

## Review On Psoriasis And Its Management

Hrutuja A. Kedar\*, Trupti V. Kadam, Avinash B. Darekar

*Department of Pharmacy, K. V. N. Naik S. P. Sanstha's, Institute of Pharmaceutical Education & Research, Canada Corner, Nashik – 422 002, Maharashtra, India.*

### ABSTRACT

Psoriasis is fundamentally an auto immune inflammatory skin condition with reactive abnormal epidermal differentiation and hyper proliferation of keratinocytes affecting 2-3 % of world's population. Pathophysiology of the disease includes mainly the activation and migration of T cells to the dermis triggering the release of cytokines (tumor necrosis factor-alpha TNF-alpha, in particular) which lead to the inflammation and the rapid production of skin cells. The possible factors and triggers causing psoriasis include emotional stress, skin injury, systemic infections, certain medications and intestinal upsets. Various types of psoriasis have been reported such as plaque psoriasis, psoriatic arthritis, scalp psoriasis, flexural psoriasis, guttate psoriasis, pustular psoriasis, nail psoriasis, erythrodermic psoriasis, inverse psoriasis which can be diagnosed by clinical findings such as skin biopsy, etc. Therapeutic agents that either modulate the immune system or normalize the differentiation program of psoriatic keratinocytes are suggested for treating psoriasis. Based on the type of psoriasis, its location, extent and severity there are various treatment regimens available for psoriasis such as topical agents, phototherapy, systemic agents, and homeopathic approach which can help to control the symptoms. This review aims to cover each and every aspect of the disorder Psoriasis and details of particularly plaque psoriasis as about 80% of people who develop psoriasis have plaque psoriasis.

**Keywords:** Psoriasis, Skin disorder, Topical therapy, Immunotherapy, Trigger identification, Symptoms, Causes, Complications, Treatment, and Management.

### INTRODUCTION

Psoriasis is a chronic autoimmune skin disorder in which the body's immune system mistakenly attacks healthy skin cells. This abnormal immune response leads to rapid multiplication and accumulation of skin cells on the surface of the skin. As a result, patients develop characteristic symptoms such as red, inflamed, itchy, and scaly patches. These lesions occur due to hyper proliferation of keratinocytes, which causes thickened plaques covered with silvery-white scales. The condition may vary in severity and can significantly affect a patient's quality of life. [1]

In the management of psoriasis, oral drugs are sometimes prescribed, especially in moderate to severe cases. However, these systemic medications may produce various side effects because they circulate throughout the body and affect multiple organ systems. [2]

On the other hand, topical gels are considered a more localized and targeted treatment approach. They

deliver the drug directly to the affected skin area, thereby minimizing systemic absorption and reducing the risk of widespread side effects. Topical gels also improve patient compliance due to ease of application, better cosmetic acceptability, and fewer adverse effects compared to oral therapy. [3]

Psoriasis is a chronic inflammatory skin disease with a prevalence of 2–3% of the population around the world (Rachakonda, Schupp, & Armstrong, 2014). Recently the association of psoriasis with a state of systemic inflammation, comorbid diseases and the development of new therapeutics has made the management of patients with psoriasis more complex and challenging. [4]

### PATHOPHYSIOLOGY

Psoriasis is a chronic immune-mediated inflammatory skin disease in which abnormal immune activation leads to excessive proliferation of skin cells (keratinocytes).

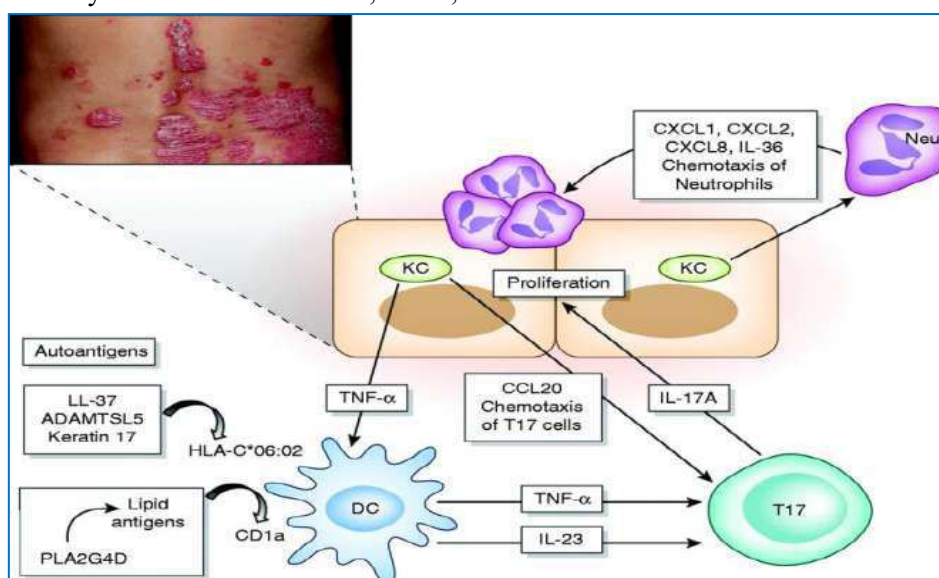
**Relevant conflicts of interest/financial disclosures:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

The first hypothesis of the disease says that, psoriasis is a disorder of excessive growth and reproduction of skin cells. The second one says that, psoriasis is an immune mediated disorder in which excessive reproduction of skin cells is seen. [5, 6]

Current research suggests that such disorders are initiated by T-cells in dermis. [7]

### Key Steps:

1. **Genetic predisposition:** Individuals with certain genes (especially related to immune regulation) are more susceptible to psoriasis.
2. **Triggering factors:** Environmental triggers such as infections, stress, skin injury, certain drugs, or lifestyle factors activate the immune system.
3. **Immune system activation:** Dendritic cells in the skin release cytokines such as TNF- $\alpha$ , IL-12, and IL-23, which activate T-lymphocytes (especially Th1 and Th17 cells).
4. **Cytokine release and inflammation:** Activated T-cells release inflammatory cytokines like IL-17, IL-22, and TNF- $\alpha$ , causing chronic inflammation in the skin.
5. **Rapid keratinocyte proliferation:** These cytokines stimulate keratinocytes to multiply very quickly.
  - o Normal skin cell cycle: ~28–30 days
  - o Psoriatic skin cycle: ~3–5 days
6. **Plaque formation:** Because cells accumulate faster than they shed, thick, red, scaly plaques form on the skin surface.



**Figure 1 : Pathophysiology and Mechanism of Psoriasis**

### DIAGNOSIS

Diagnosis of Psoriasis is mainly clinical and based on the characteristic appearance of skin lesions, so special laboratory tests are usually not required. In some cases, a skin biopsy or scraping is performed to confirm the diagnosis and rule out conditions such as fungal infections; biopsy often shows clubbed rete pegs and pinpoints bleeding on plaque scraping. Blood tests (e.g., total count, ESR, RA factor, ASO titre, serum uric acid, and T-cell levels) may be done to evaluate complications or associated conditions, and findings like leukocytosis and increased

lymphocytes can occur. Imaging studies such as X-ray or bone scan help when joint pain suggests psoriatic arthritis. Patient history, including drug intake or streptococcal infection, is also considered. Additionally, clinicians assess metabolic disturbances, joint damage, and the psychological or social impact of the disease. [8, 9]

### TYPES

Psoriasis is classified into several types based on the appearance, location, and pattern of skin lesions.

### 1. Plaque psoriasis:

The most common type is plaque psoriasis. It is characterized by well-defined, raised, red patches of skin covered with thick, silvery-white scales. These plaques most frequently appear on the elbows, knees, scalp, and lower back. The lesions may be itchy, painful, and can crack or bleed in severe cases. [10]

### 2. Guttate psoriasis:

It is another type that usually develops suddenly, often following a streptococcal throat infection. It presents as numerous small, drop-shaped (tear-shaped) red lesions scattered across the torso, arms, and legs. This type is more common in children and young adults and may either resolve on its own or progress to plaque psoriasis. [11]

### 3. Inverse psoriasis:

It occurs in skin folds such as the underarms, groin, under the breasts, and around the buttocks. Unlike plaque psoriasis, it is characterized by smooth, red, inflamed patches without the typical thick scaling. Because it affects areas where skin rubs together, it may be aggravated by friction, sweating, and secondary infections. [12]

### 4. Pustular psoriasis:

It is a less common but more severe form of the disease. It is characterized by the presence of white pustules or blisters filled with noninfectious pus, surrounded by red and inflamed skin. It may be localized; commonly affecting the hands and feet, or it can become generalized and spread over large areas of the body, requiring prompt medical attention. [13]

Each type of psoriasis has distinct clinical features, but all are related to immune-mediated skin inflammation and abnormal skin cell proliferation. [14]

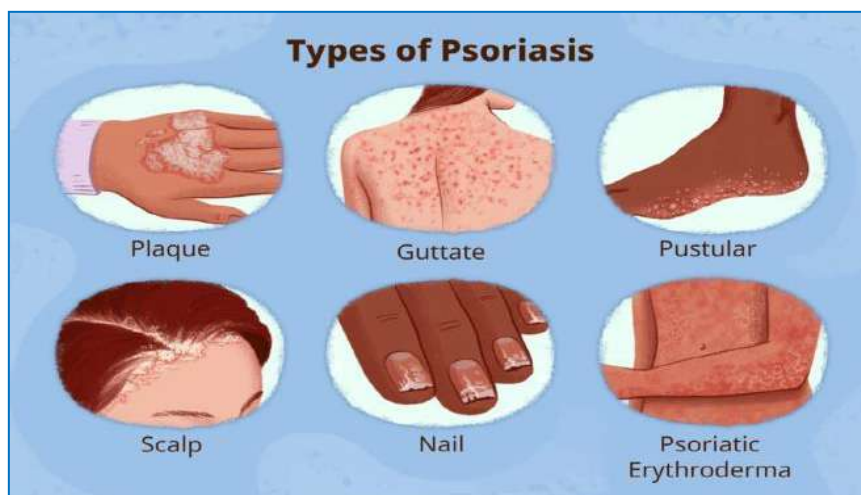


Figure 2 : Types of Psoriasis

## SYMPTOMS

The symptoms of psoriasis vary depending on the specific type of the disease, but all forms are characterized by inflammation and abnormal skin cell turnover. [15] In plaque psoriasis, which is the most common type, patients develop inflamed, red patches of skin covered with thick, silvery scales. [16] These plaques usually have well-defined borders and may appear on the elbows, knees, scalp, and lower back. The lesions can be itchy, painful, and may crack or bleed in severe cases. [17]

Guttate psoriasis presents as numerous small, teardrop-shaped red bumps scattered over the trunk, arms, and legs. It often appears suddenly, sometimes following an infection. [18] Pustular psoriasis is characterized by pus-filled lesions or white pustules surrounded by red, inflamed skin. These pustules are noninfectious but may cause discomfort and tenderness. [19] Inverse psoriasis occurs in skin folds such as the underarms, groin, or beneath the breasts. It presents as smooth, red, shiny rashes without the typical thick scaling and may worsen due to friction and sweating. [20]

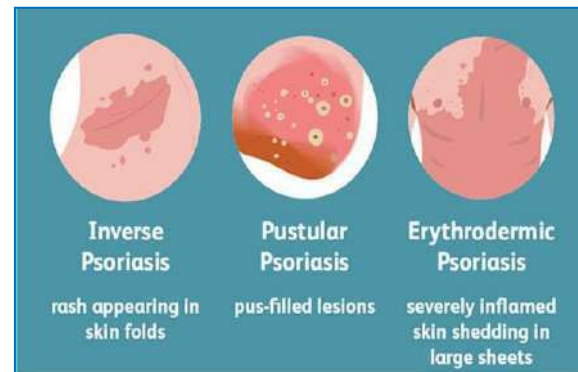
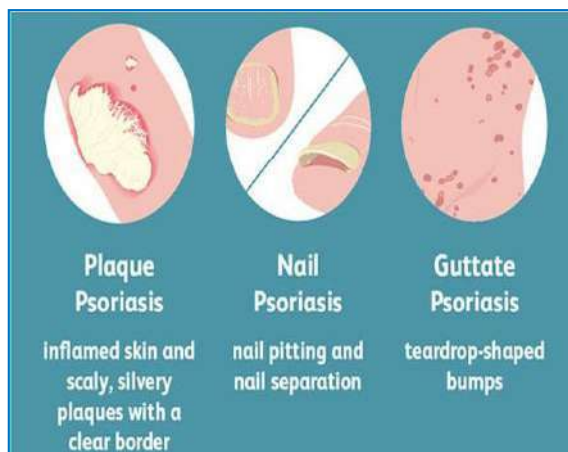
Scalp psoriasis affects the scalp and may extend to the forehead, back of the neck, or behind the ears. It causes red patches with silvery scales and may lead to itching and flaking. [21] Nail psoriasis involves changes in the fingernails and toenails, including nail pitting, thickening, discoloration, and separation of the nail from the nail bed. [22]

In severe cases, erythrodermic psoriasis may develop, which is a rare but serious condition characterized by widespread redness, severe inflammation, and skin shedding in large sheets. This form requires immediate medical attention. [23]

Overall, the symptoms of psoriasis differ based on the type and severity of the condition, but they generally involve inflammation, redness, scaling, and skin discomfort.

Following are the type wise symptoms of the psoriasis:

- o **Plaque Psoriasis:** Inflamed skin and scaly, silvery plaques with a clear border.
- o **Inverse Psoriasis:** Rashes appearing in the skin folds.
- o **Nail Psoriasis:** Nail pitting and nail separation.
- o **Pustular Psoriasis:** Pus filled lesions.
- o **Guttate Psoriasis:** Teardrop shaped bumps.
- o **Erythrodermic Psoriasis:** Severely inflamed skin shedding in large sheets.



**Figure 3 : Symptoms of Psoriasis**

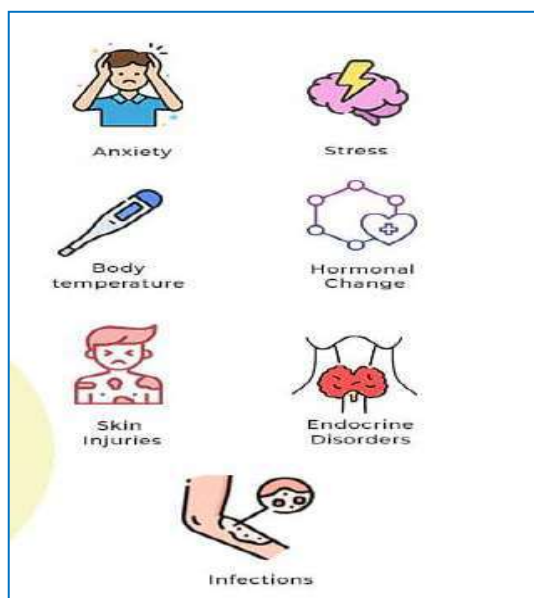
### CAUSES

Psoriasis is a chronic autoimmune disorder whose exact cause is not fully understood, but several factors are known to trigger or worsen the condition. It primarily results from an abnormal immune response that accelerates the growth cycle of skin cells, leading to inflammation and the formation of red, scaly patches. Various internal and external factors can initiate or aggravate the disease in genetically predisposed individuals. [24]

Psychological factors such as stress and anxiety play a significant role in triggering flare-ups. Emotional stress can alter immune system functioning, thereby increasing inflammation and worsening symptoms. Changes in body temperature, particularly cold weather or sudden temperature variations, may also contribute to symptom aggravation. [25]

Hormonal changes are another important factor, especially during puberty, pregnancy, or menopause, when fluctuations in hormone levels can influence immune activity. Endocrine disorders may also be associated with the development or worsening of psoriasis due to their impact on metabolic and immune regulation. [26]

Skin injuries such as cuts, burns, insect bites, or surgical wounds can trigger psoriasis lesions at the site of trauma, a phenomenon known as the Koebner response. Additionally, infections—particularly bacterial infections like streptococcal throat infections—can precipitate certain forms of psoriasis, such as guttate psoriasis. [27]



**Figure 4 : Causes of Psoriasis**

## COMPLICATIONS

Psoriasis is not only a chronic inflammatory skin disorder but is also associated with several systemic complications and comorbid conditions. One of the most common complications is psoriatic arthritis, a condition characterized by joint pain, stiffness, and swelling, often accompanied by red, scaly skin patches and thick, pitted nails. If left untreated, psoriatic arthritis can lead to joint damage and reduced mobility.

Patients with psoriasis may also have an increased risk of developing lymphoma, a type of cancer that originates in the lymphatic system. Chronic inflammation and long-term immune system activation are thought to contribute to this elevated risk. Additionally, psoriasis is linked to a higher incidence of cardiovascular complications, including myocardial infarction (heart attack), stroke, and atrial fibrillation. The persistent inflammatory state associated with psoriasis may accelerate atherosclerosis and other cardiovascular abnormalities. [28]

Inflammatory bowel diseases such as Crohn's disease and ulcerative colitis are also more commonly observed in individuals with psoriasis. These conditions involve chronic inflammation of the gastrointestinal tract and share similar immune-mediated mechanisms. Metabolic disorders, particularly type 2 diabetes mellitus, are another

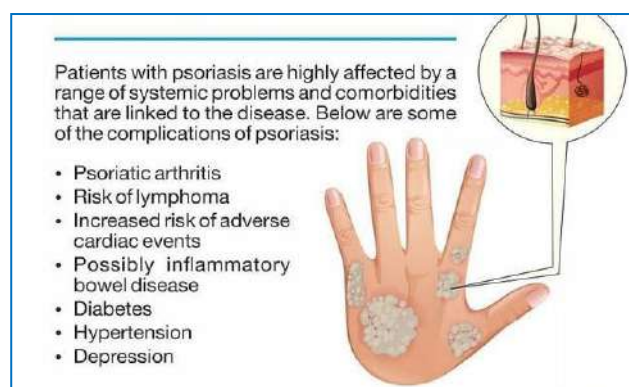
important comorbidity. [29] Psoriasis is associated with insulin resistance and metabolic syndrome, increasing the risk of diabetes.

Hypertension, or high blood pressure, is frequently seen in patients with psoriasis and further contributes to cardiovascular risk. In addition to physical complications, psychological conditions such as depression are common due to the visible nature of the disease and its impact on self-esteem and quality of life. Depression may lead to unhealthy behaviors, further worsening overall health outcomes. [30]

Overall, psoriasis is a systemic inflammatory disorder that extends beyond the skin, significantly increasing the risk of multiple medical and psychological complications.

Following are the complications arising due to the psoriasis:

- **PSORIATIC ARTHRITIS:** Red, scaly patches on skin & thick, pitted nails.
- **LYMPHOMA:** A type of a cancer originated in lymphatic system.
- **CARDIAC EVENTS:** Myocardial infraction, stroke, atrial fibrillation.
- **BOWEL DISEASES:** Crohn's disease, ulcerative colitis.
- **DIABETES:** Type-2 diabetes mellitus.
- **HYPERTENSION:** Increased blood pressure.
- **DEPRESSION:** Triggers unhealthy behavior.



**Figure 5 : Complications of Psoriasis**

## COMMON TRIGGERS

Psoriasis flare-ups are often triggered or worsened by various environmental, physical, and medication-related factors. One of the most common triggers is skin injury, including cuts, scrapes, burns, or other minor trauma. Surgical procedures can also act as a trigger, as physical trauma to the skin may lead to the development of new lesions at the affected site, a response known as the Koebner phenomenon.

Emotional stress is another major trigger. Psychological stress can negatively influence immune system functioning and increase inflammation, thereby worsening psoriatic symptoms. Infections, particularly streptococcal throat infections, are strongly associated with the onset or exacerbation of certain types of psoriasis, especially guttate psoriasis.

Certain medications can also provoke or aggravate psoriasis. Drugs such as lithium (commonly used for mood disorders), mood stabilizers, and some antibiotics have been reported to trigger flare-ups in susceptible individuals. Medications used for managing high blood pressure, including certain beta-blockers, may also worsen symptoms. Additionally, antimalarial drugs are known to potentially exacerbate psoriasis in some patients. [31]

Overall, psoriasis is influenced by a combination of physical injury, emotional stress, infections, and specific medications. Identifying and avoiding these common triggers is an important part of effective disease management and prevention of flare-ups.

## TREATMENT

The treatment of psoriasis involves a combination of topical therapies, systemic medications, and lifestyle modifications, depending on the severity and type of the disease. Topical therapies are commonly used for mild to moderate psoriasis and are applied directly to the affected skin areas. These include corticosteroids, vitamin D analogs, and retinoids. [32]

Corticosteroids help reduce inflammation, redness, and itching. Vitamin D analogs regulate skin cell production and slow down the rapid turnover of skin cells, while retinoids help normalize skin cell growth. Together, these treatments reduce scaling and plaque formation. [33]

For moderate to severe psoriasis, systemic medications may be prescribed. These drugs work throughout the body and are usually given when topical treatments are insufficient. Common systemic therapies include methotrexate and biologic agents.

Methotrexate suppresses the immune system and slows down excessive skin cell production. [33] Biologic drugs specifically target certain immune pathways responsible for inflammation, thereby reducing symptoms and preventing flare-ups. These treatments require careful monitoring due to potential side effects. [34]

In addition to medical therapy, lifestyle modifications play a crucial role in managing psoriasis effectively. Maintaining a healthy lifestyle that includes stress management, regular exercise, and a balanced diet can help reduce flare-ups. Avoiding known triggers, such as infections, skin injuries, and certain medications, is also important. [34]

Together, medical treatments and healthy lifestyle practices help improve symptom control, reduce complications, and enhance overall quality of life for patients with psoriasis.

Common Treatment options are:

- **Topical Therapies:** Corticosteroids, vitamin D analogs, and retinoid are commonly used to reduce inflammation and slow skin cell turnover.
- **Systemic Medications:** Prescription drugs like methotrexate and biologics target specific immune pathways to reduce symptoms and prevent flare-ups.
- **Lifestyle Modifications:** Maintaining a healthy lifestyle, including stress management, a balanced diet, and avoiding triggers, can help manage the condition effectively.

## MANAGEMENT

As a chronic inflammatory disorder, psoriasis affects not only the physical health of individuals but also their psychological well-being, social interactions, and daily functioning. The visible nature of skin lesions can lead to stigma, reduced self-confidence, and emotional distress, making effective management

essential to improving overall patient outcomes and reducing long-term healthcare costs.

Innovation in psoriasis treatment is crucial to overcome the limitations of existing therapies. Although current treatment options such as topical agents, systemic medications, and biologics provide symptomatic relief, they may be associated with side effects, incomplete response, or long-term safety concerns. [35]

Therefore, developing new treatment modalities, advanced drug delivery systems, and targeted therapies can enhance efficacy, minimize adverse effects, and provide more sustainable disease control.

A patient-centric approach is a fundamental component of effective psoriasis management. By focusing on patient experiences, preferences, and individual needs, healthcare providers can improve treatment adherence and overall satisfaction. Personalized treatment plans, clear patient education, and continuous monitoring help ensure better compliance and improved therapeutic outcomes. Ultimately, comprehensive management that integrates medical innovation and patient-centered care leads to improved quality of life and more effective long-term control of psoriasis.

The psoriasis can be managed by:

- o **Relevance:** Psoriasis significantly affects patient quality of life and poses a burden on healthcare systems.
- o **Innovation:** Developing new treatment modalities can help address limitations of current therapies.
- o **Patient-Centric Approach:** Focusing on patient experiences enhances treatment adherence and satisfaction.

## FINDINGS AND THE FUTURE DIRECTIONS

The key findings, challenges, and future directions related to psoriasis treatment and management can be studied in a manner. The findings indicate that combined therapies, including both topical and systemic treatments, tend to produce better outcomes compared to single approaches such as immunotherapy alone for many patients. This

suggests that a multi-modal treatment strategy may improve effectiveness and overall patient outcomes.

However, several challenges remain. One major issue is the variability in how patients respond to different treatments. Individual differences in disease severity, genetics, and overall health can influence treatment success, emphasizing the importance of personalized medicine. Tailored treatment plans and continued clinical research are necessary to optimize care and improve consistency in treatment responses.

## CONCLUSION

The conclusion emphasizes that psoriasis is a complex and multifactorial disease that requires a personalized and tailored treatment approach. Because the condition varies significantly among individuals, effective management depends on selecting treatment strategies that address each patient's specific symptoms, disease severity, and overall health needs.

The section also highlights the importance of ongoing research in improving psoriasis management. Continuous scientific studies are essential to refine existing treatment methods, develop new therapeutic options, and ultimately enhance patients' quality of life. Advancements in research may lead to more effective, targeted, and safer treatment approaches in the future.

Additionally, the conclusion discusses the broader implications of increased awareness and understanding of psoriasis. Educating patients and healthcare professionals can support better disease management, encourage informed decision-making, and empower patients to actively participate in their treatment plans. Overall, a combination of personalized care, continuous research, and improved awareness is key to achieving better outcomes for individuals living with psoriasis.

So, it is concluded that, there is need of awareness about the disease 'PSORIASIS' and its symptoms should be recognized and identified immediately, for further quick access of the treatment.

- o **Summary:** Psoriasis is a complex, multifactorial disease that requires a tailored treatment approach.

- o **Ongoing Research:** Ongoing research is essential to refine management strategies and improve patient quality of life.
- o **Implications:** Increased awareness and understanding of psoriasis can facilitate better disease management, informed decision-making and patient empowerment.

Conflict of Interest: The authors declare no conflict of interest.

## REFERENCES

1. Adeboye Adejare, "Remington – The Science and Practice of Pharmacy", 23rd Edition, 1st Jan 2021.
2. L. Lachmann, H.A. Lieberman, J, L, Kanig, "The Theory and Practice of Industrial Pharmacy", 3rd Edition, Indian Edition.
3. Ainali C, Valeyev N, Perera G, Williams A, Gudjonsson JE, Ouzounis CA, Nestle FO, Tsoka S 2012. Transcriptome classification reveals molecular subtypes in psoriasis. *BMC Genomics* 13: 472.
4. DeKorte J, Sprangers MA, Mommers FM, Bos JD. Quality of life in patients with psoriasis: a systemic literature review. *J Investig Dermatol Symp Proc* 2005; 9:140.
5. Yaqoob P. (2003). Fatty acids as gatekeepers of immune cell regulation. *Trends Immunol*, 24:639-645.
6. Ortonne J.P. Aetiology and pathogenesis of psoriasis (1996). *Br J Dermatol*, 135(49):1-5.
7. Robert C., Kupper T.S. (1999). Inflammatory skin diseases, T cells and immune surveillance. *N Engl J Med*, 341:1817-1828.
8. Cruickshank R. (1965). *Medical microbiology; a guide to diagnosis and control of infection*. 11th ed. Edinburg; London: E and S Livingston Ltd. p 888-889.
9. Ellen J.B. Sydney M.F. (1990). *Baily & Scott's diagnostic microbiology*. 8th ed., USA, Missouri. p.453.
10. Canadian Psoriasis Guidelines Committee. *Canadian guidelines for the management of plaque psoriasis*. Ottawa, ON: Canadian Dermatology Association; 2009.
11. Ko HC, Jwa SW, Song M, Kim MB, Kwon KS. KO. Clinical course of guttate psoriasis: long-term follow-up study. *J Dermatol* 2010; 37(10): 894-9. <http://dx.doi.org/10.1111/j.1346-8138.2010.00871.x> PMID: 20860740.
12. Chandran V, Schentag CT, Brockbank JE, Pellett FJ, Shanmugarajah S, Toloza SM, et al. Familial aggregation of psoriatic arthritis. *Ann Rheum Dis* 2009; 68: 664–667.
13. De Marco G, Cattaneo A, Battafarano N, Lubrano E, Carrera CG, Marchesoni A (2012) Not simply a matter of psoriatic arthritis: epidemiology of rheumatic diseases in psoriatic patients. *Arch Dermatol Res* 304:719–726.
14. Kim HJ, Lebwohl MG. Biologics and psoriasis: the beat goes on. *Dermatol Clin*. 2019; 37(1):29-36.
15. Harsh M. (2006). *Textbook of Pathology*. Medical Publisher Ltd. New Delhi, 5th ed., 802-803.
16. *British Journal of Dermatology: Volume 158(2) February 2008, 351-359.*
17. Guidelines of care for Psoriasis. (1991). *American association of Dermatology Bulletin* 9:10.
18. Wolters M. (2005). Diet and psoriasis: experimental data and clinical evidence. *Br J Dermatol*, 153:706-714.
19. Samarasekera E, Sawyer L, Parnham J, Smith C (2012) Assessment and management of psoriasis: summary of NICE guidance. *BMJ* 345:e6712–e6712. <https://doi.org/10.1136/bmj.e6712>.
20. Qureshi A, Husni M, Mody E (2005) Psoriatic arthritis and psoriasis: need for a multidisciplinary approach. *Semin Cutan Med Surg* 24:46–51. <https://doi.org/10.1016/j.sder.2005.01.006>.
21. Cleland L.G., James M.J. (2000). Fish oil and rheumatoid arthritis: anti-inflammatory and collateral health benefits. *J Rheumatol*, 27:2305-2307.
22. Adams P.F. and Marano M.A. (1995). Current estimates from the national health interview survey. *Vital health stat*, 10(193):1-141.
23. Creamer D., Allen M.H., Groves R.W., Barker J.N. (1996). Circulating vascular permeability factor/vascular endothelial growth factor in erythroderma. *Lancet*, 348:1101.
24. Levine D, Gottlieb A. Evaluation and management of psoriasis: an internist's guide. *Med Clin North Am* 2009; 93(6):1291-303.

25. Wilson FC, Icen M, Crowson CS, McEvoy MT, Gabriel SE, Kremers HM. Incidence and clinical predictors of psoriatic arthritis in patients with psoriasis: a population-based study. *Arthritis Rheum* 2009; 61(2):233-9. Erratum in: *Arthritis Rheum* 2010; 62(4):574.
26. Gelfand JM, Berlin J, Van Voorhees A, Margolis DJ. Lymphoma rates are low but increased in patients with psoriasis: results from a population-based cohort study in the United Kingdom. *Arch Dermatol* 2003; 139(11):1425-9.
27. Russo PA, Ilchef R, Cooper AJ. Psychiatric morbidity in psoriasis: a review. *Australas J Dermatol* 2004; 45(3):155-9.
28. Qureshi AA, Choi HK, Setty AR, Curhan JC. Psoriasis and the risk of diabetes and hypertension: a prospective study of US female nurses. *Arch Dermatol* 2009; 145(4):379-82.
29. Prodanovich S, Kirsner RS, Kravetz JD, Ma F, Martinez L, Federman DG. Association of psoriasis with coronary artery, cerebrovascular, and peripheral vascular diseases and mortality. *Arch Dermatol* 2009; 145(6):700-3.
30. Russo PA, Ilchef R, Cooper AJ. Psychiatric morbidity in psoriasis: a review. *Australas J Dermatol* 2004; 45 (3):155-9.
31. Griffiths CE, Barker JN. Pathogenesis and clinical features of psoriasis. *Lancet*. 2007; 370:263–271.
32. Zanolli M.D., Camisa C., Feldman S., et al. (2000). Psoriasis: the high notes on current treatment. Program of the American Academy of Dermatology, Nashville, TN.
33. Brown A.C., Hairfield M., Richards D.G., McMillin D.L., Mein E.A., Nelson C.D. (2004). Medical nutrition therapy as a potential complementary treatment for psoriasis--five case reports. In *Altern Med Rev*, 9(3):297-307.
34. Kaufmann R., Bibby A.J., Bissonnette R. et al. (2002). A new calcipotriol/betamethasone dipropionate formulation (Daivobet) is an effective once-daily treatment for psoriasis vulgaris. *Dermatology*, 205:389-393.
35. Umezawa Y., Ozawa A., Kawasima T. et al. (2003). Therapeutic guidelines for the treatment of generalized pustular psoriasis (GPP) based on a proposed classification of disease severity. *Arch Dermatol Res*, 295(1):S43-54.

**HOW TO CITE:** Hrutuja A. Kedar\*, Trupti V. Kadam, Avinash B. Darekar, Review on Psoriasis and Its Management, *Int. J. Sci. R. Tech.*, 2026, 3 (5), 171-179. <https://doi.org/10.5281/zenodo.20035362>