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CONTRIBUTIONS TO DERMATOLOGY.

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No. I.—ECZEMA.

A DISCREPANCY of views has recently sprung up among dermatologists with regard to the position which this cutaneous affection should occupy. If its elementary type is selected as our guide, its general claims to be considered a vesicular lesion admits of no rational doubt. It is true that the original pimple, in some very mild cases, does not advance to the size and maturity of a perfect vesicle, as exhibited in ordinary examples of eczema. There is an arrest of development, and the eruption simulates lichen. In such instances, it is usually disseminated sparsely along the dorsal aspect of the forearm, on the neck, chest, &c. To the unaided eye of the observer there is perhaps no evidence that it is anything more or less than a true lichen; whereas, if these doubtful specimens are punctured with the point of a needle or lancet, their watery contents will frequently follow the operation, and thus afford ocular demonstration that the eruption is vesicular. But if they yield no serous fluid, they are only exceptional cases, and do not militate against the views of those who consider a vesicle to be the characteristic mark of the primary lesion of the disease under consideration. Occasionally, eczema is complicated by lichen, and hence we have an eczema lichenoides or lichen eczematodes, in which the characters of the two eruptions are blended together—vesicles and papules.

Eczema usually exhibits three different and well-marked stages in its history. The first is that of erythematous inflammation, more or less severe, with the superaddition of vesicles; the second consists in the formation of thin, yellow, superficial incrustations, formed in consequence of the bursting of the vesicles and the drying up of their contents, which occupy the adjacent excoriated and exudative surfaces; in the third, these incrustations disappear, the inflammatory action subsides, and the affected integument is covered with scales,

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resembling in character those of ordinary healthy epidermis. All these different stages may be present at the same time on the same person—the eruption commencing in one spot, while in another it has passed through its several phases and nearly disappeared.

Without invalidating the above remark with regard to the different stages of the disease, it may be stated in this connection that individual cases occur which show that the period during which vesicles continue to be developed is extremely variable—sometimes lasting only a day or two, while in other instances it is prolonged by the occasional appearance of a few vesicles throughout the whole course of the eruption.

Eczema in Children.

Although this eruption has the same starting points in the very young and in the adult subject, yet its physiognomy in the former differs somewhat from the features which characterize it in the latter. In the infant, its simplest type commences with small, slightly raised vesicles, sometimes closely crowded together and sometimes isolated. In a few hours, these vesicles become more prominent and transparent, and are free from any well-marked inflammation or redness at their base. In four or five days, more or less, they burst, and a discharge of a serous, limpid fluid is poured out upon the adjacent skin. Anon the discharge becomes turbid and less copious; the ruptured vesicles dry up; and, to an observer not entirely familiar with the natural history of the eruption, it might seem that it was at an end. Instances of this kind do occasionally present themselves, but, in a great majority of cases, the malady is of a much more serious and persistent form. Successive crops of vesicles arise; the adjacent integument is inflamed, and the serous exudation desiccates into yellowish laminæ, which adhere closely to the subjacent tissue. The eruption may be quite circumscribed, and occupy but a very limited portion of skin, as, for instance, the summit of the scalp, or about the ears, the face, the arms, the hands or feet; or it may cover the entire surface of the body and limbs, and maintain its hold upon the little sufferer for several months, with repeated alternations of transitory amendment and relapse, whatever remedial measures may be used for its radical and perfect cure. But although with regard to its obstinacy and chronicity it may not be unlike what we meet with in the adult, yet the diseased skin of the infant with this complaint never presents that thickened, hard, œdematous, infiltrated, furfuraceous condition so common in chronic eczema in persons of mature life. The most extraordinary examples of the abnormal features here spoken of are to be found in aged people, especially when the morbid action has implanted itself on the lower limbs. These remarkable transformations of the cutaneous membrane, which every physician must often have seen in individuals of advanced age, are but the ulterior expression of the same diathesis which exists in the infant during the period of lactation, and which manifests its initial presence in a super-

ficial group of acuminate vesicles. The contrast is indeed great, and the medical philosopher finds in it a theme for profound study.

Of all the diseases that invade the human skin, eczema constitutes more than one third; and in children the hairy scalp is its most frequent locality. Perhaps, for all practical purposes, it will be sufficient to consider the eruption under two principal varieties or forms, namely, the acute and the chronic. These terms are easily understood; and, by employing them, all danger of confusion, misapprehension and obscurity of language is avoided. It generally makes its first appearance in the young subject at about the fifth or sixth month, that is, the period of the first dentition; sometimes much earlier. It breaks forth without any premonitory symptoms, except, perhaps, a slight itching of the parts. The vesicles burst about the fourth or fifth day of their evolution, and if the scalp is the part implicated, the hairs become agglutinated; and as the semi-opaque secretion from the ruptured vesicles continues to flow over the surface, which soon becomes inflamed and irritated, soft, small incrustations are produced. There is now considerable heat and redness in the parts. The foetid serosity oozes out almost constantly from beneath the incrustations; and when these are removed the surface is found to be inflamed, and from the open pores, on the site of the ruptured vesicles, the acrid secretions can be plainly seen to escape. The incrustations are reproduced in quick succession. They are irregular in outline, and are sometimes lamellar and imbricated, sometimes thin and soft, sometimes depressed, unequal, smooth, or rugous, and are usually moistened by the viscid secretion to which their formation is due.

Throughout all the active stages of the disease there is violent itching, which is apt to be more intense during the hours usually allotted to sleep than at any other time. The child scratches itself with a vehemence which it is distressing to witness. It forces its nails into the affected skin and tears off the cuticle in every direction; and, as a consequence, it is no uncommon thing to see the blood and serum trickling down along the lacerations thus produced—and for the time being we have no means of appeasing the irritation and suffering.

It is a singular fact that, notwithstanding the severity of the complaint in children, it is seldom that it produces any permanent modification of the normal structure, such as baldness of the scalp, or cicatrices in other portions of the cutaneous integument; whereas, in the adult, it is not uncommon to meet with alopecia, more or less extensive, as one of the consequences of the disease.

It has long been a popular tradition, and many learned practitioners of the present day entertain the opinion, that, if the serous discharge of eczema is suddenly arrested, the brain or some other vital organ will be endangered and the life of the patient sacrificed. Other physicians reject this theory as being entirely fallacious. We

once entertained the latter view of the subject, but as time has given us more extended opportunities for clinical observation, we have found occasion to modify somewhat our former views. If the excrementitious matter of eczema and other exudative eruptions in a young child is profuse, and has continued for some months, and is suddenly arrested, either spontaneously or through remedial measures, the result may be prejudicial to the welfare of the patient; more especially if the scalp is the seat of the eruption. In the adult subject there is little or no danger from a repulsion of the eruption. But with children, in whom a slight disturbing cause is not unfrequently productive of serious mischief, the case is quite otherwise, as clinical facts bear witness. Whoever has had much practical experience in the management of children suffering with the disease under consideration, cannot have failed to observe instances where the exudation has suddenly stopped, and the general condition of the patient has been thereby apparently rendered more uncomfortable and unsatisfactory. Mothers and nurses not unfrequently report that when the eruption has become crustaceous and dries up rapidly, the child seems to lose appetite, is more restless and feverish, and that the normal organic functions are performed with less regularity than when there is a free discharge; and one can hardly resist the conclusion that this discharge seems to act, for the time being, as a safety-valve to the system. The danger produced by the too sudden arrest of the secretion is rendered still more apparent by the fatal cases recorded by different authors. M. Caillault,* an excellent French writer, relates the case of a child two years of age, which suffered for many months from a vesicular eruption "in a very high degree." The health was good, the external aspect, excepting the eruption, was highly satisfactory. Topical applications of the oil of cade were prescribed, with the caution that it should only be applied to a small surface at once, so that the cure might progress gradually. The nurse, in her misplaced zeal, covered with it the whole face and a portion of the scalp. Twenty-four hours after the sudden stoppage of the abundant secretion, the child was attacked with catarrhal pneumonia, so rapid in its progress that nothing could check it. M. Brequet has witnessed an analogous case, in which death supervened from a cerebral affection. Recently there was in one of the wards of the Hospital for Sick Children, under the care of M. Sée, of Paris, a boy six years of age, with a darting affection of the face; every time the eruption disappeared, the patient was seized with a violent attack of asthma. Such cases as these are doubtless rare, and we would not by any means attempt to magnify their importance in connection with the subject before us; nevertheless we may find in them, and in other instances of less gravity, sufficient grounds for cautious therapeutic measures in our dealings with the disease in question.

* Diseases of the Skin in Children.

Dr. McCall Anderson says:—"I have rarely witnessed any bad effect even from the rapid removal of the disease. That deleterious effects are occasionally witnessed, however, I am quite prepared to allow."—Page 45.

Burgess, in his "Treatise on Eruptions of the Face, Head and Hands," remarks:—"It should be borne in mind that in children particularly, eczema of the face and head is often a salutary discharge, which it is dangerous to heal suddenly."—Page 33.

There exist in science so many facts of this kind, which have been collected by practitioners of every period, and which, consequently, are above any suspicion of preconceived theory, that it is impossible not to admit the relation of cause and effect between the sudden stoppage of the plastic exudation and the production of various diseases which suddenly appear. Moreover, both physiology and pathology can account for facts of this kind.—M. CAILLAULT, p. 57, 2d English Edition.

It is not difficult to discover in the premises a sort of quasi-physiological function which may not be rudely assailed with impunity; we likewise perceive, as we do in measles, scarlatina, urethritis, parotitis, &c., certain relations of equilibrium and bonds of sympathy between different organs and tissues, which, although not always well understood, we know to exist both in health and disease.

In spite of the best treatment that can be adopted, eczema is exceedingly prone to pass into a chronic state, and to be prolonged for many months or even year after year, with only occasional exemptions from any actual manifestations of its presence. Each season of truce is interpreted by the immediate friends of the child as indicative of the final subsidence of the malady; but not many months pass before there is a renewed attack, and a very remarkable morbid condition ensues.

We will assume now that the eruption has become chronic. The observer notices, at a glance, that it presents a variety of aspects; and the several anatomico-pathological elements which appear simultaneously on different parts of the surface offer no little embarrassment to his judgment, as to the appropriate nosological position in which the eruption should be placed; for, taken as a whole, it consists, so to speak, of a heterogeneous multiform character which seems to be unconformable to any exact and classical nomenclature of the dermatologists. For instance, the physician is called for the first time to see a young child which has had for some weeks a cutaneous eruption, commencing with a small circumscribed blotch of pimples, causing but little disturbance at first, but soon augmenting in size, becoming vesicular, itchy, and yielding an ichorous discharge which irritates the neighboring skin, which in turn takes on a similar action; and thus the local disease spreads in all directions. From the account given by the nurse of the development of the disease, it is evident that its primal type was eczema papulosum; but

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it is seldom that eczema presents the simple attributes here enumerated, or that it can be represented by one single term; and accordingly, in the case supposed, the physician finds that different portions of the skin are occupied by eruptions which are seemingly different as elementary lesions; and it is only by patient study of these several existing forms or varieties that any embarrassment or confusion of judgment can be cleared up, and that he can be reconciled to the theory and the fact that each one of the different phases of the eruption in the case before him is to be regarded as a true representative of eczema. They simply constitute the several pathological conditions of the skin arising during the progress of the disease; and they fully justify the appellations which the ablest writers on cutaneous pathology have employed, but which to the general practitioner may sometimes appear superfluous and obscure. But let us look at the supposed case before us more minutely. The eruption is general. Its leading feature in one place is extreme redness. This is a specimen of eczema erythematosum. In another portion of the skin, it is raised into little papules as a leading mark. Here the case is an eczema papulosum. In another part of the skin, vesicles constitute the prominent sign or condition, and we have an example of eczema vesiculosum. In still another region, the exudation may be excessive and constitute a leading feature, and then we have an eczema ichorosum. If pustules are scattered here and there within the precincts of the diseased surface, as is very frequently the case, then eczema pustulosum or impetiginodes is the appropriate name. If the morbid action has continued a long time, and a dry, scaly condition of the epiderm is a chief characteristic, then it is an eczema squamosum. When this last named variety is seated on the scalp, the hairs are frequently enclosed in the glossy, thick, silvery scales throughout their whole length, at the same time forming them into little delicate meshes; and this condition led Alibert to compare it to asbestos, and is described by him under the name of *porrigine amiantacée*. Chronicity is one of its most constant and undesirable attributes. It has sometimes been mistaken for pityriasis, and it is by no means always easy to point out the difference. There is, however, a difference. The scales of the former are thicker than those of the latter. They have always been preceded by a more or less humid condition of the scalp; whereas this is not the case with pityriasis, which is a strictly squamous affection from the beginning. The scales in pityriasis are also thinner, drier, and more adherent than those of eczema.

Eczema squamosum usually appears at a later period of childhood than the other varieties; and is in reality but a sequel of some other form of the eruption which has probably existed for a long time. The different appearances presented by eczema in the course of its development and progress fully justify the names above given to its different forms. They show that the eruption undergoes several

metamorphoses, but does not lose its identity; it is still eczema; and the idea that it has changed its character so as to be called with propriety by any other name, as impetigo, porrigo, tinea, psoriasis or pityriasis, is entirely erroneous. It seems unphilosophical to hold that one disease can be converted into another, and yet Wilson leans to this view.

Some dermatologists make still other varieties of eczema, according as it is partially developed in certain situations; so that we have, for instance, eczema capitis, eczema aurium, eczema palpebrarum, eczema pudendi, eczema perinæ, eczema digitorum, eczema inguinum, &c. The foregoing varieties or divisions are appropriate ones, and, by adopting them, we avoid circumlocution. They might be extended still further, but perhaps those already given will suffice.

In some quite severe and obstinate cases, where the child is naturally robust and well cared for, the mucous membrane remains undisturbed; while in other cases the mucous lining of the nose, eyes, mouth, bronchial tubes, and alimentary canal affords unmistakable evidence of participating to a greater or less degree with the cutaneous affection, in the excessive mucous or catarrhal discharges from these parts. The lymphatic cervical and axillary glands are generally swollen, and give rise to chronic adenitis which not unfrequently advances to suppuration. In not a few instances, especially among the poorer classes, where the child is subjected to unfavorable hygienic influences, there is evident mal-assimilation; the patient becomes anæmic, wastes away, the muscles become soft and flabby, and if the patient possesses a pyogenic diathesis, the deeper portions of the derma are engaged in the morbid processes. A low degree of inflammatory action sets in; and little abscesses form upon some portion of the scalp, about the ears, in the axillæ, and on the hands, fingers, and toes; and the mother is in a state of anxiety, from the groundless apprehension that her offspring is the victim of that much abused malady—the scrofula.

In a majority of cases of infantile eczema, the disease is traceable to hereditary predisposition. It is usually found, upon inquiry, that one or the other of the parents or grandparents has been affected with the complaint. Deficient lactation or bad milk will bring it out. This fact is not unfrequently illustrated where mothers have a deficiency of nourishment for their children, or foolishly insist upon nursing them for too long a time—some sixteen or twenty months. Dentition is sometimes an exciting cause; so also is vaccination; and physicians are thus wrongfully blamed for using impure matter, because as an occasional, but unavoidable sequel to vaccinia an eczematous eruption supervenes, especially in young children with an excessive lymphatic temperament. The eruption in these cases usually commences near the spot where the vaccine virus was inserted; but at other times at a distance, as on the head, nates, and genitals. The most trivial causes that disturb the normal processes

of digestion and assimilation in the young infant are sometimes sufficient to induce the eruption; as, for instance, a chill or a little feverish attack of a day or two, or a sudden fright experienced by the nursing mother.

Mothers and wet nurses, having the care of infants suffering from eczema, often put the question—is it contagious? The attending physician should give a qualified answer. If the eruption, for instance, is on the face or head, and is accompanied for the time being with copious discharge, it is not strange that its irritating qualities should produce a similar eruption on the tender skin of the breast or arm of the nurse in suckling the child; or if she sleeps with it and it nestles up to her, as is usual, she is liable to be affected in like manner. But this liability is to be measured in part, at least, by the susceptibility of the exposed person. Considering the pathological condition of the child, and its relations to the nurse under these circumstances as a source of injury or poison, we are reminded of what may happen when one comes in contact with the poison oak (*Rhus toxicodendron*). In some individuals of peculiarly delicate skin, it is well known that handling the leaves of this shrub will produce itching, inflammation and vesicular eruptions, similar, although not identical with eczema; while other persons alike exposed do not suffer. In the case of the eczematous child, it is certain that it can and does inoculate itself; and the same acrid discharge, when long or often in contact with the skin of a healthy person, may act as an irritant and produce an eruption. Such instances have transpired within our own knowledge; and it is presumed have been observed by the readers of this communication. And yet, in the ordinary sense of the word, eczema is not contagious.

[To be continued.]

SYNOPSIS OF CASES TREATED AT THE SURGICAL CLINIQUE OF THE BOSTON DISPENSARY, DURING SEPTEMBER, OCTOBER AND NOVEMBER, 1866.

[Reported for the Boston Medical and Surgical Journal by DAVID W. CHEEVER, M.D.,
one of the Visiting Surgeons.]

THE total number of surgical cases treated during my term of attendance was 1901. Of these there were 400 teeth extractions, leaving the number of surgical cases 1500.

As to the more common diseases, there were—affections of the eye, 80; ulcers, 40; cases of paronychia grava, 22; abscesses, 21; fractures, 18; dislocations, 3; needles extracted, 4; affections of the bursæ, 8; herniæ, 5; several each of enlarged prostate, stricture and retention; and very many cases of phlegmonous erysipelas—making a total of these classes of about 200.

The remaining 1300 cases embraced every variety and grade of minor surgery, and were too numerous to specify.