AN ADDRESS

ON

THE STUDY OF SKIN DISEASES AS
ILLUSTRATING THE DOCTRINES
OF GENERAL PATHOLOGY.

Delivered at a Conjoint Meeting of the Worcestershire and Herefordshire, Bath and Bristol, and Gloucestershire Branches of the British Medical Association, held at Gloucester.

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MR. PRESIDENT AND GENTLEMEN,—I am desirous to bring before you a few illustrations of general laws, applicable to all pathological processes, which find instructive illustration in the domain of skin-diseases. Of these, I will take, first, the infectiousness of all inflammatory processes. The first and simplest of the statements to be made under this head is that inflammations of the skin of almost all kinds show a tendency to spread more or less rapidly at their borders. Erysipelas spreads, as is well known, at its edges, and leaves the parts first affected; and it does so in virtue of a particulate contagium which is produced in the course of its special type of inflammation. It is, however, although one of the most rapid spreaders, by no means the only one. The patches of eczema spread, though more slowly, and those of psoriasis more slowly still, but not less surely. In this latter malady rings may be produced, by the healing of the skin first affected and the gradual advance of the chronic inflammatory process at the margins. These rings are often quite as definite as those of ringworm, or as the fairy-rings seen in pastures. Respecting the two latter, we know that the annular form is due to the advance of a living fungus, which flourishes at the edge of the advancing area, and dies in the soil which it has exhausted. Often its death is not complete, and a nummular patch rather than a ring is the result. This condition of round patches, due to eccentric spreading without central recovery, is far more common in skin-diseases than is the true ring.

Amongst the diseases which illustrate infectivity by their seriginous or creeping tendencies, we have all forms of lupus and of its syphilitic imitations. These diseases, as everybody knows, spread at their edges and heal in their centres, and that their spreading is due to contagion by continuity of tissue is made certain, not only by observing their advances, but by the measures of treatment which we find effectual for their cure. These measures mainly consist in the destruction of the advancing edge; just as we beat out a fire which is spreading over a heath. If such a fire be once conclusively put out it will not relight itself, and no more will a patch of lupus begin again if once all its cell-elements have been utterly destroyed. It is the extreme difficulty in the case of lupus of really destroying all the infective material which makes complete cures so rare. We do, however, obtain them with sufficient frequency to justify the assertion which I have made.

The argument and the illustration just used leads me to another development of the laws of contagion in reference to skin-diseases. I refer to the production of what are called satellites. In the case of the heath-fire, spreading can take place on the surface only, but in the highly organised structure which we know as skin there exist arrangements which make it possible for the infection to spread for a certain distance under the surface. This is probably brought about by the conveyance of infective germs for short distances along the lymphatic spaces. The term satellite is applicable, I think, to any sore, or patch of new growth, which is produced in near contiguity, but not in continuity, with a parent one. The little glossy nodules of cancer which are often seen scattered in the skin overlying a scirrhus breast are satellites. Clearly they are due to some local infection, and not to blood-transference or to constitutional tendency, for they occur only in close contiguity to the parent growth. The surgeon knows well that they mean that germs have been taken up into the lymphatic spaces, and have spread widely around, and it will avail nothing to operate unless he is prepared to flay one-half of the thorax. The so-called *scirrhus en cuirasse* is a late result of the coalescence of

satellite growths of cancer in the skin. In lupus we have every day illustrations of the formation of satellites. It is seldom that a lupus patch is without them, and hence, as just observed, the difficulty in effecting a complete cure. Thus we find lupus behaving, so far as its local processes of contagion are concerned, exactly like a malignant new growth. Let it not be said in reply that lupus is contagious because it possesses a specialised microbe or bacillus. Other diseases of the skin which, so far as we know, are simply processes of inflammation, psoriasis, eczema, and the like, show just the same tendency to infective spreading and the production of satellites. Our conclusion ought, I am sure, to be, that all products of the inflammatory act are contagious, and that they tend to produce their like under laws more or less similar to those under which we witness the invasion of the whole body by cancer. The forms of disease which have been proved to be attended by special microbes differ probably from those in which such connection has not yet been demonstrated, only in that they have become more definitely specialised. No doubt the microbe is one of the elements of contagion, but that it is an essential one we may doubt, unless, indeed, we prefer to take refuge in the creed that microbes exist potentially in all inflammatory products and receive their specialisation in the act of inflammation itself.

The broad assertion which I have just made, that all inflammations are infective under similar laws to those, the operation of which we witness in cancer, anticipates somewhat the facts which I have adduced. I have not as yet said anything as to the probability that infection may occur by means of blood-transference. It is well known that in some forms of cancer neither blood-transference nor lymphatic-conduction are common, notably the form of epithelioma known as rodent ulcer. In others, and I may mention as the best instance melanosis, blood-transmission appears to be very easy, and the patient may become covered over with a thousand new developments of his malady, the seeds of which have been shed from the parent growth or from its progeny. If, then, we liken the infective blood-diffusion of some inflammations of the skin to what occurs in malignant disease, we must remember that in the latter there is wide margin for difference in different forms. It is not every cancer which rapidly spreads through the blood, nor is such a tendency always observed in the skin-diseases which often illustrate it. It is its possibility and occasional occurrence, and by no means its constancy, which I am here concerned to assert.

Our first illustration of blood-contagion of an inflammatory skin-disease shall be taken from one which but rarely spreads in that manner. I allude again to lupus. Lupus, as a rule, is a single-patch disease with satellites, or at best it is only sparingly multiple. Now and then, however, we encounter cases in which the patient is covered over with separate lupus patches. In such the patient is usually a child, and the patches are never arranged with symmetry. Probably blood-infection is more easy in youth. There are many clinical facts which support such a view. I show you here a portrait of one of these multiple lupus cases, and I wish to prove that the disease began rather acutely, and that the patches at first had more the character of inflamed and eczematous patches of skin than of common quiet lupus. As time went on they assumed, however, the latter character, and there could be no doubt as to the diagnosis. The child who was the subject of the disease was four years old, in excellent health, and free from the slightest suspicion of syphilitic taint. A patch of inflamed skin appeared first on one arm, and soon became covered with scab. Then rapidly others developed on the face, ears, trunk, genitals, and limbs. There was a distinct interval, though a short one, between the appearance of the first patch and the development of the general eruption. I speak of a general eruption not without justification, for not only were the patches which subsequently became lupus very numerous, but there were many other pustules, papules, and small furuncles, which never took on that character. The portrait shows the child in the condition in which he was when he first came to me, and when the disease had existed some months, and he had exhausted the ingenuity of several very able advisers. You would not take the disease for lupus at all, but I may assure you that the boy's present condition would leave no doubt. It is to-day almost exactly like this other portrait of another patient, in whom there was almost exactly the same history. Now the question for us to put is this, Shall we prefer to believe that these patches were all developed independently of each other, and in virtue of constitutional tendency, or by sheer destiny; or shall we suspect that the first was due to a local injury, and that the rest followed by infection of the blood from it? We know that lupus is locally infectious, and that it can produce satellites; and for my part I find but little difficulty in taking the step which asserts the further possibility of blood-infection. That theory seems to me to account most easily for the phenomena.

I pass from lupus to eczema, and ask next as to what are the laws under which eczema may become multiple or even universal. As a rule the beginnings of eczema are local only, and it often remains local for long. A patch of chronic eczema is, however, a constant danger to its possessor, for there is great risk that it may some day blaze up as a general eruption. We see cases of general eczema chiefly in young children and in old or almost elderly persons. In children it almost always spreads from eczema of the scalp, and in adults from eczema rubrum of a leg. In children the eruption, although it may be abundant, rarely becomes universal; but in elderly men it is often so, and a most formidable disease it is. My almost invariable experience is that, in going into the history of such cases, it comes out that the patient had for long had a neglected patch of eczema on one leg. From this patch the disease spread. I by no means wish to ignore the influence of constitutional causes and of diet in favouring the spread of eczema; but, whilst admitting them to a share, I still believe that an infective process is by far the most important influence. If you let eczema alone, it becomes worse and worse. Self-aggravation is its law, and that aggravation is brought about by infection, in part local and in part through the blood. The moral of this is obvious, and it is very important. In all stages of eczema, sedulous efforts should be made to suppress it locally. Attend to the general health by all means and in all practicable directions, but, above all, kill the disease locally, for, if you do not, it will infect other parts. This rule is not applicable to eczema alone, but to all diseases of the skin in which infective processes take any share. It is the key-note of a large part of the therapeutics of the skin.

There is yet one further remark which must be made before I quite leave the subject of blood-infection. It is, I think, quite possible to allow this law to explain the increase of some maladies which, at first sight, might appear to advance under some other influence. I allude to those which become not only general, but which are definitely symmetrical. Where accurate symmetry is observed, we may reasonably feel inclined to suspect some deeply placed constitutional cause. I refer to such diseases as lupus erythematosus, xanthelasma, some forms of nail disease, and possibly even to psoriasis. We must not suppose that when germs, the products of inflammation, are let loose in the blood, that their selection of locality in which to flourish is quite without plan or discrimination. They have presumably a preference for tissues the same in kind to those from which they have themselves taken birth. If I may venture so bold a comparison, it is as if Englishmen were compelled to emigrate; they would certainly exercise selection as regards their place of location, and would choose a climate and land similar to those which they had left. New Zealand, Australia, and North America would be selected, the tropics for the most part avoided. So it may be with the germinal elements which are the causes of infective contamination, if distributed they grow with greatest freedom in the parts of the body on the opposite side which correspond with those which they have left. Thus there may be produced a definite tendency to symmetry. It is a case of preferential colonisation. I have so often adduced what Mr. Simon called "necrosal fever" as an instance of blood-infection and preferential location of new foci of disease that I am almost ashamed to mention it again. It, however, so well clinches the argument which I have just used, that I am unwilling to forego its aid. In this disease one bone, usually the tibia, is attacked by acute periostitis, usually after some slight injury, and subsequently a number of other bones suffer in similar fashion. There is always an interval between the beginning of the disease in the first bone and development of disease in the others which suggests that these latter have been infected by it. This interval is of the greatest importance, and must never be neglected in our attempts to estimate the relation to each other of the different phenomena. If they were due to a common cause, they would probably develop simultaneously, but if we find that it is a constant fact that one local development precedes by a definite period all the others, then we may reasonably suspect that it has been the source of infection which has produced them. The relation is the same, although I must admit with important differences, as the chancre bears to the rash of syphilis.

RAYNAUD'S DISEASE, KAPOSI'S DISEASE, ETC.

When we have pronounced the words "Raynaud's disease," what is that we have accomplished? What are the phenomena which, newly described by that excellent observer, have since been associated, very properly, with his name? Did he discover a new cause of diseased action, one which always and in all persons is potent to stamp its peculiarity on the effects which follow, as we witness them for instance in the case of syphilis; or was it rather that he described certain appearances due to a conjunction of causes, which may vary in pro-

portion in different cases, and which for that reason are seldom exactly alike in any two? The latter rather than the former was Raynaud's achievement. He seized upon certain results of what we may style functional disturbance of the circulation, which are, in their slighter forms, common enough, but which, in exaggerated instances, assume very peculiar features. It had long been known that exposure to cold would produce blueness of the extremities in some persons, and that in others the fingers might die, that is, become white and tallowy. To Raynaud we owe the observation that these conditions may in some cases advance to a point which involves danger to the integrity of the parts, and may result in symmetrical gangrene of the tips of the digits. The conditions differ from those of frost-bite chiefly in that they are due rather to peculiarities in the individual than to the severity of the exposure. Very often there has been no extreme chilling, and cases may even be observed when there has been no frost.

If anyone imagines that Raynaud's disease is a rare malady, complete in itself, always the same, *sui generis*, a morbid entity—to use current but as a rule very objectionable expressions—he is far indeed from the truth. It is a condition which admits of infinitely varying degrees of severity, and to which many thousands of persons are liable in its slighter forms. I have said that there is a difference between this disease and frost-bite, and may now add that it is far from being identical with chilblain, though without doubt all these affections, or rather liabilities, belong to the same group, and have more affinities than differences. Those prone to Raynaud's phenomena would, far more than others, be liable to suffer from frost-bite, if exposed to severe cold.

It becomes of great interest to determine what are the causes or antecedent conditions which bring about the phenomena in question. Clearly, in the first place, they are of nervous origin, and depend upon the influence which the sensory and vaso-motor nerves exert upon the local supply of blood. We must then recognise first inborn and inherited peculiarity in this respect. No two people are, perhaps, exactly alike as regards the ease with which vaso-motor disturbances may be produced. In some persons the *digitus mortuus* is induced by the slightest cause, such, for instance, as putting the hand into cold water; whilst in others no amount of exposure will cause it. Roughly speaking, we may conclude that chilblains result from inherited peculiarity of tissue as regards susceptibility to cold, and dead fingers from peculiarity of nerve function under similar influences. Yet there is no doubt that this vaso-motor nerve peculiarity may be to some extent local only, for only one finger may be liable to suffer. In addition to inherited peculiarity, we may rank as the causes of local asphyxia of the extremities (a synonym for Raynaud's disease) the influence of malaria, of exposure at some former time to severe cold, any exhausting disease, and, above all, the disturbances resulting from the sexual functions. As regards the latter, we may note that these conditions occur neither in the very young nor the very old, and that the period at which the sexual function is most active is precisely that most prone to Raynaud's disease, and further, that it is often seen in hysterical and feeble persons who are injuriously influenced either by menstruation in the one sex or nocturnal emissions in the other. The efficiency of sexual intercourse and of menstruation in inducing subjective chilliness and cold extremities is well known. Time does not allow me to go into any detail on these topics. They are obviously of great interest, and suffice to lift this disease out of the category of pathological curiosities, and place it far indeed from being a mere elaboration of the specialist.

I will next ask your interest to another difficult but perhaps allied disease. Certain children who are born with the appearances of perfect health, become liable in early childhood to have the parts irritated which are exposed to the air. The face, neck, upper extremities, and legs become first chapped and sore, then eczematous, then pigmented and covered with stigmata. These conditions, if well marked, constitute what is known as Kaposi's disease, or xeroderma of Hebra.

I have yet to add that, as time goes on, much greater lengths in peculiarity of process are attained, and that the patient whilst yet a child may have large, bossy new growths on the nose, cheeks, and ears, which will run on into epithelial cancer. What a lesson in pathological possibilities have we here! A proclivity which is in the first instance simply a tissue unsoundness, involving extreme liability to chapped hands and face, may advance to a disease which entails most grievous disfigurement, and even destroys life. The wonder is, however, not yet complete, for it has been noted that if the family consist of several children, more than one invariably suffers. In fact, we have in Kaposi's disease the best instance which can be brought in proof of the reality of what are known as family diseases. The recognition of family diseases involves the acceptance of the creed that it

is possible for the union of two individuals in marriage, neither of whom have ever shown the disease in question, to produce offspring so constituted that not one, but several, shall show proclivity to tissue-changes of the most peculiar and remarkable kind. This is certainly one of the most noteworthy facts as regards heredity with which we are acquainted. In other domains of clinical observation, it receives illustration in such maladies as retinitis pigmentosa, coloboma iridis, deaf-mutism, and colour-blindness, whilst in dermatology ichthyosis almost offers a parallel to Kaposi's disease.

[To be concluded.]

AN ADDRESS

ON

THE POSITION OF THE GENERAL PRACTITIONER WITH REFERENCE TO THE WORK OF THE PROFESSION.

Delivered at the Annual Meeting of the Yorkshire Branch.

By CLAUDIUS GALEN WHEELHOUSE, F.R.C.S.,

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GENTLEMEN,—It was my privilege and my great pleasure to be present, by invitation, a short time ago at the annual meeting of the Lancashire and Cheshire Branch, the largest—save only one, the Metropolitan Counties—of the many Branches of which our Association is formed. I went to that gathering for a double reason and with a double intention. I went first because I was invited as an honoured guest, and secondly because, as far as it lay in my power, I was desirous to do honour to an old and valued friend, with whom, and in whose companionship, work for our Association had been raised to the level of happiness, and in giving to whom his reward I was earnestly anxious to take part. Moreover I desired, for my own benefit, to learn all I could gather from the meeting of my friends, to hear what they had to say, to note how they celebrated their annual gathering, to see how they dealt with their membership in the British Medical Association, and to learn the value they placed upon it.

Well, they had not much work to do; they seemed to treat their annual meeting rather as a festive than as a scientific occasion, and to make high holiday of it; and, after just a sufficient spice of professional and scientific introduction, we all plunged freely into the enjoyment of a social happiness, wherein the pleasure of each one seemed to be the enhancement of the pleasure of his friend or neighbour. Then we all dined cheerily together, and made a series of speeches, which will have been sadly thrown away if they do not make better practitioners, better friends, and better men of us all. The subject of the Presidential address was one which came home with vivid interest to my mind, for it was one on which I have often been led to think both long and seriously, on many occasions during my professional life; namely, the "position of the general practitioner with reference to the work of the profession."

Among the many who are all doing good, if distinctive, work for our profession—the professor, the clinical teacher, the consultant, the pure physician, the pure surgeon—where does the general practitioner fit in? and then I could not help thinking of the *means* with which each works; and the *uses of medicines* seemed to me to be a subject which I might well suggest for your thoughts to-day. It is true I had often thought of this before, but Dr. Ball's address, to which I listened with a very hearty interest, confirmed me in my desire to carry his thoughts on a little further, and to offer this subject for your consideration to-day.

Let us think of the general practitioner in the work of his everyday professional life. Beyond question or dispute he is the backbone of the profession. To him it is that the public must and do look for that ever ready sympathy which places him at all times at the beck and call of everyone, to minister not only to their graver and more serious illnesses, but to the more transient aches and pains, and lesser discomforts of their daily lives; which makes him, in fact, the ready servant, the sympathetic friend, the skilled adviser, the trusted and intelligent confidant of every family he is called upon to enter, and a member of society whose place could in no other way be supplied.

But if these were his only functions, he would be doing no more

than those who tread the easier and loftier walks of professional life; he would only be working in a different sphere, and shaping his efforts to a different end. He has other opportunities for good, and, if he fulfils them in the true spirit of the love of his profession, his labours rise to the dignity of work second to that done by no man. It is his to watch the evolution and development of all forms of ordinary disease; his to take note of the course and tendencies of epidemics; to watch, to note, and to make known all the variations assumed by common diseases; and his to start the workers in the so-called higher grades of teaching—the physiologist, the bacteriologist, and even the specialist, in their various and useful walks in life.

By whom, if not by the general practitioner, has "public medicine been brought to the standard to which, in our day, it has attained?" Who but the general practitioner has tracked out the devious and insidious pathways by which diseases and death enter our houses and then our families, carrying off those who are our dearest; and who but he, with sword drawn, stands ever on guard and ready to bar their entrance?

What has become of the ague of our forefathers? What has become of the small-pox which formerly decimated the world? What of the fatality which in former times marred all the best surgical work of the world, and dogged the footsteps, day and night, of the most careful obstetricians? To whom, if not to the general practitioner, is the world's victory over all these to be ascribed? To stand as a unit in the great army of workers for the public good is a privilege of which we may every one of us be justly proud; and whenever I am asked for the patent of the true nobility of my profession, I point proudly to public and preventive medicine as a work greater than that accomplished by any other section of the community.

The general practitioner of to-day takes, year by year, a higher position in society. Bob Sawyer and Mr. Benjamin Allen are dead and buried, though they will never be forgotten, and in their places we have the thoughtful, the intelligent student, the practitioner of judgment and sound knowledge, the highly trained and educated medical man—in one word, the "gentleman."

The pathology of to-day is a wholly different science to that which prevailed in the days of even our own immediate fathers. Science has given us instruments of precision of which they dreamed not, even in the wildest flights of their imagination. Education has taught us how to use and apply those instruments, and how to read and translate the problems they lay open to our study; and, in so far, medicine has been advanced in the scale of the "exact sciences," and bids fair, ere very long, to have cast off entirely the opprobrium of mere empiricism.

In the prevention of disease, in clearness of diagnosis, in knowledge of the physiological and chemical facts of disease, we stand on ground to which our fathers could only venture to aspire, and we trust that, in another half century, it will still be so, and that our children will be able in their turn to pride themselves on advances equally great. They will probably have conquered a whole tribe of bacteria and micrococci, and other invisible enemies; will have so reduced their virulence by cultivation, and have so prepared the soil into which they introduce them for their safe development, that they shall have been converted from bitter foes to welcome friends; that scarlet fever, diphtheria, measles, typhoid, typhus, and all zymotic diseases will, like Messrs. Sawyer and Allen, have become only things of the past.

Of our three hitherto invincible enemies—hydrophobia, phthisis, and cancer—the first, we have reasonable ground to hope, has received its death-stab at the hands of M. Pasteur; the second is being watched so closely by skilled eyes that it cannot eventually escape, and who will venture to say that they may not have overcome even cancer itself?

But now to the other idea to which I wish to lead your thoughts. How, *and with what arms*, will they have won these triumphs? The microscope will undoubtedly continue to aid them as it has done us, but is *pharmacy* to have no share in helping them? Are all drugs to be discarded, and relegated (as Sir William Gull tried lately to persuade some of us they are already) to the shelves of curiosity-mongers and their museums, as things wonderfully believed in and over-rated in bygone times? Have they no virtues, no powers, no healing charms? "Drugs!" exclaimed Sir William Gull at the late meeting of the General Medical Council; "we want no drugs. Drugs never cured anyone. A warm bed is better than all the drugs in the world for the sick."

Surely, the worthy baronet was carried a little over far by his enthusiasm in saying this, for who amongst us is there who does not hold a profound belief in the value and efficacy of those medicines by which we know that every day of our lives we combat and we can and do cure disease? Will the Indian or the African believe your