PROVINCIAL MEDICAL & SURGICAL JOURNAL.

A COURSE OF LECTURES ON SURGERY,

DELIVERED IN THE
MEDICAL SCHOOL OF CAMBRIDGE.

By GEORGE MURRAY HUMPHRY, Esq.,
Downing College, Surgeon to Addenbrooke's Hospital

LECTURE XIV. SCROFULA.

General view of the pathology of scrofula; it is an inflammatory affection, but not a specific inflammation; the scrofulous constitution is marked by the defective energy of nutrition witnessed in primary and secondary assimilative processes, in development, and in growth; periods of life and persons most subject to scrofula; how far hereditary; scrofulous persons comparatively exempt from certain diseases; characters of scrofulous inflammation corresponding to those of constitution; scrofulous lymph, abscesses, and ulcers.—Treatment:—Attend first to the indigestion, secondly to the general health, thirdly to the local disease.

In treating of inflammation I have frequently directed your attention to the various modifications in its symptoms, progress, and results, which are impressed upon it by the age and constitution of the individual; and I come now to speak especially of a kind of inflammation, the strumous or scrofulous, which occurs in persons of a particular temperament. In its characters and effects it differs from ordinary inflammation sufficiently to have acquired a distinct name, and to deserve a separate description; but I wish you to understand before we proceed with the investigation of this disease, that its peculiarities, in other words the points in which it differs from other inflammatory affections, correspond with, and are attributable to, certain peculiarities of constitution in those who are the subjects of it.

That you may entertain clear notions respecting this fundamental axiom in the pathology of scrofula, I will first point out the more remarkable features in the constitution of scrofulous patients, and will then describe the usual course of the scrofulous inflammation, showing how the one corresponds with the other; and I think you will find no difficulty in acquiescing in the opinion that the disease is essentially of a constitutional nature, having no claim to the name specific which is so often applied to it in a loose and careless manner, as

though all inflammations and diseases differing from the ordinary type were to be called specific.

The word specific in pathology is generally used to designate a disease, the peculiarities of which are independent of the constitution, being related to some extraneous influence, such as an unusual exciting cause, some particular poison perhaps, which impresses upon the morbid process excited by it a certain course differing from the ordinary routine. The inflammation of syphilis, for instance, differs in the mode of its appearance, and in the results it produces from other inflammations; it presents the same characters, or nearly so, in every variety of temperament; is a disease independent or superadded, as it were, to the constitution, and seems to depend upon the presence of some subtle poison from which its peculiar features are derived. It is, therefore, rightly named a specific inflammation. The same is true of several other inflammatory affections, which, like syphilis, are occasioned by a poison, affect all persons nearly in the same manner, and have very little regard for constitutional idiosyncrasies. Such are measles, small-pox, scarlatina, &c. In this sense of the term, a disease like scrofula, deriving as it does all its more important distinctive features from the peculiar temperament of the sufferer, cannot be regarded as a specific affection.

But to be sure that these statements respecting scrofula are true, let us first consider the kind of persons in whom inflammation presents these peculiar characters, that is to say, let us recount the marks of the scrofulous diathesis. Now, these persons differ from one another in a great many respects, some are tall, others short; some are stout, others thin; some are dark, others are of light complexion, but all are alike remarkable for the fineness and delicacy of their physical conformation; and this is shown in a variety of ways. Their beautiful soft, clear, delicate, waxy skin, with a fine rosy tint, and veins conspicuous, "like streamlets in a field of snow," often attract attention, and convey even to the careless observer an idea of great liability to disease. The skin is easily cracked, freckled, or sunburnt; the hair is fine, more commonly light than dark, and the eyelashes are long, fine, and beautifully curved. These persons are generally soon fatigued, and require a long period of rest to recruit their energies; they sleep long and languidly, perhaps perspiring during sleep, and wake tired. The circulation is feeble, readily excited, and as readily depressed. They are unable to bear cold

or damp, and flush up after a meal, on slight exertion, or in a warm room.

The nervous system is sometimes of great proportionate size, but partakes most probably of the general sluggishness and inactivity of the system. A large number of scrofulous persons are mentally, no less than physically, dull and inert; they seem unable to rouse their minds to exertion, and are inclined to doze through life. In some, on the contrary, there is a remarkable vivacity and precociousness of intellect in early life, combined with agility and liveliness of manner. Such children are said to have spirits beyond their strength, and to wear themselves out. They are often apt scholars, and delight their parents with the early indications of future greatness, but unhappily the expectations founded upon this precocity are mostly disappointed. The delicate frame gives way to premature decay, or the quickness of perception so conspicuous in the child does not keep pace with his growth. As a youth he is scarcely superior to his compeers, and as a man he is seldom found to possess that close vigorous power of mental application which is the surest evidence of intellectual strength. The mind of the scrofulous person is seldom well balanced; he may excel in memory or in imagination, but he is defective in judgment. He may be brilliant at times, but he is fitful, uncertain, not to be relied on.

Associated with this delicacy of structure and want of physical strength, and constituting, indeed, the essential feature of the constitution, is a congenital want of energy of the nutritive functions. It is not that the powers of the system are depressed by disease of one or more of the great organs, or that there is a natural want of balance between them. A person may be greatly reduced by disease of stomach, heart, or brain, or he may suffer under congenital weakness of one or other of those viscera, without being scrofulous. In the class of patients of whom we are now speaking, the imperfection of the nutritive functions is not confined to one or a few parts, but is common to the whole body. The *manifestation* of the scrofulous disease may be observed in certain regions only which may be more exposed to exciting causes, or it may occur in some parts which are, from defect in development, weaker than others; or in the absence of an exciting cause, it may never make its appearance in any part of the body at all. Nevertheless the whole body is predisposed, in greater or less degree, to inflammatory attacks of a languid troublesome kind which are evidently connected with a feeble state of the nutritive functions, and which we call scrofulous.

This want of energy is not confined to the secondary processes of nutrition, or those by which the components of the blood are converted into the tissues, but it extends in like manner to the primary or digestive department. The digestive, the chylopoietic, and the blood-making functions, are all more or less imperfectly performed, and the organs subservient to these functions exhibit symptoms of their debility in various ways. These symptoms are more frequently referred to the stomach than to other parts, because the signs of disor-

der in that organ are most easily appreciated, and the term indigestion is hence almost synonymous with that of imperfection in the stomach department of the primary processes of nutrition. The appetite of the scrofulous person may be, and often is, voracious; and you will frequently hear the remark, that the pale, delicate, scrofulous child, eats more than any person in the family, but the food is not well digested; the child is troubled with flatulence, restlessness, and uneasiness after meals, is liable to sick headaches, the urine is high coloured, the evacuations from the bowels unnatural, containing perhaps undigested portions of food.

You are not to suppose, from the predominance of these particular symptoms of indigestion, that the disorder is confined to the stomach and bowels, for it affects, as I have just said, the whole range of the chyle and blood-making processes. The elements of the blood are with difficulty and imperfectly elaborated; the fibrin is produced in small quantities, and is deficient in contractile force; the coagulum is large, loose, and ill-formed; the albumen exists in preternaturally large quantities, for want of the completion of those changes by which it should be converted into fibrin; and this superabundance of the albumen and deficiency of fibrin has been thought to constitute the exciting cause of the whole complaint. With equally limited apprehension of the pathology of the complaint, some pathologists, observing only the stomach symptoms of indigestion, have imagined scrofula to be identical with, or at any rate, entirely dependent on, dyspepsia, forgetting that the dyspepsia, and the ulcer or the other manifestations of the disease, whatever they be, are the result of the same inherent want of tone which pervades the whole body, affecting the nutritive or secondary assimilative processes, as well as the chylopoietic and sanguineous systems.

This same want of vigour which we find in the primary and secondary processes of assimilation, extends also to the development and growth of the child. The scrofulous infant, or the offspring of delicate scrofulous parents, is sometimes monstrous, imperfectly developed as to limbs, palate, or teeth; or it may be that the proper shape of the body is completed, and its proper size attained, but the tissues do not acquire their normal structure at the average period. The bones remain soft, so as to bend under the increasing weight of the body, giving rise to the affection called rickets; at the same time, perhaps, the muscles are observed to be flaccid and inert.

Cases in which the structural development of the soft parts does not keep pace with the growth of the body, are by no means rare. The children in whom there is this defect may appear to be plump and well nourished, grow and are stout enough, but they are dull, flabby, and inert, loll about, and show no animation, no playfulness, or disposition to move, make no attempts to stand or walk, and sleep a great deal; they have no strength in the back, which becomes curved laterally, or from before backwards, and they lie like a dead weight, and make no effort to support themselves in the nurse's arm. The defect is not

confined to the muscular system, for they have little nervous energy, the circulation and digestion are weak, and the skin pale and flaccid. A soft or rickety state of the bones is probably, for the most part, associated with this condition, although the curvatures in the lower extremities may depend upon other causes than the inactivity of the muscles, and the inability of the child to bear upon its legs.

The want of proper energy of development and nutrition in scrofulous children, is observed to be associated more commonly with an absence of proper structural formation, than with deficiency of size. The two are, however, not unfrequently conjoined: scrofulous persons are sometimes dwarfish, or the due proportion of growth between the members is not maintained, so that the infantile type is continued in the child, and that of the child is perpetuated in the man. The cranium remains disproportionately large as compared with the face; and the extremities, particularly the lower ones, do not grow into due relation with the trunk. The small neck, and little legs, are ill able to bear the large head, and the bulky trunk, and probably give way under them. In the later periods of growth the disproportion is observed in an opposite manner, for that development of the trunk, particularly of the chest, which should take place at and after the period of puberty, fails to be accomplished. This is very frequently noticed in young persons whose growth has been rapid in the extremities. It seems as if the powers of nutrition had been expended so much upon the limbs, that no force is left to effect the last work of growth, viz., that of the trunk, and the narrow chest remains for a long time a conspicuous feature in the person of the overgrown youth. The development and growth of the genital system attendant upon puberty takes place slowly, and is delayed beyond its proper period. This is particularly observed in the girl; it is long before the catamenia are firmly established, and the whole system sympathises in the want of energy displayed in the effort at development which should now take place. The girl is languid, unfit for exertion, and liable to a variety of ailments.

You see, therefore, how general is that delicacy and want of force in which I have told you the essence of the scrofulous diathesis consists. It is apparent throughout the structure of the frame, in the soft as well as in the hard parts, in the internal organs no less than in the skin and muscles; and the mental character partakes, for the most part, of the imperfection manifest in the physical formation. It is apparent also in every department of nutrition, in the primary and secondary processes of assimilation, in development of shape and structure, in growth, and in the changes incidental to puberty. One and all of these functions evince a singular want of energy, and an unusual liability to interruption and disorder in scrofulous persons.

Scrofula, or scrofulous inflammation, is most frequent in the early periods of life, when the tissues are soft and fine, the frame delicate, unable to bear exposures, and the nutritive processes, though busy, are easily disturbed. It becomes less frequent as the body gra-

dually attains its full strength, solidity, and power of resisting the exciting causes of disease; and it is comparatively rare in old age, when the tissues have become coarse, dry, and tough.

All the various causes which tend to enervate and reduce the physical and nutritive energies are fertile sources of scrofula. In the upper classes of society, late hours, insufficient exercise in the open air, imperfect ventilation of rooms, and the introduction of heated air into houses by means of stoves, flues, &c. These, and many other causes, combine to weaken the parents, and engender delicate sickly offspring. In the lower classes the crowded dwellings, and unwholesome air in towns, together with insufficient food, exposure to cold, &c., induce the same result. I have often been surprised at the prevalence of scrofula in country places, where the parents and children engaged in agricultural employments, enjoy the pure fresh air from morning to night. I can only account for this by the indifferent food upon which the rustics frequently live, and the small proportion which the animal bears to the vegetable ingredient in their diet, for they feed chiefly upon bread, and approach to the graminivorous animals in the sluggishness of their movements, and the inactivity of their nutritive energies. It may be that the practice of intermarrying, so common in country villages, has some influence, but I do not believe this to be so fertile a source of disease as is generally supposed. The natives of warm regions, who come into cold climates, and animals subjected to the same change, are very liable to suffer from this disease. Monkeys commonly die of tubercle, and you may see in the museum numerous specimens of scrofulous disease of the bones taken from these creatures.

The scrofulous inflammation often breaks out when the bodily powers have been lowered by some other disease; thus the various epidemics among children, such as measles, small-pox, scarlatina, whooping-cough, &c., are always followed by scrofula in a considerable number of cases. The same result may be occasioned in the children by debilitating causes, such as syphilis, or other disease, operating upon the parents, especially upon the mother, during pregnancy. You may often trace the cause of the occurrence of scrofula in one member of an otherwise healthy family to the indisposition of the mother, during the period of her pregnancy with the sickly infant. The children of elderly persons, the offspring of very early marriages, children born before the full term, and twins, are all liable to present the scrofulous constitution, and to suffer the disease.

Of the hereditary nature of scrofula much has been written,—more, perhaps, than the question deserves, for it loses some of its interest when we come to regard the disease as merely an inflammatory affection, with certain peculiarities impressed upon it by the particular constitution of the individual. We thus refer the disease back to the constitution, and have only to consider whether the latter be hereditary. That it should be so is no less probable than that likeness of feature and stature, of temper and disposition, should be transmitted

from parents to their children. Accordingly we may generally discover the signs, if not of scrofula, at any rate, of the scrofulous constitution, among the various members of the same family. Not that this is necessarily the case, because, as I have already told you, both the constitution, and the disease, may be engendered by various debilitating causes, operating upon the parents or the children. Persons are generally much affronted, as well as alarmed, at the idea of there being any taint of scrofula in the family, and you must be very careful how you express such an opinion; indeed, it is wise not to use the word at all in your intercourse with the patients, unless you take the trouble to explain to them that there is no loathsome stream of disease running in their blood, but merely a delicacy of constitution, and an inactivity of the nutritive functions, which occasions a liability to inflammatory attacks, and at the same time renders those attacks sluggish, tedious, and difficult of cure.

It will be some consolation to the inheritors of this constitution to know that they are often long lived, that the disposition to scrofulous inflammation decreases with advancing years, and that they enjoy a comparative immunity from acute inflammatory attacks, and from malignant diseases, during the early periods of life. Though they suffer from chronic lingering sores and abscesses, and a variety of minor ailments, they are not often hurried away by violent bursts of disease. I have said they are comparatively free from malignant disease in early life, which statement may be at variance with some opinions you have met with upon this point, and I only give the result of my own observation, when I tell you that malignant disease does not often affect the light haired, fine skinned, waxy, scrofulous patient, under the age of thirty; in short, that the disposition to malignant disease is slight in proportion as that to scrofula is strong.

The feature of the scrofulous constitution with which we are at present most concerned, is the liability to inflammatory attacks, and to the persistence of inflammation in a chronic form, when it has once commenced. It is excited by the slightest causes. The delicate scrofulous child suffers, perhaps, all the winter long with catarrhal inflammation of the schneiderian or bronchial membrane, with sore eyes, or with diarrhoea; a slight sprain gives rise to long standing inflammation of a joint, or a tap on the leg to necrosis of the tibia. Some children seem as if they could not thrive without a local complaint, for as soon as one is cured another makes its appearance; if that be not so, they are heavy and drowsy, or restless and fretful, as if labouring under a latent malady, or suppressed virus: perhaps they are better when the warm weather returns, or becoming stronger in course of time, they are said to outgrow the disease.

But I must explain to you more at length in what manner the scrofulous inflammation, and the effects produced by it, correspond with the characters of the constitution which I have been describing. I have already, on several occasions, directed your attention to the close relation that exists between the phenomena

of inflammation in each individual, and the mode in which the nutritive processes are conducted under ordinary circumstances. We have found the inflammation of the robust man to be vigorous in its character, active in its progress, and speedy in its termination; its products well formed, its pus thick and loaded with corpuscles, destruction of tissues is quick to follow, and reparation, when established, advances with equal rapidity. We have found, on the other hand, that in the aged and the enfeebled, the disease is less strongly marked; is more lingering in its stages; its products are less perfectly developed; the pus produced by it is thin, containing few and ill-formed corpuscles; the tissues soon ulcerate and mortify, not so much on account of the severity of the disease, as by reason of their own feeble powers of resistance, and the work of reparation is less efficiently conducted than in the former case. In the scrofulous constitution, the very essence of which consists in delicacy of structure, associated with a great want of vigour in the nutritive processes throughout the system, the characters of the inflammation bear as close a relation to the state of the nutritive functions, as they do in the two classes of patients just mentioned. The morbid process in these persons is particularly languid and sluggish, its products are very ill-formed, the tissues are disposed to ulcerate, and the ulcers continue for months unhealed. The cicatrices are thin, delicate, and give way upon slight occasions.

In this correspondence of the inflammation, with the atony of the constitution, lies the key to the pathology of scrofula, and here is to be sought the explanation of those peculiarities which mark the several stages of the disease, and which have acquired for it, in the estimation of many writers, a place in the catalogue of specific affections.

The *symptoms* of scrofulous inflammation are those of a languid sluggish disease. The colour of the part affected is dull blue or leaden, the heat not much above the natural temperature; there is no great excitement of the vascular system, and the pain is not severe. You will be sometimes surprised how little complaint is made by persons who are suffering under large abscesses and extensive ulcers. The general disturbance of the system occasioned by the local inflammation is not severe, and has rather the character of restlessness and irritability than well-marked fever. Now and then, it must be admitted, when the exciting cause is severe, the inflammation is more acute, and is attended with a good deal of swelling from effusion of serum, but even then it has great disposition to subside into the dull chronic affection I am describing.

The characters of the effused *lymph* form one of the most striking and important features of the disease. It is remarkably deficient in contractile power and force of organization. These properties, which are at a low ebb in the fibrin of the blood of these persons, appear to be rather diminished than increased by the inflammatory process; so that the altered fibrin or lymph seems scarcely able to hold together, and consists in great measure of amorphous granules. It often fails to

be supplied with vessels or to form any vascular connection with the surrounding parts, and degenerates into a soft greyish pulpy substance, which acts rather as an irritant to the adjacent tissues, and maintains the inflammation in them. The qualities of this lymph are so peculiar, that it has, by some authors, been described as the characteristic feature of scrofula, and you may often distinguish the scrofulous affection from other disease by the presence, in spots or masses, of this soft, grey, sodden lymph, looking like sloughs at the bottom or in the circumference of an ulcer or an abscess. It is often found in enlarged glands, and has been called, *par excellence*, scrofulous matter, but you are not by this term to suppose that it is anything more than what I have described, viz., soft degenerate lymph, altered and weakened as to its force and vitality by the inflammatory process.

The scrofulous abscess, resulting in part from the imperfect solution of this illconditioned lymph, and in part from suppuration as under ordinary circumstances, is of slow formation and sluggish in its progress, coming tardily to the surface, and remaining open for a great length of time. It is often attended with very little pain or other symptom till it approaches so near the surface that the integuments over it begin to inflame. Very commonly these abscesses are discovered by accident when they have attained to considerable size, and from the small amount of inflammation, of heat, or of pain, that accompany them, they have been called cold abscesses. The pus is thin and contains a scanty number of irregularly-shaped ill-formed corpuscles, together with a larger quantity of granules and fragments of globules, and some oil. Often it is rendered thick and curdy by the presence of little masses or flakes of partially-dissolved lymph sodden in it. Indeed the pus seems for the most part to consist of a substance intermediate between the peculiar scrofulous lymph, which I just described to you, and serum, and it is probably formed in great measure by an imperfect mixture of the two.

The large amount of serum and the small proportion of globules contained in the pus of these abscesses are related to the languor of the attendant inflammation, and are favourable to their dispersion by absorption. You may remember that, when speaking of abscesses, I told you that the facility with which absorption occurs is proportionate to the deficiency of globules in the pus, and that it scarcely ever takes place when they are numerous and the result of acute inflammation. I then said that this mode of termination is more likely to take place in scrofulous than in other kind of abscesses, because in them the pus globules exist in such small number, and do not possess the same irritating qualities that belong to them when they are the product of acute disease. Not unfrequently after the serum has been removed by absorption, the few pus globules are reduced to fragments, and together with the granules and remaining masses of lymph form a soft, cheesy, or putty-like substance, which becomes infiltrated with earthy matter, and remains in a quiet state during the rest of life. In the examination of persons who have died from other

disease, you may not unfrequently find calcareous lumps which have been thus produced in the bronchial and mesenteric glands, and in other parts. Now and then they make their way into the intestinal canal or the air tubes, and are coughed up or pass with the motions. This calcareous degeneration, though most common in the lymph and pus of scrofulous persons, is not peculiar to them, as I have before told you, it may be observed in robust and otherwise healthy subjects.

The scrofulous ulcers correspond with the other forms of the disease. They are generally superficial and often exist in considerable numbers affecting a wide surface of the skin. They disclose grey sloughy-looking beds of lymph at first, and when these are cleared away the granulations upon their surfaces are pale, languid, and flabby. The skin around them is often undermined and blueish, the discharge copious and thin. Cicatrization is generally very slow; sometimes, however it is exceedingly rapid, and large sores are skinned over in quick time. The cicatrices are thin and fine, with delicate aborescent vessels, and are very likely to become again the seat of ulceration.

Now, all these several characters of the disease,—the languid, inactive, lingering inflammation,—the amorphous lymph, destitute of contractile or organizing force,—the thin ill-formed pus,—the facility with which ulceration invades the tissues,—and the slow or imperfect reparation, constitute the peculiarities of scrofula—the differences, in short, between it and the other varieties of inflammation; and these differences are just such as we should expect to find from the particular constitution of the sufferers. Moreover, they are proportionate to the degree in which the constitution varies from the healthy type. There is no well-marked outline between scrofulous and ordinary inflammation, but the one passes into the other by such insensible gradations as to show evidently that there is no essential distinction between them, and, as I have just said, you will find these gradations corresponding very closely with the appearance and constitutional character of the patient.

I have been thus explicit respecting the pathology of scrofula, because, although really a simple matter, it is one concerning which much misunderstanding exists in the profession as well as with the public; and you are likely to be much perplexed in your reading by the various views propounded with reference to it. I think I have given you sufficient reasons for rejecting the opinion of those who regard it to be a specific disease. I have told you to what extent it is to be considered an hereditary affection, and I have warned you against mistaking a part for the whole, by limiting your ideas of it to a disorder of the digestive system or an imperfect assimilation of albumen. The summary of what I have said respecting the pathology of this disease may be given in a few words:—*scrofula is the inflammation natural or proper to the scrofulous person*; the scrofulous person being one in whom there exists an inherent or congenital want of energy of nutrition, showing itself more or less in all its departments in the primary, and secondary assimilative processes, in development and in growth.

With regard to the treatment of scrofula, if it be not a specific disease, you must not expect to find a specific remedy. If you imagine that iodine, or cod-liver oil, or any other medicine is to prove a panacea in these cases, you will find yourselves greatly mistaken. In no department of therapeutics has the treatment of a disease by name been more deleterious than in the management of patients suffering under this disorder. An ulcer is pronounced to be scrofulous, and it is therefore at once judged to be incurable, and deserving no further attention; or the surgeon fires away at random his iodine, cod-liver oil, and bichloride of mercury, without reference to the particular condition of the patient, and at last gives up the case in despair, never conceiving the possibility of his remedies having been inappropriate or ill-timed. It is a scrofulous ulcer, and he has treated it as such. Now, in the superintendence of these cases, it is necessary to bear constantly in mind that you have a very delicate class of patients to deal with, persons of much susceptibility to impressions of various kinds, on whom slight causes produce considerable effects, and that therefore great nicety of discrimination is required in apportioning the doses, as well as in selecting the medicines; and much careful attention must be given to the diet and general management. Further, the disease being of a constitutional nature, you must be content to exercise much patience, and do not delude yourselves into the expectation of working heroic cures.

When a scrofulous child first comes under treatment on account of a local disease, whether it be an ulcer on the skin, inflamed eyes, enlarged absorbent glands, or other affections, there is mostly to be found some disorder of the digestive organs, such as a furred tongue, irregularity of the bowels, tympanitic state of abdomen, &c., in addition to the evidences of general debility, which I have pointed out to you. There are, therefore, three objects of consideration:—the local disease, the constitutional delicacy of the child, and the disorder of the digestive system. Of these, the last presents the greatest claim to our immediate attention, because it is more under control than either of the other two, and because it is very frequently the exciting cause of the local disease, which may subside when it is rectified. In order to effect improvement in this particular, it is necessary to enforce strict attention to diet, which is often no easy matter, for the child's appetite is, perhaps, voracious, and the friends are disposed to indulge it, under the idea that it is a good sign, and in the hope that a liberal supply of food will give health and strength. I need scarcely say how erroneous is this impression. There can be no doubt that a very large number of scrofulous complaints are excited and maintained by this habit of over taxing the digestive system, and the consequent admission into the circulation of crude, half-assimilated, alimentary materials. You will find that there is no plan of treatment so successful in the majority of cases, as that of enforcing a spare and well regulated diet. Meat should be taken by adults once a day, at an early dinner; and to ensure its being well digested, the patient should be allowed besides,

only bread and a small quantity of vegetable, at that meal. With children milk is a desirable article of food, and may be taken at breakfast time, but not in large quantities. You are, perhaps, aware that the quantity of gastric juice secreted is proportionate rather to the wants of the system than to the amount of food taken, so that for complete digestion the diet must not exceed the requirements of the system.

When the tongue is furred, the bowels irregular, and the urine high coloured, much assistance will be derived from the exhibition of mild doses of mercury and rhubarb every night, or every night and morning for some days. Under this treatment alone you will find a considerable number of scrofulous cases will get well, more perhaps than under any other plan you can try.

The next indication is to adopt such measures as may promote the general health and invigorate the system. This is best done by exposure to fresh air, with abundance of light, cold bathing, plain, moderately nutritious, unstimulating diet, exercise and early hours, not allowing too long a period for repose, which engenders rather a sluggish indolent state of the nutritive functions. I believe it is best, in the first instance, to give these natural tonics a fair trial, for they are more effectual than the artificial or medicinal tonics, and they lose their effect less quickly. It is, however, often necessary to have recourse to the latter, and you will find the bitter infusions—quinine and iron—given in small doses, very serviceable in such cases.

It is generally necessary, to intermit the tonic treatment after a time, either because it loses its effect, or because a preternatural fulness, a kind of plethora is induced by it, which the delicate scrofulous system is unable to bear; and unless the treatment be altered when that is the case, relief from the superfluous accumulations is obtained either by the aggravation of the local disorder, or by the formation of some new disease. The pulse becomes quick, the face flushed, the tongue coated, all which symptoms warn us that a fresh outbreak of scrofulous inflammation, an attack of erysipelas, or some other disorder may be expected, unless we take timely precautions to prevent them.

I do not know in what manner iodine acts upon the system in scrofulous cases, nor have I observed such great benefit from its employment as Lugol and other writers would lead us to expect. Surely no one medicine ever had so fair a trial in the treatment of any one complaint as iodine has enjoyed for some years in scrofula. It has been regarded as the specific, and has been almost universally employed; but that it has not realised the expectations that were entertained of it is fully proved by its giving way in the last few years to another rival, which is now in the ascendant on the wheel of fashion. I have never been able to decide in what cases iodine was most beneficial, or when to prescribe it with confidence. So far as my own experience goes it is of less value than the ordinary tonics—quinine and iron—in the treatment of scrofula, and of far less value than a regulated diet, a tonic regimen, and alternative doses of mercurial medicine. I have found it most useful when combined with iron in the form of the

syrup of the iodide of iron, from which, given in doses of a drachm or a drachm and a half, three times a day, I have seen more benefit than from any other remedy of the kind.

Of the cod-liver oil which is now so extensively employed I cannot yet speak with certainty. It sometimes answers remarkably well, but I have not been able to decide in what cases it may be prescribed with greatest prospect of success, nor have I found it so generally beneficial as it appears to be in the hands of other persons. I think its good effects in improving the general health, fattening the patient, and checking the local disease, are more marked in cases of tuberculous phthisis than in the ordinary forms of scrofula.

The scrofulous disease being so much dependent on the state of the health and the disorder of the digestive system, the local treatment deserves only the third place in our estimation, and does not require much attention till we have done our best to rectify those defects which are the primary and fundamental features of the case. Under the general treatment, which I have mentioned above, the local ailment may be usually left to itself, and will often get well. But if the former be neglected a variety of applications may be made in vain, or the disease is driven from one quarter only to make its appearance in another. Of the local remedies that may be advantageously employed under certain circumstances, I will speak when considering some of the manifestations of scrofula in particular regions of the body, which I purpose doing in the next lecture.

In many instances the scrofulous disease seems to serve as a vent whereby morbid accumulations are eliminated from the system. When, under such circumstances, it has existed for a long time, and has become essential to the health of the body, we are obliged, as in the case of other chronic inflammatory affections, to furnish some substitute, if we are anxious to get rid of the existing disorder. Hence it is that permanent counter-irritation by an open blister or a seton becomes one of the most effectual means of curing an old scrofulous disease, indeed it is often the only treatment which makes any impression at all. The various measures above described should be fairly tried before resorting to this, for it is, after all, but a sorry makeshift to cure one disease by substituting another, especially as it sometimes happens that we add a second malady without curing the first. Nevertheless, I do not think the objections to these artificial drains, when other means have failed, are so great as they are imagined to be, because if they do not succeed in effecting a cure, they are easily stopped, and no harm is likely to ensue; and if the result is more fortunate, they cannot be said to habituate the system to depend upon relief from a local discharge, any more than the disease had done for the cure of which they were employed.

ON A PECULIAR ERUPTION ON THE ARMS AND HANDS,

CAUSED BY THE IRRITATION OF THE APHIS INFESTING THE RED CURRANT.

By T. OGIER WARD, M.D., OXON.

In the *Provincial Journal* for September 22nd, 1847, there is a case of "spasm" apparently of the muscles concerned in respiration, from inhaling and swallowing the dust from the dried bodies, with their exuvæ and excrement, of the "pea blight," or aphid infesting the pea plant.

Besides this instance, I am not acquainted with any cases in which these particles have produced injurious effects in persons exposed to their influence, and hence I think the following case is worthy, from its rarity, of being placed upon record:—

On the 6th inst., an under gardener of Lord Holland, with his boy, was engaged all day in gathering red currants from some bushes that were much blighted by the aphides, and were wet and dripping with rain. While thus occupied, they raised the boughs with their left hands whilst they gathered the fruit with their right, and in so doing their arms, which were bare, were covered with a quantity of black dust, which in consequence of its being wet with the drippings from the boughs, adhered firmly to the skin, nearly to the elbow of the left arm, and to the middle of the right forearm, and remained thus till they washed themselves on quitting their work in the evening.

The next morning the under gardener observed his arms to be red and tingling, which was followed by an eruption of vesicles upon those parts that had been covered by the black dust. This irritation continued to increase for two days and lasted about a week, terminating in some places by desquamation of scales resembling those of eczema, leaving the skin beneath thickened, red, and shining; in others, from which all appearance of inflammation had subsided when I first saw the man on the 16th, the skin was stained in streaks, spots, and patches of a purplish brown, resembling in colour the stains of a weak solution of nitrate of silver, but in form and general appearance the marks were such as leaves dripping with colouring matter would leave on his arms while brushing through them. At this time only a few crusts and elevations of the skin in streaks remained, but the discolourations were so remarkable that all his neighbours were enquiring the cause; although from constant exposure to the sun his arms are tanned of a deep brown.

The boy was affected in a similar manner, but not so severely, nor to the same extent; and his arms are now nearly free from any spots or streaks; but his father's are still almost as much discoloured as when I first saw him, and where the eruption was most violent the cuticle is still thin, red, and glistening.

The general health of both man and boy was quite unaffected during the continuance of the complaint, which was treated by bathing the affected parts with warm water.