nucleus and cell; the segmentation of the former; the endogenous evolution of a brood of young cells; the distension of the parent cell by an ever increasing progeny; and the escape of this by the disappearance of the primary cell-wall or capsule, in the form of corpuscles undistinguishable from pus,—may all be observed. I have not yet traced out completely the development of cancer and allied neoplasms in this organ; but I have very little doubt that the process is essentially similar to suppuration.

NOTES ON ECZEMA.

By H. S. PURDON, M.D.,

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UPON the subject of eczema, much has already been written; and, although I may not be able to bring forward anything new, still I hope to record in the following remarks some of the peculiarities that have been observed in this disease when occurring in the aged. The notes that I have made are derived from two principal sources, viz.:—The Belfast Dispensary for Diseases of the Skin, and the Belfast Charitable Institution, the latter of which has an annual number of upwards of one hundred *aged* inmates, being all above fifty years, and who, being admitted for life, are consequently under observation for several years. Amongst these individuals (especially females) eczema is a common complaint. Now, in old age, the epidermis is rough, dry, and impermeable. As remarked by Dr. Day, "it almost acts as a foreign body and keeps up a perpetual irritation on the subjacent papillæ in the true skin." In these cases, the application to the skin of a common pitch-plaster, or a stimulating ointment, is frequently sufficient to occasion an amount of local irritation which rapidly ends in an eczema.

In the young as well as in the aged, the eruptive lesions of eczematous inflammations select the orifices of hair-follicles, or gland-ducts, or other vascular spots. Crusts, which may be either plastic or purulent, also form on the external surface. In the aged, the inflammation usually ends in subcutaneous infiltration and becomes chronic, and the discharge from the affected part tends also to increase the extent of the disease; as remarked by Hebra, "the eczematous group is distinguished by more or less profuse excretion, which oozes from the skin-surface." Itching is likewise a constant symptom.

When eczema attacks the legs, usually their anterior surfaces, which in many cases is occasioned by the common practice of old people—viz., constantly sitting close to the fire—the legs become inflamed, stiff, and itching, the skin is usually red and glazed-looking, the cuticle also exfoliates; finally, an exudation takes place into the subcutaneous tissue, this latter state arising from the cells in the cutis, which have become enlarged and swollen from inflammation, pouring out an exudation from their walls, or, according to other pathologists, owing to direct transudation from the capillary vessels. In such cases, the primary eruption may be either vesicles or pustules, or both combined, having a tendency to end in superficial ulceration. On this point, Mr. Milton thinks "that we might include under the head eczema, an exceedingly obstinate affection, attacking the legs and running into ulceration, a complaint generally seen in persons of advanced life. On as good grounds as any often urged for giving a name, this variety might be called ulcerative eczema." I described two cases in the *Medical Circular* for April 12th, 1864, under the name *eczema ulceratum*; since which date, I have constantly met with this affection in elderly people, usually of the poorer class. Eczematous ulcers of the lower extremities are, as a rule, only met with in those of advanced years, usually women who have borne many children, accompanied by a varicose state of the superficial veins, which gives rise to stagnation of the contained blood and congestion in the affected part. Mr. Paget, in Holmes's *System of Surgery*, thus describes their origin, as commencing in a slight injury: "The surrounding inflammation assuming an eczematous, instead of a common character, the skin becoming punctate or vesicular, or cracking, and exuding an adhesive ichor, with constant itching; but they are often spontaneous, the ulcer taking place in the middle of a patch of acute eczema." In the treatment of this form of ulceration, water-dressings, or a weak solution of nitrate of silver, are the applications recommended by Mr. Paget. Ointments are seldom tolerated.

A chronic eczema of the leg presents the following characters. The affected skin is infiltrated, hard, and thickened to the touch; and, in neglected cases, tubercular, being what is called by Mr. Hutchinson "elephantoid (papillary) hypertrophy." Itching is also a constant symptom, which occasions the patient to tear and scratch himself, thus causing excoriations. The skin of the affected part eventually becomes darker than natural. The bowels are generally costive; and,

finally, after a certain time, the constitution may be affected; the digestive organs become deranged, and general debility ensues. The following cases are abbreviated.

CASE I.—Mrs. F., aged 53 years, of a full plethoric habit, consulted me on December 27th, 1866, suffering under eczema of the right leg, complicated with ulcer of two years' duration. No varicose veins were apparent; she had always enjoyed good health; and could not attribute the present disease to any cause. The affected skin was red and glazed-looking; and, to use her own words, "watered"; bowels costive; appetite bad; and she was troubled with pyrosis. In this case, I considered the eczema to be due to plethora and mal-assimilation. The treatment adopted was as follows. Infusion of gentian, soda, and hydrocyanic acid were given internally; with a pill, containing podophyllin and compound aloes pill, at night, which acted both on the liver and rectum; locally, a mixture of olive oil and oxide of zinc was applied with the best results. After the eczema and ulcer were cured, the latter, after the inflammation was subdued, being treated by strapping, an extensive eruption of lichen appeared, which, for a long time, proved obstinate to treatment.

CASE II.—M. S., aged 60 years, an inmate of the Belfast Charitable Institution, was first seen by me on September 9th, 1867, suffering under acute eczema of the left leg, complicated with ulcer. The leg was greatly swollen and painful; the disease extended from the knee to the ankle; the ulcer was very irritable, causing loss of sleep at night. The treatment adopted consisted in the local application of soothing remedies, as poppy fomentations, followed by "Carron oil." Internally, the patient was ordered a mixture, consisting of infusion of calumba, sulphate of magnesia, sulphate of iron, and sulphate of quinia, with a grain of opium at night, to procure sleep. This latter drug is of the greatest value in various forms of ulceration.

Occasionally, when the disease is verging towards a cure, an eruption of furunculi make their appearance, usually around the margins of the diseased part. The patients generally look on this in the light of carrying off some peccant matter from the blood; an opinion, I believe, held formerly by the humoral pathologists. Rayer has remarked that, in "infancy and youth, eczema appears more particularly on the head; in riper years, on the breast and belly, but especially on the genital organs; and in advanced life, on the lower extremities and about the margin of the anus." This latter affection first attracts attention by the itching it occasions, being frequently accompanied by constipation and hæmorrhoids, due to derangement of the liver and congestion of the portal system. Those who "live well" and indulge freely at the table, are the usual sufferers from this complaint. I may remark, in passing, that I have derived benefit from the administration of the confection of black pepper, and the local application of dilute citrine ointment in this form of the disease. Old men are subject to eczema intertrigo of the inside of the thighs and scrotum, accompanied by incontinence of urine. In these cases an absorbent powder dusted on the affected part is necessary; and one consisting of powdered starch and oxide of zinc, as recommended by Hebra, answers very well. Eczema capitis is occasionally met with in elderly people; it usually commences by the formation of scurf and itching, the hairs eventually falling out. From a state of alcoholism, the subjects of which appear prematurely old, a cutaneous eruption usually appears on the most exposed parts of the body, as the face; and Mr. Erasmus Wilson considers "gutta rosacea" to be a form of eczematous inflammation. These individuals are liable to constant tremor of the hands and loss of appetite. For the former affection, the oxide of zinc has been recommended by Dr. Marcet.

As is well known, old people are frequently asthmatic, the lung-tissue being usually emphysematous; such individuals occasionally suffer from eczematous eruptions, probably arising from improper aëration of the blood. The following case occurred about two years since.

J. S., aged 70 years, for a considerable time an inmate of the Belfast Charitable Institution, formerly by occupation a gardener, since his admission, suffered more or less from asthma; when he was free from this, an eczematous eruption appeared on the extremities, and continued till the next attack. A few months before his death, herpes zoster took the place of the eczema, appearing on the left side of his thorax.

According to Trousseau, in his *Clinical Lectures*, translated by Dr. Victor Bazire, old people, who are asthmatic, exhibit in their youth eruptions of an eczematous nature. "Indeed, nothing is more common than to find herpetic, rheumatic, gouty, and hæmorrhoidal affections transform themselves into asthma..... Thus eczematous eruptions, rheumatism, and gout, are complaints which may be replaced by asthma, and may replace it in turn." Eczema seems occasionally to depend upon a rheumatic diathesis. Lumbago is also sometimes present; and I have derived considerable benefit from the administration of the tincture of *actea racemosa*, combined with Fowler's solution, in this form of eczema. The popular remedy known as the "Chelsea Pensioner," is

likewise useful, especially when the eczema is chronic, the bowels costive, and rheumatic pains complained of. The sulphur contained in this preparation is given off by the skin in the form of sulphuretted hydrogen; thus, in the most natural manner, coming into contact with the diseased surface.

Mr. B., aged 62 years, of a gouty family, has been all his life a martyr to this disease. At the early age of ten, the patient states that he had his first attack in the foot; and that he has always lived well. At the present time (December 1867), the various joints of the hands and feet are distorted, with tophaceous deposits. He has usually three attacks of gout in the year, the worst being always in autumn; the affected joints become swollen and erythematous, which, in many instances, has assumed a vesicular character. I may remark that the patient derives considerable benefit from the application of hydrocyanic acid, painted on the affected part once or twice in the day, cotton wool being afterwards applied.

In cases such as the above, depending on a gouty diathesis, the wine of colchicum, Fowler's solution, and equal quantities of carbonate and sulphate of magnesia, in peppermint-water, form an useful mixture, the proportions of the various ingredients being increased or diminished according to circumstances. According to Dr. Smith, *Journal of Cutaneous Medicine*, No. 1, "Indican is met with in the urine of eczema. Indican is supposed to indicate a retardation in the process of declension from the complex to the more simple of the products of function and secretion, and is probably due to accumulation of urea and other products of waste in the blood, arising from deficient renal excretion." From the above, it is evident that the occasional use of a diuretic is of advantage.

The chronic forms of eczema are usually those met with in the aged; and, as it is generally necessary to prescribe arsenic, the preparation which is less liable to disagree with the stomach is the one to be selected. In the administration of this remedy to those advanced in years, who so frequently suffer from dyspepsia, the best preparation I know of is the liquor soda arseniatis. Arsenic acts as a tonic to the capillary system, stimulating it to remove hypertrophy, allays excessive sensibility, and is recommended by Trousseau in asthma, thus fulfilling two objects in the treatment of eczematous patients afflicted with asthma. For flatulence, loss of appetite, and depression of spirits that the aged frequently suffer from, an excellent remedy is twenty grains of quinine dissolved in an ounce and a half of the ammoniated tincture of valerian, of which the dose is a teaspoonful three times a day in a wineglassful of water; or the syrup of the phosphate of iron, quinia, and strychnia, is extremely valuable, as also cod-liver oil.

The absence of reaction in old people occasions it to be hazardous to apply "strong remedies" towards the curing of an eczema. I particularly refer to blistering fluids, solutions of potassa fusa, which, although of the highest value in the treatment of the various chronic forms of eczema occurring in younger individuals, are, when applied to the skin of the aged, productive of suppurative inflammation, arising from diminished vitality of the cuticle, especially of the lower extremities, which are farthest from the centre of the circulation. Troublesome ulcers may also ensue, which have occasionally ended in gangrene. I have had shortly since under my care a female, aged 94 years, suffering from chronic eczema of the anterior surface of both legs, which I considered to be due to a languid circulation, depending on impaired nervous "power", as her brain is in a state of softening, and her mind wanders; indeed, the patient is in what is commonly called a state of "dotage."

When the disease is of an acute nature, the skin red, glazed, and covered with an adherent crust, soothing applications are the best; a very simple and useful one is the glycerole of starch kept constantly applied. When small superficial ulcers, usually of an indolent nature, are present, "Turner's cerate", to which a little castor-oil and balsam of Peru have been added, is a gently stimulating ointment. In the chronic and declining stage of eczema, "Hebra's tincture", recommended by Dr. McCall Anderson, and which is composed of equal parts of tar, black soap, and rectified spirit, is an excellent preparation; this tincture is to be firmly rubbed into the affected part night and morning, and washed off with soft soap before being re-applied. In private practice, the oil of cade diluted with glycerine is a more suitable application, and in place of the soft soap the juniper tar soap may be used instead. In very inveterate cases, I latterly use a solution of chromic acid, usually of the strength of twenty grains to the ounce, to be applied night and morning; this dissolves the hardened cuticle very rapidly. Old people require a good nutritious diet, with a moderate allowance of wine: sherry or claret are to be preferred. When varicose veins are present, a carefully adjusted bandage ought to be constantly worn. To allay the excessive itching, the part may be occasionally bathed with butter-milk, in which a handful of water-

crosses have been boiled; this remedy has been recommended by Dr. Graves, and is very efficacious, and well suited for the poor.

In many cases, it is not always safe to suddenly cure a long standing eruption, as the following case illustrates. C. M., aged 74, of a debilitated constitution, a servant by occupation, was admitted at the Belfast Dispensary for Skin-Diseases during the winter of 1866, suffering under chronic eczema of both legs, extending from a little below the knee to the ankle; the skin was thickened and infiltrated; the duration of the disease was three years. In this case, I administered the tincture of the perchloride of iron, as recommended by Mr. Milton; and, to prevent costiveness, ordered the confection of sulphur. After this treatment had been pursued for about two months, the disease yielding to the above remedies and the external use of fumigations of the iodide of sulphur, I was sent for one evening to see this patient, who had been during the day attacked with paralysis.

Rayer has mentioned a case in which insanity followed the disappearance of the eruption; and the following case was related to me by a medical gentleman residing in Belfast, as having occurred some years ago. The Rev. Mr. C., aged about 59 years, a Wesleyan clergyman, suffered from an extensive eczema of both legs for some years, after the healing of which he became insane, and continued so for several years, eventually dying in a private asylum. No madness was in his family, and every method of treatment tried in his case was unavailing. On this point, the following authorities may be quoted. Devergie states that, at a certain period of life, eczema becomes a drain, which must not be meddled with. Dr. Tilbury Fox considers the curing of long standing eruptions fraught with danger. Mr. E. Wilson recommends a counter-discharge; and Mr. Paget states that there is sufficient reason to believe that the cessation or cure of an established eczema has been attended with serious disease of the brain or other internal organ. I agree with Mr. Milton, who states "that, if dangerous results ever followed from curing eczema, the records and case-books of those who have paid so much attention to diseases of the skin would surely long before this have yielded some decisive evidence." And although the various theories advanced against curing long standing eruptions are quite feasible, still the proofs brought forward are only isolated examples. On this subject we require further statistics to elucidate the matter, as the evidence is not conclusive.

THE TREATMENT OF SYPHILIS BY THE HYPODERMIC INJECTION OF THE SALTS OF MERCURY.

By THOMAS JAMES WALKER, M.D.LOND.,
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IN the number of the JOURNAL for March 27th, 1869, is a paragraph taken from the *Wochenblatt der Gesellschaft der Aerzte*, calling attention to the cases of syphilis published by Professor Sigmund of Vienna, in which he had made use of the hypodermic injection of the bichloride of mercury. Before the appearance of that paragraph, this short paper had been written, in order to bring before the notice of the profession in England this method of administering mercury, which is advocated by its originator, Dr. Lewin of Berlin, and by others of our continental brethren who have adopted the plan, as more efficient, and at the same time safer, than any other method of employing the drug. It is especially desirable that the method should be fairly tried by those who, from their connexion with institutions specially devoted to the treatment of the maladies in which it is supposed to be useful, have the opportunity of proving, by experiments on an extensive scale, the value of the method.

Notwithstanding the opinion so strongly expressed by many eminent men against the use of mercury in syphilis, we find this remedy steadily holding its ground; and it is still regarded, not only by the vast majority of the medical profession, but also by the most experienced and most scientific of the specialists in this branch of medical science, as by far the most valuable remedy which we possess to combat the malady; and this fact is the more striking, since all admit the bad results which follow the abuse of the drug, and since, moreover, its administration is, as I believe, conducted by most practitioners on an entirely erroneous principle—that, I mean, which is inferred in the rule usually laid down that mercury, when administered for the cure of syphilis, should be given *until the gums are touched*.

The impression that the beneficial effect of mercury is not obtained until this so-called physiological effect is observed, and that, when this is observed, the full benefit of the drug has been derived, prevails, I believe, almost universally through the profession, and detracts most powerfully from the remedial value of the drug. The occurrence of