Short Clinical Lectures

ON

THE FIRST PRINCIPLES OF MEDICINE.

Delivered at King's College Hospital.

BY

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I.—SOME OBSERVATIONS ON THE NATURE OF CERTAIN HEALTHY AND MORBID CHANGES, AND ON COUNTERIRRITATION.

I PROPOSE this morning to direct your attention to a plan of treatment which I believe is adopted, in many cases of disease, by every practitioner in the present day, which is employed in every civilised country and by some savage nations, and which has been in use from the very earliest ages.

Recent careful observation has compelled us to doubt if many remedial agents which have been held in the highest repute really exert the influence which was formerly attributed to them; but of the benefit of counterirritation few practitioners have any doubt. Indeed, until I recently read a lecture of Dr. Chambers's, I thought we were all agreed, not only with respect to the beneficial action of this plan of treatment, but also as to the principle upon which it is enforced. I have always been taught that by counterirritation we seek to establish an increased action in one tissue or organ, for the purpose of diminishing an increased action which is taking place in another tissue or organ, the due performance of whose function is of great importance to the organism.

Dr. Chambers, however, tells us—but I think few will agree with him in his statement—that the idea of counterirritant practice is to substitute one *disease* which is “less dangerous and painful, or whose disorganising tendencies are but temporary,” for another *disease* which may be dangerous or painful, or which tends to disorganise the body;” and yet the author of the *Renewal of Life* has admitted, as examples of counterirritation, purgatives to relieve a cold on the chest, and excessive diuresis for dropsical swelling? Are ordinary temporary purgation and excessive diuresis, diseases? After stating that it is probable “that future physiologists may be able to explain in another way the instances which seem (!) to favour the system,” he says that “in the meantime it appears unwise to adopt, as a principle, the estimation of the utility of our drugs by the power they possess of making a sound man ill” (!). Now what does the word “ill” in this sentence mean? When our bowels act a little more than usual; when we pass four pints of urine instead of two in the twenty-four hours; when we perspire freely; if we apply a turpentine stupe or a mustard poultice to our sound and healthy skin,—do we necessarily become ill?

The idea of counterirritation clearly is, not to

establish one disease for another, but to increase the action of one or more tissues, with the view of reducing the increased action which is already going on in other and more important tissues or organs.

It seems to me that much of the obscurity which occurs when an attempt is made to account for changes, and to explain various actions, results from the effort to define the *diseased*, as distinguished from the *healthy* state. The best plan, therefore, in discussing morbid actions and changes, is simply to try to ascertain with accuracy what is going on, and contrast it with what physiology teaches us ought to go on.

If we make an attempt to define exactly what is meant by the substantive *disease*, or by the adjective *morbid*, great confusion must result; and for this simple reason, that we cannot separate by any distinct line healthy actions from morbid actions, or the *healthy state* from the *diseased state*. Of course, a small contracted liver or kidney, doing one-tenth of the work healthy organs would do, and exhibiting the most obvious alterations of structure, are diseased. They have, however, not passed suddenly from the healthy to the diseased state, but by very insensible gradations, so that, had you seen the organs in an early stage, you would not have been able to point out any differences by which they could certainly have been distinguished from healthy organs, although, had you examined the secretions formed by them, you might have obtained evidence of change in quantity or quality. Up to a certain point, although there may have been excessive or deficient action, you could not have spoken of the condition as one of disease.

Nor can we define disease as increased or diminished action—increased or diminished vitality; for in some diseases tissues grow too fast, in others the structures or organs are reproduced too slowly. Disease may consist of an *excess of action*, or there may be *deficient action*. The tissue may live too fast, or it may undergo its changes more slowly than in health. There is in many morbid structures or products a greater activity, a more rapid conversion of pabulum into living matter, than in health. A certain bulk of epithelial or other form of cancer, or of pus, or of the lymph occupying the air-cells of a pneumonic lung, exhibits greater evidence of vital activity than the same bulk of healthy tissue. It grows faster; it appropriates nourishment faster; and this nourishment more quickly becomes converted into tissue; or is transformed into compounds, totally different from those existing in it before its appropriation, far more actively than in a normal tissue. *The conversion of inanimate pabulum into living matter, which in health takes place under certain restrictions, takes place in these instances under restrictions very much diminished.*

To say, then, that “disease is not a new excess of action, but a deficiency; not a manifestation of life, but partial death,”—is stating that which is opposed to most important facts of general observation, and is strangely at variance with the facts demonstrated by very many observers in the present day.

Nor can I agree with Dr. Chambers in his statement that “the business of the physician is directly or indirectly not to take away material, but to add;

not to diminish function, but to give it play; not to weaken life, but to renew life." We very often desire to take away material, as when any organ is the seat of greatly increased action. We try to get rid of the lymph in an inflamed lung, the matter poured out into the areolar tissue and other tissues in inflammation, or into the joints and fibrous tissues in gout and rheumatism. Not only so, but the blood itself often contains matters which we desire to get rid of; so that we really often have to take away material; and if we could but diminish the supply of blood to many organs at the right moment, and for the right time, we might possibly prevent a diseased action from being developed.

So, again, it seems to me that we really do often desire to diminish function. When an organ is deranged, is it not a principle established by experience, and does it not accord with common sense, to try to *diminish its action*, and make some other organ do its work for the time? The last advice given to the physician, "not to weaken life," seems to me to require explanation; for surely, if we could "weaken the life" of a cancer, it would be just what we desire; and if we could but prevent it from *renewing its life*, we should be doing more than medicine dares at present to hope ever to achieve.

I have drawn your attention to these points, because it seems to me that the dogmas insisted upon by my friend are opposed to the principles of sound physiology, and to the teachings of the bedside, while they are not supported by any new observations of his own; and because the very positive exposition of his peculiar views in his first lecture seems to me to demand our attention; and I therefore take this opportunity of discussing some of the first principles upon which our science is based.

I cannot help thinking that Dr. Chambers has assailed some notions which are very much nearer the truth than the substitutes he proposes; and I do not think that the statement that "disease is a deficiency of action and partial death," as a general principle, can be received or sustained. It is also incorrect to talk of "life-giving articles". Nothing gives life, save that which has life; and this is, at any rate, a sound truth, from which all our speculations upon the essential nature of healthy and morbid changes in living structures must start.

[To be continued.]

MEMORIAL TO THE LATE DR. CUSACK. A very handsome memorial has been erected in St. Anne's Church by the subscriptions of the friends and admirers of the late eminent physician, W. Cusack, M.D. The memorial consists of a very tasteful stained glass window at the north side of the apse. (*Dub. Med. Press.*)

PHOTOGRAPHIC STATISTICS. Some very interesting statistical facts, relating to the immense consumption of photographic chemicals by the London Stereoscopic and Photographic Company, have recently been made public. The number of glass negatives taken at the exhibition (from which the paper pictures are printed) amount to very many thousands. The paper used was 300 reams; albumen for ditto, about 250 gallons; nitrate of silver, 4,000 ounces; gold, 90,000 grains; hyposulphite of soda, 4,800 lbs. The photographic pictures produced from this immense amount of material are now approaching 1,000,000. (*Post Magazine.*)

Illustrations

OF

HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

BIRMINGHAM GENERAL HOSPITAL.

CASES OF RHEUMATIC PERICARDITIS.

Under the care of JAMES RUSSELL, M.D.

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THE next case appears one of typhoid pericarditis, remarkable from its mildness as compared with the attendant symptoms, and more so from the singular persistence and recurrence of symptoms allied to typhoid fever on more than one occasion.

CASE V. Anne Tibbets, aged 37, a nurse in the hospital, had never had rheumatic fever; nor was she aware that she inherited any rheumatic tendency. She had been very assiduous in her attendance upon some cases of typhoid fever, and especially upon one of great severity, which was admitted on January 17th 1862, and was not convalescent until February 8th. On that day, she was taken with shivering, heat of skin, and great depression, together with soreness of throat, without any morbid appearance presenting itself in the interior of the fauces. On the 10th, a sharp eruption of herpes appeared on her lips. The fever did not subside until the 12th, when she was able to sit up for a short time. From that date until the 19th, she walked about the ward, but was very feeble, occasionally shivered, and complained of severe pain between the shoulders, and of tightness across the chest.

On February 19th, she was very poorly; had sharp cutting pain across the chest, through each breast, and round the shoulders. In the evening, she was seen by Dr. Maxwell, from whose notes I have extracted the preceding report. He found her greatly exhausted, and looking very ill. Careful examination of the chest did not detect any morbid signs in that region, excepting very rapid and irritable action of the heart. The sounds of the heart were perfectly clear.

She passed a very restless night, and spoke next morning very urgently of the pain she had suffered in the neck and chest; which, however, was somewhat relieved by the application of warm flannels. At 4, an opiate draught procured ease. At 7, Dr. Maxwell, at his visit, detected the physical signs of pericarditis.

2 P.M. The pulse and respiration were 124 and 32. There was much moaning; the face was very pinched; aspect exceedingly typhoid; tongue very dry and fissured; skin dry. A fine pericardial friction-sound was heard, chiefly with the *diastole* of the heart. When first heard in the morning, it was double, very loud and coarse, and was distinct over the entire cardiac region.

R. Æther. chlorici ʒij; tincturæ cardamomi comp. ʒss; aquæ ʒviiss. M. Sumat ʒj 4tis horis. She was ordered to have six ounces of wine.

During the following two days she remained in much the same state. She lay on her back, and was very languid. There was no delirium, excepting some confusion during sleep. Pulse 80, labouring, and presenting an interval after every third beat. She complained of some pain in her left shoulder. Her abdomen was soft, free from distension and from eruption. There was no diarrhoea. The friction-sound continued to be chiefly *diastolic*, and the cardiac dulness was not extended. The pulmonary signs were normal. She had been ordered half an ounce of brandy every second hour.