THE MIND AND THE SKIN

BY

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In 1884 Jonathan Hutchinson started a series of lectures with the following sentences: "Our forefathers, who knew far less about the detail of pathology than we do, attached far more importance to such matters as temperament and diathesis. They were accustomed to prescribe for a man's temperament; we think only of his disease, and turn aside with weariness from classifications of diathesis in which the physicians of an older day delighted. Although to a large extent this change of sentiment has been the result of advance in knowledge, yet I think it might easily be shown that it has gone too far, and that we now neglect unwisely the study of those differences between man and man of which, for the most part, physiology takes no cognizance, but which may yet prove of much importance in modifying the processes of disease."

That extract is as true to-day as it was 65 years ago. That the skin can portray emotions and give a picture of man's temperament is often overlooked. Ingram in 1933 pointed out that permanent changes can occur in the skin as a result of emotional changes, but it is only recently that this has been generally accepted, and there still exists rock-like opposition in some quarters.

Few would deny that certain emotions are displayed for all to see in the changing responses of the skin. The blush of shame, the flush of anger, the pallor of fear, are commonplace examples of this phenomenon. It is impossible to practise dermatology without realizing that these dynamic changes may produce a permanent change in the skin. However, it is extremely difficult to prove this to the outside observer. Professor Witts (1948) said, "How easy it is to aver that mental ideas or states can be converted into physical disease processes as they can be converted into phobias or hysterical paralyses, but how difficult it is to prove it or to demonstrate the mechanism!"

It is becoming more and more apparent that the onset of any given disease is a result of the interplay of many factors; hereditary predisposition, allergy, bacterial infection, immunity, and mental conflicts all play a part. It is most important that skin disease should be classed as a derangement of the whole body, and not just as an inflamed patch of skin. The mind plays a large part in the production of some of the common skin diseases, but I do not want to give you the impression that I think that all skin disease is produced by derangement of the mind or that if an adequate organic cause can be found it should be neglected.

Here is a brief classification of the skin conditions in which the psychogenic factor plays some part in the causation:

Group 1.—Dermatoses Always Psychic in Origin.—(a) Delusion of parasitosis (acarophobia) and other obsessional states. (b) Dermatitis factitia. (c) Neurotic excoriations. (d) Trichotillomania.

Group 2.—Dermatoses with a Large Psychogenic Factor.—(a) Neurodermatitis. (b) Pruritus ani and vulvae. (c) Atopic eczema. (d) Nummular eczema. (e) Rosacea.

Group 3.—Dermatoses Sometimes Precipitated by Psychogenic Factors.—(a) Urticaria. (b) Hyperidrosis. (c) Cheiropompholyx. (d) Seborrhoeic dermatitis. (e) Psoriasis. (f) Alopecia areata.

Group 1

The cases in this group are of interest in that their aetiology is accepted by most people without much argument.

On the whole they are rarities, and therefore I do not want to give much space to them. They include:

(a) *Delusion of Parasitosis, or Acarophobia.*—This usually occurs in an elderly person living alone who complains that he or she is infested with imaginary mites which run about his or her body. An old lady who came to me not long ago stated that she had three separate colonies, all different colours, living beneath her toe-nails, in her umbilicus, and in her hair. She produced a screw of paper in which were bits of dust, skin, scales, etc., which she stated were the mites. Her main reason for coming was that she thought people in church could see them and were talking about her. On examination her skin showed no abnormality, though in some cases excoriations are present, as there is often an associated senile pruritus. Her belief of infestation was a delusion, and this was part of an involutional melancholia. Other psychoses may give rise to these delusions, among them toxic states, schizophrenia, and arteriosclerotic paranoia. In this group psychiatric treatment is the only thing possible, and I believe my old lady was helped by electric convulsion therapy.

(b) *Dermatitis Factitia.*—These skin lesions are self-inflicted and can be diagnosed by the bizarre characters, which do not fit in with any common dermatosis. Occasionally the lesions are produced consciously for gain, as by the man who wishes to be invalided from the Services or who aggravates an industrial dermatitis to continue to draw compensation. Most commonly, however, the lesions occur in women with a hysterical personality who desire sympathy. Occasionally no apparent reasonable cause can be found, and then it seems to be a true psychosis. I remember very well a woman who ulcerated one leg until it had to be removed; she then started on the other. Fig. 1 shows a typical factitious lesion in a girl of 16. No cause for her action was found by the psychiatrist. Even when confronted with evidence that the lesion heals when covered by an occlusive dressing it is rare to get a confession, and I think psychiatrists agree that these cases are most difficult to cure.

FIG. 1.—Photograph of girl with dermatitis factitia.

(c) Closely allied to dermatitis factitia are those rare cases of neurotic excoriations that are usually a result of some trivial organic skin disease which is perpetuated in hysterical individuals by constant scratching.

(d) *Trichotillomania.*—The habit of pulling out hair is most commonly seen in children of nervous temperament and in mental defectives.

Group 2

In this group—comprising the dermatoses in which the psychogenic factors play a predominant part—are those patients who crowd the out-patient departments and surgeries. These cases occur in individuals who are born with a constitutional inadequacy of the nervous system. They belong to the same group as those seen in other departments of medicine, with nervous dyspepsia, effort syndromes, irritable colons, anxiety headaches, and the other innumerable psychosomatic syndromes. The fact that they develop a skin abnormality rather than one of the other manifestations seems in many cases to be a matter of chance or rather opportunism.

Neurodermatitis

If one takes the common itching syndrome neurodermatitis, there is often an organic precipitating cause, and then the irritable nervous make-up takes over and perpetuates the condition. A typical example follows.

Case 1.—A woman aged 50, obsessively house-proud and a chronic worrier, had brought up her only daughter to be a bit above the neighbours and was intensely proud of her. Some six months before she attended the out-patient department her

FIG. 2.—Case 1, showing band of neurodermatitis on the neck.

find herself scratching. She had always prided herself on her good skin and keeping clean, and the fact that she had this skin lesion, which other people could see, increased her anxiety, and she ceased to meet her friends, as she was ashamed. It was at this stage that she attended hospital. On examination the clinical lesion was a band of lichenified papules with an excoriated surface on the back of her neck (Fig. 2). The lichenification was evidence of long-continued rubbing, and the localized lesion with clear-cut edges was typical of probably the most common psychodermatosis—localized neurodermatitis. It was apparent that there must have been some psychogenic cause, and with only a little encouragement she gave us the whole story.

Here one can see the three main factors: (1) constitutional make-up, (2) acute emotional tension, and (3) an organic lesion—the boil; this led to the production of the lesion, the presence of which caused even more anxiety.

The great majority of these cases of dry localized neurodermatitis have some recent increase in nervous tension on the constitutional nervous state which Becker (1932) called "neuro-circulatory instability." Favourite sites for the lesions are the occiput and nape of the neck, behind the ears, the eyelids, the antecubital fossae, the backs of the arms, the inner side of the thigh, and the vulva and perianal regions.

On the whole the personality type which develops neurodermatitis is the hard-working, over-conscientious, meticulous, overclean, yet aggressive obsessional persons to whom life is a stern battle relieved by a few light touches and who bottle up their emotions.

Stokes (1940) has named this personality the "tension frame of mind," and I think it very apt. These people have an inborn feeling of inadequacy. Their lives are governed by the conflict of "I must" with "I can't" and "I don't want to." These are the women who are aggravatingly house-proud, who boast of never sitting down, who—if advised to stay in bed—say, "Oh, I couldn't rest for a minute." It is a state of diseased conscience. These are the people who love being martyrs, the trouble-borrowers. This temperament plus precipitating increase in anxiety leads to neurodermatitis. Two further examples follow.

Case 2.—A woman aged 29 was just such a personality. For two years she nursed her mother in her last illness. The following year she nursed her father in his last illness. After that she became depressed, unable to concentrate, and prone to attacks of weeping for no apparent reason. Then she began to scratch the back of her neck, producing the condition shown in Fig. 3.

Case 3.—A grinder aged 25 was injured two years previously when a grindstone exploded. He was afraid to return to his job, and developed a "nervous breakdown" and headaches. However, he did return, and in a few months began to scratch his right thigh. On examination he was obviously jumpy, had hyperidrosis of the hands, and admitted that he was scared stiff of his job. There was a large area of neurodermatitis on

his right thigh. He clearly understood the explanation of his symptoms, and recovered when his occupation was changed.

While localized neurodermatitis is more common in women, it does occur in men, and I have recently seen it in a boy of 6 who started to scratch when another child was born in the family.

In some cases the site of itching is in the region of an organic lesion, but in many there seems to be no such localizing factor. In these cases the undue tendency to scratch is grafted on to one of the quite usual physiological scratching areas of the body. Very often the normal person scratches the back of the head when faced with a problem. Many of us, I am sure, have felt an itch in the region of the anus. Most people itch when they see skin patients at first. The severity of the itch depends on the degree of awareness or attention to the itch. The strength of the feeling will vary from time to time. To take an example from the pain sense: if we are prepared for a blow the resulting sensation will be painful. If we, however, sustain a blow on the football field it may not be noticed at the time and the bruise be found later.

In these individuals the sense of awareness of their own feelings is tuned up to a high pitch, and just as the effort-syndrome case can feel his heart beating so the individual with the tendency to neurodermatitis senses an irritation which the normal person would not. I have rather laboured this point because I feel it is so important to try to explain the transference of emotional tension into irritation.

Pruritus

Pruritus ani and vulvae forms a problem which can be explained reasonably well on those grounds. I think the types of cases of pruritus ani vary with the clinic to which they are sent, a higher proportion due to organic diseases being seen in the surgical and gynaecological out-patient departments. Certainly 50% of the cases seen in the skin out-patient department are of psychogenic origin, although a fair proportion of these patients did have some slight organic disease which drew their attention to the part.

Unlike the psychiatrists, I do not think that irritation of the anus and vulva always has some deep dark sexual significance, but both these areas are prone to trivial infections, tears in the mucosa, etc., which may start a pruritus if the individual is at the time facing some conflict in his or her life. Here I would like to give two brief examples.

Case 4.—A man aged 50, a hard-worked executive in a big works, had always had hyperidrosis of the natal cleft. During a spell of hot weather this caused some maceration of the skin. At that time he was overworked and worried and was suffering from insomnia. He found that, while lying in bed awake at night, he began to scratch the lesion. Ointments of various kinds gave him only temporary relief. He was an obsessional personality, ultra-clean, and when he came to see me he gave a detailed description of his anus and perineum which showed that he had been studying the matter closely. On examination the perianal skin showed lichenification and excoriation. Under

FIG. 3.—Case 2, showing localized patch of neurodermatitis on the neck.

treatment by reassurance and explanation, plus sedation, he ceased to have trouble. Here a trivial organic lesion in an obsessional personality under some strain became converted into a chronic pruritus ani.

Case 5.—An attractive and well-dressed woman aged 36 came to me complaining of pruritus vulvae. This dated from the time she found out that her husband had been unfaithful to her. Even though I could do nothing about her domestic life, an explanation of how the pruritus was caused, plus x-ray treatment and sedation, managed to cure her symptoms.

Occasionally one meets a case of localized pruritus where a search for a psychogenic factor appears completely negative. Sometimes these cases can be explained on a purely habit-scratching basis. These patients start to scratch a trivial organic lesion, and this becomes converted into a conditioned reflex rather similar to nail-biting. Any slight impulse from the site calls forth the desire to scratch, and eventually a patch of lichenified irritable skin results. An interruption of the vicious circle by local antipruritics and self-control by the patient may lead to a cure.

Lastly, there is a very small group—and I am sure that it is a very small group—who derive some erotic pleasure from scratching. In my experience this commonly occurs in young men, and the psychiatric explanation given for this is that the scratching is a form of masturbation. This group is incurable by the usual methods, and even with expert psychiatric treatment such as analysis success is unusual.

Eczema

Now to turn to the part played by the mind in eczema. All are familiar with the picture of infantile eczema which at a later stage develops into the flexural prurigo so classically described by Besnier in 1892. Here the constitutional tendency to eczema is inherited, and there is a close association between eczema and the other hypersensitive allergic states—asthma and hay-fever. All these diseases are evidence that the individual has inherited epithelium which is hypersensitive. The intelligence of the group is above average. Rogerson (1934) found an intelligence of 110–115 on the Binet scale. The normal average is 89.

The trigger which starts the eczema in infancy is usually organic. Cold winds, a strong soap, vaccination, an attack of gastro-enteritis, an allergic reaction to some food, a napkin rash, impetigo, and scabies can all precipitate an attack. Once the eczema has started the restless make-up of the child perpetuates the condition by rubbing and scratching. Taken at this stage the condition is primarily organic.

However, in many cases psychological factors are grafted on, and it is these which lead to the transition into Besnier's prurigo. In the majority of cases the parents are themselves anxious and excitable individuals, and the sight of their infant, often an only or a first-born child, tearing his skin to pieces and sleeping little at night completely demoralizes the home—as well it might. The mother tries ointment after ointment, fusses over the child's diet, prevents him playing with other children, and constantly attempts to stop him scratching. The child then becomes the pivot of the family and more and more demands care and attention, until he clings constantly to his mother. The continual thwarting of the child's activities leads to a rise in his mental tension. This leads to yet more irritation and scratching.

It is most striking that if the child is taken out of this environment he rapidly improves. As a generalization, all cases of infantile eczema can be cured quite rapidly in hospital or even in convalescent homes. That this might be due to removal from allergens is a criticism which has to be met in ascribing the trouble to psychogenic influence.

However, relapse may occur whilst in hospital after a visit from the parents.

Removal of the child from the home gives the distracted and sleepless parents a chance to recover. The prevention of a recurrence, which may happen within a few hours of his return home, depends on the treatment of the parents. They should be reassured that the disease is not fatal, that it is nothing to be ashamed of, and that, if they will develop a more detached attitude to the problem and allow the child to go his own way even if this means watching him scratch, it will recover. The child should be allowed outside activities and to take up a normal life as soon as possible. By this handling of cases the continuation of the condition into adult life can in most cases be prevented.

The tendency to eczema, however, lasts into adult life, and if this group have to face situations which increase emotional tension relapses will occur. I have one patient, a solicitor, who produces an outbreak of eczema after a week-end staying with his mother-in-law, whom he detests. Other cases recur if married life becomes impossible.

Rosacea

Rosacea is a permanent dilatation of the skin vessels of the nose, cheeks, forehead, and chin, associated with a papular and pustular eruption which is a sequel to the chronic dilatation. This dilatation may be caused in various ways. Exposure to wind and weather, dyspepsia, ovarian disease, and exposure to heat as in furnace-workers are responsible in some cases, but by far the commonest cause is reflex blushing of emotional origin. After many years of emotional blushing the vessels become permanently dilated, and later the papules and pustules form. At a later stage the eyes may be involved in the process, with the onset of keratitis.

Rosacea is essentially a dynamic process, exacerbation and remission occurring in a very short time. Exposure to a hot room, drinking hot drinks, and acute worry can all produce exacerbation. Klaber and Wittkower (1939) found that 35 out of 50 rosacea patients described themselves as quiet, reserved, and serious-minded. As children they disliked parties and meeting strangers. They were bashful, and any attempt to force them to appear in solo performances of any kind filled them with terror. They were obstinate and sullen if attacked. Rarely did they display any temper. He described the condition as showing undue social anxiety. With the background of this personality any acute emotional crisis is apt to produce rosacea. A typical example is the following:

The patient was a female shop assistant aged 35 who described herself as shy and who blushed easily on speaking to anyone. She was solitary, loved reading, had only one or two women friends, and hated meeting strangers. A year before I saw her she had had the first affair of her life with a married man. This she ended because she felt so ashamed. She was very upset at giving up this friendship, and lost interest in life. Shortly afterwards rosacea developed.

Here one can see the personality and the precipitating crisis associated with shame.

Group 3

The third group of skin conditions in which the mind plays a part are those in which only occasionally is the mental side a factor. In this group are included skin reactions such as urticaria, seborrhoeic dermatitis and psoriasis, hyperidrosis, cheiropompholyx, and alopecia areata.

So far I have been unable to produce scientific evidence that the mind can produce a skin lesion. It has all been the "I had a case" evidence. In dealing with urticaria one is on firmer ground. Grant, Pearson, and Comeau

(1936) described a series of cases of urticaria in which attacks were brought on by emotion, heat, and cold. After the most exhaustive tests they proved fairly conclusively that the urticarial reaction in these patients depended on the peripheral nerves being intact; they believed the stimulus to be along these nerves and to be of cholinergic parasympathetic type.

The mechanism was that acetylcholine was released at the nerve-endings, and that this led to the formation of histamine, which produced the urticaria. In these cases attacks could be brought on by injecting carbachol and aborted by giving atropine. Peculiarly enough, some research done in 1947 on the nettle proved that a nettle sting acted not by releasing formic acid but by injecting acetylcholine and histamine, so that even the naturally produced nettle-rash falls into line with Grant, Pearson, and Comeau's work.

Further confirmation of the power of the mind to produced urticaria and even bleeding was given by Moody (1948), who described urticarial reactions occurring in a patient undergoing narco-analysis and reliving incidents of her past, in which she had been beaten by a sadistic parent. On recalling particular incidents, urticarial weals appeared on the original sites of the injuries.

The easiest way to regard seborrhoeic dermatitis and psoriasis is to look on them as skin reactions which are inborn and which may be precipitated in many ways—by trauma, by infection, and occasionally by mental stress. It was not uncommon to see men who on entering the Services developed seborrhoeic dermatitis which lasted all the time until they were invalided and then cleared rapidly without treatment. Psoriasis occasionally becomes generalized after emotional shocks.

The onset of alopecia areata is often related to unhappiness, though in a great many cases, particularly in children, no psychogenic factor can be discovered.

Just how much bearing the mind has on the onset of allergic and contact dermatitis it is difficult to assess. I feel that in some cases the hyperexcitability of the tissues, which allows them to become sensitized, may well be a result of anxiety. I remember the case of a woman who was unhappily married to a husband of another religion. She hated going to gatherings of his relatives, and on these occasions her face became flushed and irritable. I thought at first that the eruption was entirely psychogenic, but to make sure I patch-tested her to her lipstick, which she also applied to her cheeks as rouge. She gave a violently positive reaction, and cessation of its use led to clearing of the rash. She had been using the lipstick for years, and it may well be that unless she had been acutely unhappy she would not have become sensitized.

Local hyperidrosis is often a result of chronic anxiety. Cases occurred more often in the Services than in civilian practice.

Cheirpompholyx is a dangerous subject to discuss, as the causes are innumerable, but now and again one comes across a case with an obvious psychogenic background which can be cured by reassurance and explanation. Any case of cheirpompholyx for which no other cause can be found should be investigated for the presence of psychogenic influences.

I have been most impressed by the stories obtained from these patients with psychogenic backgrounds. It is not necessary to make up fears and difficult situations for them. Usually their life situations are such that it is not surprising to find them breaking down in one way or another.

Treatment

The most important feature is to realize that the handling of the psychodermatoses differs in no way from that of

other psychosomatic disease. These patients are constitutionally less able to face life's problems than the average run of humanity, and are not persons with only an inflamed patch of skin.

A firm but kindly sympathetic approach is necessary, and it takes time to extract the life story and the salient problems which have led up to the onset of the dermatosis. It is impossible to gain the patients' confidence with other people—particularly relatives—present, and it may not be until the second or third interview that they will unburden themselves.

After the diagnosis has been made—and I hope that I have shown in what types of cases the psychogenic causes may be suspected—symptomatic treatment may be started. General sedation with small doses of phenobarbitone, local antipruritics—but here I must stress the need for simple agents not likely to sensitize the skin—and x-ray therapy, which is the most powerful antipruritic, will all help to alleviate the symptoms.

After the first few days, when the irritation lessens, the patient will accept more readily the doctor's reassurance that he knows what is the matter, and will be prepared to listen to a simple explanation of how a tense nervous state has led to the present condition. Even if the social conditions and environment remain impossible, as so many of them do, symptoms can be relieved.

However, relapse is likely unless something more can be done. In Sheffield we have an almoner whose main duty is solving the problems which beset these patients. She helps by arranging holidays for the housewife who has reached cracking point and home helps for those who cannot leave small infants. Sometimes she can find other accommodation for those who have to live with "in-laws," and alternative occupations for those who have uncongenial work. She obtains legal advice for those for whom a divorce seems the only way out, and, above all, she remains a friend to whom those in trouble can come and pour out their day-to-day worries.

In the short time that it has been in existence the almoner service has produced more permanent cures than all our ointments and magic rays. However, the person who should be really fitted to carry out the correct treatment is the family doctor. He has the facts of the family life at his finger-tips; we have to drag them out painfully. It is the family doctor who, if he can recognize that the skin condition which has brought Mrs. X to his surgery is really repressed indignation because she has an impossible husband, is the best person to give reassurance and advice.

There are, of course, incurables—the patients who trade on illness, those not intelligent enough to listen to advice and who cannot gain insight into their problems, and those who are so constitutionally inadequate that no one can help them. However, the incurables form only a small percentage, and I hope I have made my point that the psychodermatoses are a very real group among skin diseases and that a great deal can be done for those suffering from them.

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