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Review Article

Review on Psoriasis Disease

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ABSTRACT

Psoriasis is an autoimmune disease characterised by the proliferation of keratinocytes throughout time. On average, it affects 2-5 percent of the world's population. Psoriasis treatment remains difficult due to a variety of factors influencing treatment, including patient compliance and adherence to therapy, delicate patient profiles, psychological factors, and skin as a barrier to topical delivery. Pathophysiology, triggering factors, and clinical categorization were covered in the first section. Topical, oral, biological, parenteral therapy, phototherapy, and phytopharmaceuticals were all covered in the second section.

Keyword: Psoriasis, Phytopharmaceuticals, keratinocytes.

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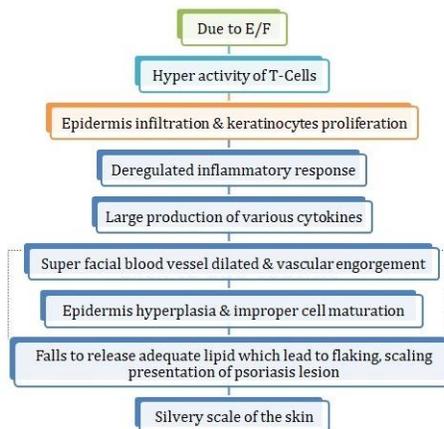
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INTRODUCTION

Psoriasis is a chronic inflammatory skin disease with autoimmune pathogenic characteristics and a strong hereditary susceptibility. The global incidence is estimated to be around 2%, however it varies by region². Asian and some African ethnicities have a lower incidence, while Caucasian and Scandinavian populations have a higher prevalence of up to 11%³⁻⁶. The severity of psoriasis ranges from small, localised spots to full-body covering. The Koebner phenomenon is when an injury to the skin causes psoriatic skin changes in that area. Psoriasis is a type of autoimmune disease in which both genetic and environmental factors have a role. The disease's name comes from the Greek word "s," which meaning "itch." Psoriasis is a non-contagious, dry, inflammatory, and unsightly skin illness that can affect a person's entire system. It is primarily hereditary and characterised by sharply defined scaly, erythematous plaques that form in a symmetrical pattern. The scalp, tips of fingers and toes, palms, soles, umbilicus, gluteus, under the breasts and genitals, elbows, knees, and shins are the most usually afflicted areas.⁷

Pathophysiology

The pathogenic events of psoriasis are assumed to begin with an initiation phase in which some event (skin trauma, infection, or medicines) activates the immune system, followed by a maintenance phase in which the illness chronically progresses^{8, 9}. In psoriasis, skin cells are changed every 3-5 days rather than the usual 28-30 days¹⁰. The early maturation of keratinocytes caused by an inflammatory cascade in the dermis involving dendritic cells, macrophages, and T cells is thought to be the cause of these alterations (three subtypes of white blood cells)^{11,12}. Interleukin-36, tumour necrosis factor-, interleukin-1, interleukin-6, and interleukin-22 are examples of inflammatory chemical signals (cytokines) secreted by immune cells that migrate from the dermis to the epidermis¹³. Keratinocytes are thought to multiply as a result of these released inflammatory signals. Psoriasis may be caused by a deficiency in regulatory T cells and the regulatory cytokine interleukin-10, according to one theory. Psoriatic nails and joints (in the case of psoriatic arthritis) include inflammatory cytokines that are comparable to those found in psoriatic skin lesions, implying a same inflammatory process.



Epidemiology

Psoriasis is a skin condition that affects people all over the world. About 2% of the population in the United States is impacted. In the Faroe Islands, high rates of psoriasis have been reported. Psoriasis is uncommon in Japan, and it may be nonexistent in aboriginal Australians and South American Indians. Psoriasis can affect people of any age. It has been determined that there is a bimodal age of onset. The average age of onset for the first manifestation of psoriasis is 15 to 20 years old, with a second peak occurring between the ages of 55 and 60¹⁴.

Causes of Psoriasis

- Although the exact origin of psoriasis is uncertain, there is evidence of abnormal arachidonic acid metabolism.
- Leucotrienes, which induce inflammation, are found in large amounts in psoriasis.
- Arachidonic acid is converted into leukotrienes in the body.
- Animal fat contains arachidonic acid. Which include an auto-immune disorder, stress, environmental factors, hormones, drugs, infections and sunlight.
- Psoriasis is known to be aggravated by a number of causes. Stress, excessive alcohol consumption, and smoking are examples of these.
- However, it is thought to have a hereditary component.
- Certain medications, such as lithium salt and beta blockers, have been linked to the onset or exacerbation of the condition.
- Keratinocyte maturation is disrupted and excessive proliferation is caused by activated T cells and cytokines.

Symptoms

- Itching affects more than 65 percent of patients.
- Patients may remark that their sickness worsens in the winter and improves in the summer.
- Skin on epidermal layer red areas exhibit blisters in various regions of the body.

Classification of Psoriasis

Psoriasis vulgaris (Plaque Psoriasis)

This is the most prevalent type of psoriasis. It affects 80-90 percent of psoriasis patients. Plaque psoriasis is characterised by inflammatory skin that is coated with

silvery white scaly skin. Plaques are the names for these locations¹⁵.



Figure 1: Plaque Psoriasis

Pustular Psoriasis

It manifests as elevated lumps packed with non-infectious pus (pustules). The skin beneath and around pustules is red and irritated. Pustular psoriasis can be localised, affecting primarily the hands and feet, or it can be widespread, affecting any area of the body.



Figure 2: Pustular psoriasis

Nail Psoriasis

Changes the appearance of finger and toe nails in a number of ways. Discoloration under the nail plate, pitting of the nails, thickening of the skin under the nail, and loosening (onycholysis) and crumbling of the nail are all examples of these alterations.



Figure 3: Nail Psoriasis

Guttate Psoriasis

Numerous little oval (teardrop-shaped) dots distinguish it. These psoriasis spots can be found all over the body, including the trunk, limbs, and scalp. Streptococcal throat infection is linked to guttate psoriasis.



Figure 4: Guttate Psoriasis

Table 1: Classification of Psoriasis

Type	Location	Characteristic Features
Plaque	Limbs, trunk, scalp	Well defined, raised, red plaques topped with silvery scales
Guttate	Limbs, trunk, scalp	Multiple, discrete, small red papules
Inverse	Skin folds- underarms, breasts, buttocks or groin	Smooth, dry, red inflamed areas that lack scales
Erythrodermic	Entire body	Widespread erythema followed by exfoliation
Generalized Pustular	Entire body	Pustules on erythematous skin
Localized pustular	Hands & feet	Pustules on reddened plaques

Differential Diagnosis of Psoriasis Includes

- Eczema
- Seborrhoeic
- Pityriasis rosea
- Mycosis fungoides
- Secondary syphilis

Complications

- Secondary infections
- Poor cosmesis
- Psoriatic arthritis
- Risk of lymphoma
- Increased risk of adverse cardiac events

Treatment of Psoriasis

Topical Treatment

Flexural Psoriasis (Inverse Psoriasis)

It appears as smooth, irritated skin patches. It can be found in skin folds such as the genitals (between the thigh and groin), armpits, under an overweight stomach (pannus), and under the breasts (inframammary fold). Friction and sweat worsen it, and it is susceptible to fungal infections.

Erythrodermic Psoriasis

Involves extensive skin inflammation and eczema throughout the majority of the body's surface. Severe itching, swelling, and discomfort may accompany it. It's usually caused by an aggravation of unstable plaque psoriasis, especially when systemic medication is abruptly stopped. Extreme inflammation and exfoliation affect the body's capacity to regulate temperature and the skin's ability to conduct barrier functions, making this type of psoriasis potentially lethal⁷.



Figure 5: Erythrodermic Psoriasis

Corticosteroids: They are frequently used as first-line therapy for mild to moderate psoriasis and in areas where other topical therapies can cause discomfort, such as the flexures and genitalia. Topical steroids under of resistant psoriasis of the scalp, hands, feet, and other places are usually improved within 2 to 4 weeks, and thereafter maintenance is done by using them exclusively on weekends where other topical therapies can cause discomfort. A maximum of 50 g of glucocorticoid ointment can be administered per week to avoid systemic effects⁷.

Vitamin D:

Calcipotriene is outperformed by powerful topical corticosteroids. Long-term treatment with calcipotriene has no effect on its efficacy. Calcipotriene is applied twice a day to the skin. Calcipotriene is inactivated by salicylic acid⁷.

Coal tar:

The dry distillation product of organic matter burned in the absence of oxygen is known as coal tar. Coal tar can be used to make lotions, ointments, shampoos, and pastes in percentages ranging from 5% to 20%. It is frequently coupled with salicylic acid (2-5%), which improves coal tar absorption through its keratolytic activity. Allergic responses, folliculitis, an unpleasant odour and appearance, and the ability to stain clothing and other goods are all disadvantages. Coal tar is a cancer-causing substance⁷.

Anthralin (Dithranol):

It comes from the Araroba tree, which can be found in South America. It causes the generation of reactive oxygen

species, which inhibits hyperproliferating keratinocytes and leucocyte transformation. It is applied to the scalp in increasing concentrations (0.1 percent to 3 percent). It can be used as an in-patient treatment, as well as out-patient short-contact therapy. Hair discoloration and skin irritation are two side effects¹⁶. Few studies have indicated that combining topical treatments or phototherapy with anthralin improves responsiveness¹⁷.

Systemic treatment (oral or injected medication)

Retinoids:

Oral retinoids are mostly used as a maintenance therapy in chronic plaque psoriasis, with a focus on pustular psoriasis. They can also be used in erythrodermic psoriasis, albeit they appear to be less effective. It is thought to regulate DNA activity in skin cells and reduce inflammation. The recommended daily dose is 10–50 mg, which can be taken all at once or in divided doses. Skin irritation, increased sensitivity to sunlight, xerosis, pruritus, cheilitis, alopecia, xerostomia, dyslipidaemia, altered liver enzymes, and teratogenicity are all potential side effects of retinoids. A low-dose regimen of up to 25 mg per day is also available to reduce mucocutaneous adverse effects^{18,19}.

Methotrexate:

This is an immunosuppressive antimetabolite that is one of the most effective and affordable treatments for psoriasis. Methotrexate is a dihydrofolate reductase inhibitor, and folic acid is added to reduce the drug's toxicity. It is normally administered once a week as a single oral dose. Myelosuppression, mucositis, hepatotoxicity, pulmonary toxicity, nephrotoxicity, neurotoxicity, gastrointestinal disturbance, nausea, oligospermia, and teratogenicity are some of the possible side effects^{20,21}. Long-term treatment can result in hepatotoxicity, which can lead to liver fibrosis²².

Cyclosporine:

For moderate-to-severe psoriasis, it is a very effective oral treatment option. It binds to cyclophilin, inhibits calcineurin, and hence causes immunosuppression by inhibiting T-cell activation further down the line. It suppresses nuclear factor of activated T-cells (NFAT) activation and, as a result, T-cell gene transcription of IL-2²³. Nephrotoxicity, hepatotoxicity, hypertension, diabetes mellitus, neurotoxicity, hirsutism, increased infection risk, and a rise in nonmelanoma skin malignancies are all possible side effects of long-term use²⁴.

Fumaric Acid Esters (FAE):

The first report of oral FAE therapy for psoriasis was published in 1959. The main active ingredients in Fumaderm® appear to be dimethylfumarate and its metabolite monomethylfumarate. In individuals with psoriasis, treatment with dimethylfumarate and/or monomethylfumarate causes a favourable shift towards Th2-like cytokine secretion, as well as a reduction in peripheral lymphocytes (mainly T cells)²⁵ and inhibits epidermal keratinocyte growth. During FAE treatment, haematological abnormalities such as leucopenia, lymphopenia, and eosinophilia are common²⁶.

Phototherapy

Phototherapy includes exposing the skin to UV rays, which can help to reduce the appearance of plaques on the skin as well as the itching that comes with them. The therapeutically active range is from 290 nm to 400 nm, whereas the radiations span from 100 nm to 400 nm. Light treatment, on the other hand, does not cure the condition; rather, it aids in the management of its symptoms. It works by producing cutaneous immunosuppression, inhibiting excessive cell proliferation, and changing cytokine expression [27]. Various people have different reactions to phototherapy. The therapy takes a significant time commitment, with three to five therapy sessions per week and a total treatment time of two to three months. Phototherapy patients are at risk of developing skin cancer. UV-A, UV-B, and UVA1 phototherapy are all options for treatment. UV-A has longer wavelengths and has the ability to penetrate deep into the epidermal layers. The UV-A treatment is usually given in conjunction with psoralen, which increases the skin's sensitivity to UVA. Because UV-B has short wavelengths, it does not penetrate deeper into the skin.

Sunlight:

In Egypt, Greece, and Rome, sunshine (heliotherapy) was utilised to cure a range of skin problems thousands of years ago²⁸. Ultraviolet (UV) light has a wavelength that is too short to be seen by the human eye.

UVB phototherapy:

Mild to moderate psoriasis symptoms may be improved with controlled doses of UVB light from an artificial light source. UVB phototherapy, also known as broadband UVB, is a type of phototherapy that can be used to treat isolated patches, extensive psoriasis, and psoriasis that is resistant to topical treatments.

1. **Narrowband UVB therapy:** Narrowband UVB therapy is a newer type of psoriasis treatment that may be more effective than broadband UVB therapy. It's normally given two or three times a week until the skin improves, after which maintenance sessions may only be needed once a week.
2. **Goeckerman Therapy:** The Goeckerman treatment is a combination of UVB radiation and coal tar treatment. Because coal tar makes skin more susceptible to UVB rays, the two therapies are more successful when used combined than when used alone.
3. **Photochemotherapy:** Before being exposed to UVA light, patients are given a light-sensitizing drug (psoralen). UVA radiation penetrates the skin deeper than UVB light, and psoralen increases the skin's sensitivity to UVA exposure.
4. **Excimer laser:** This type of light treatment is used to treat only the affected skin in mild to moderate psoriasis. To control scaling and inflammation, a regulated beam of UVB light of a certain wavelength is focused to the psoriasis plaques. The healthy skin around the spots is unaffected.
5. **Pulsed dye laser:** The pulsed dye laser, like the excimer laser, uses a different type of light to damage the microscopic blood vessels that contribute to the formation of psoriasis plaques.

Biological Therapy and Parenteral Therapy

To achieve a systemic effect, small biologics are also given parenterally. Glycoproteins derived from live creatures are known as biologics. These have the ability to engage with certain immune system targets. Monoclonal antibodies,

cytokines, antisense oligonucleotides, fusion proteins, and RNA are examples of biologics. Biologics for the treatment of psoriasis are divided into several groups, which are listed in **Table 2**.

Table 2: Various biological medications for psoriasis treatment

Class	Drug	Description
TNF-inhibitors	α Etanercept	It is used to treat adults with plaque psoriasis and children with persistent plaque psoriasis. It should not be used if you have heart failure.
TNF inhibitors	α Adalimumab	It's a monoclonal antibody, which means it only recognises one type of antigen. It works by attaching to host ligands and preventing TNF receptor interaction, which is used to treat plaque psoriasis, psoriatic arthritis, and nail psoriasis.
TNF inhibitors	α Infliximab	Psoriatic arthritis and chronic plaque psoriasis are both treated with this monoclonal antibody. It has been linked to an increased risk of infection and cancer.
TNF inhibitors	α Certolizumabpegol	It's a PEGylated TNF-antibody that's used to treat plaque psoriasis and psoriatic arthritis in people with moderate to severe plaque psoriasis and psoriatic arthritis.
IL-12/IL-23 inhibitors	Ustekinumab	It inhibits IL-23 and IL-12, which are used to treat psoriatic arthritis and plaque psoriasis, respectively. It is dosed based on weight.
IL-17 Inhibitors	Secukinumab	It's a monoclonal IgG antibody. Psoriatic arthritis and severe scalp psoriasis are the most common conditions for which it is prescribed. Inflammatory bowel disease patients should avoid this medication.
IL-17 Inhibitors	Ixekizumab	It is used to treat plaque psoriasis and psoriatic arthritis by blocking the interaction of cytokines with their target receptors.
IL-17 Inhibitors	Brodalumab	It's used to treat plaque psoriasis. It's frequently linked to suicide ideation.
Selective IL-23 Inhibitors	Guselkumab	The binding of the IL-23 p19 subunit is involved in its mode of action. It's especially useful for treating psoriasis in adults.

Marketed Formulations

Table 3 summarises the details of several market goods used in the treatment of psoriasis, including the active drug, manufacturer, and related risk of the dosage form.

Table 3: Marketed formulations for psoriasis treatment

Brand Name	Drug	Manufacturer	Associated Risk
Otezla	Apremilast	Celgene corporation	Diarrhea, Nausea, Vomiting, Upper respiratory tract infections, and weight loss
Dovonex	Calcipotriene	Leo Pharma inc.	Toxicity, hypercalcemia and local irritation
Tazorac	Tazarotene	Allergan Pharmaceutical	Burning and Irritation
Soriatane	Acitretin	GlaxoSmithKline	It can cause liver damage, vision changes, and rashes
Rheumatrex	Methotrexate	Dava Pharmaceuticals, Inc.	Dry cough, urination less than usual, white patches in the oral cavity, blood in stools, fever, and diarrhoea
Humira	Adalimumab	Abbott	Nervous system problems, allergic infections, heart failure, immune reactions, and liver problems
Enbrel	Etanercept	Pfizer	Decreases in functioning of the immune system can lead to serious infections
Remicade	Infliximab	Janssen Biotech, Inc.	Chills, chest and stomach ache, fatigue, shortness of breath, dizziness and respiratory problems
Stelara	Ustekinumab	Janssen Biotech, Inc.	Sneezing, headache, sore throat, injection site reactions and diarrhoea
Cosentyx	Secukinumab	Novartis	Upper respiratory tract infections, runny nose, hives, athlete's foot, impetigo, inflammatory bowel disease, neutropenia, and eye infections
Taltz	Ixekizumab	Eli Lilly and Company	Fungal infections, upper respiratory tract infections, nausea, and redness

Herbal Treatment for Psoriasis

Andira araroba: The powder is mixed with vinegar or lemon juice to produce a thin, pasty material, or is well incorporated with glycerine or starch paste, and then applied once or twice a day to the eruption for 5 to 8 days in a row, during which time the cure is generally achieved. Its application causes a temporary unpleasant sensation in

the affected area, the eruption takes on a pale look, and the surrounding tegument takes on the appearance of a dark stain; as the cure develops, the skin returns to its original colour. It can be administered internally in the form of pills prepared by combining it with medical soap. Externally, it can be applied with a little brush as described above, or a tincture of the powder can be painted on the affected areas.

It can also be used as an ointment, consisting of 15 to 60 grains of powder, 15 to 30 drops of acetic acid, and an ounce of benzoinated lard properly mixed together.

Olive Oil: Olive oil has a reputation for being an excellent treatment for plaque psoriasis in mild symptoms. It can be massaged directly into the affected regions of the skin (including the scalp) to reduce dryness and irritation while also aiding in the healing process. Olive oil can be used in a variety of ways, including massaging small amounts on the skin (elbows and knees, for example), adding it to bathwater, and/or keeping it on the scalp overnight. Over 4,000 years ago, Ancient Egyptians utilised olive oil as a skin treatment. Keeping one's skin clean and moisturised is a fantastic method to boost the body's natural psoriasis resistance. Olive oil is both cleansing and hydrating, and it is widely used in skin care. Olive oil is said to have antioxidant capabilities (vitamin E), which could help with psoriasis eruptions because free radicals have been related to outbreaks.

Milk Thistle: Alternative medicine practitioners advocate (*Silybum marianum*), also known as silymarin, to promote bile production in the liver and control the immune system. The herb cleanses the blood and protects the liver, making it a potent psoriasis treatment. Milk thistle, according to the Dermatology Online Journal, provides several skin advantages, including the treatment of psoriasis.

Coleus: (*Coleus Forskohlii*) (*Coleus Forskohlii*) (*Coleus Forskohl*) The Ayurvedic herb coleus has long been utilised as one of many natural psoriasis treatments. Coleus, according to Lita Lee, PhD, a noted scientist and enzyme nutritionist, is useful in treating skin illnesses like psoriasis because it promotes proper cell development. Herbalists use it to cure a variety of ailments, including psoriasis, eczema, and even cancer.

Cayenne: Many specialists believe that cayenne (*Capsicum annuum*) is a good natural psoriasis treatment. Capsaicin, found in the herb, decreases the pain and itching associated with psoriasis by depleting neurotransmitters in the sensory nerves. Topically applied capsaicin efficiently cures pruritic psoriasis, according to a double-blind research published in the Journal of the American Academy of Dermatology in 1993.

Aloe Vera: The topical application of aloe Vera is a safe and natural psoriasis therapy, according to a double-blind study published in Tropical Medicine & International Health in 1996. Patients in the study saw a significant reduction in lesions, and after four weeks of treatment, many were pronounced "healed" by researchers. The aloe cream helped 25 of the 30 patients, while the placebo only helped 2 of the 30 patients. There were no documented side effects.

Ulmus rubra: It's known as Slippery Elm because of the mucilage component that comes from the elm's inner bark. Native Americans utilised this extract as a treatment for boils and wounds in the past. Irritable bowel syndrome, reflux, and cystitis are among the conditions for which it is currently prescribed. Someone looked at a study group of

five individuals with persistent plaque-type psoriasis who were put on a six-month home-based medical nutritional therapy regimen. They measured psoriasis symptoms and intestinal permeability over the course of the study and found that all of the indicators were improved. The averaged post-test results for psoriasis area and severity index revealed considerable improvement.

Curcuma longa/ Curcuma domestica: Turmeric has been used to treat infections and kidney stones for centuries. Its usage in the treatment of psoriasis is a relatively novel addition. Curcuminoids and volatile oils are thought to include anti-inflammatory components that work by inhibiting phosphorylasekinase selectively (PhK). The epidermis contains the enzyme PhK. The presence of significantly greater levels has been linked to psoriasis clinical activity. Reduced PhK activity in the curcumin and calcipotriol-treated groups was also linked to parakeratosis severity, keratinocyte transferrin receptor expression, and epidermal CD8 + T cell density. Although contact dermatitis is a recognised side effect, no adverse effects were reported in the study.

Mahonia aquifolium: It is a widely used herb in the treatment of skin problems, particularly psoriatic plaques. The effect of Mahonia aquifolium bark extract and its principal components (berberine, berbamine, oxyacanthine) on 5-lipoxygenase and lipid peroxidation. Discovery shows that an extract of Mahonia aquifolium bark is a keratinocyte development inhibitor. Berbamine and oxyacanthine, both benzylisoquinolinealkaloids, were more powerful.

Ayurveda Treatment

All skin ailments are included under the wide title of Kushtha Roga in Ayurveda. Eka kushtha is one of the disorders included under the Kshudra Kushtha category (minor skin ailments). Even it is not a minor type in terms of severity, occurrence or prognosis. The symptoms of Eka kushtha, as described in Ayurveda, are similar to those of Psoriasis. Remission, recurrence, and seasonal variation are all symptoms of psoriasis, according to Acharya Kashyap's description of Eka kushtha.

Prodromal features of Psoriasis (Purvarupa of Eka kushtha)²⁹

- Reduced perspiration (Aswedan)
- Increased perspiration (Atiswedan)
- Discolouration of the skin (Twak vaivarnya)
- Itching (Kandu)
- Pricking sensation (Nistoda)
- Numbness (Suptata)
- Horripilation (Lomaharsha)
- Fatigue (Klama) etc.

Clinical features of Psoriasis [Rupa of Eka kushtha]³⁰

- Reduced sweating (Asweda)
- Extended skin lesions (Mahavastu)
- Scaling of skin similar to the scales of the fish (Matsya shakalopama)
- Pink discolouration (Aruna varna)
- Blackening of the part (Krishna varna) etc.

Psoriasis Treatment in Ayurveda & Panchkarma is conducted through the cleansing of the body or the removal of harmful material from the body fluids, both of which are accomplished through "Panchakarma" drugs. Psoriasis is caused mostly by a vitiated pitta in the body. Because the liver is the seat of Pitta in Ayurveda and the body's detoxification organ, the patient is advised to take some beneficial herbs for liver care and detoxification.

Steps for psoriasis treatment in Ayurveda

- **Step 1:** To begin with, blood purifiers are given to patients in order to lower the amount of pollutants in their bodies. In traditional medicine, Neem Capsules, as well as a few herbal powders and Rishthas, are well-known for this.
- **Step 2:** Second, the focus shifts to liver health. Detoxification of the liver is accomplished through numerous therapies such as Vamana / Virechana, which enhances the body's immunity.
- **Step 3:** Wrong anti-biotics and anti-histamines are avoided by using herbal natural remedies, which have fewer adverse effects on different sections of our bodies. Gandak Rasayan, Panchtik Ghrith Guggul, Chander Prabha Vati, and other efficient herbal medicines from Deep Ayurveda accomplish the same function as anti-biotics and anti-histamines without the side effects, such as Gandak Rasayan, Panchtik Ghrith Guggul, and Chander Prabha Vati.
- **Step 4:** At our clinic, we have developed a variety of herbal medicated oils and formulations for traditional ayurveda treatment, with practically all of the benefits such as anti-allergic, anti-fungal, antibacterial, and antibiotics.
- **Step 5:** Immune boosters and modulator herbs like Amla, Ashwagandha, Shatavari, Brahmi, and others help to rejuvenate cells. The drug provided at Deep Ayurveda for this purpose is Ayurvit Multivitamin Herbal pills.
- **Step 6:** Finally, Ayurveda promotes correct nervous system regeneration, relaxation, and toning with numerous neurotonic herbs such as Brahmi, Shankhpushpi, Jatamansi, Tagar, and others. Nervocare Herbal capsules, Brahmi Vati, Brahmi ghrith, Ashwagandha churan, and other potent herbal remedies are highly beneficial for this reason.

Panchkarma treatment for psoriasis

Panchkarma treatment for psoriasis Ayurveda also offers a unique treatment plan made up of many Panchkarma treatment components that include entirely herbal internal and external medications with the purpose of improving Psoriasis control. A rough outline of the full Panchkarma treatment is as follows:

1. For 7 to 10 days, consume medicated ghee, taking into account the Dosha type of the Psoriasis and the individual.
2. Vaman and Virechan are performed by causing vomiting (Vamana) and purgation (Virechan) (Virechana)
3. Shirodhara is a type of Indian massage. Following the aforesaid detoxifying, medicated oil or buttermilk is

dripped overhead (Shirodhara) and a paste of medicines and mud is applied to the entire body.

4. Internal therapies such as herbal formulations, herbal mixtures, and medicated ghee must be eaten for at least 120 to 180 days.

During the entire treatment period, a rigorous diet must be followed, with a vegetarian diet being preferred. Non-vegetarian, alcoholic, and salty foods must be avoided. It's also a good idea to stay away from junk food. Psoriasis sufferers must maintain mental serenity.

There are very effective Panchkarma therapy methods and herbal formulations for Psoriasis condition at Deep Ayurveda. The length of treatment varies from person to person, based on the patient's age, body disposition, disease state (such as ageing and kind), dietary habits, and lifestyle, among other factors. Hundreds of Psoriasis sufferers have been successfully treated (Psoriasis Treatment in Ayurveda & Panchkarma) with excellent results³¹.

Action of drug & other procedure in management of psoriasis³²⁻⁴⁰

- Manjista: Varnya, Shothhar, Kushtaghana, Raktaprasadan, rasayana, Sonithsthan,
- Daruharidra: which includes Kandughana, Pittaghana, Dipan, Yakruttejak, and Vrana.
- Pittaghana, kledaghna, Rasayana, Agnidiapn, and Aampachan.
- Hingwashtak: Agnivaradhana, Aampahachartha
- Vatavaha nadi shamak, Kaphgna: Trikatu
- Pachak vat: Pacchana, especially Amadosa nasaka and Agni vardhaka
- Grahinishodhak, Diapan, Pachan, Pakwashyadushti nashk: Aarogyavardhini vati.
- Psoriasis is an autoimmune disease, according to Suwarnamakardhwaja. This kalpa contains gold, which boosts the patient's immunity and prevents recurrence.
- Raktashodhak, Kandughana, rasayana Maha gandahk rasayana
- Vata shaman, kandughna, Snehana with karanja tail and nimbi tail: Scaling and dryness are reduced.
- Avagahana pashyat is a type of avagahana pashyat. Somya nadi sweda: We use triphala, khadir, nimba kwatha, which is kandughna, tridoshghna, vranya, and raktashodhaka, in avagahana. This method causes sweat to be produced on the skin by opening the pores of the skin due to increased nadi sweda agni and the mobilisation of fatty tissue. While excreting waste as Ama (toxin) through the skin, it also aids in the liquefaction of exacerbated doshas by dilating all bodily channels and allowing them to be cleaned.
- Basti: Vatanulomana, Malavibandhanashk, Grahaidoshnashaka (triphala, til tail, sendhawa)
- Takra Dhara: This is beneficial for lowering plasma cortisol, a stress hormone.
- Virechana: Although psoriasis (kitibha kushta) is vata-kaphaj, all kushta are tridoshghna, therefore there is pitta dushti with rakta dhatu, so virechana panchakram's role as shodhana is critical.

Virechana has a nashak characteristic that suppresses vata and kapha dosa.

- Siravedhana: This panchakarma is for rakta dhatu shodhanartha.

In Research many Ayurvedic herbs and formulations are evaluated.

- Navāyasa rasayana lēha and Dhātryādhyo lēpa;
- Kaiṣōra guggulu and Laghu mañjiṣṭhādi kvāth;
- Kāñcanār guggulu, Arōgyavardhini vaṭi and Kajali Kōdaya malhar (ext);
- Ssaptasamo yōga and Dārvyādi yamak malahara;
- Pathyādyā vaṭak and Viḍaṅgādi lēpa;
- Leech therapy and pañcatiktagrṛ ta internal medication;
- Seed of Wrightia antidysenterica linn as a therapeutic emetic agent (vamaka yoga);
- Decoction of Dāruharidra (Berberis aristata DC.);
- Guḍūci (Tinospora cordifolia (Willd.) Miers);
- Aloe vera gel;
- 777 oil,
- Ārōgyavardhinivaṭi, Kaiṣōra Guggulu And Cakramardakēra Taila as combination;
- Kaiṣōra Guggulu And Viśvāmītra Kapāla Taila;
- Kiratatiktādi Yōga;
- Takradhāra;
- Māñibhadra Vaṭaka;
- Nimbīdin;
- Śasānkālēkhayōga;
- Āragvadhā Satapaka grṛ ta,
- Amṛ t bhallātak avalēha & Karañjādi Lēpa,
- Dinēśavalyāditaila and Ārōgyavardhinivaṭi and vajraka grṛ ta etc . are tried clinically and majority of these combinations and single drugs are found effective.

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