

On neurotic cutaneous diseases, including erythema / by Henry Samuel Purdon.

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ON
NEUROTIC CUTANEOUS DISEASES,

INCLUDING

ERYTHEMA.

BY

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TO

HENRY SHAW FERGUSON, ESQ., M.D.,

THIS

MONOGRAPH

IS

AFFECTIONATELY INSCRIBED.

THE HISTORY OF THE

REIGN OF

CHARLES THE FIRST

P R E F A C E.

As a Provincial Physician, it is with some diffidence that I send forth to the professional world this short treatise. Considering, however, the importance of the subject, and the fact that no special work on Neurotic Cutaneous Diseases has been hitherto published in Great Britain, I hope that this will be accepted, both as an apology for my *brochure*, and for any imperfections it contains.

From the following works, much valuable information has been derived—viz., Damon “On Neuroses of the Skin”; Erasmus Wilson “On Diseases of the Skin”; Tilbury Fox, “Manual of Skin Diseases”; Hebra, “Diseases of the Skin”; Brown-Séquard, “Lectures on Functional Nervous Affections”; and *Journal of Cutaneous Medicine*, Vols. I. and II.

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THE HISTORY OF THE

REIGN OF

CHARLES THE FIRST

BY

JOHN BURNET

ESQ.

IN TWO VOLUMES.

LONDON,

1704.

PRELIMINARY OBSERVATIONS.

THE anatomy of the cuticle is extremely interesting. Breschét was one of the first to investigate the minute structure of the skin in a scientific manner. We find it varies in thickness and consistence in different regions. The cuticle is freely supplied by blood-vessels, nerves, and lymphatics, together with sebaceous and sudoriparous glands. Three sets of "pores" are found on the surface—viz., one for transmitting hair, one for the passage of vessels, and the third for sebaceous follicles. The skin also admits of the functions of exhalation and absorption. The *rete mucosum* is situated between the true skin and cuticle, or epidermis. Deeper still, we have a layer of subcutaneous cellular tissue. The pathology of this is very interesting, for in various diseases an exudation takes place into this structure, as in *eczema*. Moreover it may be the seat of *furunculi* and various kinds of tumours.

The nervous system is divided into two orders—viz., the cerebro-spinal and sympathetic: the former comprising the brain and spinal cord, together with the nerves proceeding from those structures; the latter presiding over organic life, its nerves being chiefly sent to the blood-vessels, glands, and internal viscera. This system of nerves influences nutrition and the production of animal heat, through their connexion with the blood-vessels. Intimate communications, however, exist between both systems. No blood-vessels or nerves have as yet been traced into the epidermis, its nutrition being carried on by means of the selective properties of cells. Upon the deep or under surface of the cuticle granular cells are abundantly found. The tactile papillary layer of the cutis vera presents furrows which pursue different directions. They are separated by elevations occasioned by a double row of conical papillæ, into which a couple of capillary loops, with a nervous twig, enter. The skin is united by "connective tissue," in texture soft, and loose to the subjacent parts, which allows motion to take place. Into this tissue, as before remarked,

an exudation may occur, especially if the part be very vascular. This may be due to nerve irritation, arising from either local or constitutional causes, and is owing to direct transudation from the capillary vessels. For, according to Bernard, the cerebro-spinal nerves cause dilatation of the capillaries,—the sympathetic, on the other hand, have an opposite influence; and, if these two functions are not equally balanced, transudation may take place. The equilibrium of the vessels is maintained by a proper distribution of the nervous currents, sent in various directions through the vaso-motor nerves, according as they are required for the necessities of the different parts, so as only to allow, however, the cells to imbibe what is sufficient for the nourishment of the tissues. Irritation from various causes may disturb this equilibrium, inducing inflammatory symptoms. Thus Dubois-Reymond found that cell growth depended upon the nature and intensity of the exciting cause, and that nervous depression^e gives rise to hyperæmia, eventually leading to disease of nutrition. We observe, then, that when the healthy functions of a part are disturbed from

various causes, but chiefly from nervous, there ensues a train of symptoms which may be described as follows:—Congestion, increased temperature in the affected part, escape of fluid from the vessels, giving rise to various elementary lesions as vesicles; or, when the exudation is plastic, papules. Burns form good illustrations of the manner in which these various symptoms occur from irritation of the skin. A slight scald produces a simple erythema; but, if the cause has been more severe, a large accumulation of fluid, constituting a bleb, is exhibited. The following observations, which are abbreviated from the *Lancet* of October 10th, 1868, are very interesting:—“As generally understood, a blister is supposed to be an exudation of fluid, which, discharged from dilated vessels, passes through the rete mucosum, or Malpighian layer of the skin, and accumulates between the epidermis that constitutes the elevation and the rete mucosum which is held to remain attached to the surface of the dermis. Some recent observations of Professor Biesiadecki show that our previous knowledge of the process, though in the main correct,

has not been complete or accurate. He has endeavoured to fill up this hiatus, and has taken as the subject of his observations the small vesications that are caused by a burn, because these are quickly produced, and are not, as in the case of the minute blisters which occur in disease, accompanied by any previously diseased conditions of the skin. If a subject be burnt with a hot iron, there will be found in the neighbourhood of the eschar, after the lapse of a few hours, sundry small vesications;—these are well adapted for investigation. It is found that both the papillæ and the stratum Malpighii have undergone important changes. In the smaller vesicles the papillæ are enlarged; their connecting tissue presents lacunæ, and the vascular loops are greatly dilated, and apparently elongated. The epidermis is altogether detached from the papillæ, except in the hollows between the papillæ, and the space between the two is occupied by innumerable fine fibres, which seem to be on the stretch. When the vesications are larger, and the fluid more abundant, the fibres are torn through, part adhering to the inner surface of the papillæ. Amongst

them some club-like cellular structures, with nuclei in their interior, may be seen adhering to the papillæ by their elongated extremities. In the serous contents of the vesicles a few round nuclei are suspended. Biesiadecki states he was long in doubt respecting their origin, but he has now convinced himself that they really proceed from the cells of the rete mucosum as the intermediate forms between the finest fibres, and the unchanged cells may with care be seen, whilst the surface of the papillæ is well defined, so that they could not proceed from the connective tissue. We may, therefore, conclude that in the formation of a blister from a burn, there is, in the first place, a great dilatation of the blood-vessels, which immediately occasions a serous exudation. The cells constituting the rete mucosum are gradually put upon the stretch,—at first being merely elongated, and finally becoming converted into fibres, in which no trace of a nucleus can be discovered.”

When the skin is inflamed—as, for instance, in erythema, especially if there is a tendency to chronicity, an exudation takes place into the subcutaneous tissue. Papules may appear

at certain anatomical points,—as at the orifices of hair-follicles, gland ducts, or other vascular spots; or, following the distribution of particular nerves, vesicles may arise. Herpes and Pemphigus form the connecting link between erythema on the one hand and urticaria on the other. These states are due, in a great measure, to derangement of the vaso-motor nerves, which control the flow of blood and the vital actions of the different parts. When their equilibrium is upset, so to speak, hyperæmia and effusion take place, which may, and frequently do arise from pressure of various kinds. Belladonna has the power of acting on the vaso-motor nerves, as also Aconite. The redness of the skin, or erythema, is due to arrested or embarrassed circulation, the capillary layer of the cuticle being involved. That this is the case, is proved by many facts. The continued contraction of the blood-vessels, owing to vaso-motor nerve spasm, being occasionally the cause of a gangrenous condition of the skin, which is often referred to a blood disorder. For this reason M. Denucé, Professor at the Bordeaux School of Medicine, considers

furuncle as a gangrenous inflammation; he regards the so-called core as a dead gland; and thinks that, wherever there is imperfect nutrition, furunculoid disease may arise; and that, in fact, it is a local gangrene, affecting the cellular tissue consequent upon debilitating causes. It is necessary for healthy nutrition of the tissues that the blood should be in both proper quantity and quality, and that the vaso-motor nerves control its supply without either increasing or diminishing the stream. Dr. Tilbury Fox* considers that the origin of some diseases of the skin may be in the nerves themselves, which constitute the agency by which the morbid changes are produced, and that the nerve disorder which seems to be primary, may result from a blood change; for hitherto it has been supposed that the local influence of the nervous system was mainly concerned in altering the calibre of the vessels. He quotes the recent observations of Eckhard, Pflüger, and Heidenhaim, to show that, under certain circumstances, nerve irritation induces a lively cell formation and metamorphosis. Where there is general

* Manual of Skin Diseases, page 23.

debility, we are further informed, there is lessened control over the tissues, "the reparative process is not so active, and the skin cannot resist so well as it should external influences that tend to injure it, or induce disease. . . . All causes of debility tend to perverted innervation; but, as a rule, local irritants are those agencies that induce nerve disorder, and lead to diseases in the skin. . . . Then chronic visceral disease may be reflected, through nervous agency, to the skin; and so uterine, gastric, intestinal affections often give rise, by 'sympathy,' to chronic congestions of the face, and other cutaneous disorders."

According to Dr. Handfield Jones,* more or less inflammation accompanies neuralgia; and Dr. Anstie has observed a well-marked erysipelatoid condition developed under the same circumstances. In erysipelas, which is a "Dermatitis," the œdema is owing to vasomotor nerve paresis. Mr. Erasmus Wilson† has recorded a case of traumatic eczema, which occurred in the person of a Volunteer, at a

* Journal of Cutaneous Medicine, No. VI.

† Do. do. No. V.

review, from a "kick" of his rifle on the shoulder, and upon which he had rubbed tincture of Arnica. In the course of a few days the eczema appeared on his groin, as well as on the shoulder. The tincture of Arnica probably acted as an irritant, and the irritation, Mr. Wilson states, excited in the injured part was propagated by the injured nerves to the cutaneous branches at a distance, the mechanism of reflex nervous function was set in motion, and papular and vesicular eruption, with pruritus, were developed on parts of the body at a considerable distance from the focus of irritation.

From the preceding brief remarks, it will be evident that there exists an intimate connection between certain cutaneous diseases, as regards their origin. This group might be arranged as follows:—

1. ERYTHEMA.
2. HERPES.
3. PEMPHIGUS.
4. URTICARIA.

For instance, we have, in Erythema, redness of the skin, hyperæmia, increased temperature, and in some cases fluid effused into the sub-

cutaneous tissue. This effusion may elevate the cuticle in the form of wheals. If the fluid become increased in quantity, the appearance of vesicles, or bullæ, may take place. Dr. Wilks,* in his lectures on Diseases of the Nervous System, informs us that "there are some physiologists and pathologists who see in chemical action all that is sufficient for the production of the changes in the tissues; whilst there are others who are content to speak of cell-growth altogether uninfluenced by nervous forces, and they enforce their statements by illustrations from the growth of plants, and some lower animals, to say nothing of the growth of the human embryo itself. Admitting, they say, that nerve force may regulate or control nutrition, the latter must necessarily be independent of it in its actual operation. Those, on the other hand, who see a direct influence, which almost amounts to a vital one, propagated by a nerve, would illustrate the fact by cases where a nerve has been severed, and an atrophy of the parts below has resulted, or a nerve proceeding to a muscle has been injured, and the muscle has wasted."

* *Medical Times and Gazette*, October 10th, 1868.

ERYTHEMA.

IT is a disputed point whether erythema is a purely neurotic affection or not, but as it is generally the first symptom of many cutaneous neuroses, at any rate it is here briefly considered. In books, this disease is usually classed under inflammations. And according to Dr. Brown-Séguard,* if the nervous supply of a part be injured, the blood-vessels become dilated, and the temperature of the affected part is increased—in fact, symptoms usually present at the commencement of inflammation. Thus, when a nerve is wounded, there are nearly the same set of phenomena as in purely idiopathic cases; the origin, although different, produces through the same nervous agency similar symptoms in each.

American Army Surgeons, during the late war in the United States, remarked that injury to a nerve-trunk, by a gun-shot wound or otherwise, was followed by changes in the skin sup-

* *Lancet*, November, 1858.

plied by the affected nerve, which took on either an *erythematous*, papular, or vesicular character; the hair also disappeared. Of course, the extent of redness varied according to the severity of the injury. Dr. Tilbury Fox,* treating of local and general erythemata, states that the redness varies, being punctate when the follicular plexuses are involved; uniform, if it be the horizontal vascular surface of the derma; diffused and general, if the blood be disordered as a whole; or circular, if the vessels under the governance of one or more nerves are alone the seat of disturbance. The colour varies also, according to the activity of the circulation and the state of the general health. The swelling attending it is due to the greater volume of blood present, and the escape of fluid from the vessels into the tissues. When any part is irritated, there is, as is well known, more blood sent to it; and inflammation may occur in the papillæ, in which there are no blood-vessels, as well as in those which have them; the cells in the immediate neighbourhood of the vessels, from irritation to the nervous functions of the part,

* Manual of Skin Diseases, page 12.

become increased in size and activity, take up more nutriment from the blood than they require for the nourishment of the tissues, and, bursting or exuding their contents, add to the already existing effusion which has escaped from the vessels. Dr. Brown-Séquard* has remarked, that there is no doubt also that the same morbid processes not only can be, but very frequently are, produced by nervous agency. The heart, moreover, is stimulated to more energetic action, by increased pressure of blood in any of the larger vessels, and thus the vaso-motor nerves act both directly and indirectly in accelerating the circulation of the blood. The redness of erythema, when pressed on by the finger, disappears for a second or two, but rapidly reappears. The constitutional symptoms are usually slight, except in one or two varieties, as erythema nodosum. The patient has a quick pulse, is feverish, complains of headache and loss of appetite.

Some authors describe, under the name *erythema simplex*, the varieties—E. fugax, E. intertrigo, E. læve, and E. marginatum,

* Functional Nervous Affections.

which are all slight affections. Taking this view of the various forms which the disease presents, we have usually an undefined patch, or patches, of reddened skin, varying in size, very slightly raised above the level of the surrounding cuticle, having their origin in several causes, internal and local. Amongst the latter, the application of a mustard poultice, intense cold, or excessive heat, occasion redness of the skin.

Erythema fugax has a tendency to cause puffiness of the part affected; but this variety is of a very fleeting nature, appearing and disappearing suddenly.

Erythema intertrigo is met with usually in fat people and infants, especially in the groin, neck, &c., and is merely a galling of the skin from perspiration, acrid discharges, or friction of the clothes. When the cause of this variety is not removed, the discharge from the affected part may irritate the neighbouring skin, and lead to the establishment of an eczema.

In the affection called *Erythema læve*, we have here merely the red colour of the skin observed over dropsical parts. Sometimes the skin is bright red, and smooth in appearance.

When extensive, and the cuticle greatly stretched—as over the front of the legs, in dropsy—vesicles make their appearance, which frequently end in ulceration.

Erythema paratrimma is caused by constant lying for any length of time, and is merely the redness of the skin observed before the occurrence of bed-sores. According to Tilbury Fox, there are certain local forms of passive erythema produced by mechanical obstruction to the passage of the blood through the veins, by tumours, ligatures, gravitation, inaction of the heart, varicose veins, &c. In these cases, the colour of the erythema is bluish, or dark, which can be removed by pressure of the finger, but tardily returns. The part is often sensibly cold and swollen.

Erythema papulatum is met with more frequently in young people from twelve to fifteen years of age than in adults, although the Turkish soldiers* are said to be very subject to it. This variety appears as small spots, characterised by an erythematous colour, on the hands, neck, and face. After a few days they become elevated, varying in size from the

Hubsch Gaz. Méd. d'Orient, Feb. 2, 1859.

head of a pin to that of a pea. These elevations are due to plastic material deposited by the vessels in the papillæ, which consequently become hypertrophied. At the commencement of the attack feverish symptoms are complained of, which pass away in a few days,—the erythema disappearing in two or three weeks, or passing into *E. tuberculatum*. According to Hebra,* erythema papulatum has been observed to accompany pneumonia,—thus resembling, to a slight extent, zoster, which is occasionally observed under the same circumstances. This author further informs us, that the papules, when cut, are found to be caused by hæmorrhagic exudation, and is common at the same time of the year as herpes and erysipelas.

Erythema urticans is described by Hebra as occurring between the intervals of the wheals (which are well known to be a pruriginous cutaneous neuroses), and is divided, according to its colour, into *rubra* and *alba*. In the former, there is hyperæmia; in the latter, the hyperæmia is limited to the edges of the

* Diseases of the Skin. Vol. I., page 287. New Sydenham Society.

wheals, the centre being white, owing to spasm of the muscular structure of the skin.

Erythema tuberculatum only differs from *E. papulatum* in the elevations being larger, and tuberculated.

Erythema herpetiforme is the name given to that red colour of the skin upon which vesicles subsequently become developed, as is observed in Herpes zoster. Dr. Durkee* has described a variety—as *erythema tuberculatum et œdematosum*, the tubercular elevations turning into vesicles at their apices, then flattening, the skin showing a shrivelled or collapsed condition of the cuticle; but I confess I have never observed this variety.

Erythema marginatum has an elevated margin, the colour of the rash being of a deeper hue than in the other forms.

Erythema circinatum means when the erythema is of a circular character, and is unimportant.

Erythema nodosum is the most important variety of this affection, and it will be necessary to describe it more in detail. The disease is usually confined to the anterior part of the

* *Boston Med. and Surg. Journal*, April, 1856.

legs, although it may occur in other situations, appearing as one or more large oval patches parallel to the tibia, which rise into painful protuberances resembling nodes,—hence the name. It occurs generally in young people, usually females, who are badly fed and overworked; is ushered in by well-marked febrile disturbance of the system, pains in the back and legs, loss of appetite, &c. The eruption is at first red,—but, as the affection declines, the colour changes to yellow, green, &c. These appearances are due to effused blood. In erythema nodosum, not only the skin, but also the subcutaneous cellular tissue, in well-defined patches, is implicated. Indeed, Hebra states that this species differs from the other varieties, in both its seat, course, and symptoms. In the variety under notice, it is more than probable that the protuberances on the skin are occasioned by effused serum,—thus resembling urticaria, only that this latter disease is more intimately connected with the functions of digestion. “Of all the inflammatory diseases of the skin, *erythema nodosum* produces the most remarkable hæmorrhage, each wheal-like

elevation, characteristic of this disease, having in its centre a hollow filled with blood."* This escape of blood from the vessels may occur without their being ruptured; and in an interesting article on the "Passage of Blood Corpuscles through the walls of the vessels,"† we are informed that, at the second experiment, congestion of the capillary vessels in the web of a frog's foot was produced by the application of a ligature to the femoral vein, when it was also observed that there ensued—1st. Retardation of the stream; 2nd. The occurrence of oscillation; 3rd. Stasis. This last phenomenon was followed by massing together of the blood corpuscles to the walls of the vessels, which at these places became pouched. On relieving the congestion, by removing the ligature, the conglomerates of corpuscles broke down, allowing the current of blood to recommence; but those corpuscles which were observed to have become adherent to the walls of the vessels were seen to *pass through* them, and to appear in the

* Hebra on "Diseases of the Skin." Vol. II., page 407. New Sydenham Society.

† *Medical Times and Gazette*, May 2, 1868.

surrounding tissues. They were followed by others; and soon the spaces between the capillary net-work was filled with blood globules. The phenomenon described is considered by Dr. Cohnheim to be owing to natural apertures in the vascular parieties existing between the cells of the lining membrane of the smallest vessels; in which view, we are further informed, he is supported by the fact, that openings have been proved to exist in the smaller branches of the lymphatic system, apparently in connexion with the stomata-like orifices in the epithelium of the serous membranes.

In regard to all the above varieties of erythema, I have reason to believe that derangement of the vaso-motor nerves is an important factor among the causes—indeed, it may be considered as the chief one. This view is being daily borne out by clinical observation.

The causes of erythema nodosum are not clearly ascertained. Dr. Tilbury Fox believes that this affection is often associated with chorea and rheumatism—these two diseases being intimately connected. In a few cases which

occurred in young girls from 14 to 17 years of age, chlorosis was present; and, when steel and quinine were prescribed, they became rapidly well, although the affection had frequently reappeared. I am inclined to think that, in these cases, the skin affection was a reflex "neuroses," arising from uterine derangement. According to Dr. A. T. Thompson, this variety affects chiefly young females of delicate habits, in whom it is sometimes combined with chlorosis. On this point, Trousseau* states, that chlorosis has a marked influence on the development of chorea. I published in the *Glasgow Medical Journal*, September, 1867, a case of erythema nodosum, which occurred in the person of a lady aged sixty years, and is interesting, inasmuch as this disease is usually observed in young people. This lady never had rheumatism, and enjoyed good health until the present attack, which resisted every remedy,—until, as a last resource, she was ordered the peroxide of hydrogen, with the intention of supplying oxygen to the blood. A complete success, in the removal of the disease, was the result.

* Clinical Medicine. Translated by Dr. Victor Bazire.

Dr. Brown-Séguard* states, that certain substances contained in the blood, altered in quality or quantity, will act on the excitability of nerve-fibres in the nervous centres, or in nerve-trunks or filaments, so as to increase it, as is done by strychnine and oxygen. I believe, therefore, that the action of the oxygen, in the above case, was upon the vaso-motor nerves principally.

Erythema gangrænosum is met with in those individuals labouring under some constitutional debility. Ordinary erythema may degenerate into this variety, as the vital actions for the repair of disease are not properly performed: a slough occurs, which ends in gangrene. Irritation of the vaso-motor nerves produces contraction of the blood-vessels, and which, if prolonged, may, according to Damon, induce a gangrenous condition of the skin, which would otherwise be without explanation.

In *Erythema scarlatiniforme*—so called by Hardy—the skin is punctated, and of a bright red colour,—the same as in scarlatina, but without the sore-throat.

Pernio, or chilblains, is an erythema arising

* Lectures on Functional Nervous Affections.

in languid or strumous constitutions, chiefly from exposure to cold,—the latter acting by paralysing the nervous supply of the part, and thus causing congestion in the affected locality,—a *Dermatitis congelationis*, as Hebra calls it. The inflammation may extend to the deeper structures of the corium,—frequently to the cellular tissues beneath, but is primarily cutaneous. In chilblains, as in other forms of erythema, infiltration may take place. The attack is ushered in by a feeling of heat, and itching or tingling, combined with redness and swelling of the affected part. In some cases, vesicles make their appearance, accompanied by a weeping of serum, being a typical eczema of Willan; in other instances by fissures, when it takes on the character of eczema rimosum. When the disease passes this state, suppuration usually takes place, eventually ending in ulceration. Chilblains are most commonly observed on the fingers, toes, and ears—sometimes bullæ form, the affected part first assuming a dark red colour. Hitherto, I believe that erythema has not been looked on as a cutaneous neuroses. The following facts seem to my mind certainly, at least, to connect it

with a nervous affection. It is well known that Zoster, Pemphigus, and Urticaria, are confessedly neurotic diseases, preceded by erythematous patches, on which the eruption occurs. To this may be added the circumstance, previously noted, that in the case of wounds causing injury to, or division of, nerve-trunks, erythema, follows. This, however, may still be considered as *sub judice*.

Acrodynia. This disease was very prevalent in Paris during the years 1828-9. It was ushered in by pains, loss of appetite, blood-shot conjunctivæ, and development of erythematous patches on the legs and arms, which gradually became of a dark hue; desquamation of the cuticle took place,—crops of boils and bullæ appearing. Dr. Tilbury Fox* describes a species of erythema which occurs about the back and sides of the hands and fingers in those out of health. The skin becomes red in little circular spots, from which the epidermis peels off by a centrifugal death, as it were, leaving behind a red dry surface, marked by circular ridges of what appear to be normal papillæ. He says it looks like the

* Manual of Skin Diseases.

death of the epidermis, beneath which is seen the reddened derma, marked by circular ridges of prominent papillæ. It is not erythema circinatum,—it is more like a superficial acrodynia.

Pellagra also exhibits a dusky erythema, said to be sometimes caused by exposure to the rays of the sun in Southern countries. Bad or insufficient food, hard work, and exposure, are the causes to which the occurrence of these two last diseases have been attributed. Ergoted rye, when this is the exclusive article of diet, may occasion these affections, by producing contraction of the blood-vessels of the spinal cord and its membranes, leading to a diminution of nutrition. In *Pellagra*, there is numbness and formication complained of in the skin. M. Roussell* has described this disease in his work. The brain and its membranes are found congested,—and, according to Landouzy,† the white substance of the spinal cord in the lumbar region is softened.

Erythema frequently passes into Eczema, as

* *Traité de la Pellagre et des Pseudo-Pellagres.* Paris, 1866.

† *Pellagre Sporadique.* Paris, 1860.

described by Dr. M'Call-Anderson,* who thinks that the diseased process (the Erythema), not being arrested at this stage, infiltration of the affected part gradually supervenes, when the disease may be considered as on the confines of a typical Eczema. The skin is red, scaly, and infiltrated; and, if the inflammatory action increases still further, serous exudation takes place.

Treatment may be divided into local and constitutional. In the first variety, *E. simplex*, little medicine beyond an aperient is required, and protection of the affected part from exposure to cold or heat. The following may be applied. Take of glycerine, by weight, five parts; yolk of egg, four parts; mix. This application will be found useful in many simple cutaneous affections, is of a very soothing nature, and is easily washed off with water. The application of linimentum calcis, or one composed of olive oil, oxide of zinc, and lard, may be tried instead. The variety of erythema called *læve*, which depends upon dropsy of the part, of course can only be treated by remedies calculated to remove the

* On Eczema. 1st Edition, page 10.

constitutional affection on which it depends. *E. intertrigo* is usually a simple variety. An absorbent dusting powder or astringent wash, and separation of the two cutaneous surfaces when in contact, is necessary. A powder consisting of oxide of zinc and powdered starch, to which a little camphor can be added, answers very well; or the application of a weak solution, 5 grs. to the ounce, of nitrate of silver; or glycerole of tannin can be tried. In the commencing Erythema of bed-sores, bathing the part with brandy, so as to harden the skin, and removing pressure, is necessary, as also the greatest cleanliness. Sometimes the white of egg, or collodion, especially if the skin is at all broken, is better; or an ointment containing tannate of lead, extract of belladonna, and glycerole of starch. From the presence of varicose veins an erythematous state of the skin often occurs, owing to stagnation of the contained blood, and congestion in the affected part. Here the application of a properly applied bandage is of service, and some gently stimulating ointment,—as one containing oil of cade or white precipitate of mercury. In the treatment of the varieties

already described, as well as in *Erythema papulatum*, *E. tuberculatum*, *E. fugax*, and *E. marginatum*, aperients are necessary; or an alterative powder containing hydrargyrum c. cretâ, soda exsiccata, and pulv. rhei, which improves the secretions, may be prescribed. If acidity is present, the liquor calcis saccharatus, in drachm doses, or magnesia calcinata, or bismuth, are indicated. Sometimes an arterial sedative is required to lower inflammatory action, and in the veratrum viride we have a superior substitute to tartarised antimony; the tincture is the preparation generally prescribed. If a mucous diarrhœa exists, chlorate of potash, followed by the syrup of the iodide of iron, is necessary, as also cod-liver oil; or the Pancreatic Emulsion of fat, introduced by Dr. Dobell. Strict attention must be paid to diet,—spirits, beer, &c., being forbidden, except in very exceptional cases. If a rheumatic or gouty tendency is present—in the former, bicarbonate of potash and tincture of *actea racemosa*; in the latter, colchicum, or carbonate of lithia, are indicated; in some cases, dilute hydrochloric acid agrees best; subsequently tonics, as quinine,—or, what answers very well in

dispensary practice, salicine, are to be prescribed.

Erythema nodosum requires a special notice with regard to treatment, which may be briefly summed up as follows:—Aperients, if necessary; then quinine; or, if the patient be chlorotic, iron. The following is a good form, especially if the bowels are at all constipated.

R. Decoct. Aloes Co.
 Mist. Ferri Co., ana. ... ζ ijj.
 Boracis, ζ iss.
 Tinct. Hyoscyami, ... ζ ss. **M.**

Siq. “*A Tablespoonful thrice daily.*”

No local treatment, with the exception of rest and warm fomentations of poppy capsules, seems to be of any use.—We may conclude the Erythemata with a few brief remarks on the treatment of *Pernio*. Towards the prevention of chilblains in those who are subject to them, bathing the hands and feet, as the case may be, in cold water to which some vinegar has been added, and the employment afterwards of brisk friction to the parts liable to be affected, tend considerably towards their

prevention. My favourite prescription for chilblains is that of Marjolin's, which is as follows:

R. Balsam Peruviani, ... ʒ ss.
Spt. Rect., ... ʒ iss.

Dissolve, and add—

Acid Hydrochlorici, ... ʒ ss.
Tinct. Benzoini Co., ... ʒ ss. **M.**

A little of this liniment is to be occasionally rubbed into the affected part; or, if preferred by the patient, a small piece of linen can be moistened with it, and applied. It causes a sensation of smarting for a few seconds. When the chilblains are "broken," I find calamine ointment (Turner's cerate) a very good dressing; and, if thought desirable to stimulate the part, we may add a little elemine ointment. If ulceration has taken place, the nitrate of silver should be freely applied. The following is another recipe* for "unbroken" chilblains:—

R. Liniment Aconitii, ... ʒ ii.
Acid Carbolicum, ... gr. iv.
Collodium *flexile*, ... ʒ ss. **M.**

Sig. *To be applied with a camel's-hair brush.*

* *Medical Press and Circular.* November, 1868.

HERPES.

LIKE Erythema, Herpes and Pemphigus are diffuse eruptions, appearing over a considerable extent of surface at once. In Herpes, neuralgic pains are usually complained of, especially when the disease appears on the thorax; after an interval of a few days, vesicles exhibit themselves, situated on an erythematous ground. The eruption of Herpes consists of one or more clusters of globular vesicles, and runs a definite course of two or three weeks' duration. Zoster appears usually on the left side.

Hebra* informs us, that, when the vessels that supply the sebaceous glands, or the papillæ of the hair, pour forth a drop of fluid into the interior of a follicle, the epidermic cells become infiltrated, the exudation being transmitted outwards to the cells immediately contiguous;—this process is repeated, till at

* Diseases of the Skin. Vol. I., p. 7. New Sydenham Society.

last the drop of exuded matter reaches the horny layer of the cuticle. This resists the pressure, and prevents its further progress,—for these cells have less power of imbibition; hence it is pushed forward above the level of the surrounding skin, in the form of a papule. If more fluid is secreted, a vesicle results; and, if the congestion is associated with increased exudation into the cellular layer surrounding the glands by which these are brought into a state of turgescence, a wheal results. Of course, the nerves of the part are affected, at least primarily.

Dr. Woakes* informs us, that the neuralgia of Herpes arises from implication of the sensory fibres. He says:—

“The question will suggest itself—How can this happen, if reflex involvement of the spinal nerve be excluded from the process? A moment’s reflection will remind us, that, besides the capillary circulation of the skin, there is another set of capillaries arising from the same artery as these, and which are intimately associated with the spinal nerves;—we refer to the vasa-nervorum, the nutrient vessels of the sentient nerve itself. * * * Consequently, instead of a state of tone which allows nerve nutrition to go on, there will

* Journal of Cutaneous Medicine, No. 3, page 289.

ensue, synchronously with the corresponding skin affection, a state of dilatation of the vessels, and exudation from them of watery elements between the fibrillæ of the nerve."

This, probably, occasions the neuralgia. Exposure to draughts of cold air is a common cause of Herpes. Catarrh occasions herpes of the lips; and Trousseau* states, on the authority of Dr. Duclos, that nearly all asthmatic subjects present a herpetic diathesis. According to Dr. Anstie,† Herpes may probably attend neuralgia of any superficial nerve; and he mentions a case in which the neuralgia was "particularly severe; the herpetic vesicles were followed by ulcers, which left considerable scars on the forehead."

Drs. Eulenberg and Guttman‡ have investigated the subject of neuralgia (*tic-douloureux*), and have arrived at the conclusion, that the sympathetic system is the seat of the disease. The pain is often associated with vascular disturbance, flushing of the face, congestions, &c., often periodic in their nature. M. Dubois-

* Trousseau's Clinical Medicine. Translated by Dr. V. Bazire.

† Reynolds' System of Medicine. Vol. II., page 739.

‡ See *Lancet*, December 19, 1868, page 805.

Réymond, we are further informed, has observed, that the neuralgia from which he suffers is probably produced by spasm of the vaso-motor nerves. When the pain is severe, the temporal artery feels hard and wiry, the face becomes pale, and the right eye small and congested. When the pain disappears, the vessels relax, and the right ear becomes red and hot. During the attack, the right pupil is dilated. Dubois-Réymond thinks that the pain he experiences is owing to spasm of unstriated muscular tissue, analogous to cramp of the voluntary muscles; but, according to Eulenberg, it is due to diminution in the supply of blood, owing to contraction of the vessels,—and which, when excessive or long-continued, may act as a stimulus to the sensory nerves. The value of quinine and coffee in neuralgia is probably due to their giving tone to the arterial walls. An abstract of a case, in which the great sympathetic and phrenic nerves were destroyed, in the removal of a tumour in the neck, by M. Trélat, at S. Louis, will be found in the *Medical Press and Circular* for Jan. 27, 1869. It was observed that, on the day following the operation, the patient's

face was deeply congested, in well-defined patches, especially on the right side, with right pupil strongly contracted,—these symptoms being attributed to the injury of the sympathetic nerve.

The above interesting observations bear on the pathology of Zoster. Thus, when any injurious influence is brought to bear upon a nervous twig—say of a cutaneous nerve, paralysis of the sensory and vasal fibres ensues. Sometimes, it is true, the former may only be affected. When the vasal branch is acted upon, there results most frequently hyperæmia and vesicular eruption, which latter elementary lesions are defined by Hebra to be elevations of the horny layer of the epidermis by transparent or milky fluid. An essential character of the vesicle, he says, is its size; for only those elevations of the “epidermis which are in size between a lentil and millet-seed receive this appellation,—all those larger are reckoned as bullæ.” And we are told, further, that the first-formed cluster of vesicles is always nearest the nervous centres, and that those which subsequently develop themselves lie more towards the peripheric distribution of

the corresponding nerves. Eulenberg* differs from this view, and states that Zoster has always a peripheric origin, consisting of a characteristic change in the skin, with an accompanying affection of the vaso-motor nerves,—and not, as Von Bärensprung and others assert, of a primary affection of the spinal ganglia. In no case, we are informed, is it the rule that Zoster follows the whole course of a spinal nerve, frequently following only a single twig, and certain distributions of the plexus; for instance, the brachial, with interruption of motor power in the corresponding nervous branches, complicated with paralysis of individual muscles. He records the case of a shoemaker, in whom the symptoms were as follows:—Neuralgia; then anæsthesia and cramp in those parts to which the ulnar nerve is distributed; diminution of sensibility; and, lastly, Herpes zoster, with distinct localization to the course and distribution of a cutaneous branch. Primarily here we have an affection of the ulnar nerve, apparently rheumatic or perineuritic, from which arose diminution in the conducting power of the

* Edinburgh Medical Journal, June, 1868.

scissory and motor portion, and loss of function of the vaso-motor and sensory fibres which supply the skin,—and hence the Zoster.

As Dr. Von Bärensprung* was one of the first to investigate the pathology of Zoster,—and, as his views are contradicted, it may be as well briefly to state them. The following is his arrangement:—

Zoster facialis	..	..	Implicates branches of the fifth pair of nerves.
„ occipito-collaris	..	„	occipitalis minor, auricularis magnus and superficialis colli nerves.
„ cervico-subclavicularis..	..	„	supra-sternal, supra-clavicular, and supra-acromial nerves.
„ cervico-brachialis	..	„	brachial plexus.
„ dorso-pectoralis	..	„	third to seventh dorsal nerves.
„ abdominalis ..	..	„	eighth dorsal to first lumbar nerves.
„ lumbo-inguinalis	..	„	branches of the upper lumbar nerves.
„ lumbo-femoralis	..	„	external cutaneous, genito-crural, anterior crural, and obturator branches of lumbar plexus.
„ sacro-ischiadicus	..	„	cutaneous branches of sacral plexus.

* See British and Foreign Medico-Chirurgical Review, Jan., 1862.

As before remarked, Von Bärensprung considers that Zoster is occasioned by irritation of the spinal ganglia, the posterior roots being implicated. Mr. Paget* believes that long-continued paralysis of both motion and sensation, attended with rapid wasting and neuralgia, may ensue, in consequence of injury to nerve-fibres, without rupture of their tissue; and that incapacity to perform their proper functions may be caused by injury occurring to the brain, or cord. But it is considered by various writers,† that the sympathetic and other filaments in the course of a nerve, and not the ganglia on its roots, are the source of Herpes zoster. Again, M. Parrot‡ states that the chief symptoms of the disease under notice are always a secondary or subordinate condition due to neuralgia, rheumatism, or dyspepsia. Heberden, in his "Commentaries," records an interesting case of Zoster in a woman more than fifty years old. He says:—

"The Herpes appeared upon the right clavicle, together with fever and pain throughout the whole right

* *Medical Times and Gazette*, March 26, 1864.

† See Duncan on Herpes, *Journal of Cutaneous Medicine*, No. 7.

‡ *Considérations sur le Zona*. Paris, 1857.

arm. The eruption and fever continued some weeks, but the skin remained scaly for several weeks, and the whole arm gradually became weaker, till it lost all power of motion, and in this state continued at least three years, and probably her whole life. The fingers were constantly in an involuntary tremor."

In this case, the nutrition of the skin was not properly performed,—hence the scaly state mentioned.

Hebra divides Herpes into the following species, viz. :—

Herpes labialis,	or	Herpes facialis.
„ præputialis, or	„	progenitalis.
„ zoster.		
„ iris et circinatus.		

And, divided according to their different seats, the varieties of Zoster are as follows :—

Zoster capillitii.
„ faciei.
„ nuchæ (H. collaris).
„ brachialis.
„ abdominalis.
„ femoralis.*

He also criticises Bärensprung's division of Herpes in a very concise manner, and informs us that the first three species are only one

* Hebra on "Diseases of the Skin." Vol. I. New Sydenham Society.

affection. The reason which Bärensprung gives for this opinion is that they are all found in regions supplied by particular nerves—the vesicular eruption observed being due to a morbid condition of the nerve; and when the vesicles are found covering the whole extent of the skin supplied by the affected nerve, it is called a Herpes zoster. Bärensprung looks on Herpes labialis as an incomplete zoster facialis, answering to the infra-orbital and mental branches of the second and third divisions of the fifth nerve. A morbid condition of the inferior pudendal nerves, and also of the pudic, occasion Herpes progeneralis. But, in the words of Hebra, plausible as this view is, and supported by anatomical considerations, it nevertheless appears to me to be not altogether consistent with clinical observation. To the practical physician, a diagnosis resting on an anatomical basis of a conjectural kind, has no weight, if it is in any way opposed to the symptoms of the patient. And he informs us that we should not attach more importance to the anatomical characters of Herpes, than to observations at the bed-side, concerning its seat and distri-

bution, its course and complications, particularly if these features are uniform at all times. He then proceeds to say:—

“Indeed, in the case of Zoster, it was the clinical physician who drew the attention of the anatomist to the fact, that the disease is accompanied with a nervous affection; and surely we ought to listen to the opinions of the former, with regard to the relation between Zoster and the *H. facialis* and *H. progenerialis*, before doing away with the separate existence of the last-mentioned species of Herpes. Now, clinical observation furnishes us with many reasons for retaining the distinction hitherto admitted between these forms of Herpes. Amongst these reasons are the following:—

“1st. In the *H. labialis* and the *H. præputialis*, there is generally only one group, or but a very small number of groups of vesicles,—whereas, in Zoster, this is the case only in very exceptional instances, several clusters being developed in succession.

“2nd. Zoster seldom returns,—it generally appears only once in the life of an individual; whereas, in *H. labialis* and *H. progenerialis*, the reappearance of the disease is the rule.

“3rd. It is a well-known fact, that Herpes labialis occurs in the train of febrile complaints;—it has even received the name of ‘*hydroa febrilis*.’ Hence this affection appears to be symptomatic, and due to some past, or actually existing disease, attended or unattended with fever; whereas Zoster is to be regarded as the

result of a morbid condition, more or less, accurately confined to the tract supplied by a particular cerebro-spinal nerve.

4th. Neuralgic pains precede the eruption of Zoster, accompany it, and often remain for a long time after its disappearance. This symptom is never observed in the H. labialis or the H. præputialis.

“5th. The H. labialis and H. progenitalis are not generally unilateral, but more often affect both sides, or appear in the middle line of the body. V. Bärensprung, indeed, disputes the complete accuracy of this,—but, as it appears to me, he is wrong in doing so.”

On the other side of the question, we have a review of Hebra's objections by Dr. Damon,* an American Dermatologist, who states that Herpes labialis and Herpes præputialis can be explained by the limited distribution of the nerves in these cases. Thus:—

“Whereas, in the event of a Zoster upon the thorax, many nerve-branches usually become the seat of the eruption. 2nd. That Zoster seldom appears more than once in the life of an individual, can be satisfactorily accounted for, when we consider the rarity of this affection upon the larger cutaneous nerves. But few dermatologists have seen many cases of Zoster, however extensive their observation may have been. In proportion, therefore, to the rarity of this, as compared with

* On Neuroses of the Skin. Page 60.

other diseases which are occasionally known to return, we should be much less liable to see a repetition of Zoster than we might at first suppose. The fact that Zoster seldom occurs twice in the same individual, is no proof at all that the person having it becomes thereby exempt from a second attack. The much greater frequency with which Herpes labialis and Herpes præputialis occur, is one reason why they attack the same individual more than once. It is fair to suppose, also, that Herpes, in these regions, is produced by a greater variety of causes than when it is distributed upon the filaments of the larger cutaneous nerves. 3rd. That Herpes labialis is a symptom of febrile diseases, whilst Zoster is due to a morbid condition of a particular cerebro-spinal nerve, contains no evidence of dissimilarity in the nature of these affections. In many cases, Herpes labialis is sympathetic in its origin: the same may be said of Zoster. Cold gives rise to both these varieties of Herpes,—so also do affections of the internal organs. We have twice observed Herpes labialis and Herpes præputialis simultaneously upon the same person. 4th. That the neuralgic pains which precede, accompany, and often remain after the disappearance of the eruption in Zoster, are never observed in Herpes labialis and Herpes præputialis. This objection is in part contradicted by a subsequent statement in the description of Herpes facialis. Hebra describes this affection thus:—‘The outbreak of a H. facialis is often preceded by a burning pain in the part, but this finally disappears when the vesicles have become fully developed. 5th. That H. labialis and H. progenerialis are

not generally unilateral, but more often affect both sides, or appear in the middle line of the body. The accuracy of this statement is disputed by Bärensprung.' We have observed many cases of Herpes labialis and Herpes præputialis in which there was a manifest unilateral distribution of the vesicular groups. No satisfactory explanation has yet been given why Herpes facialis should not always be unilateral. The cause of the eruption has probably much to do with the local manifestations in these cases."

Dr. Damon further informs us, that the exceptional forms of development of Zoster may be expressed as in the following statement:—

1st. Papules, bullæ, or pustules, are formed instead of the normal vesicles of Zoster.

2nd. The eruption of Zoster is bi-lateral.

3rd. The neuralgia is intensely severe, before, during, and after the eruption.

4th. Hæmorrhage takes place into the vesicles.

Mr. Hutchison, in a paper on Herpes zoster (*Medical Times and Gazette* for Dec. 26, 1868), informs us that special conditions of the blood may irritate the roots of the sensory nerves, causing at their periphery herpetic inflammation:—"Thus we have a syphilitic Herpes

zoster, in which the patches are located exactly as are those of common Herpes zoster, and clearly under the influence of nerve distribution." These cases differ from the common form, in the fact that the eruption is usually on both sides of the trunk, and lasts much longer.

I shall now very briefly describe the arrangement of the local varieties of Zoster. Taking Hebra's division, we find *Zoster capillitii* occurring on the forehead and scalp, in the course of the supra-orbital nerve. In some cases the conjunctiva is affected, the cornea injected, and the motility of the iris impaired, as in the Herpes ophthalmicus described by Mr. Hutchinson. In other cases this variety begins at the back of the head, and spreads in an arched manner over the parietal bones, towards the coronal suture. *Zoster faciei* exhibits itself by numerous clusters of vesicles on the cheek and side of the nose. This variety is sometimes bi-lateral. *Zoster nuchæ*, the *Zoster-occipito-collaris* of Bärensprung, appears on the side of the neck, over the second and third cervical vertebræ, creeping upwards towards the jaw and face, forwards towards the

larynx, and downwards towards the sternum. *Zoster brachialis* commences at the fifth, sixth, and seventh cervical, and first dorsal vertebræ; the eruption passes down the arm, on both the anterior and posterior surfaces, to the elbow. Sometimes it extends along the fore-arm as far as the little finger. *Zoster pectorallis* occurs on the chest, corresponding to the direction of the ribs. At first the pain is frequently mistaken for pleurodynia. The first group of vesicles appear near the spinous processes, from which point the eruption extends forwards, occasionally passing, first downwards for a short distance,—then ascending, and terminating over the sternum. When the “breasts” are attacked, the pain is so severe as to interfere with the movements of respiration, occasioning dyspnœa. *Zoster abdominalis* corresponds to the distribution of the lower dorsal and lumbar nerves; the eruption passes forwards round the abdomen, terminating at the median line, a few vesicles occasionally appearing on the mons veneris. *Zoster femoralis* may appear either on the anterior or posterior surface of the thigh,—in the latter extending down the ham, sometimes

to the calf of the leg, the first cluster of vesicles appearing on the buttock. I agree with Damon and others, that all forms of the disease known as Herpes are merely local varieties of the same affection. Any irritation may induce the eruption, either internal or local. Passing a catheter has caused Herpes præputialis, as also sexual intercourse, seminal emissions, &c. A case occurred in the practice of my friend, Dr. Ferguson, of this town, in which vesicles were observed for some distance up the urethra. The patient had, before consulting him, been treated for a chronic gleet. Besides the genuine Herpes præputialis, we are informed by M. Doyon* that there are other affections of the prepuce due to the same cause,—as morbid sensibility, with a tendency to fissure or Erythema; intertrigo, or chronic balanitis; and, lastly, an urethrorrhœa occasionally accompanying Herpes, and lasting for several days. Herpes of the lips and nose are frequently observed in connection with “sore throat.” That various cutaneous diseases are due to mental anxiety is well known. Herpes and Pemphigus are quoted

* De l'Herpes Récidivant des Parties Génitales. Paris, 1868.

as examples by authors. Dyspepsia is another example, a form of which has been called "nervous." Thus mental emotions can disturb, to a very considerable degree, the functions of the digestive organs, upon the due performance of which a healthy state of the body mainly depends. If this abnormal condition exists for any length of time, derangement of the nutrition of the skin, as a secondary consequence, is sure to arise; enervation, so to speak, occurs; and Herpes may become manifested. For example, the Herpes labialis, observed in children suffering from dietetic mismanagement, arises from this cause, and is not due to any active inflammatory state of the tissues themselves,—they being in a passive condition, merely reddened by the increase of blood sent to them, producing Erythema herpetiforme. Of course, if the disease has a tendency to chronicity, irritative changes may be set up in the tissues, leading to inflammatory infiltration.

According to Dr. Damon,* *Zoster auricularis* is only a form of *Zoster cervicalis*; and, in *Zoster facialis*, a cluster of vesicles will fre-

* On Neuroses of the Skin.

quently be seen at a little distance below the outer angle of the eye. This cluster, he informs us, is situated upon either the malar or inferior palpebral branches of the facial nerve.

“ There is another cluster belonging to *Zoster facialis* which is of more frequent occurrence, although it has not yet received special notice from writers on skin diseases. It is situated a few lines from the outer angle of the mouth, and a little above it, on the extensive anastomosis of the buccal nerves. It is circular, or obliquely elliptical, when extensive,—the longer axis of the cluster being in the course of the nervous twigs, which supply the angle of the mouth and the integument of the chin. This partial variety of *Zoster facialis* is generally associated with *Zoster labialis* and *Zoster nasalis*; as a sub-variety, it may be properly called ‘*Zoster buccalis*.’ * * * Dr. Brown-Séguard has collected many instances of irritation or inflammation of the eye and amaurosis, due to neuralgia of the trigeminal nerve. He thinks that the most positive facts may be adduced from recent works on diseases of the eye, to show that several kinds of affections of this organ may be the result of an injury to the frontal or other branches of the trigeminal.”

Mr. Paget has recorded an interesting case of Herpes of the parts supplied, by the infra-orbital, the anterior dental, and the anterior palatine branches of the superior maxillary

nerve. His patient, after exposure to cold, was on the third day attacked with the eruption of Herpes on the cheek, nose, upper lip, palate, and buccal membrane. On the sixth day of the disease, a bicuspid tooth was shed, another on the seventh,—and, later, a canine and two incisors; the aveolus, also, partially necrosed.

Gerhardt observes (as Dr. T. Fox* quotes), that the group of diseases in which Zoster of the face occurs is remarkable by the frequency of an initial rigor, followed by an increased temperature, going up as high as 32° Reaumur. This is accounted for by the branches of the fifth nerve running through bony canals, which are extremely narrow and tortuous, in company with small arteries, which contract in the initial rigor, afterwards dilating and pressing on the twigs of the trigeminus and sympathetic,—thus giving rise to pain. The occasional result is the occurrence of a vesicular eruption. Many observers, I believe, are now agreed that Herpes zoster occurs, in a great measure, from some affection of the sympathetic system of nerves. The neuralgic

* Manual of Skin Diseases. Page 181.

pains are accounted for in different ways, by different authors. Some of their views have already been mentioned. Of this, at any rate, we are sure, that, before the occurrence of the vesicular eruption, there is vaso-motor nerve paresis,—the vessels lose their tone, become dilated, and exudation through their walls takes place. For, according to Virchow,* the exudation which we meet with is essentially composed of that material which is generated by the altered condition of the part, and of the transuded fluid which escapes from the vessels. Of course, there must be first congestion of the capillaries, owing to vaso-motor nerve spasm. This gives way under the great pressure of fluid, and the increased antagonistic power of the dilating cerebro-spinal nerves, the skin becoming elevated in the form of vesicles, in the manner described at the commencement of this chapter. It may be as well to state, that sometimes the sensory fibres are bound up in the same sheath as the vassal, which may also account for the neuralgia.

Mr. Erasmus Wilson† has recorded the case

* Cellular Pathology. Page 356.

† Journal of Cutaneous Medicine. No. VI., page 221.

of a young man, a banker's clerk, in whom Herpes appeared, together with an enlarged gland. The latter first attracted attention. It may originally have been caused by a slight blow on the affected part, thus disturbing its healthy condition. The same nerve—the external cutaneous—supplies both points of interest—*i.e.*, the gland and the affected skin.

“Was the cause one which affected both organs simultaneously?—or was the affection of the skin a reflex irritation? Probably the latter. The first motive may have been the blow; the second the bruised gland; the third the irritated nerve; the fourth the reflection of the irritation on the neighbouring skin,—a nerve-paresis.”

The following statistics of Herpes may not be uninteresting. All are taken, with the exception of Mr. Wilson's cases, from hospital practice:—

TOWN.	No. of Cases of Skin Diseases.	No. of Cases of Herpes.	RECORDED BY
LONDON	2,000	23	Mr. Wilson. Journal of Cutan. Med., No. 3.
”	1,000	13	Mr. Milton. Modern Treat. of Skin Diseases.
”	1,016	7	Mr. Startin. Pharmacop. of Skin Hospital.
GLASGOW	6,451	18	Dr. M'C. Anderson. Rep. of Skin Disp., 1867.
LIVERPOOL	3,823	31	Mr. Smyth. Report of Skin Hospital, 1867.
DUBLIN	271	7	Dr. Belcher. Rep. of Skin Dispensary, 1867.
BELFAST	2,391	11	Dr. H. S. Pardon. Rep. of Skin Dispen., 1867.

The treatment of Herpes consists in local applications and internal medicines. First on the list of the latter stands ergot of rye, recommended by Dr. Woakes, which drug acts on the vascular system by means of the ganglionic nerves. Next we have belladonna, which acts on the capillary vessels, constricting them in all their diameters. The bromides are also valuable. Bromide of ammonium can be prescribed in asthenic cases. Bromide of potassium seems to be largely used in America in the treatment of Zoster. To procure sleep and relief from pain, the solution of the bimeconate of morphia is a very valuable preparation in this and allied diseases; or "chlorodyne" may be used instead. As a rule, opiates, in neuroses of the skin, ought not to be given, as they increase the already existing congestion of the vessels. As is well known, the carbonate of iron, in large doses, is frequently prescribed in neuralgia—and, when the patient is anæmic, it is useful. It acts better when combined with powdered valerian. Locally, the painful part may be painted with a solution of iodine and collodion; or aconite and the latter answer better, in cases where

the pain is very severe. In Herpes of the lips, the following may be applied:—

- | | | | | |
|-----------|-----------------------|-----|--------|-----------|
| R. | Olei Amygdalæ, | ... | 3 x. | |
| | Ceræ Alb., | ... | 3 iss. | |
| | Aq. Lauro-cerasi, | ... | 3 ii. | M. |
| | | OR, | | NELIGAN. |
| R. | Ungt. Flores Sambuci, | | 3 i. | |
| | Liq. Plumbi, ... | ... | 3 i. | M. |

The great point in the treatment of Herpes is to keep the part protected from the air.

P E M P H I G U S .

IN some cases, we observe different elementary lesions occurring in the same person, but a certain predominant form is always present. Thus the large bullæ of Pemphigus may have the smaller vesicles of Herpes interspersed amongst them, rendering it difficult at first sight to ascertain the true nature of the disease. Pemphigus resembles Urticaria, which latter, according to Hebra, not only in its acute, but even in its chronic form, sometimes presents the peculiarity, that, instead of wheals, bullæ are found at certain spots. "But no one need be astonished at this exceptional occurrence who bears in mind that wheals themselves result from the pouring out of serum, and that an increase in the quantity of fluid is all that is necessary to raise the cuticle over a wheal, and to form a bleb. That this was known to the older authors, is proved by the expressions—*urticaria, vesiculosa, urticaria bullosa.*" In Pemphigus, the capillaries are

dilated; the temperature of the affected part is raised; pain heat, and tension are complained of,—an escape of fluid finally taking place, the cuticle being elevated in the form of bullæ. In the late epidemic of cerebro-spinal Meningitis in Dublin, during 1866–7, Herpes and Pemphigus were observed in several cases, complicating the disease. In consumption, the excessive sweating is evidently due to nerve-paresis; and I may mention that no medicine is more useful to check it than large doses of tannin, with quinine,—the former acting as an astringent, the latter as a tonic. The following remarks of Dr. Handfield Jones* bear upon the subject:—

“The fact is of much significance, that in tolerably vigorous persons, the application of a linseed poultice produces only a macerated state of the epidermis, whilst in the weakly it gives rise to well-marked eczematoid eruption. The influence of vaso-motor paresis in promoting perspiration is shown by many facts,—as the occurrence of profuse sweating, during sleep, in phthisical, rachitic, and other persons. The same results from strong exercise, where the nerve-force is used up by the muscles, and to a much greater degree in those who are in training. By a statement made in a report of the

* Journal of Cutaneous Medicine, No. VI.

Vienna Hospital, that, when the sympathetic nerve is divided on one side of a horse's neck, that side of the face and neck appear bathed in sweat. The occurrence of sweating and vesicular eruption, as co-results of nerve paresis, is illustrated by a report given by Schrann respecting genuine intermittent fever, in the Upper Palatine, in 1856. The cold stage was short, while an abundant sweat came on early, varying in intensity, attended with an eruption of Herpes, which occupied the abdomen and forearms, and appeared to be rather the cause than the consequence of the sweat. In the above-mentioned instance, the vaso-motor nerves, alone or with the sensory, seem to have been directly affected; but the same phenomena, or very similar, may be produced by inhibitory (reflex) irritation."

Mr. Erasmus Wilson accounts for a cutaneous eruption—say eczematous, arising from poulticing, by the nerve-force of the skin being weakened through the prolonged influence of moisture and heat,—hyperæmia follows, accompanied by desquamation of the cuticle, and pruritus.*

A short time since (August, 1868), I admitted a boy, aged twelve years, at the dispensary for skin diseases, who first suffered from Urticaria, which gradually disappeared; Labial

* *Journal of Cutaneous Medicine.* No. VIII., page 341.

Herpes and Pemphigus of the lower extremities then ensued.

Möers* reports a case of Herpes zoster bilateralis of the lower extremities, which occurred in a child fourteen months old. The vesicles did not dry up as is usual, but ran into bullæ, as in Pemphigus. The child fully recovered in five weeks.

The form presented by an eruption is no criterion as to its cause. Dr. Russell† has published a case of a female, aged 23, affected with Pemphigus. Every attack was preceded, from a few minutes to an hour, by itching, accompanied with pain. The part about to be affected appeared perfectly healthy until the eruption was becoming developed, when a raised red spot became visible, at the apex of which effusion rapidly took place,—when, after the formation of a bulla, the pain began to moderate. The exciting cause of Pemphigus may be from exposure to cold and wet,—Pemphigus being often observed in barge and lighter-men, who are, from their occupation, frequently wet for hours, especially their

* *Deutsches Archiv für Klin. Med.*, IV., 249.

* *Medical Times and Gazette*, October 29, 1864.

lower extremities. In these individuals the eruption is often of a mixed character, if I may so express myself—viz., bullæ, and vesicles, and a considerable area of the skin being often covered by the eruption.

Inveterate drinkers are occasionally attacked with Pemphigus. Dr. Anstie, in his article on "Alcoholism,"* informs us that the congestion of various organs—as the lungs, liver, kidneys, &c., are partly due to altered chemical relations between the blood and tissues, "and partly to a paralytic action of the alcohol upon the vaso-motor nervous system. * * * It is indeed doubtful whether the degenerative changes which result from prolonged alcoholic poisoning are not, in a great part, due to the direct chemical influence of alcohol upon the nervous tissues," leading to degenerative changes, from paralysis of the nerves which preside over nutrition.

By the term Pemphigus, is understood an eruption of large bullæ on erythematous patches, which contain on their first appearance a clear fluid, eventually becoming opaque. The erythematous patch is generally of small

* Reynolds' System of Medicine. Vol. II., page 85.

size, and is owing to hyperæmia. Simon* states that a blister is first formed by vesicles, which increase in size, and join, forming a bleb; Pemphigus usually occurs in the same way; and in Scabies, for instance, the irritation of the itch insect, propagated to the cutaneous nerves, frequently occasions the appearance of vesicles or bullæ,—after the bursting of which a crust forms, an excoriated surface being underneath. The disease generally appears in successive crops. I shall adopt Neligan's division of Pemphigus into *acute* and *chronic*; the former usually attacking young people,—the latter those past the prime of life. Pemphigus is a rather rare form of cutaneous disease, as is evident from the following statistics:—

Town.	No. of Cases.	No. of Cases of Pemphigus.	Recorded by
LONDON ..	2,000	2	MR. E. WILSON.
Do. ..	1,000	4	MR. MILTON.
Do. ..	1,016	7	MR. STARTIN.
GLASGOW ..	6,451	7	DR. M'CALL ANDERSON.
LIVERPOOL ..	3,823	5	MR. SMITH.
BELFAST ..	2,391	11	DR. H. S. PURDON.

* Die Hautkrankheiten durch Anatomische Veränderungen erläutert. Berlin, 1857. Page 195.

The occurrence of Pemphigus is due in the main to derangement of the vaso-motor nerves. Mr. E. Wilson* has remarked, that it (Pemphigus) may be "complicated with Herpes; indeed the smaller bullæ of this disease bear a considerable resemblance to the vesicles of Herpes phlyctenodes." Hebra† has described a case of Urticaria, in which several of the pomphi passed into bullæ; and the difference between Pemphigus and Urticaria may be briefly said to consist in the fact, that, in the former affection, the œdema ends in serous exudation, which is more superficial, and not so deep, as in the latter. A variety has been called *relapsing Pemphigus*, and is evidently syphilitic; but many authorities consider that all forms arise from this cause, whilst others again deny that syphilis has anything whatever to say in the occurrence of Pemphigus. M. Ricord‡ stated "that there is no distinctive sign serving to distinguish the syphilitic from non-syphilitic Pemphigus, as is the case in other cutaneous affections."

* Diseases of the Skin. 2nd Edition.

† Allg. Wien Med. Zeitung, 1858. No. II.

‡ Séance de l'Acad. de Méd. July, 1851.

Dubois and Cruveilhier have shown that this disease is often met with in new-born children who sink under syphilitic abscesses of the lungs.* Pempbigus usually occurs in debilitated subjects,—frequently arising from intemperance,—and is secondary to some constitutional derangement. It also occasionally arises from local causes, and has been observed to co-exist with Urticaria. Nervous exhaustion, masturbation, mental anxiety, dyspepsia, and dysentery, as in the variety described by Sauvage, are put down as probable causes of this complaint. Great heat must and does enfeeble nerve-power, and may be adduced as another origin. Excessive heat influences the heart, causing syncope; and Dr. Handfield Jones† has produced evidence to show that a paralysing shock (the same applies to excessive heat), acting through the vaso-motor nerves on the capillaries, may give rise to solution of their walls, and extravasation.

Acute Pempbigus, as remarked by Sir D. Corrigan, M.D., is occasionally ushered in by

* Diday on Syphilis in Infants. New Sydenham Society.

† Functional Nerve Disorders.

a severe shivering fit, which might be mistaken at first for an attack of intermittent fever. An abstract of a paper on Pemphigus, by Dr. Van Dieren, taken from the Dutch Archives of Medical Science, will be found in the DUBLIN QUARTERLY JOURNAL, Feb., 1869. The case recorded, occurred in the "form of intermittent fever,"—temperature of the body 104° F., pulse 120, tongue dry. The patient—a child—was raving when first seen, and had from time to time convulsive twitchings in the arms and legs, after which bullæ appeared. In Pemphigus, about the third day, erythematous spots appear on the abdomen and thighs, or other parts, accompanied by a painful sensation of burning, tingling or itching. Vesicles usually appear on these patches, which rapidly pass into bullæ. The urine is high-coloured, appetite bad, and the patient complains of headache,—occasionally of sleepiness and exhaustion; the pulse is generally quickened. In about two or three days the bullæ break, scab, and crust,—this latter frequently presenting the appearance of rupia. In rare cases, the bullæ become confluent; and, in one instance which I saw,

the patient was covered with blebs in various stages, the discharge from which, owing to its containing albumen, stiffened the sheets like starch. Dr. Tilbury Fox* denies that the fluid contained in the bullæ of Pemphigus stiffens linen, but I have seen several cases in which it has done so,—one well-marked case occurring in a female admitted at the Belfast Dispensary for Skin Diseases, Feb. 27th, 1869.

From the *Medical Mirror*, January, 1869, it appears that *acute Pemphigus*, according to Hardy, of St. Louis Hospital, is merely an accidental erythematous eruption, the bullæ being secondary to the erythematous patches upon which they appear, like the phlyctenæ of erysipelas. A curious case of this affection entered M. Hardy's wards. The patient was a man just recovering from an attack of lead colic, and had been similarly affected with Pemphigus, at the same period of a previous convalescence from the same disease. On admission, he was as red from head to foot as a boiled lobster. The fiery patches were not absolutely coalescent,—but so nearly so, that

* *Lancet*, November 28, page 693.

the effect was almost as vivid. Upon the greater number the epidermis was elevated in bullæ of different sizes. Slight febrile symptoms accompanied the eruption. It was treated like an eruptive fever, let alone, and in a week had almost disappeared, leaving brown stains in the place of the patches,—which, in their turn, faded rapidly. The affection was, therefore, essentially distinguished from real Pemphigus, by expending itself in a single eruption, whereas the more formidable disease is noted for the desperate tenacity with which fresh crops of bullæ continue to appear.

In syphilitic subjects, the disease usually appears on the fingers, hands, and lower extremities. When the attack was mild, Willan called the disease *Pompholyx benignus*; when large bullæ appeared in succession, singly, *Pompholyx solitarius*. In many cases diarrhœa occurs, and it is asserted that this is owing to bullæ forming in the alimentary canal. Cazenave named a species *Pemphigus pruriginosis*, in which intermittent itching is first experienced, and attends the eruption of bullæ. In *Pemphigus foliaceus*, the brain and

spinal cord are frequently affected, diarrhœa carrying off the patient. The latter seems to be an affection of the vaso-motor nerves of the intestinal canal, as we may conjecture from the fact, that diarrhœa is prevalent in hot weather, at which time the blood is freely determined to the cutaneous surface. Dr. Tilbury Fox informs us, that this variety commences on the front of the chest by a single bulla, and by the development of others around it, and spreads over the whole surface, the bullæ being more or less imperfectly formed. The skin is red in many places, but there is not much infiltration, and itching is not severe. After the bullæ form, large yellowish squamæ are produced, with more or less desquamation;—the scales, which may be large, are the remains of imperfectly formed bullæ, and are free at their margins: they are reproduced very rapidly. The bullæ are successive and confluent. Oftentimes the skin exhales an offensive odour. The scales have been described as resembling French pastry. The other varieties of this disease mentioned by authors are *Pemphigus infantilis* and *contagiosus*. The existence of the last species is

denied. The *Pemphigus gangrænosus* of Dr. Whitely-Stokes is rare, but was common in Ireland during the famine. Chronic Pemphigus corresponds with the *Pompholyx diuturnis* of Willan.

The urine has been found to contain an abnormal amount of urea; in some cases the fluid contained in the bullæ becomes sanguineous, or purulent.

Chronic Pemphigus frequently lasts for years. Mr. Wilson* states, that Dr. Dusches-Duparc saw a case at St. Louis Hospital, in a girl 18 years of age, of weakly constitution, who had never menstruated, and who had been affected with chronic Pemphigus since the age of five years.

The prognosis is dangerous if many complications exist. In long-standing cases, the health and strength of the patient becomes lowered.

In the treatment of Pemphigus by internal remedies, we may, if any febrile symptoms exist, prescribe the liq. ammonia acetat. and sweet spirit of nitre. To lower the pulse, no remedy is so useful as the tinct. verat. virid.,

* Diseases of the Skin.

introduced by Dr. E. Cutter. When the disease occurs in young persons without any well-marked febrile symptoms, and when strong and healthy, I think it a good plan to commence treatment by a purgative of compound powder of jalap, which effectually removes any offending matter from the alimentary canal. This is to be followed by "Dover's powder" at night. A nutritious diet of easily digested food is necessary. If diarrhœa is present, dilute nitric acid and opium are indicated, which, besides acting as an astringent, is a good tonic. After a few days, cod-liver oil and quinine may be prescribed. I have derived much benefit from the syrup of the phosphate of iron, quinia, and strychnia. According to Professor Laycock, phosphorus is an important, and probably essential, constituent of brain and nerve-tissue. "It is an equally important and essential constituent of all tissues, of at least higher organisms, whether animal or vegetable. Consequently, however beneficial the medicinal phosphor-compounds may be in certain diseases and defects of the nervous system, they will be equally useful in certain diseases and defects

of the tissues in general." In many cases stimulants are necessary; and if the patient has been accustomed to either beer, porter, or spirits, they may still be allowed. Sometimes claret answers best. In the relapsing variety, arsenic is necessary,—which remedy is well known to be a pure nerve-tonic, acting on the capillary system. If a syphilitic taint be suspected, iodide of potassium should be prescribed. The local treatment I adopt is to open each bullæ, and apply carron-oil, or oxide of zinc and oil,—in some cases zinc ointment, to which one or two grains of carbolic acid to the ounce has been added, answers better. When the ulceration left by the bursting of the bullæ appears gangrenous, a charcoal poultice is an admirable application; and we may order, as a subsequent dressing, the following stimulating ointment:—

R.	Lapis Calaminaris,	...	ʒi.
	Balsam, Peruviani,	...	ʒ ss.
	Adeps,	...	ʒi. M.

Warm baths seem to be injurious, as they increase the determination of blood to the skin.

U R T I C A R I A .

URTICARIA is a cutaneous hyperæsthesia, in which the pruritus, for the time being, is intense. There is—1st. Hyperæmia (Erythema), and serous infiltration of the papillary layer of the cuticle, the skin being elevated in the form of wheals, like those caused by the sting of a nettle—hence the name. Urticaria differs from Herpes zoster in the fact, that, in the latter, the œdema ends in vesicular eruption. Hebra has seen cases of Urticaria in which bullæ developed themselves upon some of the wheals, the blebs being merely the result of the extension of the pathological process,—viz., exudation of serum beyond its usual limits. Urticaria is intimately related to, and connected with, the functions of digestion and assimilation. That the wheals in Urticaria contain fluid, has been proved by the simple experiment of G. Simon, who passed a needle

into one, and subsequently observed fluid to ooze from the puncture. M. Dumontpalier* has reported a case of intermittent Urticaria, in which the attack appeared each night for six weeks. It is interesting to note, that different members of the same family had each some nervous affection;—the parents were asthmatic, the grandfather rheumatic, the grandmother had angina pectoris, the brothers were rheumatic, and four children suffered from intermittent diarrhœa. Again, the capillary vessels may be ruptured, as in *Purpura*, allowing extravasation of blood, followed by the formation of wheals. This is the *Purpura Urticans* of Willan. Bazin, and other French physicians, look on Urticaria as a manifestation of "*Dartre*." The wheals occurring under the influence of mental emotions are pale, but in the arthritic variety are deep red, complicating rheumatism. In Urticaria, the muscular spasm of the skin is considered to be occasioned by irritation of the deeper filaments of the cutaneous nerves,—which nervous condition probably helps to cause the formation of wheals,—these elevations being due, according

* Bullen de l'Acad. Imper. de Méd., November 30, 1866.

to the late Dr. Buchanan,* to a circumscribed œdema of a cluster of capillary loops springing from a common stem, and under the influence of a common nervous twig.

Urticaria has been called a pruriginous neuroses of the skin, on account of the symptoms complained of, and also from its pathology. The affection, except in chronic cases, which often depend on a rheumatic or gouty diathesis, is of short duration. It is ushered in after eating certain kinds of food,—as lobsters, shell-fish, almonds, &c., by a feeling of fulness at the stomach, nausea, headache, quick pulse, &c.; in which cases the eruption is a reflex irritation proceeding from the stomach, and under the control of a plexus of the sympathetic system.

According to Dr. Burgess, the same exciting cause will produce different kinds of cutaneous eruptions in different individuals. Thus certain substances which suddenly derange the organs of digestion, sometimes produce Urticaria, sometimes Erythema or Roseola. The form presented by an eruption is no criterion as to its cause. In many instances, Urticaria

* *Edinburgh Medical Journal*. January, 1863.

is nosologically identical with Erythema, which is proved by their occasional occurrence in the same person, from the same cause.

The wheals are accompanied, as before remarked, by an unbearable pruritus, which is increased by scratching, or warmth. This is caused probably by the further relaxing of the capillaries,—the circulation of the blood, at first, being prevented in a great measure, from the tension of the vessels, due to vaso-motor spasm. When this tension gives way, an opposite condition,—that of dilatation,—takes place, the sub-cutaneous tissue becoming filled, in limited patches, with serous fluid; and, when the disease disappears, desquamation of the cuticle, in furfuraceous scales, sometimes occurs, due to excessive cell formation. Hebra,* however, denies that there is any desquamation at all. The skin, in chronic cases, may be pigmentated; and Mr. Spender, in his book on Ulcers, writing on pigmental deposits, informs us, at page 15, that there is a nerve-element in the case, which must not be ignored; for, according to Mr. Hilton, pigmentary degeneration represents a neurose derangement,

* Diseases of the Skin. Vol. I., p. 303.

leading, not to an alteration of nutrition, but to a degradation of it. And we are further reminded, that it is to be looked upon as a local index of diminished physiological force—a sign, so to speak, of loss and waste occurring in a circumscribed area of tissue, denoting early embarrassment.

The cuticular epithelium, owing to blood changes, is fed with a lower than the normal quality of hæmatine, and textural metamorphosis becomes less free. This deviation from the usual healthy state arises from a want of power in the vaso-motor nerves of the part affected, which cease more or less to preside over its nutrition.

Urticaria has been divided differently by different authors,—as into *U. evanida*, *U. tuberosa*, *U. conferta*, *U. perstans*, and *U. subcutanea*. In many cases, irritation of the lining membrane of the uterus has occasioned the appearance of the disease, as mentioned by Scanzoni.* Urticaria is frequently connected with the presence of a rheumatic or gouty diathesis; and I have observed the eruption of wheals alternately with chronic bronchitis.

* *Edinburgh Medical Journal*, October, 1850.

A short time since, I had under treatment a female aged 54 years, who had endured great hardships, and suffered from rheumatic fever in California. At the time the patient was under observation, she had only been in this country a few months. The eruption of wheals alternated with lumbago, and were evidently connected with rheumatism, this latter disease being well known to involve both the motor and sensory nerves. Dr. T. Fox* states, that "the solar plexus is oftentimes involved"; and those individuals subject to this distressing complaint are frequently troubled with functional palpitation of the heart, which may be accounted for by means of its nervous connections,—that organ becoming symptomatically affected through the semi-lunar ganglia of the sympathetic. The splanchnic nerves which form the ganglia, communicate in the thorax with the cardiac, the greater splanchnic receiving also a small branch from the pneumogastric and phrenic. This accounts also for the difficulty of breathing experienced in some cases. The pneumogastric, which is a sensory and motor nerve, being affected.

* Manual of Skin Diseases. Page 85.

The treatment of an acute attack of Urticaria is to remove the cause, and an emetic to unload the stomach is generally prescribed, followed by an aperient. During the attack, the skin can be sponged with a weak alkaline lotion, which tends to relieve the pruritus. If acidity and flatulence be complained of, the following will be found useful:—

R.	Magnesiaë, Calcinat.,	...	ʒ vi.
	Pulv. Rhei,	...	ʒ ss.
	Liq., Potass., dil.,	...	ʒ i.
	Olei Anisi,	...	gt. xviii.
	Aq. Cinnamonii,	...	ad. ʒ viii. M.

Sig. “A Tablespoonful thrice daily, in a little water.”

In chronic cases, the cause must, if possible, be ascertained. If it arises from a rheumatic or gouty diathesis, the remedies for those diseases must be prescribed,—the tincture of *actea racemosa*, or bicarbonate of potash, in the former, and colchicum in the latter, are frequently of use. Referring to the use of colchicum, the late Dr. Golding Bird* considered, that, “wherever the general health appears to be tolerably good, and any marked

* On Urinary Deposits. Page 154.

irregularities of the digestive functions corrected, I would recommend the careful and guarded administration of this drug in small doses, especially when there is an hereditary arthritic taint in plethoric patients." My friend, Mr. Milton, Surgeon to St. John's Hospital for Skin Diseases, London, informed me, that colchicum and magnesia are most valuable remedies in the tubercular form of Urticaria. Where it is necessary to combine a tonic, especially if the patient is debilitated, the following prescription of Mr. Startin's may be tried:—

R.	Quiniæ, Sulphat,	...	gr. xii.	
	Ammoniæ, Carb.,	...	ʒ ss.	
	Magnesia, Carb.,	...	ʒ iii.	
	Aq. Menthæ,	...	ʒ viii.	M.

ʒi. "*A Tablespoonful thrice daily.*"

Sometimes the stomach seems morbidly sensitive to nearly all kinds of food, being in a state of what is called "gastric irritability." In such a case, I have seen benefit derived from the administration of the hypo-phosphites of lime, soda, and potash. I may mention, that, when copaiba occasions Urticaria,—as

when given for the cure of gonorrhœa,—I have found the oil of yellow sandal-wood a very good substitute, having used it largely in several cases,* either singly, or combined with oil of cubebs.

Urticaria is occasionally complicated with lichen (*Lichen Urticarius*), and also sometimes occurs in the course of many acute febrile diseases.

* See *Medical Mirror*, September, 1865.

P R U R I G O .

PRURIGO, according to Hebra, is never congenital, but commonly appears during infancy, in the form of wheals, like those of Urticaria. These indications are probably caused by irritation of the nerves that supply the tactile papillary layer. Prurigo is accompanied by an excessive and burning pruritus, and usually also with a papular eruption. When the latter is absent, the affection is called Pruritus.

Prurigo is considered to be a neuralgia of the cutaneous papillæ. Dr. M'Call Anderson looks on this disease as a form of lichen,—and, consequently, an eczema, “the papules being identical with those of lichen, the black crusts being produced by scratching.” Various parts of the body are attacked with pruritus,—as the arms, vulva, &c., which may, from irritation, give rise to an eczema. The causes of this disease are often the same as in Urticaria. The following are usually mentioned by authors—viz., the immoderate use of fer-

mented liquors, a too sedentary occupation, great anxiety of mind, and the use of various kinds of indigestible food. The disease is often intermittent, and made worse by fatigue, warmth, &c. More or less pruritus accompanies various cutaneous diseases, as Scabies and Phtheiriasis,—the latter affection being called by the older Dermatologists *Prurigo senilis*. It is, however, a distinct disease, due to the presence of pediculi,—these parasites occurring in Prurigo, according to Dr. Tilbury Fox, from the fact, that the state of the secretions is that exactly suited to their development. Both Prurigo and Phtheiriasis are peculiarly diseases of advanced life,—and, by the vulgar, are attributed to “poorness of the blood.”

It is known that the filaments of nerves, proceeding from various trunks, become dispersed in different directions on approaching the cutis, ultimately entering the papillæ. If, according to Hebra, the point of a pruriginous papule is shaved off horizontally with a pair of scissors, there flows from its interior a drop of yellowish transparent fluid, “which shows under the microscope epidermic cells and blood-discs, with here and there pus cor-

puscles. But the layer of cuticle which has been cut off does not at all differ from any similar portion of the normal skin. We may, therefore, conclude that each papule of prurigo is formed by a collection of fluid in the deeper layers of the epidermis, and by the constant evacuation of its upper layers." Under the head of "Nervous Affections," Mr. E. Wilson, in a paper on Cutaneous Statistics,* states that—

"The disorders characterised by itching, unaccompanied by a commensurate and morbid lesion of the skin—a condition referable to an altered state of innervation of the cutaneous organ—are two in number,—Pruritus and Prurigo; Pruritus being represented by fourteen, and Prurigo by thirteen,—the total in the two thousand (cases) being twenty-seven. Prurigo, in the nine cases contained in the present thousand, numbers seven females and only two males; the ages, with the exception of an infant of a year old, and three adults of forty, forty-four, and sixty, were all above seventy—one being eighty years old. The disease had lasted for a period of two to twelve months, and in one case for seven years. Three of the cases were referable to nervous debility,—six being examples of assimilative debility. A remote predisposing cause, in several cases, were the neuralgic, rheumatic, and gouty diathesis."

* Journal of Cutaneous Medicine. Vol. I., page 269.

During last year, five cases of Prurigo occurred amongst the patients admitted at the Belfast Dispensary for Skin Diseases. One case had existed for eleven years, and the rest were all above four. I have also met with this affection amongst the aged female inmates of the Belfast Charitable Institution, in whom the skin is dry, rough, or thickened, the papules being especially scattered over the surface of the chest, arms, and back, and having on their apices little dry brownish-red scabs, the result of scratching. The perspiratory function is generally absent, and the inveterate nature and chronic duration of the disease must be attributed to impaired nutrition, owing to old age. Indeed, one case, that of a male, admitted into the infirmary of the above institution, presented so many points of special interest, as to warrant its being recorded in the *JOURNAL OF CUTANEOUS MEDICINE*, No. 3. In consequence of the absorption of fat, the integument is dry and wrinkled. In aggravated cases, the sensations experienced in the affected parts are described as of a creeping or stinging character (as from ants, hence called formication), which may be gene-

ral over the whole cutaneous surface, and which is made worse by exposure to heat. The general health begins to suffer, the face wears an expression of care and anxiety, and the mind is a prey to gloomy thoughts.

After a certain time, an increasing deposit of dark pigment in the epidermis may be observed, caused in part by the patient's scratching and tearing the skin, which becomes also harder and denser. Prurigo is also associated with Jaundice, Gout, Rheumatism, "Bright's" disease, organic disease of the liver, which often cause incurable Pruritus. Dr. Day* states that this affection "is often accompanied (if not preceded) by a diminished secretion of urine, and this may furnish us with a hint in reference to treatment." This gentleman recommends the alkaline salts and stimulating diuretics, in addition to regulating the biliary secretion.

During the year 1865, I was consulted by a patient, aged 61, for Prurigo of a very inveterate nature. He could seldom obtain more than one or two hours' sleep at night, and his chest and arms were greatly excoriated from

* Diseases of Advanced Life. Page 291.

scratching. The disease seemed incurable, and his mind was a prey to gloomy thoughts, made worse by the death of his wife, to whom he was much attached. Under the use of anodyne liniments, and pills containing sulphate of zinc, extract of nux vomica, and opium, with good food, he became somewhat relieved, and I lost sight of him till January, 1869, when he called on me one evening, suffering from anæsthesia and paralysis of both upper extremities, and also of the rectum. As he was in destitute circumstances, I got him into hospital. This case shows us that anæsthesia and paralysis may supervene upon hyperæsthesia, which is probably due to exhaustion of nerve-force.

This disease (Prurigo), according to Dr. Parkes,* attacks those of a highly exalted, sensitive, and irritable condition of the nervous system,—a condition not unfrequently depending on a morbid state of the spinal cord. Several important local varieties of this disease exist, as Prurigo of the scrotum and anus. The former is rather rare, and, in a few cases

* Dr. A. T. Thompson on Diseases of the Skin. Edited by Dr. Parkes.

observed, seemed to depend on stricture of the urethra; it may also be an extension, so to speak, of the anal variety. This latter is called *Pruritus ani*, or *Podicis*, and is often present without any visible eruption. It may depend upon either hæmorrhoids, arising from congestion of the portal system and derangement of the liver, ascarides in the rectum, or enlargement of the prostate gland,—a common complaint in old men. The seat of the itching is the margin of the anus, and papules frequently appear on the perineum and neighbourhood, which, when torn, cause an eczema. This variety is thought to depend, in some cases, upon a morbid state of the secretions of the rectum, and may arise from sedentary habits, in addition to the causes already enumerated. In some cases, the skin at the verge of the anus is furrowed, leading to the establishment of painful fissures.

Prurigo pudendalis, when chronic, has led to masturbation, or nymphomania, and is frequently caused by irritation of the uterus, or bladder; indeed females have been said to miscarry from this cause. Diabetes, it is asserted, occasioned this affection: leucorrhœa, gonor-

rhœa, apthæ, &c., may do so likewise. Furunculi are occasionally met with in persons suffering from Prurigo. In the JOURNAL OF CUTANEOUS MEDICINE, Vol. I., page 326, I published the case of a person, who, after recovering from Prurigo, became affected with successive crops of "boils," and died eventually from debility, arising from the exhaustive influence of several carbuncles which appeared on his neck and back. Hebra states that sebaceous tumours are common in people suffering from Prurigo. "This affection resembles, to some extent, the small-pox pustules: it has in its centre a small depression, which may be compared to an umbilicus, and it may be observed to contain a plug of sebum, either of a whitish or dark colour. This little pit is surrounded by a raised border, covered with healthy cuticle." Both these affections arise from perverted nutrition.

The treatment of this disease may be divided into constitutional and local; the former is the most important. In the first place, we must endeavour to find out the cause of the complaint. If the disease arises from a gouty or rheumatic diathesis, the treatment for the

latter affections is indicated. As the bowels are usually costive, and the liver deranged, it is a good plan to commence treatment by giving a pill at bed-time, for a few nights, consisting of podophyllin compound colocynth pill, and extract of Indian hemp, subsequently administering "cream of tartar," which, besides acting as a diuretic, is also, on the authority of Dr. Copland, most efficacious in promoting a discharge of bile, and removing viscid secretions from the intestinal canal. When Prurigo appears to be due to exalted nervous sensibility, I have derived benefit from the administration of the Bromides of ammonium and potassium; and I find that this statement is confirmed by Dr. Damon and others in America. Their efficacy may be increased by adding either aconite or belladonna: the latter drug, according to Brown-Sequard,* by its influence on the blood-vessels of the spinal cord, will diminish the reflex faculty, the tendency to convulsions, &c.; but when the dose is toxic, sensibility and the reflex faculty become morbidly increased, and convulsions occur. Bromide of ammonium

* Lectures on Functional Nervous Affections.

acts specially on the medulla oblongata, and relieves congestion of that structure. It should be used in preference to the similar preparation of potassium, when the nervous system is in a state of prostration, as in the following formula:—

R. Ammonii Bromid., ... $\bar{3}$ ii. vel. $\bar{3}$ ss.
 Tinct. Stramonii, ... $\bar{3}$ ii.
 Acid Hydrocyanici, ... gt. xvi.
 Aq., ... ad. $\bar{3}$ viii. **M.**

Sig. *Shake the Bottle.—A Tablespoonful, thrice daily, in a wineglassful of water.*

Bromide of potassium, it is stated by Dr. Bill,* deadens the sensibility of irritated peripheries, thus making the sensory ganglia less cognisant of local evil, so that sleep is allowed, not compelled, as where morphia is employed. Dr. Damon gives the following formula for its administration towards procuring sleep:—

R. Potass. Bromid., ... $\bar{3}$ ss.
 Syrup Zingiberis.
 Aq., ... ana. $\bar{3}$ ii. **M.**

DOSE. *A tablespoonful, in half a tumbler of water, at bedtime.*

If the patient is anæmic, Bromide of iron can,

* *Lancet*, August 29th, 1868.

of course, be added to the Bromide of potassium, given in some vegetable infusion,—as calumba. Occasionally nux vomica is of service.

Cod-liver oil and Pancreatic Emulsion of fat are excellent dietetic remedies; the former can be taken in conjunction with tincture of hop, orange peel, and dilute nitric acid. In some cases, when dyspepsia is present, pepsine wine is required, which may be given with Schacht's liquor Bismuthi. Nitro-hydrochloric acid foot-baths are useful, as also emollient baths. For Prurigo, confined to limited parts, a borax lotion is often of service. In some instances, the hypodermic injection of morphia is successful,—as, also, lotions containing hydrocyanic acid, aconite, chloroform ointment, &c., as in the following prescriptions:—

R.	Liq. Potassæ,	....	ʒ i.	
	Acid, Hydrocyanici,	....	ʒ i.	
	Mist. Amygdalæ,	....	ʒ viii.	M.

Useful in Pruritus ani; or—

R.	Chloroformi,	....	ʒ ss.	
	Cerat. simpl.,	....	ʒ i.	M. NELIGAN.

Or—

R. Morphiæ, Hydrochlorat, ... gr. iv.
Buty. Cacao, ... q. s. **M.**
Div. in suppos., viii.

Useful in Pruritus ani, when complicated with painful fissures.

A stimulating application occasionally answers better,—as one containing a few grains of chlorate of lime or sulphate of zinc to the ounce of water. Cleanliness is of the utmost importance in the treatment of this disease,—the best means of obtaining which is the occasional use of the Turkish bath. To procure sleep at night, hops, camphor, or hyoscyamus are useful; a little ipecacuanha powder can be also taken, to act on the skin.

DERMATALGIA.

DERMATALGIA is a neuralgic affection of the skin, often associated with that proteiform malady, hysteria. In this case, it is observed most frequently on the left side, and is manifested by increased sensibility to touch. In the hysterical variety, the affection is said to be often due to "spinal irritation"; and, according to Trousseau, in neuralgia there is always tenderness, on pressure, over the spinous processes of the vertebræ, accompanied by cutaneous hyperæsthesia at the points of exit of the nerve-trunks. Again, this form may arise from and accompany chlorosis; it also may arise from amenorrhœa, dysmenorrhœa, and retro-flexions of the uterus. Chlorosis, Dr. William A. Hammond* maintains, is primarily and essentially a disease of the nervous system, and that the changes which sometimes—by no means invariably—take place in the composition of the blood, are consequences

* *Quart. Journ. Psycholog. Med.*

of the nervous disorders, and not its causes. "I do not contend," he says, "for the invariable occurrence of chlorosis without depravation of the blood. I insist, however, upon the point, that chlorosis is a disease of the nervous system, and that when morbid changes take place in the blood during its continuance, they are always secondary, and directly the consequences of the nervous derangement,—and that, therefore, they are nothing more than accompaniments of the chlorotic condition; also, that chlorosis frequently runs its course without any of the symptoms of pathological changes in the blood being manifested. In the enunciation of this opinion, I claim nothing on the score of originality. * * * I merely wish to present the view more connectedly and prominently than has yet been done."

All hysterical affections have the peculiarity of local tenderness about the part suspected to be the actual seat of the disease, and which extends over a considerable surface; and although Dermatalgia is limited to one particular spot, still, in hysterical females, the pain, and increased sensibility to the touch, may be

erratic. That the disease is limited to the skin, can be proved by the fact, that firm and deep pressure does not occasion as much pain as is complained of when a portion of the affected integument is raised between the fingers, so as not to press on the parts beneath. Sir B. Brodie* has remarked that the hysterical neuralgic affections are often consequent on some trifling injury or accident; and, according to the same authority, dissections of the affected part throw no light on the disease, the various nerves being observed in a natural condition.

Exposure to draughts of cold air, and rheumatism, likewise occasion the appearance of Dermatalgia. The part attacked may become erythematous, the pain being frequently associated with vascular disturbance,—such as partial congestion. It is sometimes periodic, when it is probably due to an inflammatory condition of the cutaneous nerve to which it corresponds. Parts of the body covered by hair, as the head, are favourite situations. According to Marcé,† severe Dermatalgia is

* *London Medical Gazette.* Vol. XIX.

† *Des Alterrations de la Sensibilité.* Paris, 1860. Page 14.

one of the first symptoms of commencing Myelitis. I have observed this affection in a case of Meningitis.

In the treatment of Dermatalgia, local and constitutional means are to be used. To take the hysterical variety first:—If the neuralgia arises from any derangement of the uterine functions, it will be necessary first to rectify that affection. In these cases, the patients are frequently troubled with dyspepsia, which must be treated by appropriate remedies. To lessen the irritability and excitability of the system, antispasmodics and tonics are useful. A good form is a pill containing valerianate of zinc, quinine and compound gabanum pill, or one containing musk and camphor. For flatulence, which is a common symptom, the compound aromatic powder of chalk is an admirable preparation. To produce local anæsthesia, and by this means afford temporary relief, chloroform or aconite may be prescribed, as in the following formula:—

R. Chloroformi,	... ʒ ss.
Tinct. Aconiti,	... ʒ iss.
Tinct. Opii,	... ʒ i.
Liniment, Camphor, Co.,	... ʒ vi. M.

If rheumatism be the cause of the disease, alkalies are indicated, and the kidneys made to act well. The bicarbonate of potash, to which, if the stomach is irritable, a few drops of hydrocyanic acid and compound tincture of cardmoms may be added, is frequently of service. In a patient of mine, affected with Dermatalgia of the head, and who was pale, weak, and anæmic-looking, I derived the greatest benefit from large doses of carbonate of iron,—the old remedy for intermittent neuralgia. As his bowels were generally constipated, and as the iron would tend to increase it, he had a pill of podophyllin, rhubarb, and extract of Indian hemp, at bedtime, for a short period. Locally, the application of small blisters, the raw surface being dusted with a little morphia, is of benefit. In some cases, the Bromide of potassium is useful; also, especially in the hysterical variety, oxide of zinc. Of course, if Myelitis is suspected, it will be necessary to put the patient under a course of mercury, and the green iodide or bichloride,—the latter in tincture of bark, are the preparations to be preferred.

ANÆSTHESIA.

ANÆSTHESIA of the skin is generally a secondary affection. Prolonged Hyperæsthesia may, in some instances, cause it; and we are informed by Dr. Althaus* that these two conditions have been too much separated, seeing they are often allied. This gentleman has seen cases of neuralgia with complete Anæsthesia of the skin of the affected part. Trousseau† states:—

“There is another phenomena quite the reverse of the above (Hyperæsthesia), which sometimes, although more rarely, exists in neuralgia—namely, Anæsthesia. It often follows on idiopathic non-spinal neuralgias—that is, on neuralgias apparently of rheumatic origin, or due to a slight lesion of the cord. At the outset, and often for a lengthened period, there is only an exaltation of sensibility; but when the affection has lasted a long time, the exaltation is replaced by a diminution,—and,

* *British Medical Journal*, December 19th, 1868. Page 649.

† Lectures on Clinical Medicine. Translated by Dr. V. Bazire. Part II. Page 485.

lastly, by a complete loss of sensibility. In such cases, I admit, there is something more than a neuralgia; and the Anæsthesia may be regarded as the consequence of a change in the structure of the cord, or of the nerve-trunk, as occurs in cases of neuritis. It is still pretty frequent to find cutaneous Anæsthesia succeed Hyperæsthesia, especially in Herpes zoster."

Again, Dr. Brown-Séguard* has "observed neuralgia, or irritation of the centripetal nerves, occasioning paralysis and Anæsthesia by reflex action. He mentions a case of Anæsthesia of the lower limbs due to sciatica; also a case of M. Notta, of Anæsthesia of the arm, arising from cervico-brachial neuralgia." Indeed many cases of paralysis can be traced back to hyperæmia and œdema of the neurilemma, as well as to rheumatism. Anæsthesia frequently complicates sciatica. Dr. Anstie† states, that, in the early stage of sciatica, there is almost always numbness of the skin previous to the first outbreak of neuralgic pains, and during the intervals between the attacks; the tactile sensibility is likewise much diminished. Affections of the vaso-motor nerves are con-

* Lectures on the Central Nervous System. Page 164.

† Reynolds' System of Medicine. Vol. II. Page 734.

sidered by many to be the cause of Anæsthesia,—the office of these nerves being to preside over the blood-vessels and nutrition of the ultimate tissues. But some cerebro-spinal nerves may fulfil the same function, and, being abnormally affected, may give rise to the same disease; although, to a more limited extent, an instance of this may be observed in the chorda-tympani presiding over the secretion of saliva,—which secretion, Ludwig asserts, is regulated by the fibres of the fifth nerve, as the excitory, and the sympathetic as the inhibitory.

Though the sensibility to pain may be lost or diminished, the application of heat or cold may be distinguished. On whatever part Anæsthesia occurs, alteration in nutrition takes place eventually. Dr. Althaus* has recorded a case, in which the first symptoms were inflammation, afterwards compression and atrophy of the fifth nerve, then loss of muscular sensibility about the face. The conjunction was anæsthetic, and the sense of touch, as also temperature, absent. If the head is affected, the part may become bald. I

* *British Medical Journal*, December 19th, 1868.

have observed an affection of the hairs, which may be called *Fragilitas crinium*, or extreme brittleness of these structures, as in the following case. J. M., aged 45, consulted me on March 4th, 1868, for a "breaking short," and brittleness, of the hairs of his left whisker, which had existed for about one year,—the skin of the affected part being less sensible to touch than formerly. He cannot offer any explanation of how the affection commenced, and never had Syphilis. His health, latterly, has not been good; is "nervous," and easily agitated; sleeps badly at night; and troubled with dyspepsia. No parasite could be detected on the hairs,—for, at first sight, they presented some of the appearances of the declining stage of *tinea circinata*, except the brany desquamation of the cuticle. The hairs were uneven in length, fissured longitudinally, extremely dry, broken in various proportions, but of the natural colour, which was black. I considered the affection to depend on atrophy of the hair, arising from defective nutrition, due to impaired nervous power. The fifth pair of nerves are considered to influence the nutrition of the hair.

The local causes of insensibility of the skin are thus enumerated by Dr. Damon:*

“The disease or injury of nerves; neuromata; pressure of exudations upon the cutaneous nerves; the effects of heat and cold, and chemical agents. The internal causes of Anæsthesia of the skin are—Diseases of the brain and its membranes, also of the spinal cord; pressure from extravasation upon the nervous centres; the effects of metallic poisons upon the system, and many chronic diseases, which produce alteration in the blood and tissues. It is a well-known fact, that several agents, such as sulphuric ether, chloroform, and aconite, produce more or less Anæsthesia, of an exceedingly temporary duration, when applied to limited regions of the skin. * * * Exudations upon the cutaneous nerves, when they pass over ridges of bone, and in close contact with them, or through bony foramina, may cause so much pressure as to produce first Hyperæsthesia, or Neuralgia, and afterwards Anæsthesia of those parts of the integument to which these nerves are distributed. This happens to the ulnar border of the hand, when there is pressure from exudation, or callous at the point where the ulnar nerve crosses the humerus. * * * Those (diseases) in which the phenomena of Anæsthesia is best marked, and is best known, are:—Ataxy, Lepra anæsthesia, Syphilis, Pellagra, the “Spedalskhed,” some cases of Alopecia areata, the Psoriasis of washerwomen, Purpura, and Typhoid fever. Diphtheria, Chlorosis,

* On Neuroses of the Skin. Page 87.

Albuminuria,—and that morbid array of nervous symptoms, known as Hysteria, must be added to the above list.”

Thus many neuroses of the skin are merely reflex phenomena, arising from some change or irritation in distant organs, and can be divided—

“Into those which act directly upon the nervous centres, such as pressure and inflammation,—and into those which act through the medium of the blood. Amongst the former are cerebral hæmorrhage, tumours of the brain and spinal cord, and chronic encephalitis and myelitis. The causes which act through the blood are the poisonous effects of certain metallic and other substances, which have been introduced into the system either by accident or as medicine.”

Injury to a large nerve-trunk may cause paralysis, and produce increased heat and redness of the part, often followed by exudation and ulceration. Paralysis sometimes leads to Atrophy and Anæsthesia, as before remarked. Diminished sensibility of the skin is occasionally followed by *Cacotrophia cutis*, or a want of healthy nutrition of the cuticle, which is discoloured, dry, but not marked by any visible eruption. The following are the principal diseases in which Anæsthesia is present:—

Morphæa.—In this disease, the morbid deposit, pressing on branches of cutaneous nerves, occasions more or less anæsthesia, limited to the diseased part. In *Scleroderma*, the same state of the skin is exhibited. Dr. Tilbury Fox considers this disease to be a hyper-plasia of the areolar tissue invading the normal structures, and gradually obliterating them, together with the nerves, vessels, hair-sacs, &c. The insensibility of the affected part, we are informed, appears to be due to the nerves being closely enveloped in the deposited material.

Locomotor-Ataxy.—Anæsthesia of the skin occurs in this affection during the progress of the disease, commencing in the extremities, and gradually extending towards the body. The mucous membrane of the mouth, nose, and eyes may also be affected.

Hysteria.—Hysterical Anæsthesia is met with in females. Dr. Handfield Jones* informs us—“That we have evidence enough, I think, to show that causes of exhaustion of nerve-power may generate all kinds of morbid phenomena,—from the greatest Hyperæsthesia,

* Functional Nervous Disorders.

muscular agitation and convulsions, to Anæsthesia, Analgesia, and Paralysis.”

Syphilis.—Nodes pressing on branches of nerves may cause more or less Anæsthesia. Syphilitic disease of the spinal cord may also do so.

Pellagra.—The insensibility of the skin appears to be due, in this disease, to softening of the white lumbar portion of the cord, as observed by Landouzy. The membranes of the brain are often congested.

Occasionally, in *Alopecia areata*, Anæsthesia is present. No doubt this disease is often exhibited when no fungus can be detected, even after the most careful microscopic examination. I had lately under observation an interesting case of this affection sent to me by my friend, Dr. Brice Smyth. The patient was a lad, aged 16 years, pale and delicate looking. At the age of five, he had a severe attack of measles, since which date he has been affected with ophthalmia tarsi. He exhibited two bald patches on the head, covered with downy hairs, which had existed for six months; sensibility of affected part slightly impaired. The disease was treated with a liniment of tincture

of nux vomica, cantharidis and camphor, applied thrice daily, and quinine internally.

Acrodynia is attributed, in some cases, to eating the bread made from ergoted rye, and the Anæsthesia seems to depend on softening of the cord, occasioned by contraction of the vessels, thus interfering with its nutrition. In three diseases—viz., Ataxy, Pellagra, and Acrodynia—there is softening of the white portion of the spinal cord, which is considered to be the conducting structure.

Spedalskhed.—Boeck and Danielssen have stated that, in this disease, the insensibility of the skin is at first limited, but gradually spreads, and is due to disease of the cord.

Leprosy (especially the Anæsthetic variety).—Insensibility to touch is here one of the first symptoms. Whatever the “poison” is, it at any rate acts on both the peripheral plexus as well as on the nerve-trunks. Dr. F. Lente,* of New York, writing on the diseases of Jamaica, states that leprosy commences with neuralgic pains; but, as the disease exhibits itself, these disappear, and are replaced by Anæsthesia. There is no inflammatory stage,

* *Medical Mirror*, December, 1868.

and the Anæsthesia soon becomes so complete, that the extremities often sustain serious burns before the patient is aware that anything amiss is going on. Dr. Bowerbank, of Jamaica, pointed out to Dr. Lente various mental conditions of the lepers.

When in London, in last March, through the kindness of Mr. Milton, I was enabled to see a case of leprosy. The disease had assumed the tubercular form. The patient, although a native of England, had resided for a long time in the East Indies. When I saw him, his legs, feet, and arms were insensible to touch, also to heat and cold. The nose, palate, fauces, and fingers, were ulcerated. The affected skin was characterised by patches of a purple colour, and tubercular. He had been treated with various remedies, and latterly had been taking *Hydrocotyle Asiatica*.

Dr. Eade* informs us—"That the necessary effect of partial removal of nerve-force is to allow the parts supplied by it to take on a lower form of vital action; and the degeneration will, of course, vary with the cause of the deprivation, with its intensity and seat, as

* *British Medical Journal*, March 13, 1869.

well as with the constitution of the individual. Ordinary complete removal of motor or sensitive nerve-influence, of course produces ordinary paralysis; but removal of nutritive nerve-influence produces other and distinct effects, as shown by the experiments of Reid and others; whilst the diminution of the combined spinal and nutritive nerve-influence gives rise to what is called suppurative or destructive inflammation—*i.e.*, a process in which destruction, pure and simple, does not take place, but a rapid form of a *lower type of growth* or development.”

Under the head of Treatment, of Neurotic Cutaneous Diseases, I may notice the employment of galvanic currents. Of their effects, I cannot speak from personal experience. The treatment of Anæsthesia is unsatisfactory, and depends upon the cause of the disease. Dr. Damon* informs us, that, “when it is produced by certain diseases which act through the medium of the blood, causing profound alterations in this fluid, and its effects upon the nutrition of the nervous centres, our chief reliance is to be placed in the different prepa-

* On Neuroses of the Skin.

rations of iron, of quinine, and in the mineral acids. A tonic regimen must be subjoined to these remedial measures."

In conclusion, I can only say, as an excuse for any faults in this *brochure*, that it has been my chief aim and object to be as clear and concise as possible in the pathology and treatment of each disease. I have given quotations from our best authors,—men who are not prone to mystify or magnify, and who are honestly and carefully helping us to emerge from darkness into clear and unclouded light. Thus, and thus only, can the truth be arrived at:—

"Ad Majoram Gloriam Dei."

A P P E N D I X.

THE *modus operandi* of blisters in Neuralgia is thus stated by Dr. Chapman (*Medical Times and Gazette*, March 27, 1869):—"The irritation they (blisters) set up is conveyed to the sensory nerve-centres of those nerves which have been excited, a fresh afflux of blood is induced in those centres, the excitement spreads throughout the neighbouring nerve-cells; those presiding over the nutrition of the part where the blister is applied flash back from the centre to the periphery the excitement in which they are sharing, and light up the previously normal processes of textural life into intense local inflammation, with the consequences—copious serous effusion."

Dr. Davey, in his work on the *Ganglionic Nervous System* (page 256), informs us—"That the time is not far distant when inflammation, whether of a *sthenic* or *asthenic* character, and of whatever structure, whether external or internal, will be looked upon as the mere effect of an antecedent morbid impression confined to, and affecting the nervous (organic or ganglionic) tissue. * * * If morbid sensibility occurs to the nervous tissue of a part, the consequence either of the application of an external stimulant, or the result of some accidental and internal change, the capillaries, although they may resist more or less, and for a given time, the injurious effects of the same, are ultimately rendered incompetent to the proper discharge of their

offices in the animal economy; and losing the tonicity natural to them, and through the instrumentality of which the blood is forced onwards through their delicate textures, they become congested, their parietes yield to the pressure of the contained fluid, and, unless this be relieved, inflammation, more generally of an *asthenic* character, is set up, and the chances are that a certain amount of disintegration (of the tissues involved) follows." We are further informed (at page 270 of the same work) that hypertrophy and atrophy are to be referred, the one to too much, and the other to too little vitality—"i.e., too much and too little energy of certain parts of the ganglionic nerve-matter."

At page 43, it is stated that the value of quinine and coffee, in neuralgia and allied diseases, is probably due to their giving "tone" to the arterial walls. *Thein* and *caffein*, the alkaloids of tea and coffee, have recently been experimented on by M. Leven, who has found that the latter is twice as strong as the former. He gives the following summary of its effects, derived from the results of his experiments on animals:—“(1) It determines convulsive movements in the limbs, in this respect differing from *caffein*. (2) Both alkaloids directly excite the heart and the respiratory movements, and increase the arterial tension. (3) In exciting the circulation, they stimulate the central nervous system, the brain and cord, but they do not destroy the properties of these centres. (4) The tetanic state produced by them is by the excitation of the cord. (5) They do not interfere with the properties of muscle.” Thus these remedies act on the cerebro-spinal system, which occasion dilatation of the capillaries.