BRITISH MEDICAL JOURNAL

LONDON SATURDAY DECEMBER 11 1937

AUTOPHYTIC DERMATITIS*

BY

HENRY MacCORMAC, C.B.E., M.D., F.R.C.P.

Physician for Diseases of the Skin, Middlesex Hospital.

Autophytic dermatitis is, I am confident, far from uncommon, and is therefore a subject worthy of discussion. Its true nature may not be recognized for months or even years, and in its various forms—for they are many and diverse—it can deceive every class of practitioner, including dermatologists. Self-inflicted skin disease is by no means a modern phenomenon, although it would seem that the strain and increasing effort which characterize present conditions have very clearly increased its incidence. Indeed, its features were until a comparatively recent date, in certain forms at least, either not understood or in dispute, for we find as late as 1903 Radcliffe-Crocker insisting that in so-called hysterical gangrene the theory of self-infliction was the most obvious explanation.

Types of Eruption

The number of recorded cases of self-inflicted injury to the skin now forms a considerable literature; an examination of these records and of those coming under my personal observation shows that while the eruptive processes and the mechanism of their production are, broadly speaking, similar, the individuals who resort to these deceptions are of different patterns, falling into groups which can be distinguished and separated. Since the term autophytic dermatitis covers all these groups, it is first necessary to examine the various forms of eruption met with and their characteristics. First, it is quite clear that no one can reproduce the lesions of diseases such as psoriasis or lichen planus. On the other hand, it is not difficult to cause by external agents inflammatory reactions of different degree varying from simple erythema to ulceration, blistering, or even deep necrosis with subsequent scar formation. Such reactions may mimic various infections of the skin, staphylococcal or streptococcal, especially when secondary sepsis occurs; or the granulomata of tuberculosis or syphilis. If the formation of bullae distinguishes the eruptions a diagnosis of pemphigus or dermatitis herpetiformis may appear to satisfy the conditions, and the frequent reference to hysterical pemphigus in the older textbooks emphasizes the antiquity of this deception. The ingenuity of this class of individual extends beyond such simple expedients: they are known to have clipped out pieces of skin with scissors, to have used pigments and iodine with remarkable results, to have pulled out or cut the hair, accounting for the strange epidemics of alopecia areata observed in schools; and in an extraordinary case recorded by Sir John Collie (1916) a young lady for many months produced typical eczematous eruptions by rubbing the skin with pumice-stone. Her case was further complicated by gastric pain, vomiting of blood, and at a later date the symptoms of obstruction of the bowels.

The guiding characteristic of all these artefacts lies in their want of a perfect and, indeed, often of even an approximate reproduction of a genuine disorder. They tend to appear on the left side of the body, especially on the arm and leg: this applies to right-handed individuals, and the reverse is equally true. Further, all the lesions are within reach of the hand. One exception to this rule has come under my observation in a patient who presented a large number of round pigmented disks all of the size of a halfpenny scattered over the back and front of the chest. That they were artificially produced was certain: as the man was in receipt of benefit because of the eruption one assumed a conspiracy between him and his wife. In other cases the artificial nature of the eruption is disclosed by a straight edge or an abrupt angle, neither of which is observed in genuine dermatoses. Again, an irritant liquid carelessly applied will trickle down the skin—valuable evidence when present. These types, and others where the hysterical patient indulges her fancy in lines or stripes, some along the limb, others across it, or where the eruption is fantastically bizarre, present no real difficulty in diagnosis. There are times, however, when everyone is puzzled and where suspicion is only confirmed after the most careful observation. For example, in many young women with the so-called hysterical eruptions some form of injury or disease has directed the patient's attention to the skin, and the subsequent and self-inflicted lesions may all appear to be a natural sequence.

Even more difficult to assess are those cases where an eczematous eruption is present, especially in alleged industrial dermatitis. When we remember the injurious effects of simple soap-and-water upon genuine idiopathic eczema we can see how easily a patient with dermatitis, whether it be of occupational origin or not, can aggravate and extend the condition at his or her will by mere friction or some more complicated procedure.

A striking example of this process has been recorded by W. J. O'Donovan (1927) in a ward-scrubber who was admitted with occupational dermatitis of the hands. One day the visiting physician asked if her legs were all right, and expressed a wish to see them. There was then no eruption on the legs, but at a subsequent visit they were found to be red and weeping, a condition which persisted for months.

O'Donovan records this as an example of psychogenic traumatic dermatitis. Admission to an institution and the application of occlusive dressings such as elastoplast or plaster-of-Paris will, by the rapid healing of lesions which have persisted for months or years, reveal their true nature. At other times an inspection of the patient's belongings will be rewarded by the discovery of the causal agent. Sir Norman Walker (1932) reproduces in his *Introduction to Dermatology* a coloured plate representing an artefact produced by carbolic acid, which the patient cleverly concealed in the ward despite constant search for it during three weeks. In the case of eczema or dermatitis chemical

* Read in opening a discussion in the Section of Dermatology at the Annual Meeting of the British Medical Association, Belfast, 1937.

agents are not required; vigorous friction is sufficient. Occlusive dressings, elastoplast and plaster, aggravate the eruption, and for this reason cannot be used. To meet these circumstances I employ a wire cage into which the foot and leg can be fixed and locked. If the leg thus immobilized responds while the other does not, it may be concluded that friction is protracting the disease. This, however, applies equally to true idiopathic eczema where the patient, unconsciously perhaps, succumbs to the violent itching. The individual who deliberately aggravates the eruption does not know this, and the plan is thus often effective.

For the purposes of this paper I will divide the various types into four groups. This classification is dermatological rather than psychological. Their clinical characteristics are best illustrated by selected examples.

1. The Hysterical Group

This group can be further subdivided into purposeless and purposeful eruptions.

(a) PURPOSELESS HYSTERICAL ERUPTIONS

These represent the most characteristic and at the same time the most deceptive class. This deception lies in the fact that there is no apparent object to be gained, and that even personal appearance may be damaged to the extent of unsightly disfigurement. This class is almost entirely confined to young unmarried women, who often exhibit an insensitive conjunctiva or palate, and "glove and stocking" or shifting patches of anaesthesia. The following cases are illustrative.

Miss E. M., aged 17, had a number of red inflamed patches on the left shin with superficial scars on both legs. Although the eruption had been present for four years, after admission to hospital healing was complete in nineteen days. I wrote to her four years later to ascertain her subsequent history. She had married and no further artefacts had been produced; in her reply she asked if her eruption would have any effect on her children, apparently a perfectly genuine inquiry which favours the theory of a double personality. She had forgotten, or was unaware of, or had suppressed, the memory of the four years given to her practice.

The next case is more dramatic, and illustrates very well to what lengths individuals affected by this strange neurosis will go.

The patient was an intelligent and well-educated woman of 26, a protozoologist by occupation. In January, 1919, she broke a test tube, and several tiny fragments of glass were removed from her left hand. The lesion never healed, and was replaced by a sloughing ulcerated area. An infection from some protozoon or other pathogenic organism was suspected. I first saw her in May, 1919, and diagnosed dermatitis artefacta. She had a short stay in the ward, and under occlusive dressings the sore was reduced to a tiny lesion. She then discharged herself from hospital, and when I next heard of her a finger had been amputated. Thus mutilated she remained in apparent good health. In this case a genuine injury had preceded the artificial eruption.

Submission to surgical mutilation is indeed not uncommon: a remarkable example of this has been recorded recently by E. W. Prosser Thomas (1937), who emphasizes the curious unemotional indifferent attitude on examination, and one might add on mutilation.

His patient, for a period of nine years, commencing at the age of 22, produced a series of gangrenous lesions on the left hand and arm necessitating thirty-three operations, culminating in complete removal of the left arm. The autophytic nature of the eruption was proved when a new lesion developed, for which the patient was admitted to hospital. This case is not unique. Thomas describes a parallel in Heidingfield's patient, a woman who permitted the amputation of both breasts and

one leg before the true nature of the supposed idiopathic gangrenous dermatitis was recognized. A lesser example of submission to mutilation, with unusual developments, came under my observation in 1932. The patient, a girl of 19, when working as a hairdresser, damaged a finger. This was amputated for supposed tuberculosis. She then developed on the hand a rebellious ulcer of suspected tuberculous origin. On her admission to my ward a diagnosis of autophytic dermatitis was supported by a microscopical examination of the ulcer, which proved its non-tuberculous nature. She improved and was discharged. I ascertained that at a later date she obtained a large sum in compensation for tuberculosis of the skin contracted in her work. Her story does not end here. Three years later when I again saw her she had three ulcers and an erosion of triangular outline on the right leg, all self-inflicted. The ulcer on the hand had healed, but there was hysterical contracture and disuse atrophy.

In spite of her past history, and in spite of all I had to say, this characteristic textbook example of self-inflicted ulceration of the skin remained, and for all I know still remains, an accepted case of multiple tuberculosis. This class of patient does not seek or invite compensation. It is as if honour were thrust upon them, and if this lady has a sense of humour she must relish the exquisitely ludicrous situation.

One further example with similarities and differences may be recorded as illustrating diagnostic technique.

A woman aged 28 developed tuberculosis of the finger necessitating amputation. At the hospital where the operation was performed the diagnosis was confirmed by the microscope, and we may therefore unreservedly accept it. When I saw her at a later date she presented a number of ulcerative small lesions extending in a line up the arm, very suggestive of tuberculous lymphangitis. Had nothing further happened I would have been satisfied with this diagnosis, the mimicry was so perfect. Then the patient became too clever and gave her case away. When similar lesions developed along an operation scar on the abdomen I became suspicious, and my suspicions were confirmed when, upon her admission to the ward and the application of occlusive dressings, the covered lesions completely and rapidly healed.

(b) HYSTERICAL AND PURPOSEFUL ERUPTIONS

Those whose cases come under this heading are women of mature age, and they become or have been difficult and unreasonable. There is an attempt to evade unwelcome duties with simulation of illness to gather pity.

The first example of this class, Miss A., aged 42, presented, following a scald, an erythematous rash of three months' duration confined to the left arm. This rapidly healed on admission to hospital. About two years later she developed agonizing pain in the right toe, which appeared perfectly normal. She was work-shy and neurotic, and her doctor informed me that she had previously rubbed lamp-black under her eyes to show how ill and overworked she was. We told her that we were aware of her deceptions, and this brought her to a better frame of mind.

Another case was that of Mrs. X., aged 45, a chronic alcoholic. Following an injury to the left forearm and index finger she developed a series of necrotic areas on the left arm which healed under elastoplast, but reappeared when the bandage was removed. This continued for six months. Her doctor then took charge of the patient, applying and removing the elastoplast himself. Various excuses were made to evade this treatment. It was nevertheless persevered with, and the doctor won. Her home environment should have been entirely happy, for she had a devoted husband and children. The eruption was an endeavour to find an excuse for her alcoholism.

2. The Malingering Group

Although there is no essential difference in the forms the eruption assumes in this group, except that in general they are better copies of a genuine disease, the motive is

entirely different. There is a monetary or other object to gain or a disagreeable duty to avoid. This kind of deception was met with during the war, and was often very difficult to detect. Long after the war I learned of the ingenious procedure used to mimic boils. A piece of tinfoil was stretched over the skin, and through this a number of tiny punctures were made with a needle. Sand was then rubbed over the surface, and in twenty-four hours a perfect imitation of a boil appeared on the skin; this device could be repeated indefinitely. In such cases a plan is formed to injure the normal skin: the intention precedes the lesion. In other cases a genuine eruption is already present which is deliberately aggravated by the malingerer. This applies in particular to occupational dermatitis, and may explain some of those cases where the dermatitis persists long after the workman has been removed from contact with the supposed causal irritant. It would be wrong and unjust to suspect as fraudulent more than a very small minority of this class. Most of them are examples of idiopathic eczema developing in a workman, and the fault lies not with the workman but in the diagnosis of occupational disease, although it must be admitted that upon this question conflicting and different opinions are held.

3. The Mischief Group

Children as a class enjoy mystifying their elders. Allusion has already been made to the epidemics of bald patches mimicking alopecia areata or ringworm which occasionally break out in schools. Other examples of autophytic dermatitis are met with from time to time in children where a spirit of mischief seems to explain the circumstances. The following belongs to this group.

A bright intelligent child, aged 10 years, was seen by me for an eruption which had been present for three weeks. It was said to "come up in blisters." There were numerous irregular pigmented patches and spots scattered over the right shoulder, forearms, and thighs. Some were linear or irregular, and the whole picture was so absurdly unnatural as to suggest at once an autophytic dermatitis. When I made further inquiries I was informed that a small cousin living with the family had a similar condition. I saw this child, and her eruption was identical but less pronounced. I learnt later that a stripping acid was being used to remove paint from a punt, and it was suggested that this had splashed over the two children. Application of this acid to my arm produced no result, and it must therefore be concluded that something else which was never identified was used. Both children recovered, and no further developments took place.

4. The Phantom Dermatoses

Every medical practitioner has from time to time encountered the patient who comes complaining of a rash which he or she thinks is obvious and even disfiguring, but of which little or nothing is visible to the unprejudiced observer. A similar attitude of mind with a somewhat different reaction is found in another and relatively large class, almost always women with acne or rosacea who state, when they present themselves for examination, that their eruption has suddenly become much better; and they will usually add that it has behaved like toothache which disappears when a visit is made to the dentist. Actually no sudden or pronounced change in the objective condition has taken place—the nature of the eruption in itself makes that impossible. The change lies in their own perception of it: they have, like most people with a skin disease, and especially a disease on an exposed surface, exaggerated its actual proportions. At the consultation and in the presence of an expert they come to see the condition as it really is. From this it is not a far step to true phantom dermatoses where the patient inflicts upon the skin an

eruptive process that is purely imaginary. In this sense such phenomena are autophytic. The following case will serve to illustrate this curious hallucination.

An ex-officer whose war experiences had been long and exhausting complained of a repeated and localized swelling of the face which developed at irregular intervals, lasted for some time, and then subsided completely. Nothing could be found to account for the condition, nor was the actual eruption ever seen. The accessory nasal sinuses were examined and found to be healthy. Recurrent giant urticaria seemed a possible explanation, but the patient's description of the swellings was so vague and unconvincing as to cause suspicion of their reality. To test their genuine character I said that the telephone was always available, and that I was prepared to make a visit at any hour of the day or night when next the eruption appeared. Nothing further happened; the swellings ceased, and in this way my suspicions were seemingly confirmed.

Conclusion

I shall conclude my observations with a short survey of the autophytic dermatoses from the dermatologist's point of view. When the patient derives some advantage from the eruption suspicions are usually aroused, and careful investigation will often discover the means by which the lesions are produced. A far more difficult problem is presented by the so-called hysterical class. Recognition and disclosure of the true state of affairs, far from bringing the matter to an end, in most cases only raises new and perplexing problems. The dermatologist can rarely give any reason which will satisfy the incredulous relatives and explain the perverted behaviour; nor is it as a rule possible at first to identify the exact method by which the deception has been carried out—an apparent defect in the argument which creates further doubt, sometimes shared by the practitioner in charge of the case. Nothing is gained by confronting the individual with the deception. The result is always an indignant denial, made with so much semblance of truth as to shake the confidence of anyone who is not certain of his facts. In these cases be it remembered the usual procedure is reversed, a positive diagnosis being made upon what may be called negative evidence. Even when the case is established beyond reasonable doubt the diagnosis is still denied by the patient and only grudgingly accepted by the friends. The exposure is never popular. It behoves us, therefore, to be very careful before reaching a conclusion, and never to express an opinion unless we can completely satisfy ourselves and others. No mistake in diagnosis is more resented.

What happens to these patients? I have been able to follow up the after-history of eleven young women with hysterical eruptions (MacCormac, 1926). All but one had ceased to inflict lesions on the skin, and the replies to my letters of inquiry received from some of the former patients reveal the curious fact that the knowledge of what they did had been forgotten or submerged.

The foregoing is mainly concerned with diagnosis, the signs by which self-inflicted lesions of the skin are recognized. That merely touches the fringe of the subject, for these eruptive processes are not skin diseases as ordinarily understood, except in the malingering class, but rather a reflection upon the skin of a disordered condition of the mind.

REFERENCES

- Collie, Sir John (1916). *Lancet*, 2, 1008.
- MacCormac, H. (1926). *Brit. J. Derm. Syph.*, 38, 371.
- O'Donovan, W. J. (1927). *Dermatological Neuroses*, p. 14, London.
- Radcliffe-Crocker, H. (1903). *Diseases of the Skin*, p. 533, Philadelphia.
- Thomas, E. W. Prosser (1937). *British Medical Journal*, 1, 804.
- Walker, Sir Norman (1932). *An Introduction to Dermatology*, p. 136, Edinburgh.