handling solutions of this substance is advised, because it can produce a severe dermatitis. Biochemically, pentachlorophenol resembles the dinitrophenols in its action on metabolism by inhibiting phosphorylating processes and allowing oxidative reactions to proceed more rapidly. From Germany comes a report of severe sciatic pain and neuritis and associated skin eruptions occurring in eight persons working with pentachlorophenol. The symptoms and signs were in the legs, but otherwise closely resembled those in the upper limbs of the cases described above.

Animals poisoned with pentachlorophenol may show slight motor weakness and convulsive seizures. Applied to the skin of rabbits the insecticide preparation caused a fatal liver necrosis, and when given orally to rats in lethal or near-lethal doses it produced coarse tremors and convulsions characteristic of either D.D.T. or pentachlorophenol poisoning. Liver damage in rats was not conspicuous.

It was administered to three hens, because this species is especially susceptible to the neurological damage produced, for example, by tri-*ortho*-cresyl phosphate. Doses sufficient to make the hens very ill and cease eating were not followed by any evidence of neurological damage. This is perhaps not surprising, as the injury in these cases was mainly sensory, while in tri-*ortho*-cresyl phosphate poisoning they are mainly motor in distribution. It has thus proved impossible to obtain confirmation of suspicions about this insecticidal preparation by means of animal experiment.

Conclusion

The purpose of writing this article is to draw attention to the possibility that the insecticide preparation under review may be a cause of some cases of peripheral neuritis. It should be emphasized that in all the cases the material had been handled carelessly and contrary to the maker's recommendations, and gross skin contamination had taken place.

It seems probable that the condition will be seen only in those who handle the material carelessly and are themselves particularly susceptible to neurological injury by chemical substances. Little is known about the aetiology of 30% of cases of peripheral neuritis, and this description may serve to draw attention to at least one other possible causal factor.

Summary

Several cases with neurological symptoms have been described after exposure to a proprietary insecticide. On the evidence available it is impossible to say with certainty what chemical in the preparation was responsible for the symptoms, but it is thought most likely that they were caused by pentachlorophenol, as it is highly soluble in fat. It is not possible to exonerate D.D.T. completely, and further experiments and observations would be necessary before stating with certainty that D.D.T. did not play a part in the development of symptoms in these cases.

I am grateful to Professor T. F. Hower and Professor H. S. Heller, of Bristol University, and to Dr. J. M. Barnes, of the Toxicology Research Unit, Medical Research Council, for the animal experiments, to the latter for advice and help in preparing this paper; and to Professor R. H. S. Thompson for the blood-pyruvate estimations.

ADDENDUM.—Since this paper was written a patient has presented with very similar signs of polyneuritis accompanied by purpura, following exposure to a concentrated D.D.T. aerosol preparation during his work as a chemist. This is of interest because in the United States (F. E. Karpinski, *J. Pediatr.*, 1950, 37, 373) purpura has been found to occur in children exposed to aerosols containing D.D.T.

BIBLIOGRAPHY

- Baader, E. W., and Bauer, H. J. (1951). *Industr. Med. Surg.*, 20, 286.
Dresden, D. (1949). *Physiological Investigations into the Action of D.D.T.*
G. W. Van del Wiel, Arnhem.
Killingemann, H. (1949). "Die D.D.T. Vergiftung." *Aerztl. Wschr.*, 4, 465.
Laug, E. P., Nelson, A. A., Fitzhugh, O. G., and Kunze, F. M. (1950).
J. Pharmacol., 98, 268.
Velbinger, H. H. (1947). *Dtsch. Gesundheitswes.*, 2, 355.

PSYCHIATRIC SURVEY OF A RANDOM SAMPLE OF SKIN OUT-PATIENTS

BY

S. P. HALL-SMITH, M.D., M.R.C.P., M.R.C.P.Ed.
Consultant Dermatologist, Brighton and Lewes Group of Hospitals

AND

ALAN NORTON, D.M., D.P.M.
Consultant Psychiatrist, Bexley and Lewisham Hospitals

An appreciation of the importance of psychological factors in many dermatoses is by no means new. Sydenham (1681), for example, writing of the "hysterical diseases," described angioneurotic oedema affecting one leg; Turner (1726) cited a case of rosacea in a woman which he attributed to grief at the death of her husband; Bateman (1829) observed that pompholyx diutinus seemed often to occur after continued fatigue and anxiety.

In the past twenty-five years interest in the subject has been revived, and in the last ten years there has been a spate of literature on many aspects of this complex relationship. Reports have mostly been of three types: (1) Intensive studies of individual cases of skin disorder which seek to show a causal relation between psychic stress and skin eruption. (2) Extensive studies of the psychic characteristics of sufferers from a particular type of skin disorder—for instance, pruritus ani (O'Donovan, 1927), rosacea (Klaber and Wittkower, 1939), seborrhoeic dermatitis (Wittkower, 1947). (3) Wide generalizations linking particular skin disorders to particular types of temperament or psychic constitution (Hillier, 1865; MacKenna, 1944).

Despite the older observations and the more recent publications, reference to the subject is making only a tardy appearance in modern textbooks of dermatology. It is difficult to gain from this rapidly expanding literature any clear impression of the nature, the extent, or the limits of this relationship. Is the connexion one of association only, or is it dynamic and more correctly represented in psychopathological terms? What proportion of cases of a particular skin complaint can be said to depend on psychic factors? In what kinds of people do particular skin illnesses tend to crop up? Are there, indeed, any skin complaints which are unrelated to temperament and to emotional stress?

In an attempt to answer some of these questions a psychiatric investigation has been made of a random sample of patients attending a hospital out-patient department for skin diseases.

Method

The random sample was built up by referring the first, sixth, eleventh, and sixteenth skin patient seen each day (whether a new case or not) to the psychiatrist. By this means waiting was reduced to a minimum. If one of these patients had already been interviewed the next patient was referred in his stead. The interview lasted from half to one hour. This is probably not long enough to obtain all the relevant facts and attitudes, but there was a practical limit to the length of the interview. On several occasions the patient was actually walking to the door at the end of the interview before he let slip significant information.

Little resistance to psychiatric investigation was encountered. A surprisingly large proportion, after the

purpose of the investigation had been explained to them, volunteered the information that they thought their skin trouble was related to nervous factors. Unfortunately it was some time before the prevalence of this attitude became clear, so that exact figures for the whole group were not obtained, but probably well over one-half were aware of the significance of nervous factors in their skin diseases. Only two patients had to be rejected—aged Jews of foreign birth who proved incapable of comprehending questions or of answering intelligibly.

Results

A total of 150 patients—100 men and 50 women—were assessed. From a survey of their personalities and of the emotional stresses to which they had been subjected they were classified into three sections:—Section A: patients with an abnormal personality and with a history of recent emotional stress. Section B: patients with an abnormal personality but who denied any particular stress preceding the outbreak of skin disease or its recurrence. Section C: patients with a sound personality and with no history of stress; also those subjected to minor stress, which there was no reason to connect with the development of skin lesions.

Dermatological Diagnosis.—An accurate diagnosis was arrived at in each case. In fact, the 150 patients shared no fewer than 40 diagnoses, but there was only one example of 26 of these diagnoses. For our purposes we have reduced these numerous diagnoses to eight groups. Group 5 consists of those conditions listed by Becker and Obermayer (1947) in their textbook, in which psychic factors are said to be of paramount importance but which are not shown separately in one of our other groups. These diseases include alopecia areata, lichen planus, pruritus ani and vulvae, rosacea, and psoriasis and urticaria. Group 6 includes all those conditions in the aetiology of which Becker and Obermayer make no mention of psychic factors. A detailed analysis of our results classified in this way is shown in Table I.

TABLE I.—Incidence of Personality Disorder and Emotional Stress in Patients Suffering from Various Skin Disorders

Group	Diagnosis	Psychogenic Factors				
		Section			Total	% in Sections A and B
		A	B	C		
1	Sycosis barbae ..	4	4	—	8	100
2	Cheirpompholyx ..	13	4	—	17	100
3	Neurodermatitis ..	10	9	—	19	100
4	Seborrhoeic dermatitis ..	9	2	2	13	85
5	Becker and Obermayer's "positive" group (including alopecia areata, lichen planus, pruritus, rosacea, psoriasis) ..	20	6	2	28	93
6	Becker and Obermayer's "negative" group (including infective dermatoses, varicose dermatitis, fungus infections, and other miscellaneous cases) ..	6	8	11	25	56
7	Eczema (exogenous and endogenous) ..	11	8	10	29	65
8	Acne vulgaris ..	—	4	7	11	36
	Total ..	73	45	32	150	78.5
	% of total ..	48.5	30	21.5		

Psychiatric Diagnosis.—Of the 150 patients seen, 89 might well have consulted their doctors for psychiatric symptoms which were causing them some trouble. The major diagnoses would have been:—Men: anxiety states, 42; reactive depression, 3; hysteria, 9; hypochondriasis, 1; dull and backward, 2. Women: anxiety states, 18; reactive depression, 4; hysteria, 6; hypochondriasis, 2; dull and backward, 2. The symptoms characteristic of endogenous varieties of depression were conspicuously absent, and this observation is in accordance with the well-known rarity of suicide in sufferers from skin complaints (Becker and Obermayer, 1947).

Possibility of Treatment.—Twenty men and 12 women (21%) seemed in no need of psychiatric help; 39 men and 19 women (39%) presented psychiatric problems, but owing to their lifelong abnormality the condition would have had to be regarded as probably unalterable and attempts at treatment as likely to be useless; the remainder—41 men and 19 women (40%)—might, it was felt, have benefited from attempts at psychotherapy or alteration of their environment.

Many further facts were gathered about these patients concerning their age, marital status, religious persuasion, family history, and childhood stresses. In the absence of similar observations on controls these can be of only limited interest, and only the significant findings are mentioned. These more detailed findings were limited to the 100 male patients.

Detailed Investigation of 100 Male Patients

1. **Duration of Symptoms.**—The duration of symptoms (Table II) and treatment bears out the reputation of skin diseases. Over half of the patients had had their skin disorders for more than a year, and nearly half had been attending hospital for three months or more.

TABLE II

Duration of Symptoms	No. of Patients	No. whose Present Symptoms are a Recurrence
Under 1 month ..	7	3
1-3 months ..	8	4
3-6 ..	13	4
6 months to 1 year ..	18	4
1 year to 2 years ..	16	3
2 years to 5 ..	15	—
5 .. 10 ..	11	—
10 .. 20 ..	9	—
More than 20 years ..	3	—

2. **Age.**—The age incidence is shown in Table III.

TABLE III

Age	No. of Patients	Age	No. of Patients
0-19 ..	4	40-49 ..	19
20-29 ..	25	50-59 ..	16
30-39 ..	25	60 and over ..	11

3. **Early Life.**—Seventeen gave a history of chronic skin disease in first-degree relations. No evidence was found of any handicap of a particular position in the family. Death of a parent, separation, quarrelling, cruelty and drunkenness, poverty, and overcrowding were commonplace in the past histories of these patients. The incidence of these adverse factors seems consistent with figures derived from neurotic populations by Sutherland (1941), Ballard and Miller (1944), and Slater (1943), but we are ignorant of their extent in the general population.

4. **Childhood Neurotic Traits.**—Sutherland (1941), Hadfield (1942), Hyland and Richardson (1942), and Ballard and Miller (1944) all agree, despite the inevitably loose and individual definitions employed, that only about 20% of their neurotic populations were free of neurotic traits in childhood. Among our 100 skin patients, 42 seemed free of these traits. Shyness, self-consciousness, and blushing, however, were very common (32) and so was nail-biting (13). Klaber and Wittkower (1939) found 66% of their rosacea patients but only 34% of their controls subject to blushing. Wittkower (1947) found 23% of 100 patients suffering from seborrhoeic dermatitis to be nail-biters. Nineteen of our 100 skin patients had suffered from severe morbid fears in childhood, 6 had been stammerers, and 5 had often walked in their sleep. We may conclude that the incidence of neurotic traits in childhood among skin patients is high, but not so high as that among psychiatric patients.

5. **Work Record.**—This was, in general, extremely good: 57 had been in one job for at least 10 years, and 18 of these had been in one job for 30 years or more. Only 12 had an unstable work record. For neurotic populations the percentage with unstable work records is much higher: Sutherland (1941), 27%; Hadfield (1942), 39%; Ballard and Miller (1944), 29%; Torrie (1944), 26%; and Guttman and

Thomas (1946), 36%. The discrepancy can be accounted for in part by the higher average age of the skin patients.

6. *Social Relationships*.—These were wholly satisfactory in only 49; a large and important group were shy and quiet and had few interests outside their homes; only 5 were very solitary by nature; and 3 resorted to habitual abuse of alcohol.

7. *Sexual Adjustment*.—Of the 75 married patients, 68 said they were happily married or were widowers who had been happy. Of the 25 single patients only 10 seemed well adjusted.

8. *Previous Illness*.—(a) *Neurosis*: 6 of the 100 men had had a previous nervous illness necessitating absence from work; a further 28 had had neurotic symptoms, but not severe enough to keep them from working; the remainder denied previous nervous symptoms entirely. (b) *Psychosomatic illness*: 10 patients had suffered from psychosomatic illness previously, 3 with asthma, and 6 with gastric or duodenal ulcer. (c) *Physical illness*: 23 had suffered serious physical illness previously, but in only 10 cases did it seem likely that this illness had any relation to the patients' nervous or skin symptoms.

9. *Recent Stress*.—A large number of patients had been under physical and particularly emotional stress, and in many cases it was difficult to escape the conclusion that this stress was causally related to the outbreak of skin trouble or to the exacerbation of a pre-existing skin complaint. Two-fifths had been under moderate or severe stress recently, and a further one-fifth under slighter strain.

10. *Personality Disorders*.—It is difficult to estimate personality types, not only because people are all individual, but also because there is much disagreement over the meaning of the various adjectives employed. As a group these patients had surprisingly abnormal personalities: 11 had healthy normal personalities; 34 showed mild abnormalities; and 55 had grossly abnormal personalities. Some of the more grossly abnormal are illustrated in the case histories below.

Four patients had obsessional* traits in severe degree; 41 had them in a somewhat less degree. Six patients were highly anxious individuals, grossly prone to worry unduly about the little things, to fear the worst; 31 others were mild worriers. Often these two traits were combined. No fewer than 70 showed either or both traits in significant degree. Other traits were much less common: hysterical, 7; schizoid, 3; paranoid-sensitive, 6; hypomanic, 1; depressive, 2; hypochondriacal, 3; aggressive-impulsive, 4; immature, 3; psychopathic-inadequate, 10. Wittkower (1947), in a group of 100 seborrhoeic dermatitis patients, found ultra-conscientiousness and proneness to anxiety to be characteristic of two-thirds of them, a figure very similar to that found in the present series. Of his controls only 24% were overconscientious and 26% worried unduly.

The general impression given by these patients, as compared with a group of psychiatric patients, was that obsessional traits and a worrying disposition were far commoner among them, but that other traits, those which gave rise to social and occupational handicapping, were far less common.

Psychiatric Characteristics of Various Diagnostic Groups

Becker and Obermayer (1947) pay great attention to psychic components in the aetiology of skin diseases. The most striking omission from their list is seborrhoeic dermatitis. Another omission is sycosis barbae, which figures prominently in our series among those conditions included in Table I under sections A and B. Certain specific conditions in these two sections are further discussed. The following groups contain the whole 150 patients.

*The adjective "obsessional" is employed in its less restricted sense to imply overconscientiousness, orderliness, a liking for a routine existence, a seeking for completeness, a preference for peace and quiet, cautiousness, and so on. It does not imply a subjective feeling of compulsion and the necessity to check and recheck, though many of the patients had these feelings, nor a preoccupation with particular words, phrases, or numbers.

Neurodermatitis (19 cases)

This group included cases of lichen simplex chronicus and atopic dermatitis (disseminated neurodermatitis). Most of the cases were anxious obsessives: 14 cases fall into this group, two of these being of very low intelligence. Three were grossly inadequate and immature, and two were hysterical. In one case compensation factors were of importance.

Case 1.—A man aged 62 with neurodermatitis of backs of hands. An exceptionally rigid, set, and punctilious patient—a Plymouth Brother. Full of pride and self-esteem. Fourteen years ago was involved in a driving accident after having an accident-free record for 30 years. The circumstances were such that a slur was cast upon his ability and truthfulness. He was, in fact, vindicated, but in court, before the hearing, he developed a violent trembling of his right arm, and this has persisted ever since. He also has a duodenal ulcer. He was working as a packing clerk and was often irritated by other people's carelessness and had difficulty in controlling his aggression. "I take a great pride in my work." His history also included poverty in childhood, strict religious upbringing, and a liking for a quiet routine life. He had had little regular schooling, as he was reared in the country, and had laboured for years at night-school to improve himself. Apart from constant pin-pricks at work from the other "careless" workmates there was no immediate precipitating factor.

Case 2.—A man aged 38 has had cryptopsychic symptoms since 1940: (a) "Gastritis," for which he was invalided in 1943 after seeing a psychiatrist; (b) the gastritis ceased in 1947 and was replaced by his present rash; (c) all the time he has had frequency of micturition and aching in the right testicle during exertion. Right at the end of the interview he said that in 1940, in France, he had intercourse while drunk with a French girl and has felt guilty about this ever since. He does not seem to have got this off his chest to anyone before. He is an only child of parents who separated when he was 10 and who were divorced when he was 16. At this age he joined the Army for seven years. He admitted that he was an overconscientious, fussy, cautious man who had to check and recheck "to make sure" everything is as he would like it. He was a worrier too. There had been other sources of stress in the past few years—injury in a rocket explosion and the stillbirth of his child and severe illness of his wife in 1944.

Cheilopompholyx

Of 17 cases with this diagnosis, 12 were of anxious or obsessional make-up; 2 were impulsive, aggressive, psychopathic persons, 6 had quite severe neurotic traits during childhood, and 4 had minor traits of nervousness. Seven had been under severe and 3 under mild stress preceding the outbreak.

Case 3.—A man aged 65. An obsessional personality, always exceptionally neat and tidy, cautious, and prone to worry. Much stress in childhood and an overstrict upbringing. Present job for 30 years, but it is very responsible and he "takes it home with him." Three years ago he was disappointed over promotion, and the man who supplanted him still worked with him. He had a feeling of grievance over this. He exhibited frank anxiety symptoms—insomnia, tremor, and over-smoking. Two years after being first seen he was still under out-patient treatment.

Sycosis Barbae

Eight cases are included in the series. The psychiatric findings were striking, and of all the groups it seemed to consist of the most abnormal people. These comprised a dull hysteric with skin symptoms on and off for 25 years; an anxious hypochondriac, who had fussed over his bowels all his life and his skin for 10 years; a grossly inadequate psychopath, a chronic alcoholic; an anxious obsessional working long hours and carrying heavy responsibility; an immature, mother-bound, and narcissistic youth plagued by

severe guilt over masturbation; one who had been invalided from the Army because the "pace was too hot"; one who had pronounced feelings of inferiority, social anxiety, and multiple neurotic traits, and who continued to attend the psychiatric department for therapy; and an obsessional Jewish patient who was out of work, in severe financial difficulties, and had marked feelings of guilt because of debt.

Case 4.—A man aged 25 was over-conscientious and a sufferer from pronounced inferiority feeling. He was able by means of his rash to rationalize his failure to get on socially—that is, people did not like the look of him. At the age of 16 he had to take on responsibility for the family on his father's death. He gave a history of neurotic traits from childhood. He talked much about the unhappiness of his married life.

Seborrhoeic Dermatitis

Of 13 cases in this series, including both male and female patients, 10 were of anxious and obsessional make-up, one was hypochondriacal, and one man and one woman were of sound personality—in the case of the man, sensitization factors were playing a part in the continuation of his symptoms; the woman, though stable emotionally, had suffered stress because of a road accident involving her child. Six had frank anxiety symptoms and five had neurotic traits dating from childhood. A wide variety of stresses seemed to be operating, including financial insecurity and unhappiness at work, sexual guilt, and worry over health other than skin trouble. Of the four who seemed to be under no stress, two had grossly abnormal personalities.

These figures seem to confirm the conclusions of Wittkower (1947) about the psychic constitution of these patients, though it was not apparent that, as he states, the skin condition was especially related to difficulties in social contacts.

Case 5.—A man aged 38 was a lifelong worrier. He worried about everything—his work, his children, his responsibilities; he was over-conscientious, cautious, neat, and over-punctual. His worries kept him awake. He was invalided from the Army on account of his skin. He has had precipitancy and frequency of micturition for years for which no organic basis can be found. There was apparently no special source of recent stress.

Becker and Obermayer's Positive Group

This group of 28 cases includes 8 cases of alopecia, 3 of lichen planus, 6 of various types of pruritus, 2 of rosacea, and 9 of psoriasis. Of these cases, 18 showed anxious obsessional traits, 4 were hysterical, 2 were immature, 2 were inadequate psychopaths, and 2 were of normal personality.

Case 6 (Alopecia Areata).—This patient, a man aged 37, sat throughout the interview in a fixed attitude, answering precisely and most seriously. He was highly obsessional, cautious, conscientious, over-punctual, unable to relax, and prone to easy guilt. He called smoking an "unclean habit." He is a Plymouth Brother. He has had one job all his life and leads an extremely neat, quiet, and ordered existence. His second child died in May, 1946, from Rh incompatibility, and his third in August, 1948, from the same cause despite all precautions. The alopecia came on during his wife's last pregnancy. He felt personal guilt and responsibility over these deaths. He believed that he was told it was his fault, but this was probably a misinterpretation. It seemed obvious that this patient's alopecia depended, at least in part, upon emotional factors.

Case 7 (Lichen Planus).—A loquacious, hypochondriacal, and querulous woman had multiple symptoms, including headache and dyspareunia. She had had recurrent attacks of urticaria for five years, during which time repeated investigations for sterility were made. Then she developed a generalized attack of lichen planus with severe irritation. During the six months during which the lichen planus was manifest the urticaria cleared; within two months of the

lichen planus lesions fading the urticaria had returned. Her relations with her husband were most unsatisfactory. It seemed that her skin troubles were used to protect her from him sexually.

Becker and Obermayer's Negative Group

This group comprised eight cases of various types of infective skin condition, five cases of varicose dermatitis, two fungus infections, and 10 miscellaneous cases, which included single cases of capillary naevus, erythema multiforme, herpes simplex, pityriasis rosea, rodent ulcer, scabies, senile keratosis, warts, and xanthomatosis.

Four of the infective cases had anxiety or obsessional symptoms; in four other cases there was little evidence of stress or predisposition. Three cases of varicose dermatitis were overanxious obsessionals, one was apparently normal, and one an unsatisfactory witness. Of the two cases of fungus infection, one had multiple neurotic symptoms and the other was anxious and garrulous. In the heterogeneous group of 10 cases, four had normal personalities, three were overanxious or obsessional with or without symptoms, two were dull, and one was a frank hysteric.

Case 8 (Pityriasis Rosea).—A woman aged 39 had some psychoneurotic symptoms—depression, difficulty in sleeping. There had been stress in childhood, an alcoholic father, and squabbling. The father demanded incestuous relations—and got them a few times. She had had numerous neurotic symptoms in childhood. Had a very unhappy married life; separation in 1945. Had nervous symptoms for years, but never consulted her doctor on this account.

Eczema

Under this term were included those cases exhibiting an eczematous type of reaction, whether of exogenous or endogenous origin, and 13 cases labelled as sensitization dermatitis. In 10 of the 29 cases the personality was within normal limits and there was no connexion between stress and the development of skin lesions. Eleven patients were over-conscientious anxious personalities, four were immature and inadequate, and four were of very low intelligence (with an admixture of anxiety).

Acne Vulgaris

This series of 11 cases formed a comparatively stable group; only four could be classed as having an abnormal personality, and deviation from the normal was not marked. One youth had an anxious personality and was under minor stress at home; one girl was chronically anxious and hypochondriacal, and one had a well-marked hysterical personality; another girl gave a history of childhood neuroticism and was over-worried by the fact that she blushed easily. There appeared little connexion between psychic factors and the skin eruption in this group.

TABLE IV.—Percentage of Anxious Obsessionals in Each Group

Seborrhoeic dermatitis	..	..	..	..	77
Neurodermatitis	..	..	..	..	74
Cheirpompholyx	..	..	..	..	70
Becker and Obermayer's positive group	..	..	..	..	69
Sycosis barbae	..	..	..	..	50
Becker and Obermayer's negative group	..	..	..	..	36
Eczema	..	..	..	..	32
Acne vulgaris	..	..	..	..	10

Discussion

The degree of abnormality of these patients and the wealth of psychopathology they have shown came as a surprise. Had space allowed many more histories as dramatic as those summarized could have been quoted.

If the findings of this study are reliable there seems to be a high degree of association between various skin diseases and vulnerable personalities, particularly if these people are under stress. That this should be so in cases of neurodermatitis is well known; the association in cases of cheirpompholyx, alopecia areata, psoriasis, and, in view of Wittkower's work, of seborrhoeic dermatitis, is recognized. Despite the small numbers concerned, there seems

to be a close association, too, with psychic factors in all the cases of sycosis barbae and in 56% of a group of 25 cases in which the skin condition did not arouse prima-facie suspicion of psychogenesis. This is surprising. It is of interest also that psychic factors seemed to be operating in 7 of 13 cases of sensitization dermatitis. Robertson (1947) was of a similar opinion, and had the impression that in his cases the skin might well have broken down had no sensitizing factor been applied.

The particular types of personality deviation which have so often been found are the anxious and the over-conscientious obsessional (Table IV), and these two trends commonly coexisted in the same individual. These traits were far commoner in the people represented here than they are in the general population—commoner even, perhaps, than in a group of psychiatric patients. They were present among patients with all types of skin illness, and, from the evidence found, there is little support for the views of MacKenna (1944) on the relationship between the particular skin complaints and particular types of personality. Anxious traits, for example, seem to be associated just as often with seborrhoeic dermatitis as with pompholyx. Separation of the anxious from the obsessional personalities seemed artificial, for they were found together so frequently. Similarly, Wittkower's (1948) concept of a "site of focal conflict" seems to involve an unjustifiable emphasis on one aspect of the patient's problems and obliviousness to other aspects, an over-simplification which may be misleading. Among the 13 cases of seborrhoeic dermatitis, for example, conflicts concerning self-esteem were common, but so they were among those suffering from neurodermatitis, and, equally, other fields of conflict could not be ignored without presenting an incomplete picture.

As to the mechanism of the connexion between the psychic constitution and the skin complaint, one can only speculate. It can hardly be that the skin complaint "causes" the psychiatric abnormality, for the roots of the latter can usually be traced to a period before the skin condition arose, though by its unsightliness the skin disease may well create additional difficulties for the patient. A genetic linkage between psyche and skin seems very likely and has been stressed, but clear evidence of this derived from twin studies, for example, is as yet lacking. If it does exist it is most likely to take the form of a predisposition to each type of disorder which may be made manifest by external or internal stress. Granted this predisposition, can psychic factors provoke skin disorders? There can be little doubt of the answer. Again and again these patients, of their own accord, said they were aware of the close significance of emotional factors in provoking and prolonging their skin complaints.

What of the interesting group of abnormal people who were suffering from apparently unrelated skin disorders? Why were abnormal personalities and emotional stresses so frequent in this group? A possible explanation may be that these were the survivors of a much larger group of patients originally suffering from such skin conditions, of whom perhaps 10–20% would be psychiatrically abnormal; such a figure is often asserted to be a rough estimate of the psychiatrically abnormal in the general population and therefore of the psychiatrically abnormal amongst the "unconnected" skin population. These people will generally begin by treating themselves, but the obsessional and anxious among them may itch and scratch more, and in so doing prolong their illness; the complaint may seem more serious to them or more unsightly or more unclean, so that a higher proportion of the psychoneurotic than of the stable decide to seek the advice of a doctor—perhaps by then 30–40% of these patients consist of psychoneurotic people. The doctor treats them and will refer only his failures to hospitals, and these are again likely to be those who itch and scratch most, those to whom the illness seems unclean and who worry about it, those who are querulous and demanding. It may be that by these two processes of selection the proportion of abnormal personalities in the

"unconnected" group reaches 56%—the percentage found in the present series.

If such an explanation is accepted other questions at once arise. If selection in the sense described above operates in the case of skin diseases believed to be unconnected with psychic factors, may it not operate too in those diseases believed to be dependent upon psychiatric factors? Are there large numbers of people in the population with, say, neurodermatitis, or alopecia areata, or seborrhoeic dermatitis who do not visit hospitals or doctors? If so, are these people psychiatrically normal or not? This seems to be a subject on which insufficient information exists at present.

Too little attention has been paid to these processes of selection, which might distort the composition of an out-patient group, but on the whole it seems unlikely that they would invalidate the conclusion that there is a close connexion between the skin complaint, the psychic constitution, and emotional stress in a majority of cases.

The psychiatric assessment of these cases and simple psychotherapy should be within the capacity of the dermatologist and, in many instances, of the general practitioner, were these facts more widely known. It requires, however, more privacy and much more time than is available in the usual skin out-patient department.

Although psychoanalysis, abreactive techniques, and electric convulsion therapy may be of value in a strictly limited number of patients, in the majority little more than psychiatric palliation can be offered. Nevertheless, a little can be done to help the many, not least by lending a sympathetic ear. Psychiatric palliation, apart from topical medication, can do much to help these skin patients, and at the same time it gives them some insight into the cause of the trouble.

Summary

The results of a psychiatric survey of a random sample of 150 skin out-patients are analysed in detail, and the psychiatric characteristics of various diagnostic groups are discussed.

Psychiatric factors were found to be of significance in 78.5% of cases, and the series contained a large number of people with highly abnormal personalities.

The anxious obsessional was by far the most frequent personality type encountered and was common to all diagnostic groups; 52% of the patients exhibited this make-up.

It is suggested that processes of selection are in part responsible for the high degree of psychiatric abnormality presented by skin out-patients.

We are indebted to Dr. W. J. O'Donovan, physician in charge, skin department, and to Dr. Henry Wilson, physician to the psychiatric department, the London Hospital, for their interest, encouragement, and advice in the preparation of this paper.

REFERENCES

- Ballard, S. I., and Miller, H. G. (1944). *British Medical Journal*, 2, 40.
- Bateman, T. (1829). *A Practical Synopsis of Cutaneous Diseases*, p. 200. London.
- Becker, S. W., and Obermayer, M. E. (1947). *Modern Dermatology and Syphilology*. Lippincott, Philadelphia.
- Guttman, E., and Thomas, E. L. (1946). Readjustment in Civil Life of Soldiers Discharged from the Army on Account of Neurosis. Ministry of Health Reports on Public Health and Medical Subjects, No. 93 H.M.S.O.
- Hadfield, J. A. (1942). *British Medical Journal*, 1, 281.
- Hillier, T. (1865). *Handbook of Skin Diseases for Students and Practitioners*, ch. 5, p. 26. Walton and Maberly, London.
- Hyland, H. H., and Richardson, J. C. (1942). *Canad. med. Ass. J.*, 47, 432.
- Klauer, R., and Wittkower, E. (1939). *Brit. J. Derm.*, 51, 501.
- MacKenna, R. M. B. (1944). *Lancet*, 2, 679.
- O'Donovan, W. J. (1927). *Dermatological Neuroses*. Kegan Paul, London.
- Robertson, G. G. (1947). *Lancet*, 2, 124.
- Slater, E. (1943). *J. Neurol. Neurosurg. Psychiat.*, 6, 1.
- Sutherland, J. D. (1941). *British Medical Journal*, 2, 365.
- Sydenham, T. (1681). *The Works of Thomas Sydenham*, edited by G. Wallis. London, 1788.
- Torrice, A. (1944). *Lancet*, 1, 139.
- Turner, D. (1726). *A Treatise of Diseases Incident to the Skin*, ch. 10 et seq. London.
- Wittkower, E. (1947). *Brit. J. Derm.*, 59, 281.
- (1948). In *Modern Trends in Dermatology*, edited by R. M. B. MacKenna, p. 237. Butterworth, London.