ABC of Dermatology

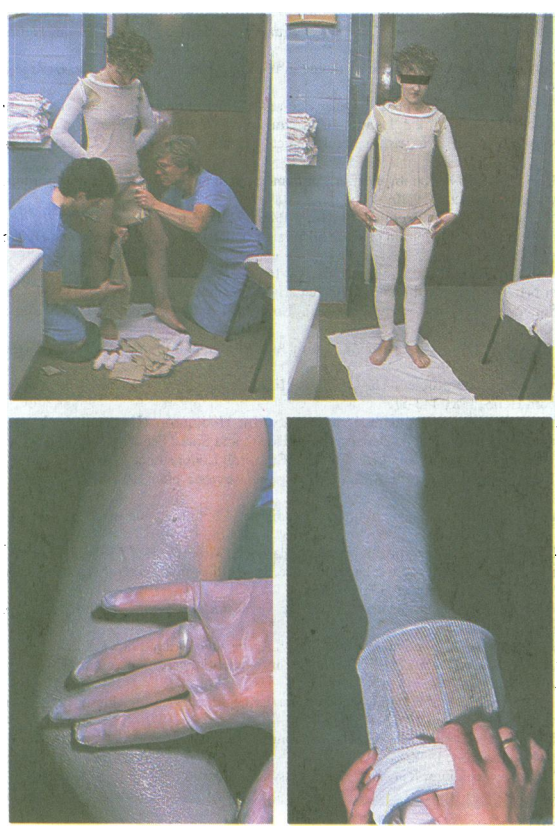
S M GOING

TREATMENT OF PSORIASIS

Presentation of psoriasis	*Treatment of choice*	*Alternative treatment*
Stable plaque	Short contact dithranol	Tar
Extensive stable plaque	PUVA+etretinate	Short contact dithranol
Widespread small plaque	Ultraviolet B	Tar
Guttate psoriasis	Emollients while erupting then ultraviolet B	Weak tar preparations
Facial psoriasis	1% Hydrocortisone ointment	
Flexural psoriasis	Local mild to moderate strength steroids+antifungal	
Pustular psoriasis of hands and feet	Moderate to potent strength local steroid	Etretinate
Acute erythrodermic, unstable, or generalised pustular psoriasis	Inpatient treatment with ichthammol paste. Local steroids may be used in skilled hands	Methotrexate

In deciding on treatment for any individual patient with psoriasis the clinician must take several factors into consideration, including the extent of the disease, the medical and social problems it causes, and the motivation of the patient to treat it. The same degree of disease in two individuals may have very different impacts on their lives depending on their age, marital state, and employment. Thus it is possible only to give guidelines on the correct management of different presentations of psoriasis. The doctor must assess the appropriateness of specific treatments for individuals.

Local treatments



Tar—Crude coal tar has long been used as a safe effective treatment for chronic plaque psoriasis. Its main limitation is its smell and mess, which restrict its use to inpatients, to outpatients who can attend hospital for dressings, or to highly motivated patients with relatively small areas of plaque. Refined preparations of coal tar are cosmetically more acceptable but less effective. Strong coal tar solution can be used in various cream and ointment bases in concentrations of 1 to 10%. The addition of salicylic acid as a keratolytic agent helps to reduce scaling, and a preparation containing 10% strong solution of coal tar, 2% salicylic acid to 100% in Unguentum Merck is an example of a reasonably effective tar preparation which patients often tolerate for home use. The many creams and ointments containing refined coal tar extracts may be useful for treating small, thin plaques of psoriasis but will make little impression on larger, thicker plaques. Guttate psoriasis may well respond to these weaker tar preparations.

Dithranol (or anthralin) is a highly effective synthetic compound, which is now the treatment of choice for chronic plaque psoriasis. Its main problem is its tendency to burn and irritate normal skin. In hospital this is prevented by applying the dithranol in a paste and protecting the surrounding skin with a rim of Vaseline. At home this is difficult to do safely and the recommended regimen for outpatient use is the "short contact method." Here the dithranol is in contact with the skin for a maximum of only 30 minutes, during which it can penetrate the abnormal epidermis over a psoriatic plaque but not the healthy epidermis of normal skin; thus it treats the psoriasis but avoids the burning and irritation. Compliance is excellent as patients do not have to keep the cream on for longer than half an hour a day before their bath or shower. Provided the cautions are noted this is one of the most useful outpatient treatments.

Short contact dithranol

Indications—Stable plaque psoriasis on the trunk and limbs.

Suitable preparations—Those available in a range of concentrations such as Dithocream (0·1%, 0·25%, 0·5%, 1·0%, 2·0%) or Anthranol (0·4%, 1·0%, 2·0%).

Method—(1) Start with the lowest concentration and increase strength every 5 to 6 days if there are no problems. (2) Apply cream to affected areas and then wash it off completely 20 to 30 minutes later. (3) Apply a bland emollient immediately after treatment.

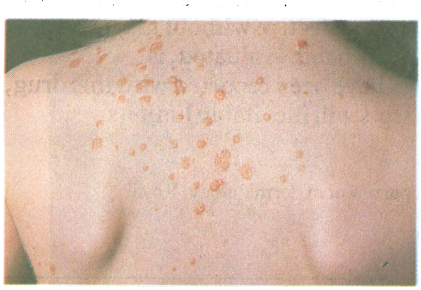
Cautions—(1) Do *not* apply to inflamed plaques, flexures, or the face. (2) Avoid contact of the dithranol with clothing and rinse the bath well after use to avoid staining. (3) Never leave the cream on for longer than 30 minutes. (60 minutes is not twice as effective.)

Psoriasis suitable for short contact dithranol treatment.

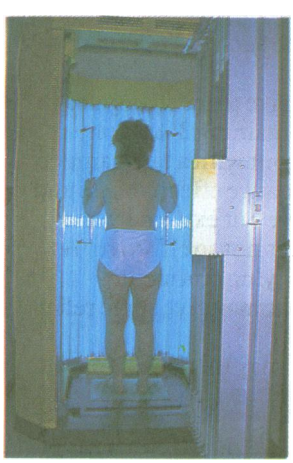
Bland preparations and emollients—Regular use of an emollient is a simple measure, often forgotten, which may bring much relief from itching and scaling. An emollient should always be used in conjunction with short contact dithranol, and if tar is being used at night an emollient should be used during the day. Suitable emollients are soft white paraffin, Unguentum Merck, or Lipobase. If psoriasis is actively erupting or plaques are hot and inflamed tar or dithranol will not be tolerated, and a bland preparation such as ichthammol paste (1% ichthammol, 15% zinc oxide to 100% in yellow soft paraffin) is the treatment of choice.

Steroids—Steroid creams and ointments do not smell or stain and are pleasant to use. Unfortunately they are not that effective in clearing plaques of psoriasis and the psoriasis tends to rebound after withdrawal, often in a more unstable form. Local steroids are therefore not recommended for chronic plaque psoriasis. Nevertheless, steroids are indicated for certain types of psoriasis. The skin on the face tolerates tar and dithranol poorly, and 1% hydrocortisone ointment is the treatment of choice; more potent steroid preparations should not be used. Flexural psoriasis is another form where tar and dithranol are likely to irritate the skin and steroids are indicated. It is often useful to choose a preparation which combines a mild or moderately potent steroid with an antifungal and antibiotic agent as secondary infection in these warm moist areas is often a problem. Trimovate ointment (clobetasone, oxytetracycline, and nystatin), Canesten HC (hydrocortisone and clotrimazole), and Terra-Cortril Nystatin (hydrocortisone, oxytetracycline, and nystatin) are suitable examples. If the area is very moist an antiseptic paint such as 2% aqueous eosin is a useful if potentially messy addition. If the palms and soles are affected with psoriasis potent steroid ointments such as full strength betamethasone may be indicated. When possible tar paste should be used on top of the steroid at night. Diprosalic ointment combines a moderately potent steroid with salicylic acid and is useful if there is hyperkeratosis. Systemic steroids should *not* be prescribed in psoriasis.

Ultraviolet treatment



Guttate psoriasis suitable for ultraviolet B treatment.

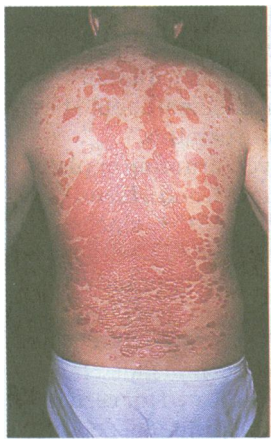


PUVA cabinet.

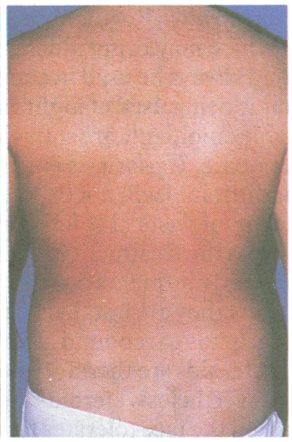
The two types of ultraviolet radiation used to treat psoriasis are ultraviolet B (290-320 nm), which is effective on its own, and ultraviolet A (320-400 nm), which is little use on its own but effective when used in conjunction with psoralens (PUVA).

Ultraviolet B is indicated for widespread lesions with guttate or small plaque psoriasis in people who can tolerate the sun. It is not particularly effective if the lesions are very thick or bigger than 2·5-5·0 cm in diameter. It should be given by a skilled therapist three times a week with the aim of producing a mild erythema after each treatment. If the dose is increased too quickly painful burning will result; if the increase is too slow the patient will get a good tan rather than effective clearing. When administered correctly a course of ultraviolet B will clear the lesions in five to six weeks.

PUVA should be considered when large plaques of psoriasis affect at least 20% of the surface area of the body. The patient takes methoxsalen (8-methoxypsoralen) two hours before exposure to ultraviolet A. The psoralen (derived from a plant extract) is inactive in the dark but becomes active in the presence of ultraviolet A and interacts with the deoxyribonucleic acid (DNA) in the basal cells of the psoriatic plaques, slowing their growth rate back to normal. Treatment is given three times a week with gradually increasing doses of ultraviolet A, and clearance is usually achieved in five to six weeks. Once the psoriasis has responded the skin can often be kept free of psoriasis by continuing the PUVA once a fortnight or even once every three weeks, but this is not generally recommended in younger patients because of the risks of side effects. High cumulative doses of PUVA are associated with a small increased risk of skin aging, actinic keratosis, squamous cell carcinoma, and basal cell carcinoma. As yet there has been no significantly increased incidence of malignant



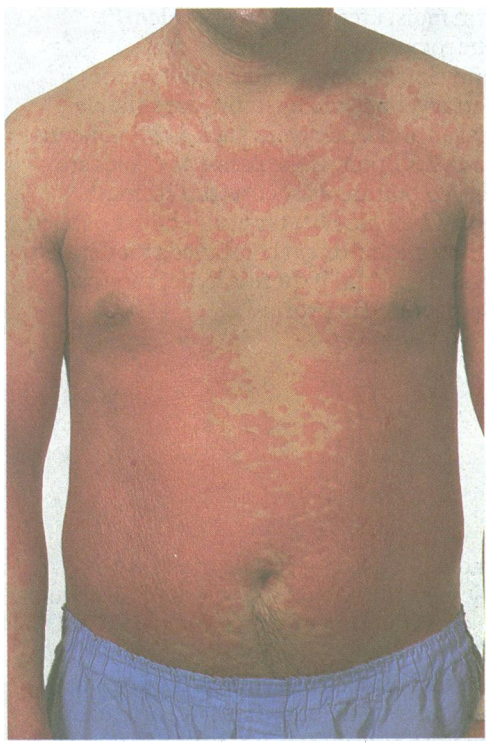
Before PUVA.



After PUVA.

melanoma among patients treated with PUVA, but PUVA has been available for only about 15 years and this possibility remains a worry. PUVA is therefore an effective treatment for a flare up of psoriasis which is too extensive to manage with local creams at home. It is an alternative to inpatient treatment and usually allows the patient to carry on his or her normal life during treatment. Side effects are almost certainly related to the cumulative amount of PUVA received over the years, and this should be kept as low as possible without denying treatment when indicated.

Systemic treatment



Erythematous psoriasis suitable for methotrexate treatment, having failed to respond to PUVA.

Retinoids—The retinoids are derived from vitamin A, and etretinate, one of the first available, is used to treat psoriasis. Etretinate will thin hyperkeratotic plaques of psoriasis but on its own is not very effective in actually clearing the lesions. It is most commonly used in conjunction with PUVA in a regimen known as Re-PUVA. By combining the two treatments more rapid clearance is achieved with a smaller cumulative dose of PUVA. Maintenance treatment with etretinate prevents relapse after clearance, but its use is not generally recommended because of potential side effects. The main effects are an increase in serum lipid concentrations, disruption of liver function, and the risk of hyperostoses. Etretinate is an unpleasant drug to take, causing dryness of mucous membranes, cracked lips, and peeling of the skin of the palms and soles. It is contraindicated in women of childbearing years because of its known teratogenicity and long half life.

Methotrexate—Occasionally psoriasis fails to respond to any of the treatments discussed so far, and the only way to keep the condition under control is to use methotrexate. A small oral dose (around 10 mg) given once a week is often enough to control the most aggressive psoriasis. The main side effect which limits its use is liver damage and the only reliable method of detecting this early on is by liver biopsy after every cumulative dose of 1·5 g.

Many other drugs have been tried in the treatment of stubborn psoriasis but none have been found to be consistently effective without major side effects. The most recent, which is currently being evaluated, is cyclosporin A. Some dramatic responses have been reported with this drug, but its nephrotoxicity and other side effects will inevitably limit its usefulness.

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Scalp psoriasis

(1) Shampoo regularly with a tar based shampoo such as Polytar or T Gel.

(2) To control thicker scalp psoriasis unresponsive to tar shampoos alone, once or twice a week apply a preparation containing 3% sulphur and 3% salicylic acid in a suitable base and wash it out with a tar shampoo after at least four hours. (The base chosen must balance effectiveness and patient acceptability. Soft white paraffin is effective but extremely hard to wash out. Aqueous cream washes out easily but is not so effective. A good compromise is Unguentum Merck or emulsifying ointment.)

Steroid scalp applications are of limited value but may give some relief if there is a lot of itch and irritation.

Dithranol can be effective in scalp psoriasis but may tint blonde or red hair purple.