REMARKS

ON

GENERAL EXFOLIATIVE DERMATITIS.

BY

E. BUCHANAN BAXTER, M.D., F.R.C.P.,

Professor of Materia Medica and Therapeutics in King's College, London;
Physician to the Evelina Hospital for Sick Children; Assistant-
Physician to King's College Hospital; etc.

THE cases which form the nucleus of the following communication are interesting, not merely as illustrations of a somewhat rare condition, but also because they appear, when taken together with similar ones recorded from time to time by competent observers, to throw light on a large class of cutaneous affections of a more everyday kind. Again, it is not often that a skin-disease is dangerous to life; and it is important that the possibility of such danger and the signs which indicate its advent should be more generally recognised than they are. Such recognition is greatly facilitated by grouping a number of allied cases under one head, and attempting to trace their relationship to one another. Efforts at synthesis, while many essential elements of a problem are unknown, must necessarily yield only provisional results; but provisional results are often of value at the bedside.

The term "exfoliative dermatitis" was originally applied by Mr. Erasmus Wilson to a group of cases which he believed himself to have identified with the "pityriasis rubra" of Hebra. In his treatise on *Diseases of the Skin* (sixth edition, 1867), he classes them among "ekzematosous affections", and suggests that "ekzema foliaceum", or "pityriasis foliacea", would fix attention more effectually than the name used by Hebra on their chief feature—the profuse shedding of the cuticle. In his *Lectures on Ekzema* (1870), he returns to the question of nomenclature, and discusses it at considerable length. Retaining his belief in the identity of his own cases with those referred to by Hebra, he abandons the word "pityriasis" altogether, and adopts "exfoliative dermatitis" in its stead. On referring to Hebra's work, however (*New Sydenham Society's Translation*, vol. II, p. 69), we find him, curiously enough, expressing the opinion that both Rayer and Wilson use the term "pityriasis rubra" in a sense fundamentally different from that to which he is desirous of restricting it; adding, "that it would appear that none of these writers had seen cases of universal pityriasis rubra such as I am about to describe". To this question of the identity or non-identity of the two affections, it will be necessary to return. Here, it is enough to say that I have chosen the term "exfoliative dermatitis", first, because it involves no theory of pathological affinity, such as may be implied in *pityriasis foliacea*, *ekzema foliaceum*; secondly, because it has never, so far as I know, been applied to any other disease of the skin; thirdly, because it directs attention to the epidermal flux as the leading feature of the malady.

The following is an eminently typical example of the disease, which was kept under observation throughout its course, and completed by a necropsy.

CASE I.—*General Exfoliative Dermatitis running a rapid course: Pyrexia; Death, preceded by Albuminuria, Edema of the Lungs, and Diarrhoea.*—Agnes B., aged 6, was admitted into King's College Hospital under Dr. Playfair on April 17th, 1877.

History. (From notes by Mr. R. CLARKE).—Her previous health was good. She never had scarlet fever or measles. There was no tendency to skin-disease in her family. Twelve months ago, she suffered from chilblains on the feet, which never quite healed. Five weeks before admission, the skin round the mouth was noticed to be "scurfy". A fortnight later, after a fright, her face grew white and puffy, and began to "scale off". Within four days, the scaliness had spread all over the trunk and limbs. Since then, she had been very irritable, complaining alternately of feeling hot and cold.

On admission, she was stated to be a fairly nourished child. The skin all over the body was of a deep red colour, stiff, and peeling in large flakes. In the fold of the armpits, it was beginning to crack and weep. The nails and hair were not affected. The urine was repeatedly examined; it was clear, specific gravity about 1030, containing no trace

of blood or albumen. A little crepitation was occasionally heard over the base of each lung. Her appetite was excellent, sometimes voracious; bowels regular. Temperature normal.

I saw her first on May 18th, and made the following note of her condition. "The skin all over the body is of an uniform dull red, almost coppery hue. It is universally infiltrated and brawny. On account of its stiffness, it cannot be moved over subjacent parts, though it is nowhere adherent to them. About the face and joints, more especially, it is stretched and hide-bound, interfering very much with movement. The scalp is covered with closely clipped hair, felt together by dried exudation mixed with abundant silvery scales. The face is immovable and expressionless, its skin resembling bacon-rind in consistency. The eyelids, more particularly, are quite rigid, and the eyes wide open; when asked to shut them, she rolls the eyeballs up under the upper lids, without moving the lids themselves. The latter are considerably everted; conjunctivæ uniformly and deeply injected, studded with flakes of pus. No chemosis. The cornea in each eye exhibits a linear crescent-shaped ulcer in its lower half. The ears are rigid, as if cut out of thick cardboard. The lips alone retain a slight degree of mobility, and feel soft to the fingers. The mucous membrane seems normal in colour and texture; the tongue can be put out with ease, and is not furred. The whole surface of the face and neck is peeling in large whitish flakes, which extend into the meatus on both sides. Behind the ears, the skin is a little cracked and weeping; elsewhere it is perfectly dry. The trunk and limbs are in much the same state as the face. Large papery squames are continually separating from the infiltrated skin and accumulating in the bed. Here and there, on the chest and belly, the respiratory movements have cracked the most superficial layer of the cutis, the branching fissures containing a little dried blood. In the axillary and other flexures, the cracks weep slightly. Joints all stiff. Hands and feet uniformly red, scaly, swollen, and immovable. The nails of the fingers and toes are in a peculiar condition; the distal half of each nail is normal in texture and bent into a claw; its proximal half, on the other hand, is fibrous, rough, and wasted. The body exhales a peculiar sickly odour. Notwithstanding her lamentable condition, unable to move any part of her body, the child does not appear to suffer much. Her appetite is fairly good. Pulse 140; breathing 30; temperature 99.5° Fahr."

She grew steadily worse from this time forward. On June 5th, the day before her death, the following notes were made. "During the last few days, emaciation has been rapid. The urine now contains albumen. Bubbling crepitation is heard all over both lungs. Breathing 76, entirely diaphragmatic. The bowels act several times a-day; motions very loose. She suffers much from thirst, and takes nothing but milk; this is put into her mouth with a spoon, but, owing to the immobility of the lips and cheeks, much of it trickles out again without being swallowed. She lies on her back, unable to move any part of her body. The aspect of the face is rendered peculiarly horrible by the condition of the eyes; these are wide open, the conjunctivæ of a deep red, almost purple, colour, and the cornea represented on both sides by a conical heap of dried scab. The skin is everywhere paler than it was, with a decided greenish-yellow undertint. The exfoliation goes on as profusely and universally as ever. The superficial cracks noticed above are now very numerous; those on the abdomen are seen to gape with every inspiration."

Thirty-six hours later she was dead. Her temperature was taken twice a-day throughout her illness. Normal at first, during the second week of her stay in the hospital it rose occasionally, in the evening, to 100°; during the fourth and fifth weeks, it fluctuated between 99° and 101.5°.

Shortly after her admission, she was ordered six minims of liquor arsenicalis three times a-day. She took it for three days only; it had to be stopped because it made her sick. From April 25th to May 3rd, she had a tepid bath of an hour's duration every day; the baths were then discontinued. After that time, she was treated with diuretics and simple unguents. None of the measures adopted seem to have exercised any influence on the course of the disease.

A *post mortem* examination was made by the pathological registrar, Mr. Barrow, forty-five hours after death. The following is taken from his report: "Considerable emaciation; hardly any subcutaneous fat; cutis still slightly reddened. Old adhesions between omentum and abdominal wall; here and there, too, between adjoining knuckles of intestine. Liver firmly adherent to diaphragm, partially to duodenum and colon; weight, 31½ oz.; rather fatty. Spleen partially adherent to abdominal wall; its parenchyma apparently normal. A small collection of clear fluid in pleural and pericardial sacs. Heart's walls thin, rather soft. Valves normal. Lungs pale and emphysematous anteriorly; congested and œdematous behind; bronchial tubes choked with secretion."

Portions of skin from the arm and finger-tip, together with the brain and cord, were set aside for further examination. The pieces of skin were hardened in weak spirit; sections were stained with logwood and mounted in damar. As usually happens, the changes found after death were insignificant in comparison with those observed during life. They were limited, indeed, to the epidermis and papillary body, including the hair-follicles. The corium proper appeared normal; the clusters of fat-cells in its deeper layers were not shrivelled, their nuclei not undergoing multiplication. The almost brawny consistency of the thickened cutis, in the earlier stages of the malady, seems to have been due chiefly, if not entirely, to an exudation of liquid which underwent absorption before death. The papillæ showed a moderate degree of overgrowth, and the interpapillary processes of the *rete Malpighii* extended rather more deeply than usual. The corpuscular elements of the hair-sheath showed signs of having shared in the general proliferation of the epidermic tissues. But the principal change was in the upper layers of the cuticle. The rete was no longer sharply marked off from the horny layer by the granular deeply stained elements of the *zona granulosa (stratum lucidum)*; the latter, indeed, had altogether disappeared; and the transition from the polygonal corpuscles of the rete, which greedily absorbed the dye-stuff, to the flat colourless scales of the *stratum corneum*, was most gradual. Even in the most superficial layers of the enormously thickened and lamellated cuticle (at least nine times its normal depth), flattened nuclei, faintly stained, might be seen lying parallel to the surface.

Sections of the pons, medulla oblongata, and spinal cord (in all its regions) were carefully examined, but with negative results.

The above case affords a striking illustration of the way in which the system may temporarily accommodate itself to a serious interference with the functions of the entire cutaneous envelope. It was not till a comparatively late stage that emaciation, albuminuria, and other grave symptoms made their appearance. These symptoms, as well as the changes found after death in the solid viscera, remind one of the effects produced in some of the lower animals by varnishing. When the whole body of a rabbit is coated with varnish, death very speedily ensues. When the coating is partial (above one-sixth of the total surface), the animal succumbs more slowly, with symptoms of blood-poisoning, possibly due to the secondary changes that take place in its kidneys. But the analogy is probably, after all, a superficial and misleading one; for, on the one hand, all the morbid phenomena, whether acute or chronic, resulting from varnishing of the surface in the lower animals, may be accounted for by the rapid loss of heat with which the activity of the thermogenetic processes is unable to keep pace.* On the other hand, it has been shown by Senator (Virchow's *Archiv*, vol. lxx, p. 182), that the whole of a man's body (with the exception of the head) may be covered with impermeable plasters and flexible collodion for a whole week without any fall of temperature or other serious effects. In the case we are now considering, there was no abnormal depression of temperature; and, even if we admit that suppression of cutaneous elimination is adequate to cause death, we have no proof that complete suppression occurred in the present instance. Severe exfoliative dermatitis, with much infiltration of the skin, is, as we shall see hereafter, by no means incompatible with very profuse sweating. And the microscopical examination of the skin, in the present case, lends no support to the belief that the sudoriparous glands are implicated in the morbid process. The death of our patient admits of a simply mechanical explanation: owing to the rigidity of the skin, the movements of the chest and abdomen were greatly interfered with; the secretion with which the bronchial tubes were filled could not be expectorated; and suffocation was the necessary consequence.†

That the above case very closely resembles, if it be not identical with, those described by Erasmus Wilson, there can be no doubt. In what relation does it stand to the "pityriasis rubra" of Hebra? An authority on such matters, who saw the patient at an early period of the disease, suggested "acute pityriasis rubra" as the most appropriate designation of her malady. And yet the feature on which Hebra insists most strongly in his description of "pityriasis rubra" is its exceedingly chronic

character. If we throw the leading symptoms given by him into a tabular form, they appear to offer a marked contrast to those enumerated above.

Pityriasis rubra of Hebra.

1. Absence of infiltration.

2. No rhagades.

3. Desquamation slight; scales small and branny.

4. Nails remain healthy; system less affected than in lichen ruber.

5. Remarkably chronic course; drags on for years.

Case of Agnes B.

1. Infiltration universal and considerable in degree.

2. Rhagades numerous.

3. Desquamation most profuse, in large papery squames.

4. Nails much altered; system profoundly affected.

5. Death in less than ten weeks from onset.

It seems clear that, as Hebra excludes Wilson's cases from his definition, our case would necessarily be excluded too. But we shall see, as we go on, that the characteristics tabulated above possess no absolute value, and that the indiscriminate use of "exfoliative dermatitis" and "pityriasis rubra" by Magee Finny, Sparks, and others, is justified by the existence of numerous transitional forms which intervene between the extreme terms of the series, and bring them into closer connection with each other. Even chronicity is not an essential distinction; for Hebra admits Devergie's cases, while excluding Wilson's, though he expresses surprise at the former observer's calling his cases "pityriasis rubra aiguë", since, "in his own description of the disease, he insists on its long duration, and on its tendency to relapse". How far this explanation is a valid one, the reader may judge from cases VII and VIII in the following summary, in which I have put together brief abstracts of cases of exfoliative dermatitis, differing from one another in many of the features laid down as characteristic by Hebra, but resembling one another in that they are all of them *primary*; i.e., that the dermatitis did not grow out of, and was not engrafted upon, any other skin-disease. (Group A.)

But exfoliative dermatitis is not always primary. The next two cases illustrate its occasional superposition on eczematous affections.

CASE II. *Eczema of Head and Face three months: Rapid Invasion of General Exfoliative Dermatitis, lasting eight weeks, and ending in Death.*—Henry T., six months old, was brought to the Blackfriars Hospital for Diseases of the Skin on May 24th, 1877, by his mother, a young and remarkably healthy looking woman. When fourteen years old, she had an eruption about the head and back (eczema?), which soon got well under treatment, and never recurred. The patient was her second child; the first, a girl two years of age, had always enjoyed perfect health, and had never had anything the matter with her skin.

The boy had been suckled, and had not had any other food. His health had always been excellent. He was born with a clear skin; but, five weeks after birth, a moist rash broke out on the scalp, followed by swelling and suppuration of the nuchal glands. The rash continued limited to the scalp and face for a long time. About eight weeks ago, however, it spread rather suddenly to the trunk and limbs; its extension was preceded and accompanied by a good deal of irritation. During the last few days, he had been losing flesh, and his voice had grown hoarse. The itching, too, appeared to have ceased; at any rate, he no longer tried to scratch himself.

He was a fairly nourished infant, but looked extremely ill. The skin of the head and face was uniformly reddened and covered with large thin scales; there were also some honey-like crusts behind the ears and underneath the jaw. The nuchal glands were swollen. Over the trunk and limbs, the cutis was of a dull red colour, with a decided yellowish tinge, and slightly infiltrated; the colour varied in depth, so that the surface looked rather mottled. It was covered with very large thin flakes of greyish papery cuticle, easily detached at their edges, and constantly being renewed. The desquamation was very marked on the palms and soles, which were of a deeper tint than the rest of the body. In all the flexures, the skin was cracked and bleeding. (This had only been observed quite lately.) All the nails were affected. The distal third looked normal, and was separated by a transverse furrow from the proximal two-thirds; the latter being made up of an irregular mass of parallel horny fibres. Various lotions and ointments had been applied, and various medicines administered, but without avail. There was no suspicion of any syphilitic taint. The boy had never had thrush or snuffles; the interior of the mouth and throat looked healthy; there were no condylomata about the anus.

The patient died, rather suddenly, on the day after he was brought to the hospital. No *post mortem* examination was made.

CASE III.—*Pityriasis Capitis: Erythema Papulatum: Sudden Invasion of General Exfoliative Dermatitis: Recovery.*—S. C., aged 28, presented herself at Blackfriars on May 24th, 1877. She had occasionally suffered from "small red bumps" on the arms and face during the last two years. When she applied, there was some branny desquamation going on behind the ears and on the scalp, and a crop of erythema papulatum on the back of both forearms and hands. No marked change was noticed till July 5th, when patches of erythema made their

* Professor Laschkewitsch has recently taken the trouble to re-investigate the subject which his researches of many years ago might seem to have finally settled. More than one observer has endeavoured, of late years, to revive the doctrine of "suppressed cutaneous elimination" as the true cause of the phenomena witnessed in animals after extensive varnishing. Laschkewitsch brings forward fresh experimental evidence, of a most convincing character, in support of his original contention that increased loss of heat is the true cause, and the sole cause, of the phenomena; the symptoms of toxæmia noticed when death is delayed being exactly paralleled by those occurring in animals exposed to temperatures sufficiently low to prevent adequate compensation for the heat given off, but not low enough to kill rapidly.—Lomikowsky, *Journal de l'Anat. et de la Phys.*, Juillet-Août, 1878.

† This, of course, must not be taken to mean that death might have been averted by a removal of the liquid by which the lungs were clogged. It would only have been delayed. The rapid loss of flesh and strength was independent of the hindrance to respiration, and would undoubtedly have proved fatal at no distant period.

GROUP A.—CASES OF PRIMARY EXFOLIATIVE DERMATITIS.

No.	Sex; Age; Reference. Name given.	Previous History.	Integument.	General Symptoms.	Treatment.	Result, etc.
1.	Male, 38. Hans von Hebra, <i>Vierteljahrsschr. f. Dermatologie</i> , 1876, p. 508. "Pityriasis rubra universalis".	Colour of skin unnatural since small-pox at age of eight. Red when warm, blue when cold. Desquamation first noticed on lower limbs two years before admission; in eight months had become universal. After it had lasted six months, all the hair fell off (scalp, beard, pubes).	Universal redness, partly bright, partly dull. Skin very stiff, and partly swollen on extremities. Very profuse desquamation in large flakes. Here and there, cuticle broken into lozenge-shaped areolæ by shallow fissures, especially on face. Marked ectropion of lower lids; nearly bald; rhagades about flexures; nails of fingers and toes irregularly curved, thin, softened.	Rather thin and weak; movements greatly interfered with.	<i>External:</i> 1. Oleum morrhue; 2. Continuous bath; 3. Benzine; 4. India-rubber clothing; 5. Unguentum diachyli; 6. Ung. hydrargyri ammoniati. — <i>Internal:</i> Pill containing arsenious acid 1-10th gr., 3 daily, gradually increased to 12; continued till he had taken 2000. After an interval of two years, same course repeated. Swallowed altogether 400 grains of arsenious acid.	Spent three years and a half in hospital. Only change noticed was in hue of skin from bright red to a brownish tint. Died of phthisis. <i>Post mortem</i> examination: Pneumonic phthisis; tubercular peritonitis, with ulcers in large and small intestine. Cheesy lump in right hemisphere of cerebellum; another in right cerebral hemisphere. Fatty liver.
2.	Male, 53. H. von Hebra, <i>ibidem</i> . "Pityriasis rubra universalis".	A year before admission, face grew red and scaly; soon spread over whole body. Considerable pruritus.	Skin universally reddened and desquamating. Hair thin; comes out very easily. Nails unnaturally soft.	Pulmonary phthisis. Much broken down. Fever; cough; profuse night-sweats.	<i>External:</i> Oleum morrhue. No internal remedies.	Died a month after admission. <i>Post mortem</i> examination: Destructive changes in lungs; ulcers in colon; fatty liver.
3.	Female, 9. Norman Moore, <i>St. Barth. Hospital Reports</i> , 1874. "Pityriasis rubra, in Hebra's sense".	Skin began to get red in August 1870. Since then, has got steadily worse. First seen in June 1873.	General redness; branny desquamation; hands glossy and of a brighter red; forehead mottled. Elsewhere the redness is not uniform, but generally mottled. Palms are peeling; hair and nails normal; face sometimes puffy.	Mitral regurgitation. Urine normal; very thin and weak. Temperature 98.8° to 100.8°, usually raised.	<i>External:</i> Oiling. <i>Internal:</i> Oleum morrhue.	Grew weaker for a time. Redness persisted, but grew less intense. Ultimate issue not stated.
4.	Female, 48. Sparks, <i>BRITISH MED. JOURNAL</i> , Nov. 6th, 1875. "General exfol. dermatitis or pityriasis rubra".	More than one attack of rheumatic fever. Eight living children. Skin had long been rough and dry, but without scaliness; two months before admission, became unnaturally red, and inclined to peel in bend of elbows and axillæ.	Diffuse redness, very general if not universal; skin thickened and parchment-like; profuse desquamation, which showed a tendency to relapse; crops of flat, indolent pustules on various parts; absence of moist discharge, crusting, and pruritus.	Pains in joints; febrile pulse; temperature fluctuating between 101° and 102.5°; brown tongue; extreme prostration, with blunting of intellect and occasional delirium; constipation; slight albuminuria.	<i>External:</i> soap and water; unguentum simplex. <i>Internal:</i> Quinine; iron during convalescence; no arsenic.	Seven weeks after admission, skin was normal; hair fell off. No alteration of nails observed. Recovery complete.
5.	Female, 77. Hutchinson, <i>Syd. Soc. Catal.</i> , plate xxx. "Pityriasis rubra".	Skin always healthy but dry, with brittle nails. In a hot September, redness and intolerable itching came on rather suddenly. In three days, whole surface of body affected.	Four months later, universal redness without infiltration; exfoliation of large lamellated scales from all parts; nails much altered; no eczema. Three months afterwards, exfoliation very profuse; hands crippled by curving and stiffening of fingers; skin of face rather tight; eyes irritable; scalp matted into a whitish crust, including remaining hairs, which were few and short; did not become moist or offensive.	Debility appeared to threaten a fatal termination three months after its commencement. Fever not mentioned.	Arsenic given for a short time, but without apparent benefit. It was not pushed.	Ultimate recovery. Lived for several years without a relapse.
6.	Male, 69. Erasmus Wilson, <i>Diseases of the Skin</i> . "Pityriasis rubra foliacea".	Onset sudden; became universal in a few days. Previous history of patient not given.	Scarlet from head to foot; dry exfoliation. Lasted a whole winter; got better in summer; returned next winter. No moisture or itching; nails not mentioned; exfoliation most profuse.	Grew thinner.	Not mentioned.	Died, during the second winter, of "bronchitis".
7.	Female, 61. Devergie, <i>Mal de la Peau</i> . "Pityriasis rubra se transformant en pemphigus".	Erythema and desquamation set in two months and a half before admission. Previous history not given.	Large patches of erythema, coated with large squames, all over the body, very extensive, without being universal; then an "erysipelatous attack", during which the patches spread more widely, and exuded here and there a small quantity of viscous liquid, with a peculiarly nauseous odour. This liquid, here and there, raised the pre-existing squames into bullæ, which burst as soon as they were formed.	Diarrhoea. Fever of remittent type.	<i>External:</i> Oils and unguents. <i>Internal:</i> Quinine and iron.	Gradual improvement in her general condition. Ultimate issue not stated.
8.	Male, 52. Devergie, <i>ibid.</i> Under the same heading.	Under treatment for five years before admission. No clear history to be got, owing to patient's stupidity.	Admitted with "pityriasis rubra" very general, but not universal. Three months later, febrile action manifested itself, during which the skin-disease underwent great extension, and, from having been perfectly dry, with simple exfoliation, began to secrete a viscid liquid of a disgusting odour, "characteristic of pemphigus".	Occasional diarrhoea; great weakness.	Quinine and iron.	Twelve months later, after various exacerbations and remissions, the patient was still covered with "squames croûteuses", a "mixture of pityriasis and pemphigus". Extent of surface involved somewhat diminished.

appearance on the face and neck, chest, legs, and feet, as well as on the arms. These gradually subsided, and she thought she was getting better, when, on July 26th, the feet and legs swelled up, and turned of a vivid red colour ("just like erysipelas"); there was much painful tingling. The reddened surface was glossy and quite dry.

On July 30th, I saw her, and made the following notes. "Face and

neck of a uniform reddish hue; skin not stiff or infiltrated; slight furfaceous desquamation. Hair very thin; she has been combing out a good deal for several months; there has been some pityriasis of the scalp. She has lost a good many hairs from the eyebrows and eyelashes. Over the entire trunk, the skin is reddened, but not infiltrated; over the back, the red colour is not uniform, but presents a somewhat

mottled appearance. Exfoliation is going on all over the surface; the epidermic lamellæ are large, but excessively thin; they are renewed as fast as they are shed. The arms and hands are rose-coloured, with slight mottling here and there, and very abundant exfoliation of small branny scales. On the palms, the cuticle is thick, and comes off in larger pieces; the colour of the underlying skin, too, is deeper. The lower extremities resemble the upper ones in colour (the vivid redness having subsided); the legs and feet are œdematous, and rather tender. On the thighs, the cuticle is coming off in large, very thin squames. On the feet, the lamellæ are tough and coherent; one foot, indeed, looks as if its epidermic covering could be stripped off in a single piece, like a sock.

"The nails look healthy; but the proximal third of every nail is softer than usual. The eruption is everywhere quite dry; no cracking or weeping in any of the flexures. It is interesting to note that she continues to perspire most profusely; she has always perspired readily in hot weather; and the universal eruption from which she is now suffering does not appear to have interfered in the very least with the activity of her sudoriparous glands. Since the skin grew red, she has suffered much from burning and itching, which kept her awake at night. No scratch-marks are to be detected anywhere. Her throat has been a little sore. The fauces are slightly injected, and the gums are here and there studded with white patches. These are easily removed, leaving the mucous membrane slightly rough—like ground glass—but otherwise unaltered. On microscopic examination, the white matter is seen to consist of a felt-like aggregate of long slender *bacilli*, enclosing nest-like spaces filled with a gleea containing innumerable spheroidal particles (*micrococci*?), unaffected by liquor potassæ. She has been very thirsty, has lost her appetite, and has grown much thinner during the last fortnight. The urine is clear and pale, containing neither sugar nor albumen."

By August 10th, the skin had almost regained its normal hue. Furfuraceous desquamation was still profuse and universal; on the palms and soles, the cuticle peeled off in large thick flakes. Her hair was falling off. Her appetite was improving.

During September, she was confined to her bed with an attack of acute articular rheumatism, and was unable to visit the hospital. She told me that she had suffered severely from rheumatic fever at the age of twelve.

On November 1st, I saw her again. With the exception of a little rosy mottling on the face, the skin was everywhere healthy. There was no desquamation. Hair was still being shed, but fresh hair was coming up to take its place. Some of the nails had dropped off; others were soft, rough, and fibrous at their bases.

In the foregoing case, the very profuse sweating, and the rapid loss of flesh and strength during the process of exfoliation, are worthy of note. The occurrence of acute rheumatism, moreover, is not unfrequently observed in the subjects of general dermatitis; whether the association is more than accidental cannot at present be determined.

[To be continued.]

ON THE TREATMENT OF SYPHILIS WITHOUT MERCURY.*

By J. P. H. BOILEAU, B.A., M.D., F.R.C.S.I., Surgeon-Major,
Assistant-Professor of Pathology, Army Medical School, Netley.

It is, I can assure you, with some reluctance that I have undertaken to lay before the British Medical Association the results of my experience in the treatment of syphilis without mercury, knowing that by so doing I must expose myself to a good deal of hostile criticism; and, indeed, it is with considerable diffidence that I venture to address, on any professional subject, such an assembly as this. I am here, however, in obedience to the conviction that it is my duty to record my experience, and to subject my inferences to the judgment of more competent and more practised observers than myself.

It is believed by not a few, that no wise man would attempt to dispute the efficacy of mercury as an antidote to syphilis. Many hold that the disease cannot be eradicated from the system without the use of the mineral. With my experience, I cannot but hesitate to accept such views.

My position is briefly this. In May 1865, I was gazetted to a regiment about to proceed abroad. I served with it in the Mediterranean, in Canada, and in the West Indies, and at home; and left it in October 1876. For ten years of that period, I was most closely associated with the regiment, and had many facilities for prosecuting inquiries into the results of the treatment of disease, and, by observations, continued year

after year, for satisfying myself as to the state of my patients, long after they had been the subjects of my treatment; and so I am in a position to-day to bring to your notice, not only cases of syphilis treated without mercury, but, I believe, cases of syphilis cured (by natural processes, or otherwise) without mercury.

The principle which in the main guided me in the treatment of syphilis, was the principle of avoiding mercury as much as possible; and, in carrying out this principle, I treated most of the cases without prescribing any form of that remedy. Rarely did I resort to fumigation or inunction; and I now believe that it would have been better had I discarded all local remedies having mercury in their composition. As a rule, I did not use such applications. I tried the internal administration of mercury in some cases, without being at all satisfied concerning its alleged antidotal or curative powers.

My general principle is well attested by a gentleman (now a commissioned officer, and occupying one of the most responsible positions in connection with the Army Hospital Corps) who for eight years as hospital sergeant and compounder carried out my instructions. In reply to questions which I have sent him, he writes: "As regards your treatment of syphilis, I know you were always averse to ordering mercury for the disease; indeed, I am quite certain of this, as you invariably marked the venereal register—NO MERCURY." And he adds: "As well as I can recollect now, all the men treated by you for the disease made good recoveries. And I don't remember a single man who was invalided, excepting L."

Such are the indisputable facts of the case. For several years, I treated syphilis, in the majority of cases, without the use of mercury internally or externally; and in all such cases, without any exception, the ulterior results were most highly satisfactory; even the man L., who was invalided, returned to his duty in good health, and served for some years afterwards.

The following cases illustrate the general mode of treatment, and its results.

CASE I.—A. M., aged 32, had a solitary sore in grizzly induration. The occipital and inguinal glands were much enlarged. He had roseola and rheumatoid pains. He was treated in September 1867, locally, by fuming nitric acid, and water-dressing. The chancre healed in twenty-three days. Internally, he had iodide of potassium, nitrate of potash, compound ipecacuanha powder, and liquor opii sedativus. In February 1868, he was looking well, and at duty. In March 1871, he was in excellent health; and he continued so until he was discharged the service.

CASE II.—B. T., aged 20, had an indurated sore, roseolar and papular rash, psoriasis of the arms, and very severe ulceration of the tonsils. He was treated October 1867, locally, by nitrate of silver and sulphate of copper. Internally, he had iodide of potassium, cinchona, and compound ipecacuanha powder. In May 1868, he was in excellent health, and remained in good health until transferred to another regiment in February 1873. I heard in 1877 that he was in good health.

CASE III.—C. J., aged 25, had an indurated sore, indurated glands in both groins, and roseolar and papular eruption, very marked and widely spread. He was treated in December 1867. He was in very good health when he took his discharge in 1871, and also by accounts lately received. The only local application was cold water; and the chancre healed readily, although the induration was very persistent. Iodide of potassium was administered in decoctum cinchonæ, and he had the usual hot baths.

I must state that all my cases of syphilis were treated by hot baths. Whatever variety there may have been in the use of other remedies, there was none in this. *Hot baths was the standing order for all cases of syphilis.* And, for the most part, the men were strictly confined to bed, often notwithstanding their entreaties to be allowed to get up. The most scrupulous attention was paid to the cleanliness of their linen.

CASE IV.—D. W., aged 25, seven weeks previously to his admission for true Hunterian chancre, was under treatment for phagedenic ulceration of the prepuce. With the hard sore, he had indurated inguinal glands. The initiatory fever of secondaries soon appeared, and with it a dusky purplish papular rash, having a pustular tendency. The nates became covered with condylomata, and the scrotum before long looked like a piece of raw beef, dotted with little patches of oyster-shell. He was treated in December 1867, locally, by sulphate of copper. Internally, he had iodide of potassium, cinchona, and Dover's powder. In May 1868, his temperature was 98°, tongue clean, skin perfectly clear; there was not a trace of any rash, pimple, or sore. The scrotum was perfectly healthy looking. He was in robust health, and he continued so until he deserted some years afterwards.

CASE V.—E. D., aged 25, had a circular indurated ulcer, enlarged and indurated glands in the right groin, roseola, and a papular rash. He was treated in July 1868, locally, with cold water only by day; and by

* Read before the Bath meeting of the British Medical Association, 1878.