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# A Review of Retrospective Study of Psoriasis Existing and Advances in Treatment

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## ABSTRACT

Psoriasis is a common skin condition that affects approximately 2-3% of the population. It is characterized by red patches with white scales and is caused by chronic inflammation and excessive skin cell growth. Psoriasis is a disease that can significantly impact various aspects of a person's professional and social life. Fortunately, several treatments are available to help control psoriasis such as methotrexate, cyclosporin, oral retinoids, and phototherapy. The existing treatments for psoriasis can only relieve the symptoms and improve the lives of individuals. However, recent advancements in our understanding of psoriasis have led to the discovering of new immunological factors and pathways. This has opened the possibility of developing new biological drugs targeting specific immunological elements responsible for causing psoriasis. Biological drugs are less toxic and more effective than traditional therapies, which should improve the quality of life of patients with psoriasis. This review discusses existing and advanced psoriasis treatments currently in clinical trials or on the market and used to treat moderate-to-severe plaque psoriasis.

**Keywords:** psoriasis, specific immunological elements, traditional therapies, plaque psoriasis.

## ARTICLE INFO

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## 1. Introduction

Psoriasis is a chronic autoimmune condition that leads to the formation of thick, scaly patches on the skin. While there is currently no cure for psoriasis, various treatments are available to help individuals manage and reduce the frequency and severity of flare-ups. Psoriasis occurs when the immune system triggers the overproduction of skin cells in the body, leading to the formation of plaques. In psoriasis, the skin cell growth process is disrupted, leading to the rapid growth of skin cells in just 3-4 days. Instead of falling off, these cells pile up on the skin, causing inflammation and the formation of red, scaly plaques. This can result in uncomfortable and itchy lesions on the skin surface, and in severe cases, may lead to painful lesions. It

is estimated that approximately 7.5 million adults in the United States have some form of psoriasis. The condition affects both males and females equally. While the two peak age ranges for psoriasis onset are 15-25 and 50-60 years old, it can occur at any age, including in childhood.

### Definition:

Psoriasis is a skin condition that is common and chronic. It is characterized by red scaly patches, papules, and plaques which typically occur on areas such as the elbows, knees, legs, palms, lower back, face, scalp, soles of feet, and nails. Psoriasis causes red, scaly patches on the skin due to chronic inflammation and excessive skin cell growth. The word psoriasis is derived from the Greek word "psora,"

which means "itching." The Greek physician Galen of Pergamon (130-200Bc) uses the term psoriasis vulgaris.

**Classification:**

**Psoriasis can be classified into several types, including:**

**1. Plaque psoriasis** - The most common form of psoriasis, characterized by red, raised patches covered with a silvery-white buildup of dead skin cells.

**2. Guttate psoriasis** - Is characterized by small drop-like lesions that develop on the trunk, limbs, and scalp.

**3. Inverse psoriasis** - Occurs in skin folds, such as the armpits, groin, and under the breasts, and is characterized by smooth, shiny red patches.

**4. Pustular psoriasis** - Characterized by white blisters filled with pus surrounded by red skin.

**5. Erythrodermic psoriasis** - a rare and severe form of psoriasis that can affect the entire body, characterized by intense redness, itching, and pain. Knowing the type of psoriasis is important for determining the most effective treatment plan for the individual.



Fig: 1 plaque psoriasis



Fig: 2 Guttate psoriasis



Fig:3 Nail psoriasis

**Causes:**

- Certain medications including – antimalarial drugs, high blood pressure drugs, and lithium.
- Stress
- Obesity
- Alcohol
- Skin trauma
- Immune disorder
- Infection by insect bites
- Vitamin D deficiency
- Smoking

**Signs & Symptoms**

- Red, raised, inflamed, patches of skin.
- Whitish silver scales appear on the skin.
- Painful, swollen joints.
- Thick, pitted nails.
- Itching and burning sensation around patches.
- Initially the first sign of psoriasis is often red spots on the body.
- Dry, swollen and inflamed patches.
- Cracked and bleeding point if the scales are scraped away.
- Pain, itching & burning sensation.

**2. Clinical manifestation**

- Initially the first sign of psoriasis is often red spots on the body.
- Dry, swollen and inflamed patches.
- Cracked and bleeding point, if the scales are scraped away.
- Pain, itching and burning.
- Patches of the skin is dry, swollen and inflamed covered with silvery flake.
- Yellow discoloration, pitting and thickening of the nails are noted if they are affected.
- Koebner phenomenon is developed at the site of injury such as scratch or sunburn.
- Auspitz's sign- pinpoint bleeding when the psoriatic scale is forcibly removed, this occurs because of severe thinning of the epidermis over the tips of the dermal papilla.
- Woronoff ring- is concentric blanching of the erythematous skin at or near the periphery of the healing psoriatic plaque.

**Diagnosis:**

- Physical examination / patient history.
- Visual changes- scaly, erythematous, plaques & painful itching
- Skin bioscopy, under local anaesthesia.
- There is no special blood test or diagnostic procedure
- Radiography test
- Blood tests like erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), and antinuclear antibody (ANA) these are tests are used to diagnose arthritis psoriasis

**Treatment:**

Psoriasis treatment aims to reduce inflammation and scaling and to prevent or minimize the recurrence of symptoms.

The treatment options for psoriasis depend on the severity of the condition and the location of the plaques. Mild psoriasis can be treated with topical creams and ointments, while moderate to severe psoriasis may require phototherapy or systemic medications.

#### Topical Treatments:

Topical treatments are creams, ointments, lotions, and shampoos that are applied directly to the skin or scalp. Topical treatments can help relieve itching and reduce inflammation. Some commonly used topical treatments include:

**Corticosteroids:** These anti-inflammatory medications can help reduce redness and scaling.

**Vitamin D analogues:** These topical creams can slow down the growth of skin cells, reducing scaling and inflammation.

**Retinoids:** These topical creams are derived from vitamin A and can help reduce inflammation and scaling.

**Salicylic acid:** This topical treatment can help remove scales and reduce itching.

#### 3. Phototherapy

- Phototherapy involves exposing the skin to ultraviolet (UV) light, which can help slow down the growth of skin cells and reduce inflammation. Phototherapy should be done under medical supervision to avoid overexposure to UV light, which can increase the risk of skin cancer. Some types of Phototherapies include:
- Narrowband UVB therapy: This treatment involves exposing the skin to UVB light, which can help reduce inflammation and scaling.
- PUVA therapy: This treatment involves taking a medication called psoralen, which makes the skin more sensitive to UVA light. The skin is then exposed to UVA light, which can help reduce inflammation and scaling.

#### Systemic Medications:

Systemic medications are medications that are taken orally or by injection and work throughout the body to reduce inflammation and scaling. These medications are usually reserved for people with moderate to severe psoriasis who have not responded to other treatments. Some commonly used systemic medications include:

- **Methotrexate:** This medication can help slow down the growth of skin cells and reduce inflammation.
- **Cyclosporine:** This medication suppresses the immune system and can help reduce inflammation.
- **Biologics:** These medications are derived from living cells and target specific proteins in the immune system that are involved in the development of psoriasis.

#### 4. Conclusion

Psoriasis is a chronic skin condition that affects millions of people worldwide. Despite many treatment options available for psoriasis, there is currently no cure, and the available therapies only relieve the symptoms. The choice of treatment is based on the type and severity of the disease, and patients who do not respond adequately to traditional topical treatments may need oral and systemic agents. However, the choice of treatment depends on the patient's

general health, age, comorbidities, form, and severity of the disease. Most drugs, especially the newer ones, require close monitoring for potential adverse effects. Biologic medicines approved by the FDA, such as adalimumab (Humira), certolizumab (Cimzia), etanercept (Enbrel), and infliximab (Remicade), are among the advanced drugs currently used to treat moderate-to-severe psoriasis.

#### 5. Bibliography

- [1] Acosta felquer ML, Rosa J, Soriano ER. Et.al. treating the skin with biologics in patients with psoriasis decreases the incidence of psoriatic arthritis. *Ann Rheum Dis.* 2022; 81(1): 74-9.
- [2] Armstrong Aw, Puig L, Joshi A. et.al. Comparison of biologics and oral treatments for plaque psoriasis: a meta-analysis. *JAMA Dermatol.* 2020, 156(3): 258-69.
- [3] Beien NK, Bjerke JR, Rossmann-ring Dahl I, et al. Once-daily treatment of psoriasis with tacalcitol compared with twice-daily treatment with calcipotriol. A double-blind trial. *Br J Dermatol* 1997, 137: 581-586.
- [4] Ben Abdallah H, Johansen C, Iversen L. Keys signalling pathways in psoriasis: recent insights from anti psoriatic therapeutics. *Psoriasis (AUEKI).* 2021; 11:83-97.
- [5] Brownell I, Strober BE. Folate with methotrexate: big benefit, questionable cost. *Br J Dermatol* 2007; 157:213.
- [6] Dogra S, Kaur I. Childhood psoriasis. *Indian J Dermatol Venereol Leprol* 2010; 76: 357-65.
- [7] Duvivier A, Munro DD, Berbov J. treatment of psoriasis with azathioprine. *Br Med J.*1974; 1:49-51.
- [8] Fantuzzi F, Del Giglio M, Gisoni P, Girolomoni G. Targeting tumour necrosis factor-alpha in psoriasis and psoriatic arthritis. *Expert Opin Ther Targets.* 2008, 12: 1085-96.
- [9] Garcet S, Hayden K, Novitskayal, et.al. Modulation of inflammatory gene transcripts in psoriasis vulgaris: differences between ustekinumab and etanercept. *J Allergy Clin Immunol.*2019;143(5):1965-9.
- [10] Ghoreschi K, Thomas P, Breit S, Dugas M, Mailhammer R, van Eden W et al. Interleukin-4 therapy of psoriasis induces Th2 responses and improves human autoimmune disease. *Nat Med* 2003; 9:40-6.
- [11] Henderson CA, Hight AS. Acute psoriasis associated with Lancefield group C and group G cutaneous streptococcal infections. *Br j Dermatol* 1988; 118:559-562.
- [12] Jenneck C, Novak N. The safety and efficacy of alefacept in the treatment of chronic plaque psoriasis. *Therapeutics and Clinical Risk Management* 2007; 3:411-20.
- [13] Kragballe K. Calcipotriol: a new drug for topical psoriasis treatment. *Pharmacol Toxicol.* 1995; 77: 241-6.
- [14] Krueger JG. The immunologic basis for the treatment of psoriasis with new biologic agents. *J Am Acad Dermatol* 2002; 46:1-23.

- [15] Nanda A, Kaur S, Kaur I. Childhood psoriasis: an epidemiologic survey of 112 patients. *Pediatr Dermatol*, 1990; 7:19-21.