Psoriasis

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What is Psoriasis?

Psoriasis is a common disorder affecting between 1% and 2% of the population. Psoriasis can appear at any age and runs a very unpredictable course. In most patients, the disorder is confined to the skin where it develops as small to large, thickened plaques covered with a fine silvery scale.

Plaques of psoriasis result from an abnormality of the epidermis which is the most superficial layer on the surface of the skin. In psoriasis, the cells of the epidermis multiply at an abnormally rapid rate so in effect, too much skin is being produced and it becomes thickened and scaly. It is now known that an abnormal immune response causes the skin to react in this way and psoriasis is now considered to be an auto-immune disease.

Genetic Factors

- About 70% of patients with psoriasis have a near or distant relative with the disorder. However, the inheritance is somewhat indirect and a child of a patient with psoriasis has only about a 10% risk of developing the disorder at any time in his or her lifetime.

Infections

- A viral or bacterial infection of the throat can trigger psoriasis but such infections do not tend to make established psoriasis worse.

Psychological Factors

- Psoriasis may appear for the first time during a period of stress but more importantly, emotional stress frequently exacerbates psoriasis in a person who already has the disorder.

Trauma

- Abrasion of the skin and blunt trauma can provoke new areas of psoriasis in a person with the disorder. Scratching of the skin has a similar effect. Localization of psoriasis to the knees and elbows is probably due to the repeated knocks received by these parts of our anatomy.

Pregnancy

- Psoriasis frequently goes into remission during pregnancy but also it often appears for the first time after delivery.

Finally, we can say that several factors are not important in causing psoriasis. Psoriasis is not an infectious disease and it is not caused by any known bacteria or virus. Diet has no proven influence on psoriasis. Psoriasis is not caused by a vitamin deficiency.

Psoriasis and Arthritis

Approximately 12% of patients with psoriasis have a form of arthritis which is unique to this disease and differs from other types of arthritis. The arthritis can precede, accompany or follow appearance of the skin rash, and it predominantly affects the small joints of the fingers and the pelvic joints. Most patients are only mildly affected.

Treatment of Psoriasis

There are many treatments for psoriasis and that is always a certain indication that no one treatment is perfect. The amount of treatment, the intensity of treatment, and the type of treatment must be tailored to the individual patient. Psoriasis is a chronic disease and unfortunately, while there are many therapies, there is not a cure. The most commonly employed treatments are:

Topical Therapy

Various lotions, creams and ointments are used to control mild to moderate cases of psoriasis. The advantage of this approach is convenience since it can be done at home, and usually does not involve too much time or effort. The disadvantage of topical therapy is that although it produces improvement in psoriasis, it does not clear the condition. Therefore, topicals are mainly used for patients with only a few patches of psoriasis or as a supplement to some other more effective treatment.

- Corticosteroid Creams

Hydrocortisone and more potent derivatives as creams, ointments and lotions are effective in improving psoriasis. These preparations are safe and useful in patients with only small areas involved but unfortunately, when used on large areas they are less effective and prone to give rise to adverse effects. The principal harmful effects are flare/rebound of psoriasis once they are stopped; atrophy or thinning of the skin (stretch marks); suppression of the normal function of the adrenal glands; and skin fragility and/or skin discoloration.

Steroids have also been given as injections and oral medications in the treatment of psoriasis. Although this treatment is initially very effective, psoriasis can become resistant and adverse effects, particularly flare/rebound of disease can occur. In addition, long term use of systemic steroids carries significant health risk including high blood pressure, high blood sugar, thinning of the bones and cataracts.

- Non-Steroid Anti-Inflammatory Creams

In recent years, several new non-steroid anti-inflammatory creams have ben approved for psoriasis including VTAMA (tapinarof) and Zoryve (roflumilast). They can provide effective relief without the potential thinning of the skin associated with topical steroid use over the long term.

- Vitamin D Derivatives

Certain compounds derived from Vitamin D can have a beneficial effect on psoriasis. Dovonex, Taclonex and Vectical ointment used twice daily for 4 to 6 weeks can markedly improve limited cases of psoriasis.

- Tar Preparations

Lotions, shampoos and creams containing tar have been used for many years. Tar is mildly effective in slowing down the multiplication of cells and is safe to use even if a little messy.

Ultraviolet (UV) Light Therapy

Most patients with psoriasis notice they are better in the summer than winter and this is mainly due to the beneficial effect of sunlight. The UV portion of sunlight is responsible for this improvement.

The main advantage of UV treatment is that it converts psoriasis to skin that looks and feels normal, and with maintenance treatment, it can be maintained in a normal state. The main downside to UV treatment is that it does cause premature aging of the skin including increased risk of skin cancer. For this reason, a routine annual skin cancer screening is important for all patients receiving UV therapy for psoriasis. However, if used in monitored amounts, it is a safe and effective treatment for psoriasis.

Several types of UV treatment are available:

- Narrowband UVB Phototherapy

This treatment is given two or three times each week and it usually takes 25 – 30 treatments to clear psoriasis. Maintenance treatment is typically weekly. The treatment is very safe and has not been associated with long-term problems. An increased risk of skin cancer is a concern but this has not been detected in several long-term studies. No oral medication is required with narrowband UVB and it is safe to use in children as well as in pregnancy.

- PUVA Therapy

This treatment involves taking a medication called Oxsoralen (methoxsalen) and an hour later, exposure to UVA light. When used long term, the treatment is associated with an increased risk of skin cancer. As a result, the aim is to restrict exposure to the treatment as much as possible while maintaining disease control.

- Excimer Laser Therapy

The excimer laser is approved for treatment of localized psoriasis. Excimer delivers narrowband UVB light in a focal way, thus treating the diseased sites only. It can be very effective in patients with limited disease or on areas that are usually not exposed to light such as the scalp and behind the ears.

Systemic Therapy

A number of agents taken by mouth or by injection are effective in treating psoriasis. Since the potential risks and adverse effects of these agents are greater as compared to topical or light therapy, their use is usually restricted to patients with moderate to severe psoriasis. They may also be used in combination with phototherapy and topical therapy.

Methotrexate, Otezla (apremilast), Soriatane (acitretin), Sotyktu (deucravacitinib) and cyclosporine are all oral agents used in psoriasis. The “biologics’ are targeted medications that interact with the immune system to treat immune mediated diseases such as psoriasis. The biologics are given by injection or infusion.

- Methotrexate

This is an agent that has been used in the treatment of cancer for several decades and in much smaller doses it is also effective in the treatment of inflammatory disorders such as psoriasis and psoriatic arthritis. However, chronic use over long periods can interfere with the function of the liver and close monitoring is required to check for this adverse effect as well as changes in blood counts.

- Otezla (apremilast)

Otezla (apremilast) is an oral anti-inflammatory approved for psoriasis and psoriatic arthritis. It can be used in particular when other agents are contraindicated. Gastrointestinal upset occurred in over 10% of patients and can be a limiting factor in treatment. Depression and mood changes are also reported.

- Soriatane (acitretin)

Soriatane (acitretin) is a retinoid, which is chemically related to vitamin A. It is particularly useful in pustular and erythrodermic psoriasis. The use of this medication is limited because it produces adverse effects including changes in the bones and in the lipids in blood. This drug can not be used in women who have child-bearing potential since it can cause birth defects even if pregnancy occurs years after taking this drug.

- Sotyktu (deucravacitinib)

Sotyktu (deucravacitinib) is his is an agent that selectively inhibiting TYK2, an enzyme involved in immune and inflammatory responses including psoriasis. TYK2 is a member of the Janus kinase (JAK) family.

- Cyclosporine

Cylosporine is an immune suppressant primarily used to prevent rejection in solid organ transplant patients. In psoriasis, it is an effective short-term treatment and can be used as a 'rescue' therapy. Long-term use may lead to high blood pressure and damage to the kidneys in most people and therefore is contraindicated for long-term use.

- Biologic Therapy

The "biologics" are a group of therapies that interact with and alter parts of the immune system important in causing psoriasis. They are proteins and thus have to be given by injection (infusion, intramuscular or subcutaneous). Some of these agents are very effective in terms of the percentage of patients responding and the degree of clearing of psoriasis. To balance this they have rare but serious side-effects including infections such as tuberculosis, certain cancers including lymphoma and skin cancer and nervous system disorders including multiple sclerosis.

The Course of Psoriasis

Psoriasis is a chronic and unpredictable disorder which may last years. At present, there is no cure for psoriasis. There are several important facts to remember:

- Psoriasis does undergo spontaneous remission so that 10% of all people who have psoriasis this year will not have it next year. There is no marker or indicator that will tell us when a particular patient is likely to undergo a remission.
- All available treatments are just that, treatments and not cures. At present, there is no "cure" for psoriasis. Treatments control the disease.
- While these facts might at first glance be somewhat discouraging, psoriasis is a treatable condition and should not restrict a normal life provided the therapeutic modalities we have today are correctly used in the individual management of each patient.