Anatomy for Surgeons

There was a time when the acquisition of an intimate knowledge of topographical anatomy was one of the principal tasks of a medical student, when the details of the layers of muscles and tendons in the sole of the foot or the boundaries and contents of the suboccipital triangle took pride of place in the armamentarium of information with which the young doctor went forth into the world to practise medicine. There was a sort of quasi-religious attitude among teachers of anatomy which suggested that learning Gray's Anatomy pretty well by heart was A Good Thing and, rather like Greek irregular verbs or Latin grammar, something that improved and strengthened the student's mind. However, on the credit side, long years in the dissecting-room did mean that young surgeons knew their topography well, and this produced generations of superb surgeon-anatomists whose manual dexterity in the early pioneer days made tremendous contributions to the art of surgery.

The teaching of anatomy to undergraduate medical students has undergone a revolution over the past two decades. Nowadays the functional and clinical side of the subject, together with cellular anatomy, is given stress, rather than detailed topography. To a similar but rather less radical extent the anatomical knowledge required of a surgeon in training has altered.

The Royal College of Surgeons of England introduced an examination for the F.R.C.S. in 1844, and this included anatomy. It was soon realized that a sound knowledge of physiology was also important in surgical training, and when the primary F.R.C.S. was introduced in 1867 it comprised an examination in both anatomy and physiology. The primary remained essentially unchanged until 1960, when the present examination was introduced, in which equal stress was placed on anatomy, physiology, and pathology. The anatomical part of this examination is far different from the terrors of former years, especially as half the examiners are practising surgeons. Emphasis is placed on the sort of anatomical details that the surgeon requires in the operating-theatre and in his clinical practice.

Now, as reported on page 502, the Royal College of Physicians and Surgeons of Glasgow is to introduce in May of this year a new common entrance examination to replace both the primary F.R.C.S. and Part I of the M.R.C.P. Perhaps in the future Part I of the M.R.C.O.G. examination would also be included. Thus it is recommended that all who wish to proceed to a specialist career in whatever branch of medicine should sit a common examination in applied human biology. The Committee for the Primary Fellowship of the Glasgow College admits that "a detailed knowledge of the anatomy of certain regions and systems is essential background for every surgeon" and considers that this might best be tested in Part II of the F.R.C.S. examination.

This is an interesting experiment, and the examiners, the examinees, and the surgeons concerned with the future training of these young men will all take a keen interest in it; without doubt it will also give rise to considerable controversy. No matter what the medical educationist may say, there are wide differences between a physician and a surgeon, one of which is simply that a surgeon spends much of his time operating and that much of operative surgery is no more or no less than applied anatomy. Anyone who has had the misfortune to see a surgeon flounder and fluster, completely lost in the depths of the neck or the pelvis, or who has been called to the theatre to sort out tendons and nerves divided at the wrist which have foxed the operator trying to deal with them, or who has had to deal with the sad business of a cut ureter or a damaged biliary tree, realizes the value of a deep knowledge of surgical anatomy. The great majority of practising and practical surgeons spend most of their working life using their anatomical knowledge. Many will feel that this cannot be acquired too early in a surgeon's career, and should, indeed, be one of the firm foundations upon which the trainee builds his clinical knowledge.

Infectious Disease and the M.O.H.

The medical officer of health had his origin at a time when health hazards were different from those of today. In making habitable the crude physical environment in which he lived man created enormous problems, and most of the M.O.H.'s energies were directed towards dealing with them and with the scourge of infectious disease. Since then his work has changed and expanded. The process began when he assumed responsibility for certain aspects of the health of infants and children, and during the past 20 years he has become involved in the supply and administration of an extensive range of personal health services, these tasks being increasingly carried out in association with general practitioners and hospital staff.

Sir James Howie,1 in drawing attention to the continuing fight against infectious disease, has expressed regret that the M.O.H. is now apparently less engaged in such work. In doing so he has laid his finger on a problem which besets the medical officer of health. His duties are wide, and he is constantly faced with having to determine priorities. Is it, for example, in the face of limited financial and other resources, desirable to devote more of these to trying to prevent the enormous mortality caused by cigarette smoking rather than to concentrate on boosting the level of immunization against infectious disease? The replies to such questions can rarely be clear-cut positives or negatives. The situation is further complicated in the case of infectious disease by the fact that most medical officers of health of the younger generation lack the special skill gained by their seniors in the course of their work in days when it presented a larger public health problem.

The future of the M.O.H. is bound up with that of the National Health Service and of local government, but it seems clear that he or his successor will continue as a medical administrator whose task it will be to measure the needs for health services and then to help to fit available resources into a plan for meeting them. Epidemiology will be among the main skills that will be relevant to his new role, for it provides a link between infectious disease and the major modern causes of mortality and morbidity.

Some degree of specialization will be necessary whatever organization continues to be the work at present carried out by the public health service. Sir James Howie's reminder is reasonable, as infectious disease will continue to be a menace needing to be kept under control. It is to be hoped that, when the present form of the public health service is rationalized, the larger and more effective units which are likely to emerge will provide a career structure allowing for specialization among medical staff. This would encourage the development of a branch concerned either with epidemiology in general or with the epidemiology of infectious disease in particular, and specialists engaged in this work would clearly have valuable roles in hospital and community alike.