Psychocutaneous disorders

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(Paper read at the meeting of the Malaysian Medical Association, Southern branch, at the General Hospital, Johore Bahru, on June 21, 1970.)

INTRODUCTION

THE ROLE OF psychological factors in the aetiology of skin disease has recently received increasing emphasis. It has been estimated that 45% to 78% of patients attending the dermatological clinics have emotional problems and some degree of psychosomatic or somatopsychic involvement. (Hallsmith & Norton, 1952; Rubin, 1966; Rostenberg, 1960).

However, only in very few cutaneous conditions do emotion play the primary and essential pathogenic role. At times, it is often difficult to determine whether the emotional distress causes the skin disease or the skin disease causes the emotional disturbance.

Numerous contributions on psychocutaneous diseases have been published (Halliday, 1944; Wilson & Miller, 1946; Cormis, 1947, 1951; Klauder, 1936; Brunner, 1948; English, 1949; Zaidens, 1951; Slorach, 1953; Wittkower & Russel, 1953; Obermayer, 1955; Phillsbury et al., 1956; Rostenberg, 1960; Rubin, 1966) and various classifications have been proposed but none are generally considered as satisfactory.

In clinical practice, the classification proposed by Rook and Wilkinson (1968) has been found to be extremely useful (see table).

In this paper, four illustrative cases of dermatoses exclusively emotional in origin (Group 1) are described and discussed.

PSYCHOCUTANEOUS DISORDERS

(1) DERMATOSES EXCLUSIVELY EMOTIONAL IN ORIGIN Dermatitis artefacta Trichotillomania Delusional symptoms referred to the skin (e.g. delusion of parasitoses syphilophobia, etc) Cutaneous hypochondriasis

(2) DERMATOSES PARTLY OF OTHER ORIGIN AGGRAVATED OR PERPETUATED BY SELF-INFLICITED TRAUMA Lichen simplex, Acne necrotica, Acne excorie

(3) DERMATOSES FREQUENTLY PROVOKED OR PERPETUATED BY DEMONSTRABLE PSYCHOSOMATIC MECHANISMS Anogenital pruritus, Generalised pruritus, Hyperhidrosis
Blushing

(4) DERMATOSES IN WHICH IMPORTANT EMOTIONAL PREDISPOSING, PRECIPITATING OR PERTUATING FACTORS ARE FREQUENTLY IMPLICATED
Eczema
Pompholyx
Atopic dermatitis
Urticaria

Seborrhoeic dermatitis
Rosacea

(5) DERMATOSES SOMETIMES INFLUENCED BY EMOTIONAL FACTORS
Psoriasis
Lichen planus
Alopecia areata
Diffuse alopecia
Vitiligo
Aphthosis
Herpes simplex

This group of dermatoses is much more uncommon than other psychocutaneous disorders listed in Table 1, and their cutaneous manifestations often portend serious mental illness or organic psychosis. The difficulties encountered in the diagnosis and in the management of these cases will be presented.

ILLUSTRATION OF CASES

(1) Delusion of Parasitosis

For the past ten years, a 51-year-old Indian woman suffered from discoid psoriasis involving the scalp, arms, legs and trunk. There were periods of remission following topical applications of coal tar and steriod cream preparations.

Five years later, most of the skin lesions had disappeared, but a resistant psoriatic plaque, size 5" x 2½", remained over the right fronto-parietal region. It was pruritic and secondary alopecia was present over the plaque. (Figure 1). After some therapeutic trials with the various topical corticosteriods it was decided to treat the scalp lesion with intralesional triamcinolone (Kenacort) as the former treatment had failed. Dramatic clearing of the psoriatic lesion was observed after eight weekly intra-lesional steriod injections. Inspite of the objective improvement, her symptoms began to multiply every week. Numerous complaints, ranging from insomnia, palpitation, dizziness, aches and pains, loss of appetite, loss of weight, poor memory and many non-descriptive symptoms were the woeful story we heard on every visit. Most of these symptoms were attributed to the presence of the psoriatic scalp lesion. Thorough physical examinations and detailed laboratory investigations failed to find any systemic disorders. The treated fronto-parietal patch showed no psoriatic activity and normal histology was obtained with the scalp biopsy.

Soon afterwards, she began to complain bitterly of insects, especially ants, crawling all over her head and biting her scalp lesion. She was extremely upset, depressed and emotional. Her relatives observed that she spent most of her time washing and combing her hair, rubbing and scratching the bald patch over the scalp and spraying the room with DDT. All these efforts did not stop the "parasites" (ants) from invading her. Members of her family as well as the attending doctors could not find a single insect on her head or her body. When she noticed that we did not believe her story, she started to bring small paper packets of dead ants and other debris to convince us (Figure 2).

At this stage, her mental state had deteriorated so badly that the diagnosis of Delusion of Parasitosis was fairly evident.

According to the family, the patient had severe endogenous depression soon after her husband's

Fig. 1: Bald patch of treated psoriatic scalp lesion.

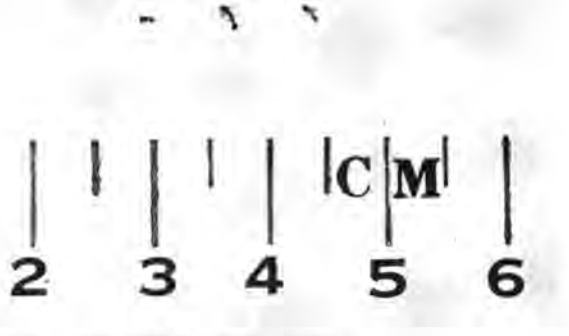

Fig. 2: Dead ants given as "evidence".

death five years ago. She had been receiving various medications from a number of private practitioners, but the psychiatric condition deteriorated further with the onset of menopause, the anxieties of the disfiguring scalp psoriasis, and lately, the effects of the intralesional steriod injections. At home, she was always miserable, non-communicative, weeping quietly and had various other delusions. Once, she was seen by relatives collecting "dead" ants from the floor of her house. These were the insects used as the "evidence."

The psychiatrist, whom she later saw, found that she had involutional depressive psychosis and advised institutional treatment but she refused. After over three years on regular psychotropic treatment as an outpatient, the cutaneous delusions seemed to have improved; however, her psoriasis had recently relapsed again.

Comment

Delusion of parasitosis or acarophobia refers to patients who are convinced that their skin is infested by parasites. Thus the deluded victim has the hallucination that he can see and feel the 'vermin' within his skin. The term "delusion" is a preferred designation for this disorder, as the word "acarophobia" is often misleading since these patients fear the parasites no more than the normal people. (Wilson & Miller, 1946; Wilson, 1952; Schurt & Waldron, 1963). From the psychiatric point of view and from the clinical presentation, there are two distinct groups of this disease:

(1) One group that affects older (over 40 years) females three times more than males and often associates with involutional depression, organic psychosis and obsessional personalities with hypochondriasis. (Aleshire, 1954; Tullett, 1965).
(2) Another group often presents in younger patients who have schizophrenia or toxic psychosis.

Our patient clearly had the delusional disorders of the first group and her "parasites" were ants, which she later produced as "evidence" after collecting them from the floor. The condition was complicated by the pre-existing psoriatic lesions and steriod therapy. It must be remembered that careful search for these "parasites" is warranted in every case. For one reason, the patient would lose faith if no concern is displayed by the attending doctor and proper investigation conducted. For another reason, the doctor may avoid the embarrassment that may ensue if it actually turned out that the patient is right. Such mistakes had happened before.

The psychosis in these patients was precipitated by a number of factors and her mental state was not seriously studied until the later stage of the disease. This illustrative case thus demonstrated that dermatology is not just skin deep, since the epidermis is but a part of the human body and examination of every skin case should include a complete physical and mental appraisal, especially during the initial consultation.

Treatment of this disease depends on the aetiology. Organic lesions should be removed and nutritional deficiencies (e.g. pellagra, folic acid, Vitamin B12) corrected. For the pure psychosis such as present in our case, psychiatric treatment is known to be unfavourable and the response is often slow. (Schurt & Waldron, 1963; Aleshire, 1954).

(2) SYPHILOPHOBIA – NEUROTIC EXCORIATION

A 20-year-old female typist complained of a lichenoid rash on both buttocks for about two months and the referring doctor suspected some form of contact allergic dermatitis.

She had no history of hypersensitivity to drugs or contact allergens prior to this condition. She had been distressed because the pruritus disturbed her work and kept her awake at night. A cursory examination of both buttocks revealed normal skin except for some excoriations and some folliculitis. The site of the rash, which was found at both gluteal folds, did not conform to any known contacting materials, and skin scrappings as well as Wood's Light examination of these areas revealed no evidence of superficial mycoses. Patch tests with nylon, azo dyes, rubber and so forth yielded negative results.

She was managed symptomatically with antihistamines and topical steriods, but for the next few months, her symptoms deteriorated. There were now lichenoid patches in addition to the excoriations over the gluteal folds (Figure 3), and she showed marked depression and anxiety.

Thorough physical examination as well as numerous haematological and biochemical investigations showed no associated systemic diseases.

The patient later volunteered the interesting history that the "rash" appeared on the very day when

Fig. 3: Lichenoid patches at the gluteal folds.

she was travelling home in a bus. She took over a "warm" seat just vacated by a fat man whom the patient strongly and firmly believed to have "syphilis", although she had never seen him before. She then thought that her buttocks had contracted the man's disease even though there was no direct physical contact between her gluteal skin and the seat. At that time, no one had informed her how V.D. was transmitted. That night, the fear of the acquired "syphilis" grew. She washed and cleaned her buttocks with various medicated preparations, and when she was in bed, she scratched and rubbed both gluteal regions in an unconscious attempt to rid the contacted skin of the dreaded disease. Scratching and rubbing had been going on for many days before she consulted her own doctor.

Before this disease, she had little knowledge of sex or venereal diseases, although she had passed the Senior Cambridge. Most of her sexual information came from her illiterate elders and her misinformed friends. She was an introvert, religious and rarely mixed with people. She had a boy friend who was fond of her but they never indulged in discussion about sex or had any sexual contact. Recently, she had been reading some medical textbooks and visited the medical exhibition on VD, and now seemed to understand how venereal diseases were transmitted.

However, in spite of our reassurance, explanation, and showing to her that her serological and other tests were essentially normal, her phobia persisted and her pruritus remained. Lately, she even complained of itchiness and alopecia of her pubic hair, recurrent attacks of foul vaginal discharge, swelling of her vulva and various non-descriptive complaints. Most of the investigations done were within normal limits. Suspecting that she had delusional symptoms referring to the skin, psychiatric opinion was sought and she was found to suffer from early schizophrenia.

With regular psychiatric treatment her neurotic excoriations, phobia for syphilis and delusional states had disappeared and she had since then been free from any cutaneous symptoms.

Comment

The fear of syphilis or syphilophobia, though rare among the more advanced society, is still encountered amongst the illiterate, the ignorant and the misinformed. That the disease can easily be treated and cured is generally known and this knwoledge probably reduces the incidence of syphilophobia. People suffering from this disorder are often normal persons with feeling of sexual guilt, neuroses and obsession. Occasionally, the sufferers are themselves VD patients who have been cured of the disease. The phobic patient lives in fear of acquiring the disease although he or she realises that the disease is not present.

Neurotic excoriations may occur together with syphilophobia as seen in our patient, and the dermatitis artefacta thus produced could be extremely misleading indeed. A lot of unnecessary investigations would not have been carried out if the patient's true history was obtained in the early stage of the illness. Sometimes the fault lies with the attending physicians because the patient's trust and cooperation were not obtained, either due to lack of time for a proper consultation, or due to the attitude and behaviour of the doctor. Since most phobic subjects are non-psychotic cases, the treatment is to convince the patient that he or she is free of the disease by frank and sympathetic discussions.

When phobias are attended with bizarre cutaneous delusions, overt schizophrenia should always be suspected (Zaiden, 1950), and this is what we learn from the case described above.

Again, this case demonstrates the importance of cutaneous manifestations of psychological disorders. The diagnosis of neurotic excoriations or dermatitis artefacta should alert one to look for some underlying emotional disturbance as well as the underlying aetiology.

TRICHOTILLOMANIA

A young Chinese schoolgirl, aged 14, had been to various "hair" clinics in Singapore, seeking treatment for her intractable alopecia during the past 2½ years, before she was seen by us.

Hair loss patchy, progressive and accompanied by some degree of pruritus. Alopecia involved not only the scalp but also the eyebrows and eyelashes. There were no systemic illnesses or other skin lesions. On removing her wig, the scalp hair showed irregular patches of alopecia where the hairs were broken at different levels. There were no gross evidence of fungal or parasitic diseases and the hair shafts looked normal and healthy.

On closer questioning, her mother, whom we later discovered was the "adopted" mother, volunteered the history that the hair loss was due to self-inflicted hair-pulling tics started over 2½ years ago after an emotional upset. According to close relatives, the patient was adopted very young and had been the apple of her adopted mother's eye. The mother-child relationship was good until the patient discovered that she had no father as her adopted mother was not married, that she was an adopted child, and that her real parents were alive and living somewhere nearby. After the psychological shock, she pleaded repeatedly to see her real parents but her requests were refused because the adopted mother feared that she might go back.

Soon after this event, her behaviour changed. She became very restless, defiant, frustrated and resentful. For example, she started to disobey her mother's orders, stayed away from home when she liked, and it was then observed that she started to pull, twist and tug her hair. At first, the compulsive hair pulling was confined to the scalp, but later she pulled hairs from her eyebrows and eyelashes and sometimes even bit her finger nails. It was also noticed that the pulling often occured at home in full view of her mother and was more severe during periods of stress and excitement, like taking school examinations and watching thrilling television programmes. Her mother's threats, coaxings and persuasions were of no avail as she continued with the habital tics. Her work at school was considered good, but she seldom had close friends and usually kept to herself.

When examined, it was found that her hair loss involved the whole scalp except the sides, nape of the neck and a small parietal area (Figures 4 & 5). The pattern of hair loss was known as "tonsure trichotillomania", described by Sanderson and Hall-Smith (1970). There were also patchy alopecia of the eyebrows and eyelashes. Affected areas were irregularly scattered and of different sizes and shapes. Their outlines and margins were ill-defined and the broken hairs were of unequal length, twisted and broken at various levels from the scalp surface. Fresh plucked areas showed hair follicles with bleeding points, and

Fig. 4: Tonsure trichotillomania — back view.

Fig. 5: Tonsure trichotillomania — side view.

older lesions had evidence of excoriations and infections. The hair shafts were structurally normal and revealed broken ends under light microscopy. There was no evidence of cutaneous infections or infestations.

Both the patient and her mother were sent to see the social worker and the psychiatrist for further management. To-date, no improvement in her compulsive hair-pulling or the mental attitude of the patient had been noted because the adopted mother insisted on keeping the real parent's identities a secret as she was afraid to lose her daughter.

Comment

Trichotillomania occurred in two distinct forms:

(1) The commoner form, which occurs in children between the ages of 4 to 10, and the alopecia patterns produced are frontoparietal or frontotemperol baldness. Although these nervous tics are not uncommon in the mentally retarded, normal children under emotional stress may pluck their hair usually before going to sleep or concentrating on a problem. Severe cases may even swallow their hair and present later as intestinal obstruction from the bolus.

(2) The rarer and more serious form which occurs in adults, usually in the adolescent stage (as seen in our patient). Women predominance is often the rule, and the pattern of hair loss is more generalised or tonsure in appearance (Sanderson & Hall-Smith, 1970). Patients in this group often have overt psychiatric disorders, depressive psychosis and problems of parent-child relationship, such as found in our case. This disease and its psychiatric aspects have been widely studied elsewhere (Sabouraud, 1936; Zaidens, 1951; Monroe & Abse, 1963; Mono-Ashman, 1964; Greenberg & Sarner, 1965).

As illustrated above, trichotillomania may present as some common hair or scalp disorders, e.g. alopecia areatic, tinea capitis, etc. Absence of other pathological conditions, together with the typical history of hair pulling and the pattern of hair changes, will firmly establish the diagnosis. Much more difficult than establishing the diagnosis is the management of the underlying emotional problems. Disturbance of parent-child relationship is obvious in our case, and the compulsive hair-pulling is but a form of protest or frustration shown by the patient at being denied the presence of her real parents. The fault lies squarely with her adopted mother who herself was unstable and selfish in character. Her action could only serve to perpetuate the patient's unhappiness and prolong her neurotic symptoms.

(4) DERMATITIS ARTEFACTA (FACTITIAL DERMATITIS)

A Malay guard, aged 52, developed hypertensive cerebral haemorrhage in 1967 and as a result, he had difficulty in speech, slow cerebration, weakness of right limbs and diminished sensory function in the right half of the body. He was unemployed after his discharge although he tried unsuccessfully as a recording clerk for a short period. He became depressed because of the physical disability and financial problems.

Several months later, he frequented the skin clinic with long and woeful complaints of nondescriptive skin lesions. Bizarre forms of "dermatitis" appeared on the right upper and lower limbs as well as on the right chest and abdomen. Because of these lesions, he

Fig. 6: Dermatitis artefacta on the right palm.

argued he was unable to get employment and strongly demanded social welfare relief and other monetary benefits.

The "dermatitis" consisted of a number of well-defined rectilinear burns or scars found on the right palm, flexural aspect of the right arm, some parts of right shoulder, right chest, right thigh, right soles and the tip of the glans penis. The lesions were almost identical in size and shape (¼" x 2") and looked as though they were induced manually (Figures 6, 7 & 8). The fresh ones were red, tender and swollen with blister formation, while the older ones were pigmented and firm, consistent with scar formation. The surrounding skin and regional glands were not enlarged.

The distribution and configurations of the unusual dermatoses were strongly suggestive of self-applied trauma or burns, especially as it was known that his right body was hypoaesthetic and there was a strong motive of monetary gain. However, he repeatedly and vehemently denied the lesions were self-inflicted and maintained that they appeared spontaneously.

His family was then interviewed. They confirmed our suspicion that the factitious skin changes were caused by mechanical means. The patient had been to the local medicine-man, who burned the skin of his right limbs periodically with hot iron rods in an obvious attempt to restore his motor power and sensory loss. Using these feigned eruptions, the patient took the opportunity to demand various financial aid and for monetary gain.

Consequently, he was referred to the psychiatrist for treatment as he developed organic dementia and delusions from extension of cerebrovascular frontal lobe involvement.

Fig. 7: Reticulolinear scars produced by burns on the right arm.

Fig. 8: Typical burn lesions recently induced, on right foot.

Comment

Dermatitis artefacta by neurotic or malingering patients can be mistaken for spontaneous dermatoses if one is not alerted to the possibilities and to the clues. Such lesions are commonly self-inflicted or sometimes produced in collusion with someone else (e.g. the medicine-man in our case) for the purpose of direct material gain or for some psychological motivation. Factitial dermatitis is generally produced by mechanical or chemical means and the sites of the eruptions are generally anatomical sites accessible by hand and reflect the right or left-handedness of the person. Thus, our patient with hemiparesis of the right limb could use the normal left hand to create the feigned eruption on the opposite limbs which were hypoaesthetic to burns. Some of these burns were made by the medicine-man as some local races believe that these "acupunctures" will restore the function of the paralysed sides. Using these "dermatitis" as further excuse of his physical disabilities, our patient sought to obtain monetary gain and social aid. There was no doubt that he was a desperate and frustrated man and his motivation could, in some way, be attributed to the mental changes from the cerebrovascular accident. As the organic disease is progressive and irreversible in this case, the prognosis is poor.

Most cases with this disorder are young women with hysterical personalities lacking love, affection and having inferiority complex. (Butterworth & Strean, 1963; Zaiden, 1951). The emotional factors which precipitated the dermatitis artefacta should be solved by close interviews, reassurance and explanations. Occasionally, the help of the social worker and psychiatrist should be sought.

CONCLUSIONS

Four cases illustrating the role of psychiatric factors in dermatology are presented and discussed. They emphasise the importance of regarding and managing the patient with skin diseases as a whole, and not just confining to the dermatoses. With the rapid modernisation of our society, exposing us to the increasing stress and strain or our daily lives, psychocutaneous disorders are on the increase in this region.

This paper hopes to remind practitioners of the unusual cutaneous manifestations of mental disorders, which, if unrecognised, may masquerade as common dermatoses and will delay the early treatment and recovery of the affected patients.

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