THE UNDERGRADUATE TRAINING IN NEUROLOGY.

The neurologist who is attached to the teaching staff of an undergraduate medical school is faced with responsibilities from which he cannot escape. Educational problems, in so far at least as they concern his specialty, must of necessity engage his attention. Called upon to remember that the primary ideal of an undergraduate school, or of most schools of the kind, is to produce not the specialist but the best type of general practitioner, he consequently asks himself how this end can be best attained in the time at his disposal. Probably he feels that it is difficult or impossible, in the period allotted to him, to deal satisfactorily with, and do justice to, his specialty; but this he finds is the attitude of most of his colleagues in relation to the subjects which they individually profess. The balance of the curriculum as a whole must be jealously preserved and the neurologist must be content with his apportioned time unless he succeeds in persuading his colleagues that neurology is deserving of more generous consideration.

Impressed by the complexity of the anatomy and physiology of the nervous system, the undergraduate approaches the study of clinical neurology with a respect inculcated by his preparatory studies. He has been taught that disease manifests itself in disturbance of function and he is rather appalled by the possibilities which confront him when he applies this conception to the nervous system. His objective scientific training has led him to anticipate a structural or materialistic explanation for all the phenomena of disease. But while he has, or ought to have, acquired a knowledge of the nervous system in terms of nerve tracts and functional activity, he knows little of pathological conditions. Time must elapse before he comes to appreciate the immense value of an anatomical localisation not per se but in relation to the information it affords as to the nature of the pathological process responsible for the clinical picture. But what of the psychoneuroses? Here, again, the tyro has probably his preconceived ideas. He has heard something of psychology and he may have acquired, thanks to the daily press, an altogether erroneous impression as to the relative value of
psychological methods, which of recent years have been utilised with advantage (and too often exploited) in the treatment of nervous disorders. He is not in a position to weigh evidence, and is consequently apt to confuse the method with the result, to evaluate diagnostic and therapeutic procedures according to their complexity, and to overestimate the utilitarian application of elaborate procedures, which are only called for in the specially selected case, as compared with the simple and effective measures in everyday use. He has yet to learn that it is not the psychology taught him by the academic psychologist or by the alienist, but the rational individual psychology of Dejerine and T. A. Ross, the psychology which he learns from the physician and acquires from personal experience, which will be his stand-by when he comes to practise his profession.

So much by way of a preamble. How can the teacher utilise the time and material at his disposal to best advantage in order to give the future general practitioner an introductory knowledge of neurology which will prove of real service to him in his subsequent sphere of activity? This is the particular problem under consideration. To attempt to describe and discuss the numerous disorders of the nervous system and the multifarious manifestations which they present is obviously out of the question. A selective discrimination is called for. While an adequate discussion of the possibilities in this connection is quite beyond the scope of an editorial such as this, a brief account of the method adopted in the Edinburgh School may prove of interest.

The undergraduate during his five years' curriculum spends at least four terms in the general medical wards of the Royal Infirmary, the number of students in each year being equally divided among the charges under the eight honorary physicians. To each charge of some forty beds an assistant physician, who takes a large share in the teaching, and a clinical tutor, a graduate of several years' standing whose special duties are to assist the student in his physical examination and in making his case-records, are attached. Case-recording receives special attention and a uniform system is employed throughout the hospital. Thus the student obtains a personal knowledge of the routine examination of the nervous system, and at the same time acquires some information regarding the commoner nervous disorders from the occasional cliniques upon cases of nervous disease which are given by the physicians and assistant physicians, pari passu with his training in general medicine.
Possibly the specialist may hold the view that the student should receive his neurological training from the first from a neurologist in a special department. On the other hand, it may be argued that from the standpoint of the future general practitioner it is a mistake to divorce neurology from medicine, more especially since so many nervous disorders arise as complications in the course of general medical disease. Then, too, from the administrative point of view it is to be remembered that in a large undergraduate school with many medical charges it would be difficult to arrange for all the students to work for a period in a neurological department.

Special neurological instruction is given to the student during the second (spring) term of his fifth year when the physician who lectures upon neurology gives a course of lectures-demonstrations (thirty in all) three days a week. Although this is a voluntary class, open to fifth year students and graduates, the fact that it is attended by almost all the students of the fifth year would appear to indicate their appreciation of its usefulness. The method adopted in this course of lecture-demonstrations, which is held in one of the clinical teaching theatres in the hospital, is as follows: Two or three introductory lectures are devoted to a brief review of the applied anatomy, physiology and pathology of the nervous system. The commoner organic disorders are then dealt with more or less systematically in the following way. A patient is brought into the auditorium, the students' attention is drawn to any morbid appearances he may present and the significance of each is discussed in turn in the light of the anatomical and physiological knowledge the student may be presumed to possess. When all the obvious justifiable inferences have been referred to, the patient is physically examined with special reference to the observations already made and the facts epitomised in relation to the anatomical diagnosis. The history is then briefly elicited from the patient and inferences as to the nature of the pathological process discussed in the light of the information so obtained. Finally, the lecturer attempts to summarise vividly all the facts and advance a reasoned anatomical and pathological diagnosis to account for them. Then and only then is mention made of the name by which the disease is to be classified. Attention is then drawn to any exceptional features the case may present, brief reference is made to etiological, prognostic and therapeutic considerations, and the student is referred to his textbook for a systematic description of the disease. From
day to day different disorders are treated in this manner, the lecturer pausing from time to time as appears opportune to discuss the precise general significance of individual symptoms and physical signs. Towards the latter part of the course the rapid routine examination is repeatedly carried out and problems of differential diagnosis referred to with direct reference to the individual case.

The advantages advocated for this method of teaching, which can of course in no way replace the student’s work in the wards, examination of cases and case-recording, are (1) that the neurologist has thereby an opportunity of instructing all the students of the year, and (2) that the student learns how the physician observes and thinks; he has repeated opportunities of noting the precise method employed by the physician in eliciting the phenomena of disease, and of learning something of the exact significance of symptoms and physical signs; he sees types of many of the commoner disorders which he will probably meet with in practice; he learns to think of disease in clinical terms and not according to textbook descriptions; in other words, he acquires the clinical outlook and learns how to approach a case, while in addition he sees the way in which the physician deals with patients and always keeps in view the patient’s attitude of mind.

Pathological and anatomical demonstrations, directly related so far as possible to the clinical demonstrations, constitute a popular feature of the course. These demonstrations, the attendance upon which is also optional, are held twice a week on alternate days by the University lecturer on neuropathology and his associates.
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