

less amount of deafness than a morbid state of the mucous lining of the tympanum, without loss of any of the component structures of the organ.

[To be continued.]

9, New Burlington Street.

ON THE ORIGIN AND TREATMENT OF CHRONIC DISEASES OF THE SKIN.

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NO. IV.

ORDER II. SCALY DISEASES (SQUAMÆ).

SQUAMOUS diseases consist of the conversion of some portion of the epidermis, under a process of inflammation of the dermis, into opaque and thickened laminae. And although the inflammatory action may be either very severe, as in the case of psoriasis inveterata, or so slight as only to be known by its results, as in the fainter forms of pityriasis, still, in all cases the disease is, from first to last, characterised by scales, which differ essentially from the crusts or scabs succeeding confluent vesicles, pustules, blisters, or ulcers. The anatomical peculiarity of this order of diseases does not necessarily constitute it a specific group. Both the origin and treatment of the squamous affections may involve, in common with other chronic affections, considerations of general interest concerning the health and constitution of the patient. The scale itself is a marked distinction; it is unique; but the patient may require depletion or alteratives, tonics or mercury, as the origin of the disease may be plethora, atony, dyspepsia, or syphilis. Yet there is a general distinction between the scaly and other forms of cutaneous disease. They more frequently occur without even the slightest apparent derangement of the general health; they are more frequently hereditary; if left to themselves more disposed to degenerate from bad to worse, than any other order of eruption; they rarely or never recover if left to take their course; and yet, although they have been pronounced incurable by more than one high authority, they are really, for the most part, more tractable than any other kind of eruption. They are, however, certainly very slow both in their advance and in their recession under treatment; and the prospect of recovery will more frequently depend upon the perseverance and faith of the patient than on the skill of the surgeon: so easy and simple is the treatment.

Willan divided scaly diseases into four genera, which he called *lepra*, *psoriasis*, *pityriasis*, and *ichthyosis*. The three former of these are but varieties of the same disease. In *lepra*, the patches have always nearly a circular form; in *psoriasis*, the forms presented are various; and in *pityriasis* the scales are small and delicate; so that the distinctions between these diseases are really frivolous and unnecessary, the more especially as none of them indicate, *per se*, any peculiar or special constitutional lesion. I shall therefore speak of *lepra*, *psoriasis*, and *pityriasis* as *the scaly disease*.

Diagnosis of scaly affections. It is only necessary first to distinguish between the thin, micaceous, and often white and shining scale which is perpetually peeling off, and which is characteristic of this disease, and those flattened scabs or crusts, which result from the drying up of confluent vesicles, etc., and which are of a dark mahogany or straw colour, irregular in form and less regularly detached. In the scaly disease, a handful of scales may be taken from the bed of the patient in the morning after he rises, if the disease is severe and extensive. This does not happen in any other disease.

Prognosis. The scaly disease is eminently curable, but seldom cured. The progress towards recovery is slow, and the remedy (for there is but one) is in bad repute, and every old woman the patient meets with, of either sex, professional and lay, assures the patient that leprosy is an incurable disease, and that if it is cured something worse will

happen, and that it is hereditary and therefore cannot be cured; and as all this is as easily remembered and as easily repeated as it is false and foolish, the patient gets as much plague from without as from within, and often resolves at length that the plague of the skin is more tolerable than the plague of gratuitous advisers. Certainly, if the health is good, which is generally the case, there is fault somewhere, if a patient, afflicted with the scaly disease, however severely, or for whatever length of time, does not recover. No disease is more manageable or more safely curable. Where the patient has been healthy and tractable, I have never found any insurmountable difficulty with the disease. Since I first published my views of the treatment of this disease, no less than four medical men (three of them entire strangers to me) have published cases in the periodicals for the express purpose of corroborating the truth of my representations. And yet I am acquainted with four medical men, who are themselves martyrs to the disease just because they think it cannot be cured.

TREATMENT. The disease may be somewhat relieved by local treatment. Warm baths, not too hot, yield great comfort. The glycerine lotion is also useful when the skin is harsh, dry, or fissured. Where there is much inflammation, leeches are necessary and very useful; and when general depletion is combined with local, the patient may even appear to be getting well. But the scaly disease will not yield to such treatment beyond a certain point. Nor have I ever seen it recover under the use of tar, cantharides, iodine, sarsaparilla, or any other remedy except arsenic in the idiopathic cases, and mercury in the syphilitic, of which last I do not here propose to speak. Nor is it necessary, after what has been written in a former paper, to repeat the directions concerning the administration of arsenic. I shall merely illustrate the practice from cases selected from my dispensary case book as exemplifying the leading varieties of the disease.

CASE I. *Lepra Vulgaris* in a child. D. N., aged 7, a sickly-looking girl subject to head-aches, had been covered over the arms, legs, and abdomen, for four or five months, with circular and oval patches of whitish scales surrounded by an elevated and inflamed margin, and itching much. The scales were thick and plentifully shed. Her mother suffered from the same disease. A small dose of arsenic was prescribed for the child, to be taken three times a day, which did not appear to agree with her, for her tongue became coated, and she complained of thirst and sickness; upon which a dose of calomel and jalap was prescribed, and the arsenic continued. She soon recovered her health; in three weeks the disease was nearly well; and in eight weeks she was discharged cured, and in better health than formerly. The arsenic had clearly nothing to do with the derangement of the stomach; and here is the practical point. *Arsenic is too often made responsible for every deviation from health which occurs under its use.*

CASE II. *Lepra Vulgaris* in a young man. H. S., aged 30, applied at the dispensary, January 25th, 1853, his limbs and the trunk of the body nearly covered with the large confluent patches of *lepra vulgaris*, accompanied with inflammation and fissures, and their usual torments. His health was very good, and the disease was not hereditary nor syphilitic. The eruption had existed eighteen years, and he had been variously treated without any marked advantage. I ordered him a low diet, leeches to the most inflamed portions of skin, a dose of cathartic pills every other night, and ten minims of the liquor arsenici chloridi three times a day. In this he persisted for eleven months, when not a vestige of the disease remained so large as a split pea. Twice in the course of this treatment, symptoms of ardor urinæ and a purulent discharge from the urethra occurred, which immediately got well on intermitting the arsenic and taking diuretics. As he was a remarkably steady man, and married, I feel disposed to attribute the gonorrhœa to the arsenic. I have seen one other case of a similar kind.

CASE III. *Lepra Vulgaris* in an old woman. A widow, aged 62, had had *lepra* for forty-eight years. Her back and limbs were nearly covered with scales, and the loins

and warts with red fissures, the pain of which she described as "excruciating". Her general health was good, with the exception of occasional attacks of pyrosis. Her daughter had suffered from the same disease. A glycerine lotion was ordered; and she was treated first by purgatives and antimonials, under which the disease became very bearable; and afterwards she took arsenic, which wholly destroyed the disease in two months: but she had some relapse after a time, in consequence of discontinuing the medicine too soon.

CASE IV. Psoriasis. A girl, aged 16, after an attack of scarlet fever, had an irregularly diffused scaly eruption in her arms and hands, legs and feet. The finger nails were irregularly secreted, the matrix being affected by the disease, which had existed three months: during this period, the catamenia had regularly become established. She took the chloride of arsenic, with occasional purgatives, for three months, when the scales had wholly disappeared, and the finger nails were well. This is the second case only in which I have known psoriasis to succeed scarlatina.

CASE V. Psoriasis. J. C., aged 71, had been suffering from psoriasis for sixty years. The parts affected were the knees, legs, knuckles, scalp, and face. The disease was very troublesome, and frequently disturbed his rest. His health was good, except that he had occasional attacks of pain in the region of the kidneys, with partial suppression of urine, and costiveness. He was treated with purgatives and diuretics, and afterwards with arsenic; and was discharged in three months, with a sound skin and improved health.

CASE VI. Psoriasis Inveterata. C. L., aged 19, had suffered for four years with a scaly disease in the hands, arms, and face. The hands and arms were inflamed and fissured, so as to render her helpless, and oblige her to use slings. Her health was good. She recovered in six weeks, under a course of chloride of arsenic, jalap pills, and a glycerine lotion. A year afterwards, there was a return of the disease in a much milder form, which soon yielded to similar treatment.

CASE VII. Lepra Alphoides. A girl, aged 8, had for three weeks been covered with an eruption of small scaly spots, itching much, and inclined to spread. Her health was good. It required three months' arsenical treatment to subdue it.

CASE VIII. Psoriasis Guttata. A married woman, aged 35, presented herself with a general eruption of elevated white semi-transparent scales, which gave her great trouble from their constant itching. They were all segregated, and appeared like pearls. They supervened on weaning her baby; and she had had this disease, under similar circumstances, twice previously. Her sister had been similarly affected; and her daughter had lepra. It got well under arsenical treatment, but returned on the weaning of her next child. In two other instances, this form of the disease was observed to appear only during lactation. It is impossible to explain these remarkable variations.

CASE IX. Pityriasis. J. S., aged 28, had been annoyed with an eruption of fine scales in irregular patches on the trunk for two or three years, which itched much. His health was good. It yielded in about four months to the chloride of arsenic and aperients. This was a case of what Willan calls pityriasis versicolor. It commonly attacks the breasts and abdomen chiefly; and there are cases, the history of which appears to support the doctrine that it is contagious: but, if so, the contagious cases yield as readily to arsenic as the others. It must be noted, however, that, although this is a comparatively mild form of the scaly disease, it often proves very slow in yielding to treatment—quite as slow as the severer forms, if not more so. Pityriasis occasionally attacks the face only, or the neck, in delicate subjects: or the scalp may become the seat of it, when it is often difficult to dislodge it. Alternatives, aperients, and extreme cleanliness, will generally accomplish the cure in time. Local applications are often useful for a time; but the system is always in fault, and general treatment is necessary for a permanent cure.

Ichthyosis is the fourth genus in Willan's order "squamae"; but the development of this affection scarcely comes under the definition of squamous eruptions. In fact, it is not a disease, but a malformation. It becomes apparent, soon after birth, that the infant has not the delicately smooth epidermis peculiar to that age, but that here and there it is slightly rough; and, upon minute examination, this membrane is found thickened, broken up into compartments, or sometimes puckered into little knots. As the patient grows, the deformity increases; and at the adult age, or before, it arrives at its greatest development. It may be partial only; and, indeed, it seldom covers the whole body, the parts most exposed to it being the knees, elbows, loins, breasts, and the outer or dorsal aspects of the arms, legs, and thighs. These are sometimes as rough as a nutmeg-grater, while the internal aspect is smooth. The perspiration is generally suppressed in the parts affected; but this is often compensated in the thin-skinned portions of the body. Although this is not itself a disease, it certainly predisposes the individual to cutaneous diseases, and is often seen associated with them: otherwise ichthyosis would rarely come under the notice of medical men. Dr. Willan divides it into two kinds: the *ichthyosis simplex*, and the *ichthyosis cornea*, the latter constituting an excess of the deformity, the epidermis actually growing into horny excrescences, which have been so elongated as to give to the individual the cognomen of the "porcupine man".*

Ichthyosis is thought to be very rare, but I think it cannot be, for I have seen more than twenty cases in the last two or three years. In young women the peculiarity is sometimes a great affliction, especially in the prospect of marriage, as it often affects the mammae and nipples, which are covered with a hard, irregular, case of epidermis. It may surprise some of my readers to learn that arsenic, administered in small doses for many months together, has the power of transforming this rough integument into a soft and delicate cuticle, which, if the arsenic is abandoned, again becomes by slow degrees coarse and thickened. It is, however, quite possible to prepare a subject of this sort for matrimony in this way; and, after child-birth, the skin sometimes assumes and retains its natural delicacy.

CASE X. Ichthyosis. J. W., aged 15, a fine and large woman, in good health, who had menstruated regularly for eight months, applied for a roughness of the skin, which her mother remembered to have observed for twelve years. It was chiefly apparent on the face, shoulders, and hips. The skin was, in these parts, as rough as scouring paper. This gradually became more and more smooth under a course of arsenic. At the end of two months, the catamenia became suppressed, as it afterwards proved, from pregnancy. She continued the arsenic till this was discovered (at about the sixth month of pregnancy), and at this time the skin had nearly recovered its usual smoothness. She was confined at the full period; and, during the period of lactation, the ichthyosis had wholly disappeared. This patient's complexion was very fair.

CASE XI. Ichthyosis. A. S., a fine girl of 16, a brunette, had been observed to have a roughness of the skin from the first year of her life. The parts chiefly affected were the outer aspects of the arms, legs, and thighs, the hollow of the loins, and the breasts and nipples. She was also troubled with an eczematous affection on the arms; the catamenia were irregular; the tongue was thickly coated; and she was exceedingly costive. The state of the general health having been rectified by appropriate treatment, the vesicular eruption got well, leaving the skin in its naturally rough state. She now commenced a lengthened course of arsenic, which she took for two years. The course was, however, subjected to various interruptions; each of which was followed by a marked change in the skin. After a steady

* Although, for reasons already stated, it is better that no change in the nomenclature of skin-diseases should be attempted, yet it may be well to explain that ichthyosis is a misnomer. The appearance of the skin in these cases varies a good deal, but it never assumes either the forms or the imbricated arrangement of the scales of a fish. Some cases much resemble the epidermis of the legs of the common fowl, others are like the bark of a tree. I have never observed a corresponding condition of the mucous membranes.

perseverance for six months, the skin would get nearly smooth: but a month's intermission would be sufficient for a return of the roughness.

The power of arsenic over the secretion of the dermis was fully demonstrated in this and several other cases, in which I have tried the same experiment; but in no case does it appear to have the power of preventing the ichthyotic formation from being again developed. These facts are, however, interesting, as proving that arsenic does exert a specific action on the dermis, which may in part account for its therapeutic efficacy in the squamous affections.

[To be continued.]

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WOUND PENETRATING THE KNEE-JOINT: RECOVERY.

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On the 20th of May last, I was called to attend George Chatfield, who had wounded his leg with an axe. On reaching his cottage, I found him sitting in a chair complaining of slight faintness, and was told that the bleeding had ceased, but that he could feel the blood "churn", as he termed it, whenever he moved his leg.

On examining the limb, I found an incised wound of about three inches in length on the inner side of the left leg, just below the centre of the patella. The wound at its upper angle, where it was deepest, had laid open the interior of the knee-joint, into which I might have passed my finger through the opening. On bending the joints, or making pressure on the patella, a quantity of bloody froth mixed with synovia issued from the orifice, showing that air had entered the joint. Indeed, I learned that the man had actually walked without help nearly half a mile to his home, after the wound was inflicted.

I had him removed to bed, and placed the limb on a long splint, securing it from movement by bandages. The edges of the wound I secured at the upper part by a single suture, including the skin only, and at the lower part by adhesive strapping only. The joint was then covered by a thick compress wetted with cold water, and from a vessel of water suspended to the frame-work of the bed a constant dropping was arranged on the compress, so as to keep the temperature of the injured part very low. The next day, I found the joint considerably swollen, but with little pain; the pulse being about ninety, and hard, a few doses of a solution of tartarised antimony were given with an aperient draught. These relieved the febrile symptoms in a short time. The limb was kept in this state without interruption for a week, when the supply of water was stopped; but finding after a few hours that the joint was becoming hot and painful, it was again applied, and continued for two days more; after which, it was finally discontinued, the compress over the wound being still, however, kept constantly wet by frequent sponging.

On the fourteenth day, the opening into the joint appearing to be completely closed, although the external wound was still unhealed, the splint was removed, but the patient was kept in bed, and directed to bend the joint as little as possible. At the end of the third week, the wound was completely on a level with the surrounding surface; the compress was now removed, and the patient allowed to leave his bed; the wound being covered with a slip of adhesive plaster only. The joint was for a few days rather stiff and painful, but soon improved; and at the end of the fourth week, the patient, who is a member of a benefit or sick club, was considered both by himself and by me fit to resume his usual occupation, the wound being completely cicatrised. He has since being engaged in the usual employments of an agricultural labourer, without suffering from any pain or inability of the wounded joint.

REMARKS. The wound in this case did not heal by simple union, as, though the exterior edges could easily be kept in apposition, I found that the edges of the internal opening

into the joint could not be. Finding this impracticable, my endeavour was to induce the filling up of the wound by slow granulation, without allowing suppurative inflammation to occur; in this, I fortunately succeeded. Scarcely any appearances of inflammation showed themselves; and no pus was secreted until after the patient had left his bed, and then in very minute quantities. Had suppuration been established before the opening into the articulation was closed, the functions of the joint, if not destroyed, would in all probability have been very seriously injured: to a labourer, a thing of the utmost importance. Of course, the case throughout required careful watching.

Robertsbridge, Sussex, January 1855.

BIBLIOGRAPHICAL NOTICES.

THE PATHOLOGY OF THE BRONCHIO-PULMONARY MUCOUS MEMBRANE. PART II. By C. BLACK, M.D. pp. 101-155. Edinburgh and London: 1855.*

IN the second part of his work on the Pathology of the Bronchio-Pulmonary Mucous Membrane, Dr. BLACK commences the discussion of the non-inflammatory diseases of that membrane; and the pages before us are devoted to the consideration of tuberculosis.

The author recognises three pathological conditions of tuberculosis; viz.: 1. The stage of local predisposition; 2. The stage of deposition; 3. The stage of germination.

Stage of Local Predisposition. The evidences of local predisposition are found in a deviation from the healthy standard of blood which the vessels of the bronchio-pulmonary membrane contain. To the unaided eye, the membrane is often more puffy and of a deeper colour than natural; while, by the microscope, the vessels are found increased in diameter. The local predisposition, thus constituted by an overplus of blood, may be more or less extensive or limited. It is a generally recognised fact, that the upper lobes of the lungs are the most usual seat of tubercle. Of this Dr. Black gives the following explanation:—

"The more frequent invasion (of the upper lobes) by tubercle is probably due to their deficient mobility, as compared with that of the middle and lower lobes, during the respiratory movements. The greater the mobility of a part, the more quickly is its circulation accomplished. If, then, different parts of an organ manifest differences in the degree of their mobility, the vessels of the less mobile part will fail to transmit their blood in a ratio equivalent to that of the vessels of the more mobile parts; and thus a comparatively partial retardation of the flow of blood through the former vessels takes place. Now it is evident that, when these different parts are supplied with blood by branches of the same vessel, the blood sets out with equal velocity to each part; and that, if in the extreme vessels that velocity is more efficiently maintained by the mobility of one part than by that of another, a comparative retardation must necessarily take place in the vessels of the latter. Hence, this normal condition of the circulation in the upper lobes of the lungs is more favourable to the occurrence of tubercle than is the circulation through the lower lobes; and hence the probable reason why, under the exciting causes of the localisation of tubercle, the deposit more frequently takes place in the former than in the latter portion of the lungs." (p. 102.)

This explanation of the liability of the upper parts of the lungs to tuberculous deposit, seems more rational than any other with which we have met.

Dr. Black asserts that the "local predisposition to tuberculosis of the bronchio-pulmonary mucous membrane modifies, to a certain extent, the normal function and the physical signs of the lungs". In replying to an objection which may be urged against this statement, that no evidence of disease will be found in many cases of predisposition to pulmonary tuberculosis, he is led to give a very clear definition of the distinctions between *constitutional* and *local* predisposition.

"A constitutional predisposition does not necessarily impose a local predisposition. The former is a condition of the system

* A notice of the first part of Dr. Black's treatise will be found at p. 708 of the volume for 1855.