REFRESHER COURSE FOR GENERAL PRACTITIONERS

THE PROBLEM OF PSORIASIS

BY

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The principal difficulty in regard to psoriasis is that we still do not know the cause of the malady; therefore theories concerning the aetiology abound and become more numerous and more complex as the years pass, while treatment remains empirical. Nevertheless, despite this empiricism, treatment is not so hopeless a proposition as some would have us believe, although we still have to tell our patients that no one can guarantee that they will not suffer from future attacks of the eruption.

Aetiological Factors

The incidence is said to be higher in cold than in warm climates, but psoriasis has been noted in almost all races; it is rare, however, in pure negroes. It is suggested that the reason for this geographical selectiveness is that a psoriatic skin requires a certain amount of exposure to sunlight for its full health, and that in countries where the inhabitants have to keep themselves muffled up for many months of the year the apparent incidence of the malady is higher than elsewhere. This, however, is not the whole story: during the recent war we learned that in some cases the climatic benefits might be nullified by environmental factors, and that heavy physical work in conditions of dry heat and much dust, with often little opportunity for ablutions, could provoke severe exacerbations. The lesson to be drawn from this appears to be that if a patient asks, "Would I be less troubled with psoriasis in a warmer country?" the answer should be, "Probably, provided you abstain from hard physical work." It may be noted here that when psoriasis relapses severely in hot countries the lesions tend to be very troublesome in the flexures and thus lead to incapacity for work.

It is usually agreed that psoriasis is slightly more common in men than in women, the ratio in Europe being 3:2. The malady tends to occur in certain families, but the genetic factors are little understood; for practical purposes, when asked about the matter of inheritance, Jonathan Hutchinson's dictum is worth quotation: "Psoriasis does not very often affect several brothers and sisters, but it frequently seems to be transmitted from parent or grandparent. Thus it may persist through many generations, but still affect very few individuals." There is considerable variation between the figures given by leading authorities concerning the familial incidence of psoriasis in those who demand treatment, but probably less than 50% can state that the malady has occurred in other members of their family.

The age of onset varies considerably. Psoriasis begins most often at puberty or in adolescence, but has been noted in infants and is not uncommon in children. It is unusual for a first attack to develop after the patient has reached the age of 45.

Whilst the patient with psoriasis is usually robust and often heavy-set, in some cases the malady is associated with progressive arthritis deformans of the rheumatoid arthritis type. This arthritis may be very severe. For this reason dermatologists are at the moment alert concerning "compound E," for they feel that there may well be some factor of adrenal metabolism that is associated with the disease.

There is some dispute concerning the factors which, in susceptible persons, precipitate the attacks of psoriasis. Many regard the malady as a "type reaction" which occurs in certain predisposed skins. They consider that the reaction may be provoked by certain stimuli, of which two have received some attention—namely, absorption of toxins, particularly from streptococcal foci of infection, and mental worry and overstrain. It is worth noting here that psoriasis may be persistent in neurotic persons.

Köbner's phenomenon has attracted some attention in recent years, although the matter was first discussed in 1878. Köbner was apparently the first to note that, during the active phase, minor types of physical injury sustained by unaffected skin are followed by the appearance of the eruption on the injured part. It is now known that the provoking agent can be mechanical, physical, or chemical, that the injury must involve the papillary layer of the skin, and that the phenomenon cannot be produced in the cleared centre of a patch of psoriasis. This matter is of practical importance, for, in the active phase, pressure of clothing or the injudicious use of a bath-brush may cause an efflorescence of the lesions. Patients should be warned of this matter, and women should be told of the advisability of discarding tight belts or corsets whenever this is practicable.

Köbner's phenomenon has been invoked to explain the distribution of the eruption on various "sites of election," such as the anterior aspects of the knees, the posterior aspects of the elbows, and over the sacrum. This may well be disputed; so far as the knees are concerned, the suggestion may be valid, but *inter alia* it should be remembered that the scalp is also one of the elective sites, and one has yet to meet the psoriasis patient who emulates one of the athletic feats of Father William.

The Eruption

At the outset one should strip the patient properly, and decide whether the eruption is mild, severe, or grossly exfoliative, and whether it is in the acute, involuting, or chronic stage.

In most cases the lesions consist of circumscribed red areas covered with dry silvery scales; not infrequently each is surrounded by a narrow zone of unaffected integument which is paler than the normal hue of the individual's skin. The lesions vary from a few millimetres in diameter to great plaques involving large areas; sometimes, as they spread, their central portions become clear so that rings are formed. The distribution tends to be symmetrical, and the extensor surfaces are more affected than the flexor. Usually—but not invariably—the exposed areas of the hands and face are not involved.

Certain difficulties in diagnosis may be noted: occasionally the eruption consists of hundreds of small puncta, or of small lesions that are scattered like drops on the skin; if the patient bathes frequently there may be but little scaling. In these cases one usually discovers an aggregation of lesions on the classical sites at the elbows and knees which clinches the diagnosis (Fig. 1).

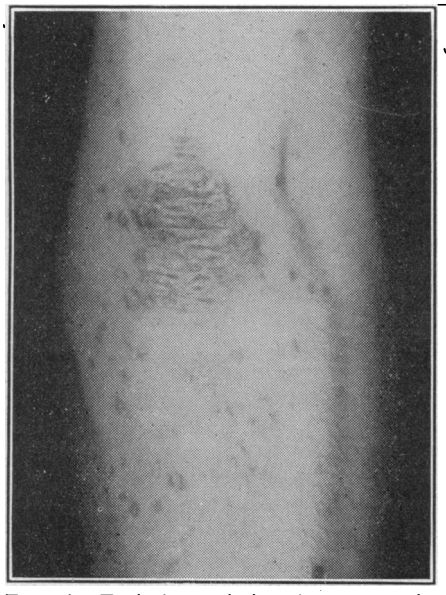

FIG. 1.—Typical psoriasis plaque on the extensor surface of the elbow.

Flexural psoriasis occurring as part of a typical attack gives rise to little difficulty in diagnosis, but occasionally an intractable erythematous eruption develops on a flexural surface, particularly in the crutch, with little or no involvement of the skin of other areas. Unless the area has been made sore by rubbing it has a characteristic dryness which is suspicious. In these cases the scalp should be carefully examined, for here there may be some discrete scaling areas which may confirm one's suspicion of psoriasis.

Psoriasis of the scalp can often be more easily felt than seen : if one rubs one's finger-tips over the head the lesions are firm and hard, so that one notes a sensation akin to that obtained from pressing the fingers across a relief model of a continent studded with low mountains. There are few occasions on which a similar sensation arises from touching the lesions of other maladies ; having noted the distribution one can then turn the hair aside and see the silvery scaling, which can be levelled down without any bleeding or oozing until the last scale of all is removed. The hairs grow freely through the piled-up masses, and the patient can be reassured if she is apprehensive about possible loss of hair, for baldness is not a complication of psoriasis.

In many cases pin-point pitting of the finger-nails—particularly of the third finger—can be noted, but sometimes some or all of the nails of the hands and feet are severely affected (Fig. 2). Usually there are lesions elsewhere on the body, but occasionally only the nails are involved ; diagnosis is then very difficult, but it is worth remembering that, as contrasted with many other forms of onychia, the change is usually first noted in the distal portion of the nails. The affected areas lose their translucency and polish and become white, and the distal part of the nail plate becomes separated from the nail bed by a whitish granular mass. The process slowly extends upwards. Eventually the nails may become discoloured, eroded, and fractured.

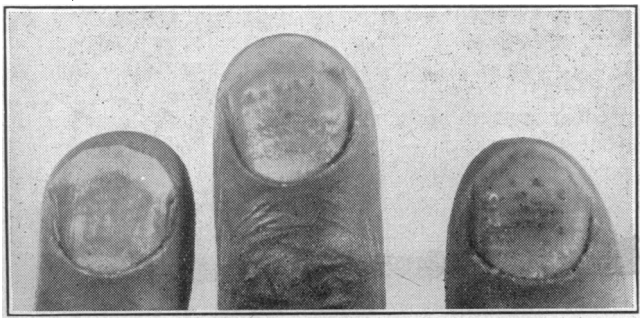

FIG. 2.—Finger-nails showing pin-point pitting; also, on the left, the development of another type of abnormality due to psoriasis at the distal third of the nail.

A Note on Symptomatology

That the lesions of psoriasis do not itch is a well-established and completely fallacious aphorism. Admittedly, in most cases the patient does not suffer from this symptom, but sometimes, particularly in the early stages of a widely efflorescing eruption, the itching may be severe. It seems probable that itching is most often a symptom in those cases in which the eruption develops as a reaction to nervous stress.

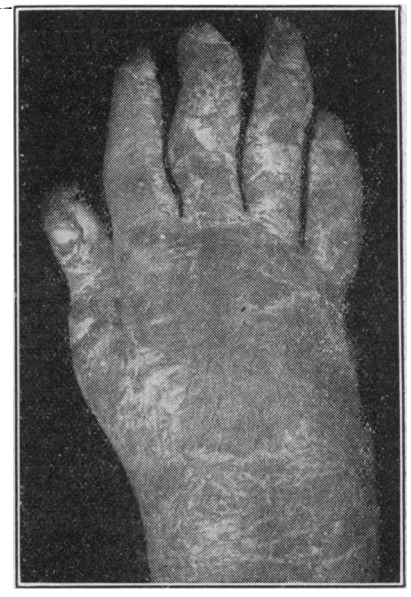

FIG. 3.—Arthropathic psoriasis.

Flexural psoriasis involving the vulva may cause pruritus. As already stated, this form of the malady may cause incapacity, particularly in hot climates, because the areas become sore, macerated, and sometimes infected.

Arthropathic psoriasis usually begins with involvement of the joints of the terminal phalanges ; the symptomatology is the same as that of rheumatoid arthritis complicated by the disfigurement—and sometimes the itching—caused by the eruption ; often the psoriasis is intractable (Figs. 3–5).

Treatment

Psoriasis is extremely variable in the severity and frequency of its attacks. Probably many people suffer occasionally from mild degrees of redness and scaliness on the knees and elbows, with some lesions in the scalp, but never experience a widespread attack and never seek medical advice ; others suffer from widespread eruptions occasionally : others, again, experience them frequently. In many cases the eruption may involve a twentieth of the body surface when at the height of its efflorescence : in others, nine-tenths of the surface may be covered and the patient be in jeopardy of developing a generalized exfoliative dermatitis. As already stated, treatment must be adjusted in accordance with the phase and severity of the eruption ; further, there is much more in treating psoriasis than merely ordering appropriate dermatological remedies. One should always attempt to discover the precipitating factor of the attack, in the hope that the patient may be enabled to avoid relapses in the future. Owing to our lack of knowledge, this may be disappointing, but always it is advisable to search for foci of sepsis (which may be treated when the eruption wanes, for it is inadvisable to deal with them during the acute phase). A careful discussion with the patient may reveal psychological factors which demand the assessment of a reliable psychologist.

Of the drugs which may be used for treatment, chrysarobin, dithranol, tar, resorcin, salicylic acid, and ammoniated mercury still hold pride of place. Arsenic is passing

through a phase of unpopularity, but sedatives, particularly phenobarbitone, are now prescribed for many cases. Ultraviolet, roentgen, and Grenz rays, and thorium X have their uses. Recently undecylenic acid taken in large doses by the mouth has been advocated by Perlman (1949), but this observation has not been widely confirmed.

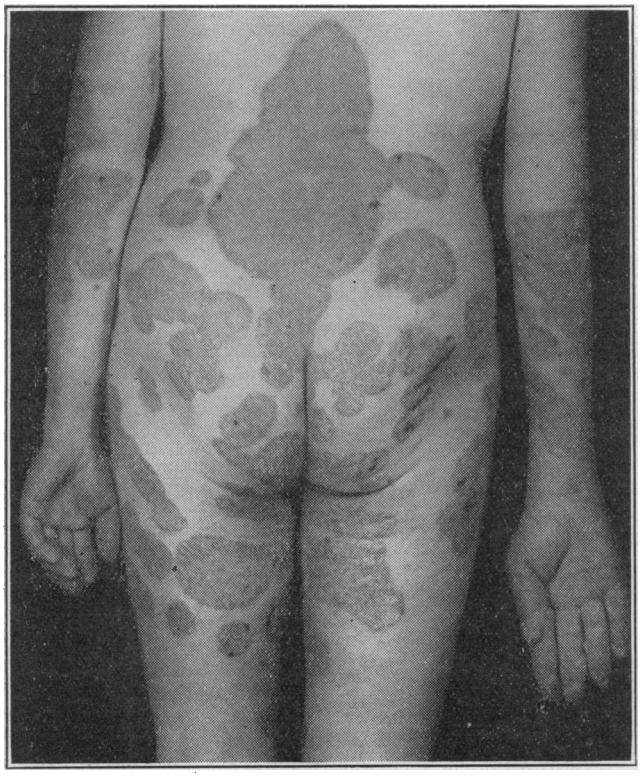

FIG. 4.—Arthropathic psoriasis. Note spread of lesions around sites of election on the lumbar area and at the elbows.

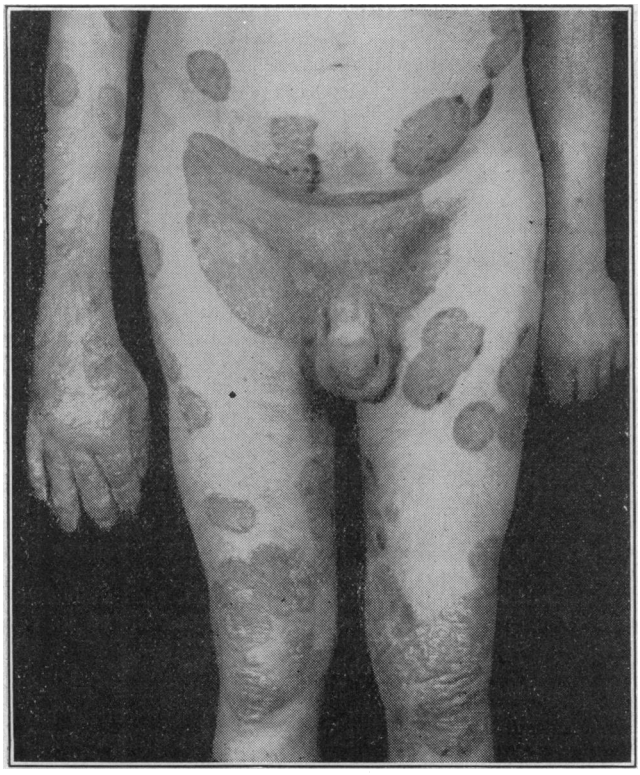

FIG. 5.—Arthropathic psoriasis. Note swelling of right hand. In the groins the eruption is affecting the flexures.

For the treatment of chronic lesions on limited areas of the trunk and limbs there is no more satisfactory remedy than the unpopular chrysarobin. Advise the patient to rub the areas gently with ung. chrysarobin, 5%, at night : after the inunction let him leave a thin smear of the ointment on each lesion, and cover it with gauze and a bandage. In the morning the dressing and ointment are removed, and the lesion left untreated through the day. Increase the concentration slowly to 10% or even 15% and persevere with treatment until affected parts are smooth and the surrounding skin slightly inflamed. Then soothe the areas with zinc or cold cream. Some are allergic to chrysarobin, so that treatment should be cautious at first. Warn the patient that the ointment permanently stains garments and sheets a dirty blue shade and that if any reaches his eye it will cause conjunctivitis. Some prefer dithranol to chrysarobin : usually this is employed (with the same precautions) in an ointment of 0.5%–3% concentration, and it is sometimes preferable to use Halden's emulsifying base instead of soft paraffin as a base. Dithranol has most of the disadvantages of chrysarobin, but stains less severely.

The great error that is usually made when dealing with more extensive cases is that, because the patient is not ill in the accepted sense of the word, he is seldom confined to bed. There are always scores of persons attempting to continue at work with widespread psoriasis—wastefully, ineffectively, and messily applying their remedies when opportunity serves—who could be relieved of much distress if their medical attendants would insist that they retired to bed. As a general rule, most persons with efflorescing psoriasis should be confined to bed, kept on a light diet, given small doses of phenobarbitone—e.g., ½ gr. (30 mg.) twice daily—and treated with mild remedies such as calamine liniment or zinc cream, each containing 3%–5% ichthammol. When the psoriasis reaches the chronic stage, or if when the patient first presents himself his eruption is in this stage, more active measures are pursued ; then, under home conditions, he may be kept in bed, given sedatives in mild doses, and twice daily have one of the following ointments well rubbed into his lesions :

℞
Ung. picis liq. ... ...
Ung. hydrarg. nit. dil. ... ...
Ung. acid. salicyl. ... ...
Ung. glycerin. plumb. subacet. ...
} āā 1 oz.
M.

℞
Resorcin ... ... 10 gr.
Oil of birch tar ... ... 30 m.
Zinc oxide ... ... 1 dr.
Lanolin ... ... 2 dr.
Soft paraffin ... ... to 1 oz.
M.

℞
Ung. hydrarg. ammon. et pic. carbon. c. acid. salicyl. (*National Formulary*, 1949.)

He should be instructed to have a daily bath, and twice a week should receive autohaemotherapy (5–10 ml.). Lesions in the scalp should be treated by washing the hair twice a week with spiritus saponis kalini and using the following ointment twice daily :

℞
Ammoniated mercury 2%
Liq. picis carbonis 12%
Salicylic acid 2%
Halden's emulsifying base 30%
Water ... ... to 100%
M.

The majority of severe cases will respond to these measures within three or four weeks. Usually the only complication to be feared is that the lesions may extend and alter their character somewhat, and thus a generalized exfoliative dermatitis may develop; this disaster, which is rare, demands admission to hospital under specialist care.

Probably the Goeckerman regime is the most successful routine therapy for hospital use; it depends chiefly on the photosensitizing effect of applications of tar. For the treatment of those who resolutely refuse to retire to bed, Ormsby and Montgomery (1948) have suggested a modification which may appeal to practitioners, and the reader who is interested should obtain the details from their textbook. Very briefly, a 2–4% crude tar paste is applied thickly at night and removed next morning with liquid paraffin. The patient then attends the surgery and receives an adequate exposure to ultra-violet rays, going on to a suitable establishment—or to his home—and having a bath; he may then attend to business. The treatment has to be given daily for 6–8 weeks, and is reinforced by autohaemotherapy, which is given twice weekly on eight occasions.

The clamour for elegant and cosmetic-like local applications is understandable. The formula given above for treatment of the scalp is satisfactory for application—twice daily—to lesions on the body and limbs, but very occasionally enough mercury may be absorbed to cause haemorrhagic colitis. An alternative formula is a modification of ung. cocois co. of the pharmacopoeia of St. John's Hospital for Diseases of the Skin:

℞

Liq. picis carbonis	10%
Hydrarg. ammon.	2%
Salicylic acid	2%
Emulsifying wax	3%
Paraff. mollis flav.	20%
Ol. cocois nuciferae ... ... ad	100%

M.

Some patients prefer to use "paints." Of these, a varnish containing thorium X is the most efficient, but as the thorium X depends for its action on the emission of radiations its use is a matter for special study. "Tar dermament" (Parke, Davis and Co.) or an 8% suspension of crude coal tar in chloroform, applied twice daily, is sometimes satisfactory. Fox suggested a paint containing 10 parts of chrysarobin, the same amount of salicylic acid, 15 parts of ether, and 10 parts of flexible collodion.

In the treatment of flexural psoriasis of the groins and adjacent parts a sitz bath made by adding an ounce of liq. picis carbonis to four pints of hot water, and followed by the application of zinc cream with 4–6% liq. picis carbonis, is satisfactory in the first stages of treatment, and as the condition improves stronger remedies may be employed: chrysarobin and dithranol are usually too irritating to be employed on these areas.

Psoriasis of the nails usually responds best to a combination of *x*-ray treatment locally and arsenic internally. As in other forms of psoriasis, Asiatic pill is probably the best method of administering the drug. (Note here that in all cases arsenic should be employed only in the chronic stage of psoriasis.)

When *x*-ray treatment is not obtainable the nails may be treated by applying dithranol 0.5–1% in Whitfield's ointment twice daily; this stains the nails, and an ointment consisting of equal parts of ung. acid. salicyl. and ung. hydrarg. ammon. dil. may be preferred.

The treatment of arthropathic psoriasis is a matter for a specialist. *X*-ray treatment to the joints usually gives the most satisfactory results.

Conclusion

There is so much to be said about psoriasis that in writing this paper it has been more difficult to know what to omit rather than to decide what to include. I hope that those who have little leisure to read textbooks will find here one or two suggestions which will be helpful in their practices; I would like to suggest to those who have a little more time that they should fill the many gaps in this presentation by reading the chapter on psoriasis in one of the larger textbooks that are now available. But, whatever course the reader takes, there is one final principle concerning the treatment of this malady which must be emphasized; it was formulated many years ago and experience confirms its validity: in all cases treatment should be continued until the last lesion disappears, for if even a few areas remain recurrence will ensue more rapidly than if the patient is encouraged to persevere until his skin regains its normal appearance.

I am indebted to the photographic department of St. Bartholomew's Hospital and Medical College for Figs. 1, 3, 4, and 5.

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THE CHILD AND HIS ENVIRONMENT

MATERNITY AND CHILD WELFARE CONFERENCE

The annual conference arranged by the National Association for Maternity and Child Welfare was held at Friends House, London, on the last three days of June. Nearly 100 local health authorities and 50 infant welfare services were represented among the 700 delegates. The general subject was "The Child and His Environment." On the first day addresses were given on various phases of the subject; on the second day the Conference broke up into six groups for separate discussions, and in another plenary session on the third day reports were presented by the leaders of the groups.

The Influences of Heredity

The subject of eugenics and heredity was introduced by Dr. FRASER ROBERTS, of the London School of Hygiene and Tropical Medicine. He said that despite the great reduction in the infant death rate during the last 50 years deaths from two causes—birth injury and congenital malformation—showed no diminution. Congenital malformations were not all due to heredity, but some of them were, and an even higher proportion were due to a combination of hereditary and environmental factors. As conditions improved, and life and health were better preserved, there remained a hard core of really intractable cases largely composed of hereditary disease or undue hereditary susceptibility. While much ill-health of children had been reduced, there was no reason to suppose that club-foot or hare-lip was less common, or that mental deficiency showed any decline in incidence. The proportion of blind children of school age had been much reduced during the last 25 years, but whereas 25 years ago little more than one-third of the blindness was due to congenital and hereditary disease two-thirds of it was now due to such causes.

In a number of simple inherited diseases, each individually rare or very rare, general eugenic measures offered little of value even were it practicable to apply them, but in some cases the chances for further children could be worked out and parents told of the risks. But in many instances the advice given could be encouraging. The people who sought advice were usually conscientious folk who wanted children and had a good home waiting for them, and it was a pleasure to assure them, as one often could, that the risk was very small. Speaking generally, the trouble was not so much that people tended