

Book reviews

TUMOURS OF THE CENTRAL NERVOUS SYSTEM By L. J.

Rubinstein. (Pp. 400; illustrated; \$11.75.) Armed Forces Institute of Pathology: Washington. 1972. This is a splendid book, and one which maintains the high standards that clinicians and pathologists alike routinely expect of every fascicle of the *Atlas of Tumour Pathology* published by the AFIP. Dr. Rubinstein now presents us with an authoritative account of tumours of the central nervous system, and he incorporates many observations on their ultrastructure, treatment, prognosis, and differential diagnosis. There are also sections on the general biological characteristics of tumours of neurogenic origin, on the changes brought about by irradiation, and on the more important diagnostic aids including brief accounts of rapid diagnostic methods (smears, frozen sections, and cryostat-unfixed sections) and spinal fluid cytology. The fascicle is lavishly illustrated, and the quality of the black and white reproductions is excellent. One might question if many of the colour plates are any more informative than the monochromes: they would certainly not be worth incorporating if they materially increased the cost of production but no one is likely to object to the price of this fascicle.

The opinions expressed in this book are in essence similar to those in the until now indispensable Russell and Rubinstein—indeed one wonders what effect this fascicle will have on future editions of the latter. There are some points that differ, usually mainly in emphasis, but there are some fairly striking changes in the classification of astrocytomas. Dr. Rubinstein now lays much greater emphasis on the term *diffuse* in describing astrocytoma: this is a reasonable step, although some neuropathologists may still prefer to restrict the term to tumours that do not quite warrant inclusion in the category of gliomatosis cerebri. There is not a section dealing specifically with anaplastic astrocytomas, although it is of course said that any diffuse astrocytoma may become anaplastic. The intriguing point is that Dr. Rubinstein introduces a section entitled 'malignant astrocytoma', a tumour with features that fall short of those of glioblastoma multiforme. Unlike the authors of the earlier fascicle on tumours of the central nervous system, Dr. Rubinstein has never supported the grading of astrocytomas 1–4 on the basis of ascending degrees of malignancy, and I agree with him in this, but it could be argued that he now

accepts four grades of astrocytoma—diffuse astrocytoma, anaplastic change in diffuse astrocytoma, malignant astrocytoma, and glioblastoma multiforme. This is not precisely what he says, since he defines differentiating features, but it could be interpreted thus. This amended terminology will probably not be welcomed by surgeons and radiotherapists, but I find it sensible and acceptable if only to emphasize that in a tumour with such a wide spectrum as astrocytoma, rigid lines cannot be drawn between subtypes.

Much more could be said. I approve of the rather ugly compromise term 'reticulum cell sarcoma—microglioma' if it will bring to an end the battle of semantics that has been waged over this tumour for many years. I doubt if I approve of the comment that Figures 195 and 196 are the same type of meningioma: Dr. Rubinstein does comment in the legend that the tumour illustrated in Figure 196 is sometimes designated as haemangiopericytoma. I have no particular liking for this term either, but there is, I think, an ever increasing body of opinion that there are two distinct types of angioblastic meningioma.

I can only end as I began by saying that this is a splendid and eminently readable book. The pathologist will use it as a standard reference book. The clinician could hardly fail to benefit from browsing in it.

J. HUME ADAMS

AUTONOMIC NEUROMUSCULAR TRANSMISSION By

M. R. Bennett. (Pp. 274; illustrated; £7.60.)

Cambridge University Press: Cambridge. 1972.

It is only in recent years that clinicians have begun to pay attention to the autonomic nervous system and to autonomic disorders which occur in patients with neurological disease. This book on neuromuscular transmission in the autonomic nervous system is therefore particularly opportune. It is clearly written, but, nevertheless, is not light reading for those not primarily concerned with neuromuscular transmission, and the frequent summaries giving the author's appraisal of the evidence he has quoted are particularly valuable. Unlike the somatic motor system, the muscular effector in the autonomic nervous system is not a single muscle fibre but a smooth muscle bundle in which there is electrical coupling between the cells of the bundle. An action potential therefore spreads along the bundle and may also

spread across to adjacent bundles. The potential developed in the bundle controls the amount of smooth muscle contraction, and itself depends both on the number of nerves which are stimulated and on the frequency of impulses in those nerves. Transmitter action is probably terminated by diffusion of transmitters away from receptor sites, not by breakdown at the site as with somatic innervation. There may be several types of neuromuscular junction which still need further description by electron microscopy, as they are too small to be examined by light microscope. This book will prove valuable to those who wish to know the present position in this expanding subject.

J. M. K. SPALDING

CORE TEXT OF NEUROANATOMY By Malcolm B. Carpenter. (Pp. 269; illustrated; £4.25.) Churchill Livingstone: Edinburgh. 1972.

This book represents a welcome new trend. Textbooks intended for undergraduates have a problem of middle-age spread compounded by increasing numbers of 'essentials' for student digestion. Neurologists are well aware of the results of an expanding lesion in a non-expanding container. Headaches are too easily ignored until thinking stops and death is perilously near. Dehydrating the lecture-demonstration course is only palliative if textbooks grow to dimensions which make it impossible to read them through. When a book has to be used as a reference book it is no longer a textbook.

Professor Carpenter has produced a new book based on his well-known *Human Neuroanatomy* which is a welcome move to reduce the subject to essentials, and to reduce duplications (though Figures 8-5 and 9-4 are identical). There is an error of colour coding in Figure 3-25. Many teachers would still question whether 249 pages on neuroanatomy is appropriate but too much condensation makes an indigestible diet. This book seems about right. Illustrations (some borrowed from Mettler's *Neuroanatomy*) are well chosen.

J. A. SIMPSON

THE DIAGNOSIS OF STUPOR AND COMA Edited by F. Plum and J. B. Posner. (Pp. 286; illustrated; £4.75.) Blackwell: Oxford. 1972.

The contemporary social 'epidemic' of road accidents and self-poisoning makes the diagnosis of stupor and coma of vital relevance to doctors in accident and emergency departments and in acute receiving wards. Within our hospitals advances in cardiothoracic surgery, in prolongation of life in patients with chronic renal and hepatic failure, and

the resuscitation of victims of cardiorespiratory arrests makes this a matter of concern to many doctors outside the restricted field of neurosurgery and neurology. Indeed in Britain this problem lies largely outside the scope of traditional neurology, but when this book was first published in 1966 it marked the beginning of a new style of neurology which is steadily spreading in North America. This is concerned with the active management of the acutely ill in general hospitals. While diagnosis for the traditional neurologist is still more often an intellectual exercise than a prelude to action, the management of the patient in coma depends critically on an accurate assessment both of the primary cause and of the secondary processes which have been initiated. That is what this book is about. Because it avoids entanglement with therapy its message is clear and concise and it will not date. The stress is on bedside examination and it is a relief to open a book about clinical neurology which does not include a single radiograph or brain scan. Signs which are emphasized are those which became largely known from the first edition, namely those relating to brain-stem dysfunction (patterns of motor response, of respiration, and of ocular movements). The first four chapters deal with physiopathology of signs, with focal supratentorial and subtentorial lesions, with metabolic disease causing coma; the last two are new in this edition, concerned with psychogenic unresponsiveness and with the prognosis of coma.

This book is short, but within its terms of reference encyclopaedic; there are over 600 references which are right up to date. It is clear, yet scholarly rather than didactic. The ambiguities and difficulties implicit in the subject are never avoided and the text is enlivened by some 40 case histories, tersely told, well-dispersed through the book, and identified by smaller type. Many modern medical texts are irrelevantly over-illustrated, but this book contains only 24 figures, mostly line drawings or pathological specimens, and all of them helpful and necessary. The first edition began the *Contemporary Neurology* series (edited by Fred Plum and Fletcher McDowall) and the second edition is the tenth of these outstanding texts. It is a model of how a book should be written and proposes a pattern for the practice of neurology in our time. In short, this book is both a classic and a milestone.

BRYAN JENNETT

REVIEW OF ANATOMIC FOUNDATION OF NEURO-RADIOLOGY OF THE BRAIN 2nd edn By McClure Wilson. (Pp. 390; illustrated; £7.50.) Churchill Livingstone: Edinburgh. 1972.

The first part of this book describes the embryology of the brain and the main features of the gross