



Review Article

Psoriasis- its Presentation and Modalities of Management

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Abstract

Psoriasis is common (with 2% prevalence) chronic inflammatory papulosquamous disorder of the skin and nails with or without the joint involvement. The exact cause is still ilusive but the disorder has distinct genetic predisposition with some environmental factors triggering the clinical expression and the immunological aberration playing a pathogenic role. Psoriasis is not contagious but can be inherited. Psoriasis needs long term treatment. The different modalities of management are self care at home, medical treatment, phototherapy using UV-B in the Goeckermanregimen and Ingram method and PUV-A therapy may be given according to the types of psoriasis and facilities available.

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Introduction

Research indicates that the disease may result from a disorder in the immune system.[7] The immune system makes white blood cells that protect the body from infection. In psoriasis, the T cells (a type of white blood cell) abnormally trigger inflammation in the skin. These T cells also cause skin cells to grow faster than normal and to pile up in raised patches on the outer surface of the skin.^{1,2,3} Those with a family history of psoriasis have an increased chance of having the disease. Some people carry genes that make them more likely to develop psoriasis. When both parents have psoriasis, the child may have a 50% chance of developing psoriasis. About one third of those with psoriasis have at least one family member with the disease⁶. Injury to the skin has been associated with plaque psoriasis. For example, a skin infection, skin inflammation, or even excessive scratching can trigger psoriasis. Most people generally consider sunlight to be beneficial

for their psoriasis. However, a small minority find that strong sunlight aggravates their symptoms.

A bad sunburn may worsen psoriasis. Some evidence suggests that streptococcal infections may cause a type of plaque psoriasis. These bacterial infections have been shown to cause guttate psoriasis, a type of psoriasis that looks like small red drops on the skin¹⁴.

Psoriasis typically worsens after an individual has been infected with HIV. However, psoriasis often becomes less active in advanced HIV infection. A number of medications have been shown to aggravate psoriasis. Some examples are as follows: Lithium, beta-blockers, antimalarials, NSAIDs. Many people see an increase in their psoriasis when emotional stress is increased. Cigarette smokers have an increased risk of chronic plaque psoriasis. Alcohol is considered a risk factor for psoriasis, particularly in young to middle-aged males. The severity of psoriasis may

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fluctuate with hormonal changes. Disease frequency peaks during puberty and menopause^{1,2,3}.

An individual with plaque psoriasis usually has patches of red, raised, scaly areas on the skin that may itch or burn. The patches are usually found on the knees, elbows, trunk, or scalp. Approximately, 9 out of 10 people with psoriasis have plaque psoriasis. The flare-ups can last for weeks or months. The psoriasis goes away for a time and then returns (chronic). The plaque areas on the skin are elevated. The plaque areas vary in size (1 to several centimeters) and may range from a few to many at any given time on the skin. The shape of the plaque is usually oval but can be irregular in shape. Smaller plaque areas may merge with other areas and form a large affected area. The skin in these areas, especially when over joints or on the palms or feet, can split and bleed. The color of the affected skin is very distinctive. The rich, full red color is salmon colored. Sometimes the skin can have a blue tint when the psoriasis is on the legs. The scales are dry, thin, and silvery-white. The thickness of the scales may vary. When the scale is removed, the skin underneath looks smooth, red, and glossy. This shiny skin usually has small areas that bleed (Auspitz sign). Psoriatic plaques tend to appear on both sides of the body in the same places. For example, the psoriasis is usually on both knees or both elbows at the same time. The scalp can have dry, scaly skin or crusted plaque areas. Sometimes psoriasis of the scalp is confused with seborrheic dermatitis. In seborrheic psoriasis, the scales are greasy looking, not dry. Nail changes are commonly observed in those with plaque psoriasis. The nails may have small indentations, ridges, or pits in them. The nails can be discolored or separate from the nail bed. Sometimes, the skin is red and looks like it has little drops on it. This may be guttate psoriasis. Sometimes, the patches of dry, scaly skin can crack and have pus on top of them. This may be pustular psoriasis. Although the most common body areas affected are the arms, leg, back, and scalp, psoriasis can be found on any body part.

Psoriasis can be found on the genitals or buttocks, under the breasts, or under the arms. These areas can feel especially itchy or burning^{1,2,3}.

Diagnosis

Psoriasis is typically diagnosed after the doctor does a physical exam. The doctor generally can tell if it is psoriasis just by observing the patches on the skin. The typical appearance of psoriasis is noted in Symptoms^{1,2,3}. Skin biopsies can confirm the diagnosis of plaque psoriasis. However, they are usually used to evaluate unusual cases or to rule out other conditions when the diagnosis is not certain.

Treatment

Self-Care at Home

Exposure to sunlight helps many people with psoriasis. Keeping the skin soft and moist is helpful. Apply heavy moisturizers after bathing. Do not use irritating cosmetics or soaps. Avoid scratching or itching that can cause bleeding or excessive irritation. Soaking in bath water with oil added and using moisturizers may help. Bath soaks with coal tar or other agents that remove scales and reduce the plaque may also help. Steroid creams can reduce the itching of mild psoriasis. Some people use an ultraviolet B unit at home under a doctor's supervision. A dermatologist may prescribe the unit and instruct the patient on home use, especially if it is difficult for the patient to get to the doctor's office for phototherapy treatment^{10, 11, 12}.

Medical Treatment

Many treatments exist for psoriasis. There are 3 basic types of treatments for psoriasis:

(1) Topical agents: Medications applied directly to the skin are the first course of treatment options. The main topical treatments are corticosteroids, tacrolimus, vitamin D-3 derivatives, coal tar, anthralin, or retinoids. There isn't one topical drug that is best for all people with psoriasis. Because each drug has specific adverse effects, it is common to rotate them. Sometimes drugs are combined with other drugs to make a preparation that is more helpful than an individual topical medication. For example, keratolytics (substances

used to break down scales or excess skin cells) are often added to these preparations. Some drugs are incompatible with the active ingredients of these preparations. For example, salicylic acid inactivates calcipotriene (form of vitamin D-3). On the other hand, drugs such as anthralin (tree bark extract) require addition of salicylic acid to work effectively.

(2) Phototherapy (light therapy): The ultraviolet (UV) light from the sun slows the production of skin cells and reduces inflammation. Sunlight helps reduce psoriasis symptoms in some people. If psoriasis is widespread, as defined by more patches than can easily be counted, then artificial light therapy may be used. Resistance to topical treatment is another indication for light therapy. Proper facilities are required for the two main forms of light therapy.

UV-B: Ultraviolet B (UV-B) light is used to treat psoriasis. UV-B is light with wavelengths of 290-320 nanometers (nm). (The visible light range is 400-700 nm.) UV-B therapy is usually combined with one or more topical treatments. UV-B phototherapy is extremely effective for treating moderate-to-severe plaque psoriasis. The major drawbacks of this therapy are the time commitment required for treatments and the accessibility of UV-B equipment. The Goeckerman regimen uses coal tar followed by UV-B exposure and has been shown to cause remission in more than 80% of patients. Patients may complain of the strong odor when coal tar is added. In the Ingram method, the drug anthralin is applied to the skin after a tar bath and UV-B treatment. UV-B therapy is usually combined with the topical application of corticosteroids, calcipotriene (Daivonex), tazarotene (Tazoskin), or creams or ointments that soothe and soften the skin^{9,13,15}.

PUVA: is the therapy that combines a psoralen drug with ultraviolet A (UV-A) light therapy. Psoralen drugs make the skin more sensitive to light and the sun. Methoxsalen is a psoralen that is taken by mouth several hours before UV-A light therapy. UV-A is light with wavelengths of 320-400 nm. More than 85% of patients report

relief of disease symptoms with 20-30 treatments. Therapy is usually given 2-3 times per week on an outpatient basis, with maintenance treatments every 2-4 weeks until remission. Adverse effects of PUVA therapy include nausea, itching, and burning. Long-term complications include increased risks of sensitivity to the sun, sunburn, skin cancer, and cataracts^{9,10}.

(3) Systemic agents: These drugs are generally started only after both topical treatment and phototherapy have failed. For generalized pustular psoriasis, systemic agents such as retinoids may be required from the beginning of treatment⁴. This may be followed by PUVA treatment. For milder and chronic forms of pustular psoriasis, topical treatment or light treatment may be tried first. Systemic agents may be considered for very active psoriatic arthritis. People whose disease is disabling because of physical, psychological, social, or economic reasons may also be considered for systemic treatment^{12,13,14}.

Advice to the patient : (a) Avoid manual or instrumental removal of scales. (b) Avoid irritant applications-like any types of irritants and plant juice.

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