

## Book reviews

**PRIMARY INTRAMEDULLARY TUMORS OF THE SPINAL CORD AND FILUM TERMINALE** By J. L. Slooff, J. W. Kernohan, and C. S. MacCarty (Pp. viii + 255; 81 figures. 94s. 6d.) London: W. B. Saunders. 1964.

Specialists in all fields have multiplied so exceedingly in the past few decades that monographs on tiny portions of specialized fields now appear in a steady stream from the medical presses. We are apt to presume that the gross basic facts in such fields are established, wellknown, and fully authenticated, and that the purposes of the monograph is to round off the corners, fill in the details and review the general implications of the small amount of knowledge so painstakingly presented. This is what many monographs do, with more or less success. Only infrequently do the authors set about re-examining the main facts of their subject. In this work, however, devoted to intramedullary spinal tumours, forming, apparently, only 0.0152 per cent of gliomas of the central nervous system, the basic facts about this group of tumours are re-examined with great care.

I wonder how many neurosurgeons, or neuropathologists, could give an accurate estimate of the natural history of an intramedullary glioma. Assuming that the complications of paraplegia *per se* can be overcome, I think that most of us would assume that spread from the cord into the brain-stem, or subarachnoid metastases would bring about demise sooner rather than later. In fact many have contemplated or carried out cordectomy to prevent this event. We would be wrong; only a small percentage of cases in this series suffered such an end and this, perhaps, is the most valuable fact to be derived from this work. It comprises a review of 301 primary tumours of the spinal cord and filum terminale, rightly considered as part of the cord, and dates back over 40 years of work at the Mayo Clinic. Even assuming that in the early decades of this period, most patients died of the complications of paraplegia, the incidence of death from intracranial spread is surprisingly small.

The different tumours are considered seriatim, and tabular records of every case history are given at the end of the book. Two of the three authors are neuropathologists, and therefore it is natural that considerable space is devoted to the gross and microscopic pathology of these tumours and to a discussion of gliomas in general. Dr. Kernohan, with others from the Mayo Clinic, was responsible for producing a simple and acceptable classification of gliomas in 1949 and this system has been used widely throughout the world since. Not the least valuable part of this book is an up-to-date restatement of this system, slightly modified, which has stood the test of time so well. A chapter giving detailed post-mortem findings in 33 cases is hardly less valuable, though in many the examination seems to have been confined to the spinal cord.

Two other outstanding questions in connexion with these tumours are dealt with, papilloedema in cervical tumours and syringomyelia in association with spinal

tumours. The former is dealt with only briefly and no new light is thrown on its aetiology. The presence of cavities in the cord in association with tumours is considered in greater detail, but again the conclusions are indefinite.

The book is excellently produced in type easy to read and the illustrations are good. Many of the histological preparations are of too low a magnification to be really useful but this, presumably, is not the fault of the publishers. The authors have not solved the age old problem of presenting percentages in a readable fashion. To say that '92 per cent of these tumours had so and so' may appear 'scientific', but, for instance, 'most of these tumours . . .' says the same thing in a simpler and more easily assimilable manner. Percentages could, perhaps, be relegated to the tables.

It is, surprisingly, a readable book and should be read by all likely to encounter these tumours, but not, perhaps, through from cover to cover. All the relevant facts are presented in an excellent summary of three pages and the sections on histology should be read for their clarity and for the distinction of the authors. A short browse through the remainder of the book should suffice and then it may be placed on the shelf for future use. Reference to it thereafter might well be frequent and valuable, for every neurosurgeon faced with a doubtful diagnosis in the wards will want to gain confidence and reassurance from its pages.

BRODIE HUGHES

**RADIO-ISOTOPES ET AFFECTIONS DU SYSTEME NERVEUX CENTRAL** By Therese Planiol. (Pp. 106; 74 figures. F.36.) Paris: Masson et Cie. 1965.

In September 1963, a one-day conference was held in Strasbourg under the auspices of the World Federation of Neurology, and it dealt with the use of radioactive isotopes in the diagnosis of disease of the central nervous system. Work was reported from France, Germany, Italy, and the United States and is now published in this book.

In the usual method, radioactive material is injected intravenously and can be subsequently detected in excessive amounts in tumours and other lesions either, it is argued, because of increased vascularity in them or because their vessels are abnormally permeable. The dose of radioactivity is small, there need be little disturbance to the patient, and the examination may take only 15 minutes. It can be done as an out-patient procedure, and it is said that if this examination and an E.E.G. are both negative further investigation of patients presenting with fits is unnecessary. Its use in conjunction with angiography to determine the pathological diagnosis is also described. Radioactive material is injected in some centres into the ventricles, the cisterna magna, and the lumbar theca to demonstrate the ventricular system, the cisterns, and the spinal canal. This book gives a useful survey of the work of a varied group of experts in this subject.

**GROWTH AND MATURATION OF THE BRAIN** Progress in Brain Research, Vol. 4. Edited by D. P. Purpura and J. P. Schadé. (Pp. 289, illustrated. 80s.) Amsterdam, London and New York: Elsevier Publishing Company. 1964.

Fourth in the series, 'Progress in Brain Research', this volume embodies contributions of a symposium on brain development held in Amsterdam in 1962. The research efforts of many countries are represented and each article gives signs of careful preparation, no doubt related to a high standard of editorial control. Experimental studies relevant to a variety of levels of organization, from the molecular to the multicellular, are formally presented, without dilution by those pointless reports of general discussion that mar the pages of many current symposia.

The book is clearly illustrated and impeccably produced.

M. KINSBOURNE

**CLINICAL NEUROLOGY** By Frank A. Elliott. (Pp. xix + 688; 171 figures. 87s. 6d.) Philadelphia & London: W. B. Saunders Company. 1964.

New textbooks are essential every few years to keep the subject alive. New editions are not enough: they tend inevitably to carry a certain inflexibility with them.

This book is a bold venture for one author. It attempts to cover the whole of neurology, including organic cerebrally conditioned mental disease, much of cerebral tumour material that is now neurosurgical, and a section on diseases of muscle which are by tradition regarded as neurological.

Although there is a welcome section on pain there is unfortunately no real consideration of intractable pain, which the neurologist meets constantly, if only with the patient en route to the psychiatrist. It is a pity also that migraine has been placed here, since this does not allow adequate consideration of the size and our fairly full knowledge of this problem. Sections on treatment take second place to diagnosis and pathogenesis, but where therapy is discussed it is generally up to date.

Much dead wood of 19th-century neurology has been pruned in this book and it is a useful introduction for student and resident. The omission of the usually inadequate sections on psychoneurosis and such specialized procedures as electroencephalograms and electromyograms, apart from the essential mention of them in diagnosis, is to be welcomed. Care has been taken over the references which are practical and up to date.

**THE OCULOMOTOR SYSTEM** Edited by Morris B. Bender. (Pp. xiv + 556; illustrated. 120s.) New York and London: Harper & Row. 1964.

In April 1961, a symposium took place in New York on the subject of the oculomotor system. After a comparatively long interval the contributions now appear in book form. The volume falls into two parts; chapters one to 11 and 21 deal with animal experimentation, and chapters 12 to 20 are concerned with observations on humans. The animal work, largely anatomical, has little relevance to neurological practice. Among the later

chapters there are, however, some contributions of outstanding neurological interest.

Jung and Kornhuber present results of electro-nystagmography on the staggering number of 13,000 patients. They are able to illuminate the classification of the nystagmus and make out a strong case for their method as an adjunct to neurological diagnosis. Hallpike reports an electronystagmographic study of the effort of optic fixation on the directional preponderance of vestibular nystagmus in unilateral cerebral disease and neatly resolves apparent contradictions between his results and those of the German workers. A general review of the effect of brain lesions on eye movements is given by Cogan. The book is well worth looking at for these three articles alone, but the reader will also find more of interest on subjects such as binocular fusion, position sense of the eyes, the stabilized retinal image, and the relationship of the E.E.G. to eye movements during waking and sleep.

M. KINSBOURNE

**APHASIA IN ADULTS** Diagnosis, Prognosis and Treatment By H. Schuell, J. J. Jenkins, and E. Jimenez-Pabon. (Pp. 428; illustrated. 90s.) London: Harper & Row. 1964.

Students of aphasia should not be distracted by the subtitle of this book which suggests an over-emphasis on therapy. The main and important contribution is provided by the close association of a speech pathologist, an experimental psychologist, and a clinical neurologist who are obviously intensely absorbed in the mechanisms concerned with speech in both health and disease.

The authors see five major trends in research in aphasia. First, the further study of aphasic responses; second, exploration of neurophysiological concomitants; third, the measurement and analysis of the free speech of aphasics; fourth, a study of aphasic language in terms of modern structural linguistics; and finally in the direction of statistical and mathematical treatment of data obtained from objective tests and free speech situations.

These aims provide the background for the observations and discussions reported here and they will be widely read with interest and advantage.

W. RITCHIE RUSSELL

**HORIZONS IN NEUROLOGICAL EDUCATION AND RESEARCH.** Under the sponsorship of Barrow Neurological Institute. (Pp. xii + 203; 70 figures. \$10.00.) Springfield, Illinois: Charles C. Thomas. 1965.

This is a useful small book in emphasizing the wider horizons of the neurological sciences. Some of the contributors derive a good deal from Harvey Cushing, who derived much from Halsted who, in turn, was indebted to Billoth and thus ultimately to the Wissenschaft movement in 19th-century Europe. The movement received its impetus, despite its name, as much from France as from Germany. It is entirely appropriate that a work concerned with the horizons of neurological education should have this background. It will be of occasional value and interest to the student of neurological science and biography.