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Original Articles

THE FUTURE OF NEUROLOGY¹

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It is proper, at times, to stop a moment and take count of the trend of activities in the department of science and branch of medical art which we are pursuing.

The field of neurology has undergone notable changes since the study of the nervous tissues began to emerge as a specialty. One hundred years ago, there were many books and articles published under the head of the term "Neurology" but they were practically all anatomical contributions and although there was a neurology there were no neurologists. During the next fifty years, various attempts were made to build up a medical neurology. There was good work done in England, Germany, and especially in France. Perhaps a dozen names remain to us out of those days. But the tools were lacking and the methods of approach were wrong. During this time we might say that there were some neurologists but no neurology.

Finally, however, came the microscope, the knowledge of the animal cell, the cellular pathology. The implements of investigation began to be applied in the positive and objective methods brilliantly organized in France and fruitfully applied there and by the Vienna School.

It was about fifty years ago that neurology, outgrowing the

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handicap of the past and supplied with sound working methods and rich opportunities, took its real start and became an enlightened and progressive science. It, at that time, was a science full of unsolved problems and important lines for research. The best minds of medicine entered it and reaped rich rewards in fame and the satisfaction of achievement. Students of internal medicine felt its importance and in every university center the greatest clinicians did their best work and most illuminated their career with its study. There was opportunity constantly at hand to explore new fields, to penetrate the mysteries of nervous symptoms and give to them anatomical basis and physiological explanation. The work has been steadily and brilliantly pushed on, and as a result we have to-day both a science of neurology and sound neurologists. The goal of their activities has been measurably reached. Neurology has much to learn, many fields to explore, many new phases of nervous disturbances to confront, new phenomena to interpret; but the great problems have been relatively solved so far as they can be by the present methods,—or we are on the way to solve them. We have many clinics, laboratories, teachers and workers, so progress will go surely and steadily on.

Meanwhile, much of what has been systematized and explained by neurologists has been most naturally and properly appropriated by the general practitioner; so that we find he can and does deal with the commoner and even the serious neuroses.

Sometime ago, the trend seemed to be that the practicing neurologist might be driven to employ himself in a smaller field of work and one that is most difficult, that of the diagnosis of rare and incurable disorders, or those which are only to be combated by very special resources and equipment. The neurologist in practice was becoming more distinctly and acutely a specialist and a technician. In scientific investigation the progress of his discoveries was not ceasing but moving along narrower and less dramatic lines. This I say has been the tendency and was the situation up at least to a few years ago.

In these very much later years, however, he has been opening up new fields for himself in the study of psychoneuroses, in recognizing the importance due to subjective states, and the importance to all neuroses of environment, education and hereditary conditions. He has learned the art of investigating the character, temperament and social conditions of his patients; their habits of

life, heredity, education and the fundamental traits of their natures. More than any other class of physicians he is overcoming the habit which gripped the profession when scientific and laboratory methods began to prevail fifty years ago, of looking at the man only as a case. We can appreciate a paraphrase: "O laboratories! how many crimes are committed in thy name!"

Seeing and working from this point of view the neurologist has aimed to add to his medical activity those in some degree, of an educator, preacher, sociologist. It is an important and responsible function which he aspires to assume, but he must do it or sink into the narrow niche of curator of the scleroses or an appraiser of teratological defects. On the other hand, the widening activity will bring rewards to himself as well as others. He will be accomplishing something by his art. He will be getting new ideas and points of view as to the cause and cure of disease.

Who does not now grow cold to the conventional list of causes of nervous disease:

"Exposure, trauma, shock, overwork, tea, coffee, alcohol and indigestion?" Will not a study of occupation, domestic life, training, childhood, microbic infection, heredity, change somewhat this list?

As nervous diseases are so largely social, it is necessary and enlightening for the neurologist to be on good terms with the social worker, the school teacher, the parent and eugenics. We take no small view of the function of neurology.

Entering his widest rôle, the neurologist has not only to be the diagnostician and the prescriber of drugs and diet, or surgery and mechanical therapeutics; but he has to be the educator and instructor of his patients. He has often to have the character and force and experience which will enable him to act to them "*in loco parentis*." He must join with the teachers showing how children should be educated and taken care of while they study. He should follow them at the period of their youth and maturity, correct mental faults, advise them as to marrying, even marry them at times and tell them about the management of the children. He must help and uplift the religion of those who have any and give a religion or high and positive ideals to those who have not. He must show them how to live happily and to use with scientific efficiency the forces which nature has given them; which two things are often the same.

It is, in other words, necessary that we now proceed to develop a kind of social and economic neurologist as well as one of clinical and laboratory attainments. Modern civilization is carrying an enormous load of criminals and feeble-minded (and these two mean practically the same thing), of epileptics, insane and of the inefficient and pauper classes. We now can no longer be content with giving bromide to epileptics, or doing craniectomy on idiots, we must show the world how not to breed them.

There are certain social diseases which fill our clinics and which no doubt enormously help our practice, but it is somewhat our duty to help prevent the spread of these diseases, as well as to thrive by alleviating their results.

Thus, there are certain ethical standards and physiological methods which the neurologist must use to make himself a man equal to the highest tasks which he must undertake. He must be a kind of superman, one with higher ideals, more potent inhibitions and wiser in life and wider in outlook than those whom he is trying to guide.

With such a field before him, it is natural that we will disclaim before long the title of "specialists." We will be the broadest type of practitioners, if we take interest and assume responsibility along the lines of which I have spoken.

If we do not take this responsibility and raise our faces to the stars as well as turn our eyes upon the Weigert stain, we will become smart specialists, perhaps able to hunt out elusive tumors, to run to earth the rare and weird expressions of teratological defect, or delayed degeneration; but we will not count much in the councils of our art. The great things opening for us are to show how humanity gets its nervousness and how this can be prevented or handled. Here is an opportunity for zeal, industry, acumen, and for results that should be greater far than those which illuminate the neurological heroes of the past.

It is in the hope that I may kindle some feeling for the broader phase of neurology that I have written this, and I believe that the right spirit is abroad and is permeating the minds and hearts of the younger men.

Let me record my belief that the fatalistic doctrines of the eugenist do not make me lose heart, or feel lack of faith in the efficiency of good works, or power of self-control. Says the old poet: "One may be envious, passionate, indolent, drunken, sensual,

yet no one is so savage that he can not be tamed if he lend a patient ear to culture."

The period of cultural study and cultural therapeutics is enormously needed now, it is coming and has rich rewards for those who pursue it.

Meanwhile, it seems to me that neurology will, to a degree and for a time, divide up into specialties of its own. There will be neurologists who are especially students of organic neurology; there will be functional neurologists, psycho-therapeutic and psycho-analytic, electro-therapeutic, epileptic, glandular, neuro-serological and laboratory neurologists. But the definite fruit of their special work will become systematized and absorbed in time by the general neurologist, who will come into his own as master of that highest branch of medical art which deals with the master-tissue of the human body.