



Insight Dermatologic Problems

Psoriasis

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Psoriasis is a common disease characterized by red, scaly papules, patches, and plaques. The most common sites of involvement are areas of chronic mild trauma, including elbows, knees, hands, scalp, and extensor surfaces (Fig 1, 2). The true incidence of psoriasis is difficult to ascertain since many patients with one or two well-localized small lesions never seek medical care. In the United States, incidence is considered to be about 2% of the population, occurring with equal frequency in both sexes. Onset is most common in the second through fourth decades of life, but onset during childhood and adolescence can be particularly difficult for the patient since it can cause negative feelings toward his developing body image.

Etiology

The high familial occurrence of psoriasis suggests that definite genetic factors play a role in its cause. No one specific type of genetic transmission has been confirmed, though almost all have been considered. A multifactorial pattern of inheritance which implies a polygenic mechanism is most likely.

Cellular Kinetics

There is an increased cell proliferation in psoriatic skin. It has been estimated that the time it takes cells to migrate

from the basal cell layer outward and then be shed on the surface of the skin is shortened from the normal average of 28 days to only four days. This increased epidermal proliferation, perhaps the fastest possible for a human cell, provides not only the basic problem for patients with psoriasis but also promises to be the handle for subsequent control of the disease (Fig 3).

Clinical Picture

Although psoriasis is a chronic disease, the physician must remember that remissions and exacerbations occur in both severity and extent. About 25% of patients experience spontaneous remissions without any physician care. The cause of such remissions is unknown.

Psoriasis is one of the papulosquamous diseases from among which it must be distinguished. Clinical characteristics of psoriasis are its silvery-white micaceous scale and symmetry of lesions. If a scale is removed, minute bleeding points arise (Auspitz's sign). If clinically uninvolved skin is scratched, abraded, or otherwise traumatized, new lesions of psoriasis may occur on the injured skin (Koebner or isomorphic phenomenon). Eighty-five percent of patients find natural or artificial sunlight beneficial in clearing psoriatic lesions. Fifteen percent note flaring or worsening after sun exposure (Fig 4).

Fingernail and toenail changes are common in psoriasis but vary in extent. The most common changes are pitting of the fingernails (Fig 5). Other

signs are oil-under-the-nail deformity and thickened toenail plates, often mimicking chronic onychomycosis. All these nail changes are related to the psoriatic process involving the nail matrix.

Psoriasis of the glans penis is extremely common and can be difficult to diagnose if it is the sole manifestation of psoriasis (Fig 6).

Acute guttate psoriasis is the most frequent type seen in childhood (Fig 7). It is usually acute in onset, with associated fever and pharyngitis. It often develops two to three weeks after a streptococcal infection. ASO titers are often elevated acutely.

I have found localized patches of psoriasis on the scalp common among teenagers (Fig 8). It is often passed over as resistant dandruff or misdiagnosed as seborrhea. It rarely responds to most over-the-counter products.

Treatment

Although there is no cure for psoriasis, there are many effective treatments for most types of psoriasis.

For small isolated lesions, simple occlusive ointments (eg, petrolatum) or occlusive films (Saran Wrap) will flatten the area and often will produce complete clearing. Mild physical agents (eg, Buf-Puf), or keratolytic agents with salicylic acid (eg, Keralyt Gel), or vitamin A acid cream (Retin-A) will reduce the overlying scale and allow other topical agents to



Figure 1. Psoriasis of palms. Note erythema, scale, sharply demarcated margins. Working with hands can worsen psoriasis (Koebner phenomenon).



Figure 2. Typical plaque of psoriasis with overlying silvery gray scale.

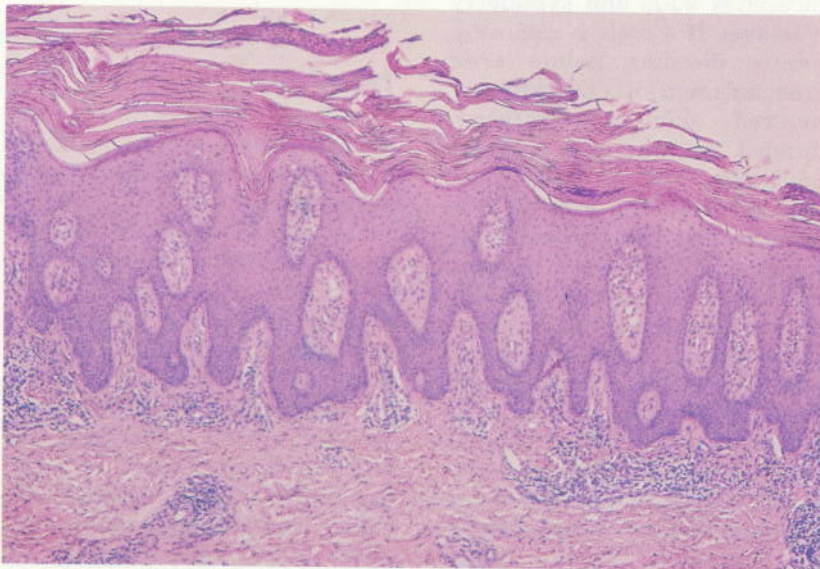


Figure 3. Histologic picture in psoriasis. Epidermis is thickened, with elongation of rete ridges. Rapid turnover is responsible for nuclei included in cells of stratum corneum (parakeratosis) and thickened horny layer.



Figure 4. Sunlight helps 85% of psoriatics. The majority of this patient's residual lesions are in sun-spared areas of skin.



Figure 5. Pitting of fingernail plates is most common and one of earliest signs of psoriasis manifested on plates. Onycholysis (separation between nail plate and nail bed) is also common.



Figure 6. Psoriasis of the penis. Lack of typical scale may make diagnosis more difficult.

work better through better penetration. Topical corticosteroids are usually quite effective. They should be tailored for the job, such that gels are used for hairy areas and creams for easily visible sites like the face and hands. Ointments, although most effective, are least cosmetically elegant, and best reserved for the trunk or for evening usage.

Widespread involvement calls for a modified Goeckerman regimen that includes application of topical coal tar products (now in much more cosmetically acceptable forms) along with exposure to ultraviolet light B (290 to 320 nm) and topical corticosteroids, if indicated. The PUVA (psoralens and UVA light) therapy for psoriasis is still experimental. Most recent findings incriminate PUVA with higher incidences of skin cancers. There is also the possible long-range effect of increased cataract formation.

Dietary restrictions have no effect on psoriasis, but emotions are often reported to cause exacerbations. Oral tranquilizers may then be helpful. Hydroxyzine hydrochloride (Atarax) combines the benefits of tranquilization with ataractic properties. Systemic corticosteroids are not advised, either orally or intramuscularly, since it usually leads to a rebound flare-up of the psoriasis making it worse than ever.

Oral methotrexate is effective but must be given carefully no matter what the dosage schedule since serious and fatal side effects have been reported in almost every organ system, particularly bone marrow suppression and hepatotoxicity. Mycophenolic acid may be less toxic, but its use is still experimental.

What to Tell the Patient With Psoriasis

The prognosis is that of a lifetime disease, but with a very variable course. The patient should be encouraged that lesions can be effectively controlled and need not greatly interfere with his/her lifestyle.

Education and encouragement is required to reinforce patient compliance in using all prescribed medications.

This is the second article in a series on dermatologic problems by Dr. Kaminester.



Figure 7. Guttate psoriasis, back. Typical silvery scale can be lessened by brisk rubbing in shower, but erythema persists. Individual lesions are size of raindrops and coins.



Figure 8. Psoriasis of scalp may mimic seborrheic dermatitis.