Croonian Lectures ON THE LOCALISATION OF DISEASE.

DELIVERED BEFORE THE
ROYAL COLLEGE OF PHYSICIANS.

BY
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LECTURE III. (Continued.)

PERMIT me to recur to some of the individual diseases to which I have already ventured to draw your attention. With regard to none, probably, have more authoritative opinions been expressed, or more absolute rules of treatment laid down, than with regard to pneumonia. With regard to none have ancient doctrines, or rather the doctrines of our youth, received a more severe shock, than with regard to the one in question. And that this is not a mere speculative consideration, but one involving life and death, is demonstrated by statistical proofs, showing a frightful mortality when the nomenclature involved venesection and large doses of tartaric acid of antimony, and a comparative freedom from danger since pneumonia has been regarded as a local expression of a general state of malnutrition, in accordance with which we now determine our treatment. Specific treatment—war to the knife against an enemy whose power appeared great in proportion to the obscurity which surrounded him—has yielded to methods of treatment in which, if I trace any principles at all, I see a desire to regulate both the local and general nutrition of the body, so as to restore the part to its normal condition, and to enable the system at large to bear the temporary impairment of an essential function. Specific treatment is essentially bad, because it implies that the disease is essentially the same, wherever it occurs. Given certain symptoms of dulness, crepitation, rusty sputa, cough, and dyspnoea, and the specific treatment is at once brought to bear in all its force; the consolidation of the lung is the enemy, and the human being is lost sight of in the desire to conquer the particular demon that has taken possession of him.

Such, however, so far as I am acquainted with the views of British teachers and practitioners, is no longer the procedure that finds favour; and, if we are now treading a more legitimate and truly scientific path in the treatment of this and other diseases, I cannot but trace a part at least of the reform that has gradually been wrought in us to the teaching of my great and lamented friend Sir John Forbes, who, when polypharmacy was yet rampant, boldly advocated the study of the natural history of disease, in order that we might be weaned from our faith in specifics, and learn to know the rational guidance to which Nature, in her normal and in her perverted conditions, is amenable. Like all reformers, he may have gone further in his zeal than we now approve; and it is not surprising that, among those who regarded medicine as a trade, rather than the

noblest of professions, an outcry should have been raised against his apparent heresy in asserting that legitimate medicine often did more harm than good. But it does not follow, because one man withdraws so much blood from his patient that his chances of recovery from a disease are destroyed or reduced to a minimum, that there may not be circumstances in which the abstraction of blood relieves local congestions, and so favours a recovery, which is at the same time promoted by sustaining the nutrition of the system at large. Nor may we argue that, because we have been called to a patient who has been brought to the verge of the grave by indiscriminate purging, we had better leave our patients to die with an accumulation of fæces in their intestines, than use the appropriate means of inducing their expulsion. Naturally inclined as I am to be sceptical of the interpretation which I individually put upon the connexion between the remedies employed and the results in an isolated case of disease, I cannot, with increasing age and experience, refuse to believe that there is in the legitimate employment of medicines a vast scope of good; and that, where we fail, we should blame rather our own short-sightedness than the absence of the appropriate agents. If, as I tried to show on a former occasion, there are many portals through which disease may enter, many sources and means by which malnutrition may be induced, it seems to follow as a necessity, that there must be corresponding methods of rectification.

Therefore, to return to pneumonia, it seems unreasonable to suppose that any one mode of treatment can be the best for all conditions of the body in which inflammation may be localised in the lung-tissue; and, seeing how various modifications equally lead to a satisfactory result, it is more in accordance with scientific argument to seek for the explanation in the varying reactions occurring under different conditions. The old doctrine of the "crises" still holds good, though likely to be revived in a more precise and tangible form; and when we can measure accurately the changes in the nutrition of the body in subjects of the many taints which have received distinctive names, as well as those for which no names have been devised, we shall also be able with more certainty to fix and apportion the remedies calculated to restore the exact element that is wanting, or to counteract the excessive production of another, as well as to adjust the mere disturbance of the normal balance of the forces.

I apprehend that all who have watched pneumonia at the bedside must arrive at the conclusion, that it is far from being a nosological entity of uniform character and course. In most, if not in all cases that come under our observation, there are individual peculiarities pointing to an antecedent taint; and, though we may not as yet always be able to formulise these peculiarities, the instinct of the intelligent practitioner leads him to variations in treatment which have a firmer basis than mere caprice. Pneumonia occurring in a scrofulous subject is not the same as that which we meet with where rheumatism or gout or erysipelas have sown their seeds, though in each the local symptoms may be, or appear to be, the same; and though I should have a difficulty, even were more time at my command, to place before you a picture whereby each variety might be recognised, I may safely appeal to your own knowledge of disease in confirmation of the

general fact averred. We have thus, I think, a means of explaining why in one case it is more profitable to act upon the skin, in another upon the bowels, in a third upon the kidneys; while in all it must be equally our duty to support the general powers of the system in a ratio commensurable with the tax which the local disease puts upon it. The great difficulty which the earnest and conscientious inquirer meets, in seeking to ascertain the value of therapeutics, consists in the absence of certain indicia by which he can measure the exact effects of the drugs he employs. The influence of diet and regimen is so great and paramount, that he dare not neglect them; and, although we may feel morally certain, after large experience, that certain results can only be produced by medicinal interference, it is rare to find the case in which an *experimentum crucis* can be made. Statistics as yet go for very little, because the basis of comparison is not fixed; and one well observed case, where all sources of fallacy are excluded, is worth a hundred taken at haphazard and under the ordinary routine of observation.

The subjective feelings of the patient, though not to be disregarded, cannot be a standard, until we have independent methods of measuring them; and here we may expect great good from the indications which it would appear that the thermometer gives, not only as to the course of the disease but as to the influence exerted by particular drugs. As all correct interpretation implies a logical power of the mind, so here of course the value of the phenomena can only be determined by the physician endowed with well-trained reasoning powers. If a patient labouring under any given disease, say rheumatic fever, and who is under constant supervision, remain for a long period with no other treatment than that supplied by careful hygienic measures, as to ventilation, warmth, rest, and diet, and fail to make satisfactory progress—the pulse remaining quick, the perspiration very acid, the joints painful, and the whole system as ill at ease as persistent pain and fever, with a temperature ranging from 101° to 103°, involves; if, under such circumstances, medicines are given without any other change in the treatment, and they are followed by a steady and permanent decrease of the pulse, of the temperature, and all the other symptoms, the scepticism which would resist the conclusion of the beneficial influence of the medicines would, I apprehend, be amenable to a charge of wilfulness. If, as we so often see in the highest classes, where all sanitary care is taken of the child, and where there is no lack of proper food, we find certain symptoms of disease yielding to the administration of cod-liver oil, it would be unreasonable to say that it is nothing but nasty food; for it does what wholesome and sufficient food failed to do, it supplies an element of nutrition which the digestive powers could not extract from the ordinary aliment. These instances of logical inference with regard to therapeutic agents in the strict sense, are drawn from actual observation, and will doubtless suggest others of a similar character to your mind.

However, I fear I have wandered somewhat from the thread of my argument. My object in the present lecture has been to show, by reference to therapeutics, that the prevalent modes of treatment tended to the same conclusion as the one which I have sought to enforce—that all disease is primarily a fault of

general nutrition, and that the local phenomena of disease take their origin in it, as the plant is rooted in the ground. The nutritive derangement is the essential, the local disease the accidental occurrence. We have briefly considered what is commonly done therapeutically in that class of diseases in which the lung-tissue is inflamed; and we saw reasons to believe that a variety of primary phases of malnutrition may lead to that pathological condition, and, therefore, that various modes of combating those different forms may lead to the same desirable issue of cure, while in all there must be a similarity of treatment as to the main indication of allowing Nature to accommodate herself temporarily to, and finally to throw off, the morbid products. We are unable to explain the affinities existing between definite morbid influences and particular organs; and we are yet more in the dark as to the peculiar but undeniable affinity which exists between certain medicinal agents and certain organs and tissues of the body. Why the irritant property of cantharides travels directly to the kidneys, why ipecacuanha influences chiefly the bronchi, why opium promotes the secretion of the skin while it arrests all other secretions, why strychnia specially acts upon the spinal nervous centre, are problems which greater knowledge of Nature's workings will enable us to refer to more general laws; but which at present we must content ourselves to accept as facts upon the empirical basis alone. I will not lose myself in speculations as to their *modus operandi*; but it appears that all those agents that are most powerful for good in combating disease, influence in the most marked manner the entire nutritive system, and manifestly produce their beneficial effects in proportion as they promote or check the metamorphosis of the tissues.

The physiological conditions characterising the two sexes, and the different ages of mankind, afford us very positive indications for their corresponding diseases upon the same basis. Thus, if we only consider Mosler's table* of the relative excreta of childhood and adult life, we find that in the former nearly treble the amount of waste occurs that we meet with in the latter. Accordingly we find that their morbid conditions are influenced and rectified more directly and uniformly by attention to their secretions than analogous conditions later in life. Nor are we surprised to find that the percentage amounts of the various secretions show a remarkable predominance in childhood of the skin over either kidneys or intestines—a fact that we might have assumed *a priori* from the activity of their surface-circulation, and from the facility with which skin-diseases are produced in young children either from internal malnutrition or from neglect of cutaneous hygiene. It is a fact that forcibly inculcates the danger, long insisted upon by practical men, of curing the skin-disease without reference to the physiological relations of this important organ or congeries of organs, while it affords certain evidence of

* One kilogramme of body-weight excretes in twenty-four hours:

	Urine.	Fæces.	Skin & Lungs.	Total.
	grammes.	grammes.	grammes.	grammes.
In children	81	21	58	155.
In young women ..	38	3.25	17.5	58.75
In young men	38	7.73	20.1	65.83

Percentage amounts of the secretions:

	Urine.	Fæces.	Skin & Lungs.	Total.
In children	53.3	13	34	100
In young women ..	64.7	5.5	29.8	100
In young men	68.2	11.6	30.2	100

the manner in which an arrest of cutaneous functions gives rise to diseases of internal organs. The affinities of medicines for certain tissues often depend upon the physiological relations of which an instance has just been adduced.

To return to the subject of skin-disease in the child. There is probably no internal remedy which, given with laxatives, is found so uniformly curative as steel-wine, or some mild preparations of iron. Now, no one asserts a specific relation between chalybeates and the skin; but it is evident that the disease, depending upon some form of malnutrition ordinarily involving a loss of iron from the blood or the tissues, is removed by its exhibition; in the same way as the cutaneous circulation manifested the disease, so the remedy necessarily causes its withdrawal from the surface, and thus the sympathy between tissue and medicine is held to be established.

There are other broad features of physiological variations of nutrition which are recognised at different ages. The acidity of the secretions in early life, contrasted with the tendency to alkalescence in the later periods of our existence, affords an explanation of some of the deviations from health, and the consequent treatment that prevails, or ought to prevail. In the same way, we look at different periods of life for the predominance of one or the other organ, because the physiological increase of activity and vigour entails an easy divergence into excess or default which constitutes disease and calls for medical aid. But at the bottom of all these physiological conditions lies nutrition; and equally their derangement implies a derangement of the functions constituting and determining nutrition; therefore, to restore the healthy balance, we must, above all things, seek the means of restoring the healthy nutrition. That this really is the guiding principle of medicine, is shown by the extremely limited number of drugs employed by all physicians of large experience; and those drugs are almost all such as are intended more or less directly to influence nutrition, and only indirectly to affect any particular disease. In fact, as I have already tried to show with regard to pneumonia and skin-diseases, physicians have discarded specific treatment on principle, and only nominally retain it where as yet our knowledge of the manner in which particular drugs act fails to give a satisfactory explanation; though the analogy of the unknown with the known may justifiably be assumed from the effects.

[To be continued.]

THE HEALTH OF TROOPS IN CHINA. Colonel Sargent, in remarks on this subject, thus speaks of the services of Dr. Gordon:—"The 95th Regiment was remarkable for its good officers; and it had the advantage of being under the medical care of Dr. Gordon, a man of great skill and energy, who slaved at his duty night and day. Notwithstanding the favourable circumstances of good care, housing, and excellent medical attendance, the disease continued its ravages until the regiment was removed to three good large merchant vessels that were hired for the occasion. Dr. Gordon concludes a letter to me on the subject by saying, 'But for the removal of the men into the vessels anchored in the Bay, the mortality would have been very much greater. It was the salvation of the regiment.' Dr. Gordon is now surgeon-major of the 69th."

Illustrations

OF

HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

LEICESTER INFIRMARY.

TWO SUCCESSFUL CASES OF OVARIOTOMY.

By C. H. MARRIOTT, M.D. Lond., F.R.C.S. (by Exam.), Surgeon to the Infirmary.

CASE I. L. P., sent to me by my friends Mr. Whitchurch and Mr. Barwis of Melton Mowbray, was admitted into the Leicester Infirmary, December 1st, 1863. The patient was aged 39, single, a household servant. Her parents were living and healthy. There was no special disease on either side of the family.

She reported that, about five years previously, she suffered from prolapsus uteri, followed, in a year afterwards, by hardness and enlargement of the bowels. The swelling was uniform over the whole abdomen, and gradually increased to its present size. She had had no pain till the last two months, and then it had been in the leg and thigh. Both legs had occasionally been very much swollen. The catamenia were regular till two months ago.

On admission, she was rather below the average height, of nervous temperament; face pale and anxious, with pallid complexion. She was extremely emaciated. There was a papular eruption more or less over the whole body. She moved with difficulty. Respiration was considerably affected. The heart and lungs were normal. The abdomen was enormously distended, measuring at the umbilicus forty-one inches and a half. Fluctuation was perfect; there was dulness over the whole front, and an intestinal note at the flanks. Both legs and thighs were cedematous, the right more than the left. She had great pain in the right leg and foot. The uterus was pushed down to the entrance of the vagina; the os uteri was of the size of a pin-hole.

Dec. 19th. The patient was tapped an inch and a half below the umbilicus, and thirty pints and a half of pale greenish limpid fluid, containing a large quantity of albumen, of specific gravity 1010, were drawn off. Examined microscopically, the fluid showed blood-corpuscles, granules, and some spherical granular cells not containing nuclei.

Dec. 21st. No substance could be felt in the abdominal cavity. The uterus was in its normal position.

Dec. 26th. She was sent to her home in the country for two months.

Feb. 23rd, 1864. She was re-admitted. She looked much better, had gained flesh considerably, and was able to walk about with ease. Her appetite was very good, and she was in excellent spirits. Pulse 96. The circumference at the umbilicus was thirty-three inches. The abdominal parietes could be moved over the tumour, except close to the point where she was tapped. Percussion at the upper edge of the tumour was dull, and was not affected by full inspiration. The uterus was forced downwards and backwards nearly to the entrance of the vagina. Percussion on the tumour over the abdomen was felt by the finger in the vagina. The catamenia appeared three weeks ago; they were natural in time and quantity. The urine contained lithates;