ON SOME ASPECTS OF PSORIASIS*

BY J. F. BURGESS, M.D.,
Montreal

PSORIASIS is a chronic, occasionally acute, inflammatory disease of the skin. The clinical characteristics of aggregated silvery-like scales on an inflammatory base, with its very constant light-to-deep-red background, renders, as a rule, the diagnosis quite easy and distinct from any other skin condition. The disease has been recognized as an entity from early Biblical days.

Our knowledge of specific etiological factors in epithelial diseases such as carcinoma, varicella, verrucæ, etc., is so meagre that it is not surprising that we have not, as yet, any real facts as to the cause of psoriasis. The disease has not so far been reproduced experimentally. Many support the view that psoriasis is an external infectious disease—bacteria, fungi and yeast organisms have been found and thought to be the cause of the disease. More recently, a monilia has been isolated from the skin lesions and also from the bowel contents, but it has not been proved to be other than a chance association. Erasmus Wilson and many others, notably the French school, have believed that psoriasis was due to an attenuated syphilis—it is so held by many to-day—as a manifestation of syphilis at one time present in the family tree. There is no evidence of a direct nature to support such a view. Others again have held to a metabolic disturbance, but while metabolic disturbances are found at times in association with psoriasis, there is as yet no constant finding in this regard and, it therefore may be disregarded. It must be remembered, however, that in a few patients definite metabolic or other constitutional disturbances may closely affect the severity of, or may even precipitate, an attack of psoriasis. We have certain reactions in the skin in response to stimuli—thus there is the eczematous type of reaction towards known stimuli, and here, for instance, in response to linear traumatic stimuli, we evoke an eczematous response. An analogous phenomenon occurs in psoriasis; this has been called the phenomenon of Koebner. During a certain period in the evolution of psoriasis we may evoke a typical linear psoriasis as a result of cutaneous excoriations. Recently Bizzozero[1] determined in a series of experiments that the traumatic excitation acted directly on the papillary layer; it was further noted that a certain incubation period was present before the development of psoriasis, and that this period was a variable one in different individuals. This, then, suggests that in psoriatic patients some biochemical substance or substances are formed, which, coming into contact with the basal or Malpighian cells of the epidermis through the blood or lymph stream, by their action interfere with the normal evolution of epidermal cells. Therefore we have the histological picture of psoriasis, namely, a vascular dilatation in the papillary body, œdema and hypertrophy of the epidermis, along with a faulty keratinization, which is called parakeratosis. This, clinically, is manifested by an inflammatory picture and the so-called silvery scales of psoriasis. It would seem that individuals never acquire a permanent immunity to this reaction, hence the rare, or frequent, recurrences (as the case may be) of this condition. It may, therefore, be easily seen how associated conditions may easily influence the course of the disease, such as metabolic disturbances, and general constitutional dyscrasias, such as anæmia, malnutrition, gout, arthritis, and also mental and nervous worries. Heredity does not seem to be of great importance—it is true that we occasionally see family trees showing psoriatic tendencies—the vast bulk of the patients do not give any history of psoriasis in their ancestors. It would, further, seem that endocrine disturbances clinically are not, as a rule, present; however, Richter,[2] by a series of metabolic and other tests, believed that he found evidence of metabolic disturbances in 65 per cent of cases investigated.

I am concerned here, chiefly, with regard to the care and treatment of the many variations of this psoriatic process, and, for simplicity's

* Read at the annual meeting of the Ontario Medical Association, Hamilton, June 1, 1933.

1. BIZZOZERO, *Ann. de Dermat. & Syphilol.*, 1932, **7**: 510.
2. RICHTER, *Dermat. Wchnschr.*, 1932, **95**: 1597.

sake, I may deal with these under certain headings.

1. *The acute, early psoriasis:* the type which is most commonly observed in children, and at times in adults; a generalized eruption made up of pin-point to pea-sized, slightly-red papules, topped by the fine silvery scale. Here caution is necessary. At this period of its evolution, Koebner's phenomenon is easily elicited, and the patient's skin is hyperactive. It is unwise to use strong irritants such as chrysarobin, for fear of the production of an acute exfoliative dermatitis. Mild local applications, such as a 2 per cent salicylic acid ointment, or a cream containing 12½ per cent Liq. Carb. Deterg., are frequently all that is necessary. Internally the use of salicylates is advantageous, and, in these cases, at times, the administration of small doses of thyroid substance is of value.

2. *The recurrent generalized psoriasis:* in this case the patient has had psoriasis at intervals for years—the lesions are large or small plaques, widely distributed over the body, scalp, face sometimes, trunk, arms, thighs, legs; scaling is frequently excessive and the lesions are thickened to a variable degree. Itching is not uncommonly present. Here, chrysarobin has been a standard remedy. It may be used in ointment form, ranging from 2 to 20 per cent. I like the preparation called Dreuw's ointment:

℞

	Per cent
Chrysarobini	20
Ol. Rusci	20
Ac. Salicylici	10
Sapon. Mollis	25
Paraffini. Mollis Alb.	25

This should be applied at night and washed off in the morning. Better still, if possible, admit the patient to hospital, where it may be rubbed in and applied constantly, day and night. The attack is generally overcome in four to five weeks. It is to be noted that all cases do not respond and frequently other forms of treatment are needed. Here, particularly in the hospitalized patient various forms of foreign protein therapy are indicated. Autohæmotherapy has rarely shown itself of value. Injections of whole milk intramuscularly often seem to hasten the process of evolution. Where the patient is hospitalized, or confined to bed, the intravenous injection of typhoid vaccine once every five or six days is of greater value and may be recommended. Certain drugs seem to be of value, although not uniformly so. Arsenic, an old remedy, may be given either by mouth as Fowler's solution, or as subcutaneous injection in the form of sodium cacodylate. Of the two, I believe, where tolerated, that liq. arsenicalis is of more value. The intravenous injection of sodium salicylate has occasionally cleared up an otherwise obstinate psoriasis. Campbell and Frost,[3] in 1930, reported with enthusiasm on a series of cases treated with injections of 10 per cent suspension of psoriatic scales—a number of observers since that time utilizing this method have not been able to confirm the results.

The use of chrysarobin is usually objectionable, and we have tried to eliminate it entirely in the treatment of psoriasis. At the same time, the application of a reducing substance is nearly always necessary, irrespective of any associated therapy. For some years we have been accustomed to use an ointment (Ung. Hyd. Oleat Co., of the Montreal General Hospital Pharmacopeia), which has the following ingredients:

℞

	Per cent
Hyd. Oleat	12½
Liq. Carb. Deterg.	12½
Ac. Salicylici	12½
Ol. Ricini	12½
Paraffini Mollis	50
Ol. Ros. Geran.	Min. V.

It has the advantage of not staining the skin, is easily applied to any part of the body and, unless an individual is sensitive to tar or mercury, is well tolerated and is to be recommended. In conjunction with its use locally we have tried to evaluate the use of gold salts. This is given in the form of gold sodium thiosulphate, intravenously, dissolved in 5 to 10 c.c. distilled water, in doses of 25 to 100 mg. It should not be used in those cases in which there is any constitutional disease, such as nephritis, anæmia, marked arteriosclerosis, or active tuberculosis of the lungs. It is advisable to start with 25 mg. and when it is not well tolerated, as evidenced by an adverse generalized reaction following injection, or the slightest manifestation of irritation of the skin, which usually starts with an erythema, the drug should not be used. If well tolerated, 50 to 100 mg. may be given twice weekly. We have been using gold sodium thiosulphate for the past year in the treatment of psoriasis. It is an empirical remedy, and it would seem to act by rendering

3. FROST, *Arch. of Dermat.*, 1930, **22:** 685.

the skin more sensitive to the use of local applications such as tar, etc., and, therefore, should always be used in combination with such measures. It is not specific; numerous cases that we have treated have failed to show improvement. On the other hand, we have noted that many cases of florid psoriasis, with a markedly generalized eruption do very well under such treatment, whereas the cases of psoriasis showing sparse, fixed areas of involvement rarely show much change. Further, it would seem that, like other remedies, the individual may become immune after prolonged use. The following instances of its use may be cited.

CASE 1

D.M., female, aged 26. Psoriasis of 13 years' duration. Had had numerous generalized attacks of psoriasis and has been previously treated with arsenic medication, chrysarobin externally, and x-ray therapy. Present attack had lasted for two years and she had not responded to any form of treatment during that time. Under the use of ung. hyd. oleat co., locally, and gold sodium thiosulphate 100 mg. twice weekly over 6 weeks' time, condition entirely disappeared. During that time patient gained weight and general health was greatly improved. Recurrence developed six months after cessation of treatment.

CASE 2

M.P., female, aged 23. Psoriasis since 6 or 7 years of age. Had had frequent recurrent attacks of generalized psoriasis, and had not cleared up under varied treatment in the past 2 years. She showed numerous thickened patches over the scalp, face, body, thighs and arms. Under ung. hyd. oleat co. and gold sodium thiosulphate, 100 mg. twice weekly over a period of two months, the psoriasis totally cleared up. A very mild recurrence developed four months later, with a few odd patches scattered over the body and scalp.

CASE 3

P.J.F., female, aged 35. First seen in 1927 with a history of psoriasis of the scalp for five years, and at that time there had developed numerous lesions over the body. Under various treatments, including ultraviolet light, sod. cacodylate by injection, chrysarobin, foreign protein, she has been cleared up partially during numerous widespread attacks. In November, 1932, large plaques were prominent on face, scalp, body, arms and legs. Gold therapy was started, along with ung. hyd. oleat co. locally. At the end of three weeks' treatment she developed urticarial lesions, apparently as a result of the injections. This subsided following cessation of the gold therapy, and the lesions rapidly disappeared, with the exception of the small patch on the knee and on the scalp. Following three x-ray exposures, these entirely disappeared. She showed a slight recurrence in three months' time.

CASE 4

F.D.K., female, aged 38. Marked psoriasis on legs and arms, present for 2 years. After five injections of gold sodium thiosulphate she developed an urticarial reaction and following this there was complete disappearance of the eruption. She used ung. hyd. oleat co. locally. Slight recurrence followed in two months' time.

CASE 5

D.H., female, aged 45. History of psoriasis over 21 years. At time of presentation she showed large plaques over most of the body, which were irritable. She was given four injections of gold sodium thiosulphate, with the use of ung. hyd. oleat co. locally, with the result that the condition completely subsided.

CASE 6

R.N.W., male, aged 45. In 1928 patient developed a thickened eruption on the palms of the hands with fissuring. In 1921, under various ointments, x-ray therapy, and arsenical medication, he failed to clear up, although greatly improved. The condition persisted. He was seen again in October, 1932, when gold sodium thiosulphate, 100 mg. twice weekly, was given over a period of two months' time, along with the use of ung. hyd. oleat co. and x-ray therapy. In December, 1932, all traces of eruption had entirely disappeared and the palms were perfectly normal. He has since remained clear.

CASE 7

F.R., female, aged 42. Marked psoriasis for 15 years; had been observed and followed for 10 years, and during this time had had extremely severe, generalized attacks, with very thick plaques scattered over the body. Admitted to hospital in November, 1931, and failed to respond to any form of treatment over a period of four months, which included chrysarobin and tar locally, autohæmotherapy, typhoid injections intravenously, ultra-violet light therapy, etc. In April, 1932, was given gold sodium thiosulphate intravenously, and along with a mild tar preparation locally, in the course of two months entirely cleared up. Eight months later the condition recurred, and, although not hospitalized, the patient was given gold sodium thiosulphate again in large doses, without any appreciable improvement.

It may be again emphasized that the use of gold salts in the treatment of generalized psoriasis is purely an empirical one, and, further, that it should be used with the greatest of caution and only in the physically fit patient; reactions quite akin to those following arsphenamine injections may follow its use.

3. *Fixed localized types.*—Here we are dealing with patches of psoriasis which are localized in a few areas and remain stationary over a long period of time. Here, again, a local application, such as Druew's ointment or ung. hyd. oleat co., may be used. It is this type that fails to respond, as a rule, to general medicinal measures such as gold, foreign protein therapy, etc. Here a valuable method of treatment in conjunction with ointment treatment is the use of x-ray. This may be given in weekly exposures, beginning with ½ skin unit and continuing with ¼ skin unit over a period of 5 to 6 weeks. If involution does not result, it is unwise to persist with the use of x-ray therapy. It is always advisable that x-ray treatments should be given with caution; the patient should be told of the form of therapy. It must be remembered that this is a recurrent condition, and prolonged x-ray treatment may be the cause of superficial or deep x-ray lesions. The patients should, therefore, be selected, as the results frequently are so quickly obtained that the patient may feel the

need of frequent treatment on the slightest sign of a recurrence.

4. *Psoriasis of the nails.*—This is not uncommon, either limited to the nails, or in association with psoriasis elsewhere. These cases respond slowly. Ointment as a local application is of little value. X-ray is the treatment of choice, and may be given best at long intervals. Dr. Howard Fox of New York recommends ¾ skin unit once monthly, and I have found it of great value. The clearing-up generally takes 4 to 6 months. I think here small doses of Fowler's solution by mouth are of distinct value.

5. *Interval therapy.*—Having cleared up this picture, I confess usually we wait for a recurrence—sooner or later. However, it seems to me that ultra-violet therapy is of distinct value here. Most of the time this is impossible; the financial and other aspects of such treatment make it difficult. Dr. Omar Wilson, of Ottawa, has pointed out the infrequency of recurrences when this can be adhered to. Failing that, treatment by means of direct sunlight, as far as possible, is to be advised. Some years ago a patient of mine, subject to previous and numerous attacks of psoriasis, went to the tropics for three years, where he became constantly exposed. He was entirely free while there. Two months after his return he had a severe recurrence.

I may sum up by saying that there is no specific treatment for psoriasis. At the same time, the judicious use of the local and internal remedies, of which there are many, will make the sufferers from this, at times, disabling disease much more comfortable and able to carry on their daily work.

THE CANCER PROBLEM AND PUBLICITY*

By W. H. McGuffin, M.D.,

President of The Radiological Society of North America,

Calgary, Alberta, Canada

V

IN placing before you reasons why I think it imperative for us to organize a thorough publicity campaign against cancer, regardless of whether we reach any measure of success, it would seem wise to review the situation as it stands to-day.

The time has arrived when we should frankly face the entire question. Statistics show us that to-day more than 125,000 people on this continent die from cancer each year, and we have reasons to suspect that these figures are increasing. This may be partly due to more accurate records being kept and as the result of progress in medical science more people are surviving until the cancer age, but, even taking this into account, cancer appears to be increasing to an alarming extent. No amount of optimism can overlook the fact that the cause of cancer is still dismally in the dark, and honesty compels us to acknowledge our limitations and how distinctly meagre are the lasting curative results being obtained by any form of treatment. Whether or not we are actually losing ground I am not prepared to admit, but we are certainly becoming more aware how limited are our successes and how very much more there is to do before we can say that we have control of this dread disease. All those specifically concerned with the cancer problem are aware of the tremendous difficulties facing us, and, whilst we are clearing the way for further important work and sweeping aside some of the many theories put forth, it becomes necessary for us all to recognize the magnitude of the task still before us. Whilst research work in the most competent hands must go forward as never before, the question we might well ask clinicians is "Just how far are we availing ourselves of and putting to the most effective use the means already at hand?"

It scarcely seems urgent for the general practitioner who sees only two or three cases a year to keep abreast of all that is known on the subject, particularly when most of the cases coming to him arrive too late. Even in a general hospital only a small percentage of

* Previous articles in this series can be found in the *Journal* as follows:— 1933, **29:** 465; 1934, **30:** 46, 48, and 50.