**Book reviews**

**PROGRESS IN NEUROLOGICAL SURGERY, VOL. 1.** Edited by H. KrayerbuHL, P. E. MasPES, and W. H. Sweat. (Pp. x + 313; 142 figures, 28 tables. SFr./D.M. 64.50.) Basel: S. Karger AG.

This is the first volume of a proposed series designed to deal authoritatively with various neurosurgical topics. In their preface the editors say that it is virtually impossible for anyone to keep abreast of the flood of neurosurgical literature, published in many countries and in many different languages, and their aim is to present critical reviews by senior specialists which will epitomize current knowledge and thought. Not all of the reviews will be 'clinical': in the present volume, for instance, the first article deals with the ultrastructure and biology of human brain tumours, and in two long articles on isotope scanning, the physical and biological principles are fully discussed. This volume, indeed, is entirely devoted to brain tumours, and in addition to a review of comparatively new diagnostic techniques such as echo-encephalography and gamma scanning, there are articles on the chemotherapy of tumours and their treatment with radioisotopes. The final chapter is a comprehensive review of the treatment of intracranial gliomas by surgery and radiation.

It will be seen that this is in no sense a textbook: it is a book for specialists, and neurologists will find much of it as valuable as will their surgical colleagues. If succeeding volumes maintain the promise of the first one, the editors should be proud of their effort.

**THE USE OF DIAGNOSTIC ULTRASOUND IN BRAIN DISORDERS**


With the increasing use of ultrasound in neurological diagnosis a book on this subject is timely. In this book there are short chapters on basic physical principles, technique and equipment, and the use of A-scope and B-scan methods of testing. Each chapter has a short bibliography and there is a cumulative bibliography on diagnostic ultrasound to June 1965. The illustrations are excellently reproduced.

The material on physical principles, technique and instrumentation is meagre, sometimes difficult to understand, insufficient to provide the required foundation of understanding necessary for clinical use. Chief consideration is given to A-scope tests and there are some interesting facts concerning the testing of formalin-fixed brains by this method. Such results, however, are not made use of in clinical tests and the material is confined to temporal placements of the transducer and midline shifts. No consideration is given to other transducer placements or to echoes other than those emanating from the midline region.

Linear B-scan methods are considered in somewhat less detail and the description of the instrumentation and techniques is completely inadequate. This is a little used method of testing but one which will rapidly gain in importance and a detailed discussion of the results of such a method would have been valuable.

Abnormal results of both tests are presented in the form of case histories. These are small in number, six for A-scope and four for linear B-scan, and form a cumbersome method of describing abnormalities likely to be found in such tests.

This is a disappointing book: it is too short and too superficial. If it could have been expanded to consider abnormal and normal traces in detail and to give clear and precise details of instrumentation and technique and to correlate results with those obtained from other forms of investigation then it would have served us well.

BRODIE HUGHES


Recent years have seen a revival of interest in the subject of head injuries. This volume reports the proceedings of an important conference held in Chicago in 1966, and it should be studied by all who are concerned with the subject. Perhaps the most novel aspect of these contributions is concerned with the use of modern sophisticated devices which record exactly what happens to different parts of the brain during experimental concussion. Indeed the physics and dynamics of concussion are rapidly being clarified so as to decide many controversies of past decades. Unfortunately it is all too evident that however much is learned about head injuries, and their management, there can never be great contributions to the heavy accident toll except those which will prevent severe injuries from taking place.

W. RITCHIE RUSSELL


This volume contains 22 papers and the critical, often informative discussion provoked by each when they were, except for the second, presented at December 1964 at the First International Symposium sponsored by the Parkinson’s Disease Foundation in New York City. They ranged from studies of the gross, microscopic and electron microscopic anatomy of the thalamus and its connections to functional investigations at the behaviour, evoked potential, micropharmacological, and single cell level. Among the animals investigated were electric fish, cats and primates, including man. It is encouraging to note that the latter may now be studied on all the levels mentioned—the resultant information often being unique and of fundamental importance.

Naturally some of the papers were of more immediate interest to the clinician than others. Yakovlev, Locke, and Angevine provided significant new information.
about the connexions of the limbic system from the thorough study of carefully selected human pathological material. Andersen and Eccles discussed physiological mechanisms underlying the 10/second rhythmical activity of the ventrobasal thalamus in the cat while Creutzfeldt, using the same animal, described relationships between E.E.G. waves and intracellular cortical activity. Madame Albe-Fessard and Jasper both presented exciting studies of single unit activity in thalamic nuclei of unanaesthetized patients undergoing stereotactic surgery. Such neurophysiological tours de force, in addition to being useful to the surgeon for intrathalamic localization, provide a wealth of new information such as that suggesting the control of Parkinsonian tremor by populations of rhythmically firing cells in ventral thalamic nuclei.

This volume is a most interesting and impressive summary of current research and would have been even more useful as a reference had an index been appended.

R. R. YOUNG


The most notable feature of this book is the length of time elapsing between presentation of papers and publication; a report of current research problems appearing after an interval of five years will surely find its way at once to the shelves reserved for medical antiquities. This would be a greater tragedy if the papers had been of outstanding interest or importance in the first place, but cerebrovascular disease had been the subject of so many published symposia at that time that many of the chapters now have a secondhand look even before the pages are cut. Among the honourable exceptions to this judgment are, however, the excellent reviews by Kety and by Lassen in the field of cerebral blood flow and by Groch, McDevitt, and Wright on the natural history of cerebrovascular disease. The final results of the well conducted cooperative study on long-term anticoagulants are presented briefly and lucidly by Fisher. The paper by Margolis on hypertensive intracerebral haemorrhage is notable not only for the presentation of his pathological studies on microaneurysms but for his stimulating ideas on the role of tension in vascular walls (as distinct from transmural pressure gradient). The chapters dealing with advances in treatment have inevitably suffered most from the delay in publication; it is salutary to read the uncritical enthusiasm for hyperbaric oxygen in view of the limitations which have now become apparent. A final absurdity is a report spanning 25 pages on the beneficial effects of fibrinolytic agents in occlusive cerebrovascular disease with a small footnote added subsequently to say that this form of treatment is now contraindicated.

C. W. M. WHITTY


The principal purpose of a symposium such as fathered this volume is to bring together workers sharing a common interest to facilitate an exchange of ideas and data. If it is judged desirable to communicate the proceedings to a wider public, one may ask that publication should occur while the news is still fresh—not after three years, as is the case here. Although almost all the papers in this anthology have already been published elsewhere, those interested in multiple sclerosis may find it convenient to have them all in a single volume. Discussion by the other contributors of some of the papers is also included, and raises some points of interest.


This, as might be expected, is basically an orthopaedic text giving an account of the anatomy and mechanics of the vertebral column and of the cause of the derangements which lead to scoliosis. The neurological complications are briefly mentioned and the conservative and operative treatment is fully described. The text is profusely and well illustrated with clinical photographs and radiographs.


The octopus presents an excellent model for the study of learning and memory in a simple form. The animal learns responses rapidly and learning can be readily reversed. It also has two sets of segregated neural structures which can be identified as serving visual and...