiety, or inability to cooperate with the procedure

Proper patient selection and assessment are essential to ensure safety and therapeutic success. Procedure.

The procedure of Raktamokshan consists of three stages: Purva Karma (pre-procedure), Pradhana Karma (main procedure), and Paschat Karma (post-procedure).

Purva Karma: The patient is examined for general health, disease status, contraindications, and suitability for the selected procedure. The affected area is cleaned using aseptic precautions. In Jalaukavacharana, healthy medicinal leeches are purified according to classical guidelines before application.

Pradhana Karma: In Jalaukavacharana, the leech is placed over the lesion and allowed to attach naturally. It feeds until adequately engorged and usually detaches spontaneously. If necessary, turmeric powder or rock salt may be applied near the mouth of the leech to facilitate detachment. In Siravyadha, the selected vein is punctured under aseptic conditions, and an appropriate quantity of blood is allowed to flow before haemostasis is achieved.

Paschat Karma: After completion of the procedure, the wound is cleaned, sterile dressing is applied, and the patient is advised regarding diet, wound care, and avoidance of strenuous physical activity. Follow-up assessment is carried out to evaluate symptom relief and healing.

Mechanism of Action – Ayurvedic Perspective According to Ayurveda, Raktamokshan eliminates vitiated Rakta, thereby reducing the burden of aggravated Doshas, especially Pitta and associated Vata and Kapha.

Removal of impure blood improves circulation within the affected tissues, clears obstruction of microchannels (Srotoshodhana), enhances tissue nutrition, and restores normal physiological functions. In Kitibha Kushtha, where Rakta, Twak, Mamsa, and Lasika are involved, Raktamokshan interrupts disease progression by reducing inflammation, discoloration, itching, scaling, and chronicity. It also helps re-establish Doshic balance and supports regeneration of healthy skin.

Mechanism of Action – Modern Perspective

From a modern scientific viewpoint, the therapeutic effects of Raktamokshan, particularly

Jalaukavacharana, are attributed to the bioactive substances present in leech saliva. These include hirudin, calin, bdellins, eglins, hyaluronidase, and vasodilatory compounds. Hirudin acts as a potent anticoagulant, improving blood flow and preventing microvascular thrombosis. Bdllins and eglins possess anti-inflammatory properties by inhibiting inflammatory enzymes, while hyaluronidase enhances tissue permeability and microcirculation. These actions help reduce local congestion, improve oxygen delivery, decrease inflammatory mediator activity, relieve pain and itching, and promote tissue repair. In psoriasis, where chronic inflammation, abnormal immune activation, and increased vascularity contribute to disease progression, these pharmacological effects may complement Ayurvedic principles by reducing local inflammation and facilitating healing. Although current evidence suggests promising therapeutic benefits, further well-designed clinical studies are required to establish standardized protocols and strengthen the scientific evidence supporting Raktamokshan in the management of psoriasis.

ROLE OF RAKTAMOKSHAN IN PSORIASIS

Psoriasis is a chronic, immune-mediated inflammatory skin disorder characterized by erythematous, scaly plaques and recurrent exacerbations. In Ayurveda, its clinical presentation closely resembles Kitibha Kushtha, a type of Kshudra Kushtha, in which Vata, Kapha, and Rakta are predominantly involved. Since Rakta Dushti plays a significant role in the pathogenesis of Kushtha, Raktamokshan is regarded as one of the principal Shodhana Chikitsa procedures for its management. Acharya Sushruta has emphasized Raktamokshan in diseases arising from vitiated blood, particularly chronic skin disorders, as it helps eliminate impure blood, restore Dosha balance, and promote healing.

Jalaukavacharana (Leech Therapy)

Jalaukavacharana is the most commonly practiced form of Raktamokshan in dermatological disorders. It involves the application of medicinal leeches over affected skin lesions to remove vitiated blood in a controlled manner. According to Ayurveda, Jalaukavacharana alleviates Rakta Dushti, improves local circulation, clears obstructed channels (Srotoshodhana), and reduces symptoms such as itching, scaling, dryness, and erythema.

Modern research suggests that leech saliva contains biologically active substances such as hirudin, calin, bdellins, eglins, and hyaluronidase, which possess anticoagulant, anti-inflammatory, analgesic, and microcirculation-enhancing properties. These compounds help reduce inflammation, improve tissue perfusion, relieve pruritus, and promote healing.

Clinical studies have reported improvement in plaque thickness, scaling, erythema, and itching following Jalaukavacharana, particularly when combined with internal Ayurvedic medications.

Siravyadha (Venesection)

Siravyadha is another important method of Raktamokshan in which a selected vein is punctured to remove a measured quantity of vitiated blood. It is generally indicated in generalized disorders involving Rakta Dushti. From an Ayurvedic perspective, Siravyadha eliminates vitiated blood, reduces Dosha aggravation, and restores physiological balance. Although less commonly practiced than Jalaukavacharana in psoriasis, it may be beneficial in carefully selected patients under appropriate clinical supervision.

Clinical Rationale

The therapeutic role of Raktamokshan in psoriasis is supported by both Ayurvedic principles and modern scientific understanding. Ayurveda considers Rakta as one of the principal Dushyas involved in Kitibha Kushtha; therefore, purification of vitiated blood directly addresses the underlying disease process rather than merely controlling symptoms.

From a modern perspective, psoriasis is associated with chronic inflammation, immune dysregulation, abnormal angiogenesis, and excessive keratinocyte proliferation. The anti-inflammatory, anticoagulant, and immunomodulatory effects of leech saliva may help reduce local inflammation, improve microcirculation, and facilitate tissue repair.

Clinical evidence suggests that Raktamokshan, particularly Jalaukavacharana, used as an adjunct to internal Ayurvedic medicines and appropriate dietary and lifestyle modifications, can improve clinical symptoms and reduce disease recurrence.

However, further well-designed clinical studies are required to establish standardized treatment protocols and strengthen the evidence supporting its role in the management of psoriasis.

DISCUSSION

Psoriasis is a chronic, immune-mediated inflammatory skin disease with a relapsing course that significantly affects patients' quality of life. In Ayurveda, its clinical features closely resemble Kitibha Kushtha, which is predominantly a Vata-Kaphaja disorder associated with Rakta Dushti. Classical Ayurvedic texts advocate Shodhana Chikitsa as an essential

therapeutic approach in chronic skin disorders, among which Raktamokshan is considered particularly beneficial due to its ability to eliminate vitiated blood and restore Dosha equilibrium.

The therapeutic rationale of Raktamokshan is supported by both Ayurvedic principles and modern scientific understanding. According to Ayurveda, purification of vitiated Rakta helps alleviate inflammation, itching, scaling, dryness, and discoloration while improving tissue nourishment and promoting healthy skin. From a modern perspective, medicinal leech therapy provides anticoagulant, anti-inflammatory, analgesic, and microcirculation-enhancing effects through bioactive substances such as hirudin, calin, bdellins, and eglins. These actions may contribute to reducing local inflammation and improving healing of psoriatic plaques.

Published clinical studies, although limited mainly to case reports and small observational studies, have demonstrated encouraging improvements in erythema, scaling, pruritus, plaque thickness, and overall disease severity following Jalaukavacharana or Siravyadha, especially when combined with internal Ayurvedic medications and dietary modifications. However, the lack of large randomized controlled trials, standardized treatment protocols, and long-term follow-up limits the strength of current evidence. Therefore, further high-quality research is necessary to establish the efficacy, safety, and standardization of Raktamokshan in psoriasis.

CONCLUSION

Raktamokshan is an important Ayurvedic Shodhana therapy with significant potential in the management of psoriasis (Kitibha Kushtha). By addressing Rakta Dushti and restoring the balance of Vata and Kapha, it targets the underlying Ayurvedic pathogenesis rather than providing only symptomatic relief. Among the various methods, Jalaukavacharana is the most widely practiced because of its safety, minimal invasiveness, and favourable clinical outcomes, while Siravyadha may be useful in appropriately selected cases.

Although the available clinical evidence suggests beneficial effects of Raktamokshan in reducing disease severity and improving patients' quality of life, stronger scientific evidence is still required. Well-designed randomized controlled trials with standardized treatment protocols and long-term follow-up are essential to validate its therapeutic role. Integrating classical Ayurvedic principles with evidence-based clinical research may help establish Raktamokshan as an effective complementary approach in the comprehensive management of psoriasis.

CONFLICT OF INTEREST

Nil.

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