

Psoriasis: treatment and management

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Psoriasis is an autoimmune disorder of the skin, which means that the body's defense system has turned on itself. This causes "angry red lesions to appear on the surface of the skin, multiply, and scale over with silvery patches" (1). Not only do they look hideous, but cause terrible itching and discomfort. "The word (psoriasis) comes from ancient Greece, and means 'to itch'" (1). This disease can be present from birth or not show up until a person is well into their adult years. They can also be found anywhere on the body, from the scalp to the elbows. Psoriasis affects about two percent of the population.

The severity can range from a few spots to massive outbreaks covering the whole body, requiring hospitalization. Although the disease is genetically inherited, "it has triggers which can cause the body to go from a very mild case to a severe case within days" (1). Strep throat and spicy foods are examples of triggers that increase the severity. "There are also other factors, such as sunlight, which help decrease the severity" (1). There are many types of psoriasis including, nail, scalp, plaque, pustular, guttate, inverse, erythrodermic, and psoriatic arthritis. Plaque psoriasis is the most common type.

Along with these irritating physical side effects are the emotional factors. This disease can cause its' victims to feel alienated from fellow coworkers and friends. People who have no experience with the disease tend to be distant towards those who do, because they think it is contagious. To compensate, sufferers often wear pants and long sleeves to cover their skin, even in summer heat, or avoid a social life altogether. There is no known cure for psoriasis, only the hope to control its' severity. Each case of

psoriasis is different, and may require a certain form of treatment or a combination of treatments to obtain relief.

Most of those available now work to lessen the redness and itching, but tend to be pricey and time-consuming. Recently, scientists have developed a new method of treatment. The 308-nm excimer laser is a highly concentrated beam of UVB radiation. During the procedure a patient receives a certain, prescribed dosage of radiation on a large plaque of psoriasis. Unlike other methods of phototherapy, the laser only touches the effected area, leaving normal skin unharmed by unneeded radiation. In a study done in a university dermatology service, the following was reported:

Thirteen consecutive patients with at least four large, stable psoriasis plaques were used. Excimer laser-generated 308-nm UV-B radiation was given to each of the four plaques, which received 1, 2, 4, and 20 treatments, respectively. Untreated areas within each plaque served as the control. With 308-nm UV-B radiation generated by an excimer laser, it is possible to clear psoriasis with as little as one treatment with moderately long remission (2). Carcinogenic levels, which measure the amount of cancer-causing radiation, were much lower in patients who use the laser technique, than in those who use total body UV-B radiation treatment.

Unwanted side effects with the use of the 308-nm excimer laser include burning sensations and some blistering. The use of topical ointments with hydrocolloid dressings is a more traditional form of treatment. It involves applying a prescribed corticosteriod ointment, like calcipotriol, to a psoriasis plaque and then wrapping the area in a hydrocolloid dressing. In a study

done by the Department of Dermatology in the Netherlands, it was reported that: After an average treatment of 3.6 weeks, each lesion had cleared (apart from some residual erythema). The average remission period was 8 weeks.

During this treatment, the number of cycling epidermal cells and the expression of keratin 14 and keratin16 had decreased substantially. It is speculated that a combination therapy of calcipotriol with treatments with a different mode of action, such as photo-therapy, might be worthwhile (3). However, some patients experienced discomfort in the normal skin surrounding the psoriatic patch with this method. Researchers also found that the psoriatic epidermal skin cells proliferated, or reproduced, at a much slower rate than normal, which means that the plaque formation would lessen and be controlled easier.

Perhaps the oldest and most popular form of treatment for psoriasis on the market today is coal tar. " Exorex TM is a new over-the-counter preparation" which contains, " one percent coal tar" (1). This form doesn't necessarily clear the effected areas, it relieves itching, redness, and scaling to a certain degree. It is probably the cheapest and easiest to use, and does not require a prescription to obtain. Most users have accepted the fact that they have this disease, and that there is no cure for it. Therefore, they use these ointments for personal physical relief, not to try and hide their psoriasis from others.

There are few, trivial unwanted side effects of coal tar ointments.

Susceptibility to sunburn, messiness, unpleasant odors, and staining of

clothing and skin occur frequently. This active ingredient is not only found in ointments but medicated shampoos and bath solutions as well.

Agranulocytosis is described as " a condition caused by a lack of or an insufficient number of white blood cells" (4). Scientists have found that in severe cases of psoriasis, drug-induced agranulocytosis actually helps to clear the affected areas.

In a study done on a 45-year-old man by the International Journal of Dermatology, it found that: The patient was treated with intravenous granulocyte monocyte stimulating factor (GMSF). The GMSF was given on five consecutive days. On the sixth day, the psoriatic lesions cleared almost completely. There was 90% clearance of the lesions, with a PASI (Psoriasis Activity and Severity Index) being reduced (from 22) to 2.2. The patient also had improvement in joint pain. In addition, the generalized lymphadenopathy detected at admission had reduced considerably (5).

According to Dr. Kevin Patrick, lymphadenopathy is an inflammation of the lymph nodes, which filter organisms and bacteria out of the bloodstream (4). However astounding these results may be, scientists still claim that " drug-induced agranulocytosis is a complex phenomenon, it is difficult to comment on its exact role in the pathogenesis of psoriasis" (5). The most promising treatment for psoriasis is hard to prove, since each case is different, and not all treatments work for every victim. However, the 308-nm excimer laser technique seems to be the treatment with the best results.

If a patient wants long-lasting clearance and does not mind sacrificing time and a large sum of money, the laser will work for them. However, for those

who's main concern is the physical side effects, such as itching, flaking, and redness, then coal tar ointments and similar products may be the choice for them. They are easy to obtain, most drugstores and supermarkets carry them, and fairly inexpensive compared to other treatments. For those who would like clearance of their plaques, but can not access the excimer laser therapy, calcipotriol ointment, and hydrocolloid dressings seem to hold the most promise for them.