hypophysis have no influence whatever on the blood pressure, since both states of hyperfunction and of hypofunction of the anterior and the posterior lobes have no connexion with uniform changes in blood pressure. The variations of pressure observed in our tables are merely the normal changes observed in any other group of patients, and are clearly due to causes which have nothing to do with lesions of the hypophysis. It will be observed that the higher pressures, in each of the diseases under study, generally correspond to older patients. The pressures for the average age coincide exactly with the average figures for that age, independently of the disease. In addition, with a few exceptions the highest pressures in isolated cases are partially explained by the concurrence of hypertensive vascular lesions (especially aortitis).

As stated, these statistics do not include the basophil adenoma of the hypophysis, which is generally accompanied by a high blood pressure. Our personal opinion, and that of other authors, that this high pressure is not due to any hypophysary change but to the concurrent hyperplastic lesion of the suprarenal glands, is thus confirmed by the data given, which appear to prove that hypophysary incursions have nothing to do with the regulation of the blood pressure.

SEBORRHOEIC DERMATITIS*

BY

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In dermatological nomenclature there are few terms which have been used more inappropriately than seborrhoea, and as a result have led to greater confusion of the clinical aspect of the subject. Originally used to designate excess activity of the sebaceous glands, it came to be appended as a descriptive adjective to catarrhal conditions affecting areas richly supplied with these glands. Finally, a prominent group of eczemas, which had no objective similarity or clinical relationship to the catarrhs designated seborrhoeic by the originators of the conception, were classified together under the term seborrhoeic dermatitis.

Seborrhoea, or hypersecretion of sebum, leads to certain cutaneous disorders—namely, premature alopecia, acne, and rosacea. The inflammatory catarrhal conditions attributed to seborrhoea range from ordinary dandruff (pityriasis capitis) to a moist eczema which may become generalized, and the closest association which any of these have with seborrhoea is that they very often begin on or in the region of the scalp. In a large percentage of cases they do not even occur on a skin which has a hyperactive sebaceous system. All these catarrhs are almost certainly organismal in origin, and the bacteria or vegetable parasites found in association with them, and presumed to be the causative agents, are also found as normal skin saprophytes. It is not surprising, therefore, that in a proportion of cases the two distinct types of such catarrhs are combined. The fact that in some cases the catarrhs occur on an oily skin is no argument in support of a seborrhoeic causation any more than an incidence in pigmented skins would favour a melanogenic aetiology.

An analysis of the varied descriptions of lesions which are included under seborrhoeic dermatitis reveals that it comprises two distinct clinical types of cutaneous reaction: (1) pityriasis, and (2) flexural eczema. Each of these may evolve in a definite direction and thus enlarge the clinical picture.

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Pityriasis

Ordinary dandruff, or pityriasis capitis, met with at all ages, needs no description. The addition of an inflammatory element to this affection, with the production of small medallion or petaloid-shaped dry red scaly areas (eczematides) which occur on the scalp, the presternal and interscapular areas, and are variously called seborrhoea corporis, flannel rash, seborrhoeic dermatitis, and seborrhoeide, is well known. Occasionally the inflammatory catarrh is widespread, but usually preserves its dry character. In many cases seborrhoea is conspicuously absent, and the patient volunteers the statement that his skin is abnormally dry. In spite of the erroneous application of the term seborrhoea (seborrhoea sicca to dandruff, seborrhoea corporis to the eczematide lesions) to these two disorders, they are clear-cut, recognizable in textbook descriptions, and are different stages of a common infection (probably yeast infection).

It is the moist eczematous forms included under the term seborrhoeic dermatitis which are the most confused, although clinically they constitute an important and well-defined group of eczemas. They arise spontaneously, have no connexion whatever with seborrhoea, have no necessary association with pityriasis, and harbour an entirely different flora from it. Lastly, the scalp is by no means the common point of origin, for these eczemas are essentially flexural in situation.

Flexural Eczema

In contrast to the dry patchy catarrhs associated with pityriasis the flexural eczemas exhibit a marked exudative character. By far the most common site of origin for this type of flexural eczema is the retro-auricular region, and the initial lesion is usually a fissure at the upper or lower end of the lobe of the ear where it joins the scalp. From this lesion a moist exuding eczema reaction spreads to involve the back of the ear and the adjacent surface of the scalp. The fully developed lesion is characterized by its clear-cut edge in the form of a segment of a circle, by a fissure surrounded by whitish sodden epidermis at the depth of the retro-auricular fold, and by profuse exudations from small pin-point holes (eczema pits) scattered over the entire inflamed surface. Fibrinous crusting is variable in amount. The extension of the

eczema takes place along well-defined paths to the parietal region, the adjacent part of the cheek, the sides of the neck, the eyebrows, eyelids, outer and inner canthi, the fold of the ala nasi, and the commissure of the mouth. The external surface of the lobe of the ear may remain free for a long period, and when attacked the disease is first located in the depths of the folds of the pinna.

Eventually the entire scalp may be involved and the skin converted into a dull fiery red exuding surface. Small outlying marginate patches may appear on the chest and back after a time as a result of dissemination of the infection, but by the time this has occurred other body folds (inframammary, inguinal, and intergluteal) have almost certainly become affected. The salient feature of the spread is that its chief incidence is to the folds of the skin, and this is nowhere better illustrated than on the side of the neck, where linear streaks of eczema develop along the natural folds of the skin in that region. Next to the flexures the condition localizes on areas covered with a strong growth of hair, and the spread to non-hairy flat surfaces occurs last of all. Ultimately the entire body surface may become involved in a generalized moist eczema as a result of coalescence by extension of multiple individual flexural eczemas. Even when generalization has taken place the most acute phases of the eczema are to be found in the body folds.

While the ears are the most common starting-point, any other body fold may be primarily or solely affected, the inframammary and intergluteal regions being the most common. In the latter region it constitutes one of the commonest causes of pruritus ani. When it affects these areas the appearance of the eczema is identical with that affecting the retro-auricular fold, and is characterized by the *symmetrical* involvement of both sides of the fold, the fissure at the depth of the fold, the clear-cut margin of the eczema in the form of a segment of a circle, and the exudative type of the reaction. Occasionally the condition may commence on the scalp following an impetigo (*vide infra*).

In addition to generalization by direct spread, sudden symmetrical involvement of the trunk and limbs may occur presumably as a result of absorption of toxic products from existing isolated lesions. The symmetrical involvement takes the form of an eruption of discrete papules, which may extend to form multiple patches of eczema. This process is analogous to the occurrence of a secondary cutaneous eruption in trichophyton fungus infections, tuberculosis, syphilis, and pityriasis rosea. It occurs in eczema due to external chemical irritants, and also profuse pityriasis capitis associated with mild inflammation, and this type of secondary rash is classed morphologically as an eczematide.

Fortunately generalization is an infrequent occurrence, and cases usually present the condition limited to the retro-auricular and adjacent facial folds, or the inframammary or the intergluteal fold.

The duration of the condition under treatment varies. Usually lesions limited to individual folds can be cleared up in from three to six weeks, but a percentage of cases are very resistant to remedies. Generalized cases take a long time to cure, and may persist for two to three years. In a small proportion of cases the affected skin seems to be in a state of extreme irritability, and the reaction may refuse to be calmed by any known soothing application for a number of weeks and ultimately respond to an application to which it seemed previously to show an intolerance. Another feature is the occurrence of sudden acute relapses for no ascertainable reason during an apparently successful passage towards recovery. When a cure has been effected recurrence is prone to take place in a proportion of cases.

Bacteriological Factors

The aetiology of the two types of catarrh just described which have been for so long associated with the term seborrhoea is indicated in a very suggestive way by clinical and bacteriological examination. The pityriasis type is associated with a heavy infection of a yeast organism, and when mild inflammation has supervened *Staphylococcus albus* is found in profusion. The nature of this yeast organism is not clear as its culture is extremely difficult, and the claims of those who have succeeded in culturing a yeast from the lesions have been disputed. Nevertheless the evidence is strongly in favour of an aetiological relationship between a yeast, *Staphylococcus albus*, and the disease in question.

The causation of the flexural lesions is clearer. Bacteriological examination shows the presence of staphylococcus and streptococcus, and by special procedures streptococcus can be obtained in pure culture. Emphasis has been laid on this last point as indicating that streptococcus is the causative organism, but beyond its isolation in pure culture with special culture media there is no proof of this. Much stronger evidence in support of the streptococcal origin of the eczema is its not infrequent development directly following streptococcal impetigo affecting the fold or its immediate vicinity. I know of no recorded attempts to reproduce this form of flexural eczema by means of streptococcus, and experiments which I have personally carried out in an attempt to produce eczema of the body folds with streptococcus isolated from this form of eczema occurring elsewhere in the volunteers have failed uniformly. Positive cuti-reactions to the toxin derived from streptococcus isolated from flexural eczema have been reported in patients suffering from the disease, but beyond this there are no data on the biological aspect of the eruption. In view of the fact that the presumed causative organisms can and do exist as normal skin saprophytes it is reasonable to assume that the eczema reaction is only evoked by them in presence of an acquired or congenital idiosyncrasy such as has been proved to exist with regard to chemical irritation.

Diagnostic Points

The differential diagnosis of pityriasis is clearly discussed in all textbooks and need not be dealt with here. Less is said about flexural eczema, and the following points might be stressed. (1) The clear-cut edge often marked by a collarette of epidermal scale: this differentiates it from chemical eczema, where the edge is diffuse and fades imperceptibly into the surrounding skin. (2) The almost absolute symmetry with which it involves the body folds: this is a differentiating point in regard to ringworm, a problem which rises principally in the inguinal region. Ringworm rarely shows symmetrical involvement of the folds, where the margin of the lesion, though clear-cut, is papulo-vesicular, and usually in the form of a series of arcs. Microscopical examination of the scales clarifies the diagnosis in doubtful cases.

Treatment

Pityriasis lesions yield readily to salicylic acid and sulphur, or oil of cade pomades, but to obtain permanent freedom from the lesions these remedies may have to be continued for a considerable time after apparent cure.

Infective flexural eczema is much less easy to handle. In general it may be said that greases are not well tolerated. This intolerance may only amount to lack of response or setback after ointments have been used

for a shorter or longer period, or it may be evidenced by exacerbation of the reaction each time grease is applied. This feature may seriously retard treatment, because even when the affected area appears to cry out for grease as a result of treatment with astringent lotions, etc., its application may be followed by disastrous results. A satisfactory routine treatment for the average case is to use boric starch poultices every three hours until exudation has ceased. Starch jelly is best applied to a body fold enclosed in a single layer of gauze instead of spreading it on a backing of linen. Irritation of the skin by hard edges of linen is thus easily avoided. When the lesions are dry one of the aniline dyes may be used as a varnish to reduce the infection. Probably the best of the dyes is gentian-violet, used as a 2 per cent. aqueous solution. Alcoholic solutions are not well tolerated, and for this reason certain of the anilines are not suitable. The application is made once daily for two consecutive days, and on the third day an ichthyol paste is used morning and night. The paste is removed before each fresh application by olive oil and then soap and water. If grease is not tolerated, starch poultices can be used every third day in place of the paste. The object of intermitting the aniline treatment is to obviate caking from repeated varnishing and the fissuring which would result from this. When the reaction has faded considerably with this treatment crude gas-works tar should be used. This is varnished on and talc powder applied immediately to accelerate the drying of the tar. The tar is allowed to wear off gradually with ordinary daily washing with soap and water and is renewed every few days. No attempt should be made to forcibly remove it regularly with olive oil. Lastly, one or two small doses of x rays may be necessary to clear the final dregs of the inflammatory reaction.

As alternatives, astringent aqueous lotions of 2 per cent. tannic acid, 1/2 per cent. silver nitrate, or 5 per cent. liq. plumb. subacet. fort. in calamine lotion may be applied every three hours as wet dressings. It may be necessary to try several of these in rotation, including starch, in very irritable and unresponsive cases. The areas should be watched carefully, and at the least sign of a commencing flare-up a change should be made in the type of dressing.

Generalized cases are treated in a similar manner, and it may be noted that the anilines, and also tar, may be safely applied to large areas of skin. Internal remedies are of little value, although in long-standing cases and generalized cases iron and arsenic may help. The diet is of some importance, and should be low in carbohydrate and have a high vitamin content, either included in natural foodstuff or added as concentrated preparations. The main consideration in effecting a cure is carefully chosen, carefully applied, and carefully watched local treatment.

Conclusion

The foregoing outline has been directed to the separation of two distinct clinical groups of eczema from a functional state of the sebaceous glands, and to classify them as definite types each with its particular aetiology and evolution.

The position might be tabulated as follows:

	Seborrhoea	Pityriasis	Flexural Eczemas
Cause ...	Endocrine; ? <i>B. acnes</i>	? Yeast; ? <i>Staph. alb.</i>	? Streptococcus
Complications	Premature baldness; acne; rosacea	Localized eczematide (flannel rash); generalized eczematide	Multiple flexures involved; generalization by continuity; eczematide

PATHOLOGICAL SLEEP

THE PSYCHOBIOLOGICAL INTERPRETATION OF A CASE

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In a recent case report Dott and Harrowes¹ rightly stressed the importance of assessing the part played by physical as well as by psychological and environmental factors in the production of a paranoid psychosis. While we do not necessarily agree with the aetiological value which they attached to the various factors ascertained in the case, their report is of considerable value, because it clearly demonstrates how unsatisfactory are dualistic conceptions in clinical psychiatry and how impossible it is to shut off "functional" and "organic" types of reaction in water-tight compartments, even if one permits oneself to use these terms for description purposes. With the growing recognition of this fact it seems a pity that the psychobiological conceptions of Adolf Meyer,² although by no means unknown in this country, are not more wholeheartedly accepted for purposes of practical interpretation and understanding of abnormal life-reactions arising from any set of circumstances.

Not only do Meyerian principles permit an unbiased evaluation of any factor which may influence the patient, but they seem to us to provide an intelligible link between the field of clinical psychiatry and the concepts of neurological functioning which have grown from the teachings of Hughlings Jackson and Sherrington. Meyer² acknowledges that his concept of the individual as a functioning biological unit, resulting from the integration of various "levels" of function, with something new emerging at each level over and above the sum of the levels below, owes much to Hughlings Jackson's well-known concepts of functional levels in the nervous system. "Mind" is regarded as the "subjective economizing function" of the individual as a whole, which cannot, of course, be understood except in relationship to the life-setting in which that function and its integral subfunctions are carried on.

There is no need here for dualistic mysticism or water-tight compartments of "functional" and "organic" forms of illness; but a simple study of what is happening at the various levels in a functionally integrated living thing, and an assessment of their value in maintaining or failing to maintain a "working agreement" as between the living thing and its cultural environment (Macfie Campbell)³—a simple record of fact undisturbed by passing philosophies and open always to receive addition to our knowledge. To get this assessment right the time relationship between disturbance of internal function and the various changes in the external load upon the individual as a whole is of paramount importance.

A case of pathological sleep is recorded here in which, in our view, the coincidence of acute encephalitis with a severe emotional trauma actually saved the patient from a deteriorating psychosis. It provides a striking contrast with the case of Dott and Harrowes, where a mere peripheral neuritis, coming when it did, was the starting-point, or at any rate the *point d'appui*, of a severe paranoïdal psychosis.

Under a "functional or organic" philosophy it is quite impossible satisfactorily to reconcile these two cases as belonging to the same category, or indeed as belonging to any category at all. Yet each is an example of a biological failure, the milder failure associated with a