

THE STANDARD.

A Scottish Life Office of 66 years' standing, and one of the wealthiest and most progressive of the Provident Institutions of the United Kingdom.

THOMAS LANG,
General Secretary for India and the East,
CALCUTTA.

Original Communications.

THE PRINCIPLES OF RATIONAL MEDICINE.

A Farewell Lecture delivered to the Students of the Calcutta Medical College.

BY BRIGADE-SURGEON K. McLEOD, A.M., M.D., F.R.C.S.E.,
Professor of Surgery, Calcutta Medical College.

GENTLEMEN,

I have been in the habit for some years back of concluding my lectures with a word of advice as regards the future—an admonition on some particular point connected with the practice of the profession of medicine. I have done so in the hope that, spoken at the very end of the course, these words might arrest the attention and abide in the memory, and perhaps produce a lasting influence for good. As this is the last lecture of the last course of lectures on the Principles of Surgery which I shall have the privilege of delivering in this school, I have thought it well to improve on my annual custom by selecting a specially important subject of admonition, and presenting it to you with greater elaboration than I have hitherto considered necessary. In a course of 70 lectures of one hour's duration, it is impossible to do more than expound general principles, and one is compelled to leave details to be filled in by students through observation and study. The great aim of the professor should be to describe and illustrate the best possible manner of applying in practice the principles which, founded on anatomy, physiology, and pathology, are finally formulated from and tested by clinical research and study. This has been my chief object in addressing you here; and if I have succeeded in imparting to you sound principles and impressing upon your minds sound methods of investigating, recognising and healing diseases, I have done all that under the circumstances it was possible to do. But, underlying all my teachings, there has been present with me one ruling thought, which I have endeavoured to illustrate and commend for imitation at every step, and which I would now make the subject of these closing remarks. It is this—stated briefly and didactically—

BASE YOUR PRACTICE UPON RATIONAL PRINCIPLES.

The human mind is so constituted that it is almost inconceivable that any human being should

deliberately perform any action whatever without a reason of some kind. To act otherwise would be madness. And, in undertaking the important and responsible office of healing disease, men have always professed to proceed on rational grounds of some description. The question therefore comes to be—What kind of reasons are they which are entitled to reliance in practising the healing art?

1. In the first place, I may dismiss as almost outside the pale of reason all mysterious, miraculous, and transcendental pretensions; and that appeal to human credulity which vaunts one particular remedy as curative of most, if not all, ailments to which the human body is subject. It is curious how well persistent and loud asseveration succeeds in this world. And in no department of business is wide and blatant advertising so useful as in that of the charlatan. I need not waste time by exposing the folly, or temper by denouncing the mischievousness of this kind of practice. It is a case of knavery on one side and simplicity on the other. Assuredly the barefaced advocacy of an interested vendor constitutes no sufficient reason for the use of a nostrum which is credited on no foundation of fact with attributes little short of miraculous.

2. Another basis of practice which is more plausible, but at the same time very deceptive, if not dangerous, is simple imitation. Something has been advantageously done or given in certain circumstances, and the argument is that the same thing is always likely to be equally advantageous in the same or similar circumstances. This seems reasonable enough; but there are two postulates which are necessary for the successful application of this principle, namely, first, that the reputed effect has really been achieved by the means employed; and, second, that the circumstances are the same. In order to settle these postulates, skilled observation and careful inquiry are requisite, and these are generally wanting in this sort of practice, which is usually adopted by ignorant persons and in a blind haphazard sort of way. Rational imitation, grounded on scientific knowledge and thorough study of pathology and therapeutics, is legitimate; but mere imitation, without such knowledge and study, is beset with fallacies and perils at every step.

3. Akin to this false method of practice is pure empiricism, which, without burdening itself with much study of disease or drugs, contents itself with observation of symptoms and with traditions as to what has been found good for such or such a complaint. Experience is continually appealed to as a justification of this kind of practice, but the experience is too often a superficial and unreal experience and the important elements of research and introspection are too often wanting. Scientific empiricism, which represents an experience based on systematic in-

vestigation and on knowledge acquired by scientific methods duly tested and proved, is a very different thing from the empiricism of the ignorant and indolent, and it is against this that I wish to warn you.

4. So far, the so-called principles of practice which I have indicated may be designated by the terms "rule of thumb" or "hand to mouth;" but there is in the human mind a hankering after laws and a hunger for guiding principles. Combined with that, there is also a desire for finality, for some resting place, some rock on which amid the surging of waves and shifting of sands, the feet may rest secure. The history of medicine gives ample evidence of this great and constant striving after some general law which will dominate and guide both the science and the art of medicine. We find it in physiology, in pathology, and therapeutics. We have had mechanical, chemical, and vital theories of life; solidist, humoralist, neuro-pathical, and parasitical theories of disease; and in therapeutics various formulæ have been advanced which have been vaunted as absolutely certain and infallible rules for the selection of drugs. These formulæ have given origin and name to various sects or schools of practitioners, such as the homœopaths, allopathists, antipathists, monopathists, and so forth. This method of practising by and in obedience to formulæ saves a great deal of trouble, and presents a semblance of scientific accuracy and method. Given the disease, find the drug that fulfils the formulated indication and success is assured. But the questions arise—Can the phenomena of life and disease be included in a principle or expression or formula of this sort? Is such a formula, if true at all, universally so? Are the phenomena of disease and drug action so definite and uniform that they can be brought under the sway of fixed rules of this kind? I am inclined, for reasons which I shall presently state, to answer these questions in the negative; and, in addition, it is necessary to inquire—How have these formulæ been arrived at? Have they been reached by scientific methods? Are they capable of being scientifically tested and proved? And, do they depend on objective or subjective evidence—the evidence of the senses aided by instruments of precision or of the imagination? You will find on examining these formulæ that they do not satisfy these requirements, that they are the products of fancy, rather than the outcome of scientific research, and that they represent partial truths and superficial analogies rather than deductions from scientific observation and experiment. I do not therefore advise you to pin your faith on formulæ. They are mostly delusive and visionary, opposed to scientific progress, and inconsistent with what we know of the infinite mutability of the manifestations of physiological, pathological, and therapeutical action.

5. If, then, the grounds of practice which I have described are unreal and misleading, what are the foundations of rational medicine? Briefly and generally stated they are these:—

1st.—We have to deal with the man not with the disease — with the human being, who has under some noxious influence acquired some disorder of health, and our task is to remove this disorder and to restore him to health. It is the being, the organism, not the name with which we must concern ourselves.

2nd.—The subject of our attention — the human being — has attained the organic structure which he presents for our study through a process of evolution, and this fact places him in relation to the past history of organized beings and of the human race, from the earliest period regarding which we are able to obtain knowledge until now, and brings him into affinity with all other created beings, with which he still retains certain resemblances in structure and functions.

3rd.—What he is and does is the result of an adaptation to his surroundings under certain laws of progress and perfection which are still in operation, and which impel him towards a still higher and more useful life.

4th.—We have to consider the human being as in a state of incessant action and change; and the activities and changes which he manifests constitute his life; and these are accurately adjusted to activities and changes occurring in his environment, to which he reacts under well-defined laws. The influences acting upon man are manifold and infinite in their variations. They are æsthetic, climatic, hygienic, dietetic, and medicinal. The place he inhabits, the air he breathes, the food he eats, the forces of nature which he encounters, the objects with which he comes in contact, the foreign materials other than food which he may breathe or swallow—all these act upon him and produce certain reactions.

5th.—Man possesses the power of adaptation to these various influences within certain limits so that he preserves a normal type of structure and standard of vitality while being acted on by and reacting upon them. This is called health. Beyond these limits, the influence of these agencies may give rise to disorder or disease, or this may result from the impairment of his power of adaptation.

6th.—There is no new element introduced into the body by these disturbing agencies unless in the shape of foreign material which has effected an entry into it. As regards the disturbances which constitute disease, they consist from a functional point of view in excess, derangement, impairment or abolition of the ordinary manifestations of life; from a structural point of view, they are aberrations or reversions, or degenerations; from a chemical point of view, they are materials of simpler composition and lower

degree inclining to inorganic types. "There is," Virchow observes, "no other kind of heterology in morbid structures than the abnormal manner in which they arise, and this abnormality consists in the production of a structure at a point where it has no business, or at a time when it ought not to be produced, or to an extent which is at variance with the typical formation of the body." In other words, pathology is physiology deranged under the operations of materials or influences abnormal or hurtful in kind or degree.

7th.—We possess control over these things. We can ascertain which are beneficial and which noxious, and within what limits the power of adaptation prevails. We can shun them, we can modify them, we can remove them, and the exercise of this power constitutes the art of medicine, preventive and curative, in its highest and best sense.

8th.—But even after the organism has succumbed to some deleterious agent or agency, it possesses a power of recovery from the damage done. This power may be exercised in the way of calling upon that reserve force which we possess in our body as a whole and in all our tissues or organs, or by bringing into existence remedial processes, such as vomiting, purging, inflammation or fever, or by neutralising or expelling the cause of disorder, or by giving the damaged system or organ rest, or by a process of repair when structural damage has been done. In all these and other ways the natural power of recovery possessed by the body and every part of it is displayed. Without such a power our efforts to cure disease would be futile. All these efforts must be made in accordance with the ascertained laws of natural recovery, and we can only be said to cure disease in the sense that we place the individual in the best possible position for the most speedy and effective operation of these natural processes of recovery.

9th.—But it is important to note that not only is the body as a whole subject to injurious influences, but that each separate part of it may undergo damage, and then the injury of the part may affect the whole or other parts in relation to it. From this point of view, the several organs of the body are related to each other as if they were separate organisms acting and reacting on the rest of the body as an environment, and they undergo sundry compensatory and vicarious changes which also tend to promote the recovery of the whole in disease.

10th.—Thus, both in pathology and therapeutics, we have to take account of causative and curative influences outside the body and inside the body; and the more thoroughly we are acquainted with these influences and their effects, the more competent are we to restore disordered function to order and help damaged structure to undergo repair.

These then are the principles of rational medicine stated in very general terms. They constitute the foundation of the healing art and are of universal application—cover every circumstance and case in which as practitioners we may be required to act. From these principles, several conclusions of great interest as affecting the position and practice of our profession flow:—

Mark, first, the extent of the field whence knowledge has to be reaped for use in practice. It is simply co-extensive with all science, and there is not a department or fact of science which does not or may not bear more or less directly on the objects of our studies and efforts.

Then, secondly, observe how vain it is to expect finality in medicine and how foolish to reproach its ministers with changes in theory and practice. Science is ever moving forward, ever adding to its conquests, ever gaining in breadth, in accuracy, in clearness, and in truth; and every such advance in scientific knowledge imports wisdom and power into our proceedings as doctors. From this consideration springs the obligation of diligence, of incessant study, of observation and experiment, of continual striving to learn as long as the faculty of learning remains; and this very uncertainty and mutability of the science of medicine, which is cast as a reproach by the thoughtless, constitutes to the earnest and studious the great attraction and charm which the profession of medicine possesses.

Thirdly, note the wide scope which these views impart to our profession as an art. Drugs and operations (and in these terms I include all medicinal and mechanical methods of treatment) do not represent the end and object of our calling. It is our business to study all influences, climatic, hygienic, dietetic, and medicinal, which affect the body for good or evil, and so control these as to maintain health, guard against disease, and restore soundness. Drugs and operations are the least and last of our resources.

Fourthly, with what dignity and importance does this aspect invest our profession. There is nothing in nature which does not directly or indirectly concern us, and no situation or act of any human being which may not interest us. And in all the affairs of life, public, domestic, and personal, we are asked to intervene and advise, as the possessors of a knowledge and power which largely affect the success, the welfare, the happiness of man and men.

Fifthly, in all this it is necessary that we should cultivate a spirit of humility in view of our incapacity to cope with all the subtle agencies acting from without and within which occasion disorder of health and endanger life. We are still in many respects very ignorant and very helpless. It becomes us fully to recognise and admit this, and to strive to our utmost for more light and better skill. The phrase "I

cured" is as hateful as it is untrue. It is the shibboleth of quackery. The utmost credit that we have a right to claim is that the patient recovered under our management; and before we can establish a case for the benefit of our intervention, we must be prepared to prove that recovery has taken place in a larger proportion of instances in consequence of such intervention, or that the patient has done better, recovered more quickly, than if he had been left alone.

And this attitude of humility in the presence of great responsibilities and much shortcoming should suggest a feeling of tolerance towards others in so far as that feeling can be properly entertained. It is impossible to sympathise with or in any way encourage those who for their own advantage, in ignorance and in greed, trade upon the infirmities of humanity: but there are many who have honestly persuaded themselves that they have found in some empirical method or plausible formula a key to the treatment of disease. The method or the formula may contain a germ of truth; as long as it is used for the presumed benefit of the patient rather than of the practitioner, so long may we honor the motive while we regret and condemn the narrow or mistaken doctrine. Depend upon it the more enlarged and philosophical our conception of our duties and responsibilities—the higher our aims and wider our grasp—the happier will our life be and more productive our methods. The profession of medicine is to its earnest votaries a source of endless interest and pleasure, and if I have succeeded by the words which I have now spoken in impressing upon you a loftier and truer notion of its scope and dignity and responsibility, I feel assured that I have bestowed upon you something far transcending in value material riches, namely, that which will render your future lives more fruitful and enjoyable. In taking leave of you and of this college, I cannot offer you a better wish than that you should reap from the study and practice of rational medicine all the pleasure and profit which, when properly and unselfishly cultivated and applied, it is so singularly and eminently capable of conferring.

HYPNOTISM AND SUGGESTION.

By R. ARTHUR, M.A., M.D., EDIN.

(Concluded from p. 42.)

The action of hypnotic suggestion in the cure of disease.—In a word, it is in virtue of the power which the mind through its organ the brain has over the various functions and processes of the body. During hypnosis this power is concentrated in a way impossible in the ordinary state. For example, it is possible by suggestion to excite vomiting, or the action of the bowels in some cases, to affect the heart's

action and appreciably lower the temperature, and—most wonderful of all—a few cases are recorded when a blister has been brought about by means of suggestion alone. Those interested in the subject, I would refer to Hack Tuke's book "on the influence of the mind on the body."

What then are the therapeutic uses of hypnotic suggestion.—The conclusion generally formed on *à priori* grounds that it is in nervous disorders alone that it can be of avail is not borne out by experience. In fact, while disclaiming for hypnotism the character of a universal panacea, it has been found to be applicable in almost any disease, if not as a curative agent, then as a palliative or controller of symptoms. It finds, doubtless, its widest application in the various neurotic disorders, but it is by no means limited to them. The following are some of the diseases in which hypnotism has been proved by experience to be of use.

1.—*The various nervous disorders or neuroses.*—Neuralgias of all kinds, neurasthenia, palpitation, insomnia, asthma, writer's cramp, nervous aphonia, enuresis, hystero-epilepsy and hysteria. In some of the cases, the result is simply marvellous; in others, especially among the hysterical patients, the treatment is unsatisfactory. This fact about the hysterical cases must be borne in mind, for it is often thought that they afford the most promising subjects. In both acute and chronic asthma I have had cases that were benefited in a remarkable manner, not only the paroxysms being relieved, but the general health greatly improved. In some of the cases of neuralgia, tic, lumbago, sciatica, a complete cure is effected in one séance, and while there is only a very slight degree of hypnosis present. For instance, a case of mine of severe and persistent neuralgia after herpes in a man of 50 was cured at once, though he was so slightly influenced that he could open his eyes. There are some remarkable cases chronic in which acute and chronic ovarian pain has been removed. In some of these cases, oöphorectomy had been recommended beforehand. I had a patient—a girl of 20—who had suffered from pain over the left ovarian region for more than a year. She was much emaciated, and was in a highly hysterical and nervous state. In a fortnight the pain had nearly disappeared and she was a different person; taking her food well, sleeping at night and going out regularly for exercise. Suggestions to do all these things had been given daily. There are some cases too on record when the neuralgia, which is sometimes so troublesome after ovariectomy, has been relieved. It is useful in all functional palpitation, but I have even been able to control the disturbed action of the heart which accompanies exophthalmic goitre. In incontinence of urine both in children and adults, it is sometimes very successful, especially in cases where other reme-