Book reviews

Excitatory Amino Acids. Edited by Peter J Roberts, Jon Storm-Mathisen and Harry F Bradford. (Pp 508; £48.00.) Basingstoke: Macmillan Press, 1986.

The excitatory amino acids, L-glutamate and L-aspartate have come of age as neurotransmitters in the nervous system. After much debate the evidence available suggests these substances fulfill the necessary criteria. Now the search is on to discover the function of the extensive excitatory amino acid pathways in the nervous system. The use of the excitatory amino acid agonist kainic acid has shown the importance of these substances as excitotoxins and has raised the possibility of their involvement in neurodegenerative disease.

This volume on *Excitatory Amino Acids* represent the proceedings of a symposium on this topic held in 1985. The twenty-eight chapters cover the whole spectrum of excitatory amino acid research. Initial sections deal with the historical aspects, the compartmentalisation and metabolism of glutamate and aspartate and other evidence for the transmitter role of these substances including the localisation to specific neuronal pathways in brain. Later chapters deal with a number of very important issues. The role of substances such as quinolinic acid, acting on excitatory amino acid receptors as endogenous excitotoxins is discussed. The nature of excitatory amino acid receptors is comprehensively discussed. In this area, there has been many advances which now distinguish three sub-types of receptor, namely kainate, quisqualate and NMDA sites. Such discoveries have relied largely on the synthesis of novel selective excitatory amino acid agonists and antagonists but little space is devoted to this area. Lastly, the role excitatory amino acid systems may play in epilepsy, ischaemia and stroke is explored. Indeed, since the book was compiled much interest has centred on the role of NMDA antagonists in these areas. Excitatory amino acid systems are now well described. The existence of these pathways in the nervous system offers the opportunity for novel approaches to therapeutic intervention. The field is only in its infancy but appears to have much to offer in the future. This volume will be of interest to laboratory scientists and to clinicians working in the areas of epilepsy and stroke. In such a rapidly expanding field it is already somewhat dated but libraries should stock it as a refer-

ence volume for the excitatory amino acid area. As with many such conference based volumes, it is a camera-ready book. At £48 I would have hoped for a better prepared typeset volume.

P JENNER

Diseases of the Nervous System: 2 volumes. Clinical Neurobiology. Edited by Arthur K Asbury, Guy M McKhann and W Ian McDonald. (Pp 1653; £125.00.) London: William Heinemann Medical Books Ltd, 1986.

When I became a full-time neurologist more than 30 years ago I acquired Kinnier Wilson's *Neurology*. Sad to say, I have rarely consulted it. The clinical descriptions are excellent but there is no guidance on mechanisms of disease or on the applied physiology of the human nervous system. Well known textbooks have occupied increasingly wide spaces in my library for occasional reference but, like the lamp-post for the inebriated, more valuable for support than for illumination. The multi-volume *Handbook* is but a street of lamp-posts. At the end of my career there is suddenly a benison of good books on the principles of clinical neurology and its scientific bases. On my own shelves I now have five, thanks to editors who have kindly asked me to review them for this and other journals, for the expense would otherwise be formidable. Three are American, one British and this two volume work, a combined effort, is the best of all. Wilson, Brain and others could reasonably essay to present the whole field of neurology. It is no longer possible for one writer to be authoritative in all aspects so it is imperative that the editors should recognise growing points and select good contributors. Asbury, McKhann and McDonald with 193 contributors have succeeded better than any hitherto. This is a superb book, well worth the cost of a flight from London to Glasgow (return of course!).

The temptation to quote is almost irresistible. It is full of useful insights as well as facts based on very recent research but to balance this with personal disagreements or minor omissions would be misleading because few chapters are less than authoritative and there are 136 of them. Volume I covers the biology of neurons and supporting tissues of the nervous system, neuromuscular physiology and disease, motor control (showing signs of rigidity?), cranial

nerves, autonomic functions, genetic and metabolic diseases (excellent on first principles) and disorders of development including aging, mental retardation and the acquisition of language. Volume II has the best contemporary brief account of disorders of higher cerebral functions, psychic (sic) function, pain, paroxysmal disorders, and pressure, followed by a small but good section on vascular diseases. Neoplasia, neurodegenerative and demyelinating diseases are followed by environmental disorders (an odd section heading for trauma, nutrition and toxicity) and infections. Surprisingly, neuroimmunology gets only 20 pages without reference to antigen-presentation, idiotype network, the complement systems or the peculiar nature of intrathecal immunological reactions. Fifteen chapters on neurological manifestations of systemic diseases are splendid for the consultant neurologist in a general hospital. Though brief, they remind one of dimly remembered linkages (but, in a valuable chapter on cortical evoked potentials, the wise comment is made that clinical correlations are not necessarily clinical applications). The concluding chapters make it clear to this reviewer that clinical neurology and neurophysiology investigate neuronal systems while imaging techniques define the supporting structures of the nervous system. Twenty years on, PET scanning still appears to be "promising". MRI of monoclonal antibodies with paramagnetic labelling is still an unachieved possibility. Support your local scanner appeal until magnetoencephalography is perfected for non-invasive monitoring which is dynamic on the time scale of neural activity. This uniquely comprehensive book mentions them all. Stimulated interest is facilitated by well chosen references. A welcome and unusual feature is that key references are designated with an asterisk, a small point but indicative of the care with which this magnificent book has been assembled and edited.

JA SIMPSON

Clinical Neurosurgery Vol 33. (Proceedings of the Congress of Neurological Surgeons Honolulu, Hawaii, 1985.) Edited by John R Little. (Pp 702; £54.00.) London: Williams & Wilkins, 1986.

Clinical Neurosurgery records the Proceedings of the Congress of Neurological Surgeons, and this volume those of the 35th meeting held in Hawaii in late 1985. There

are eight sections: the contributions of the President and the Honoured Guest, Perspectives in Neurosurgery, Cerebrovascular surgery, Paediatric neurosurgery, Spinal surgery, Intracranial tumours, Infections and Neurosurgical treatment of vertigo.

The underlying theme of the book is controversy in neurosurgery. The second section deals with decision making and in particular the implications of a competitive market system not only for neurosurgical management but upon medical education and research. The potential effects upon neurosurgical training programmes are discussed by the President. The ethical, legal, and medical considerations of a decision not to treat are discussed in relationship to the competence of the patient. The playwright Brian Clark in discussing the patient's role, concludes that the population at large, including the medical profession, must come to terms with its own mortality before a patient can take a full and confident role in the making of a decision. Such considerations will become increasingly important to practitioners in Britain as we are required continuously to improve the cost effectiveness of our decisions and face the legal consequences thereof.

The remaining sections deal with more specific neurosurgical problems and often writers present contrary views. Topics covered include: aneurysm surgery (the questions of incidental aneurysms, use of antifibrinolytic agents, and the timing of surgery); the management of unruptured arteriovenous malformations; the surgery and management of ischaemic vascular disease including asymptomatic carotid disease and extracranial-intracranial bypass in the light of the multicentre EC-IC Bypass Study; the evaluation of in utero treatment of hydrocephalus and the advocacy of a more aggressive surgical policy in the management of myelomeningocele than that widely in vogue in Britain; chemonucleolysis versus lumbar microdissection, the latter versus conventional surgery and the place of lumbar fusion; the roles of surgery, radiotherapy and chemotherapy in craniopharyngioma, prolactinoma, Cushing's disease and low grade astrocytoma; medical and surgical management of brain abscess and the use of prophylactic antibiotics; microvascular decompression or vestibular nerve section for vertigo.

This is an excellent book which should be read by all neurosurgical trainees and practising neurosurgeons. It is strongly bound and well produced on high quality paper with only the occasional typographical error. It is a pity that the price is so high, especially for a book which will inevitably be

superceded by later volumes in the same series.

MDM SHAW

Syringobulbia: A Contribution to the Pathophysiology of the Brainstem. By N Jonesco-Sisesti. Translated into English, edited and annotated by RT Ross. (Pp 314; \$49.00.) New York: Praeger Publishers, 1986.

A whole volume devoted to the relatively rare syndrome of syringobulbia seems at first sight to be excessive and one's fears are increased when one realises the book is a translation of an original publication in French in 1932. But the fears are groundless; *Syringobulbia* by Dr Jonesco-Sisesti and translated by Professor RT Ross is neither excessive nor excessively verbose. Professor Ross explains in his introduction that Dr J Goodwin Greenfield brought the original to his attention many years ago and intimated that it should be translated into English.

The translator has succeeded admirably and the review of 100 patients culled from the literature prior to 1932 together with a further 11 from the records of the Salpêtrière provides a solid foundation for a description of the anatomy, clinical features and pathology of syringobulbia. There are remarkably few aspects of clinical presentations, differential diagnosis and pathological anatomy in which the past 50 years has altered our knowledge but at the end of each chapter Professor Ross provides an addendum which reviews the literature of the intervening years and contains some personal opinions. The most evident change in the management of syringobulbia since the original publication is in the field of investigation and particularly the advent of non-invasive CT and MRI. Examples of these are furnished by the translator in a chapter dealing with differential diagnosis. The clarity of the scan pictures and of the sections of brain stem is a compliment to the publishers and whilst it is slightly annoying to be continually relating a description on one page to a photograph several pages away this does not detract greatly from the enjoyment of the book.

It cannot be claimed that *Syringobulbia* is essential reading for all students of neurology but it is a welcome addition to a neurology reference library. It is suggested that "knowledge which is not readily accessible soon becomes lost" and in this respect all those who are not fluent in French but who are interested in neurology will applaud Professor Ross for his effort.

DAVID BATES

The Practising Physician's Approach to Headache 4th ed. Edited by Seymour Diamond and Donald J Dalessio. (Pp 240; £36.00.) Baltimore: Williams & Wilkins, 1986.

The fact that this is the fourth edition since 1975 of this handy physician's guide is testimony to its worth and popularity in the United States. The well known editors assisted by ten specialist colleagues hope "to demonstrate a definitive approach to both the diagnosis and the treatment of headache. An attempt has been made to keep the text uncluttered, simple and easy to read and follow."

The book spans some 220 pages divided into 20 chapters. It is beautifully produced and illustrated. Between the hard covers there lies much sense and wisdom. Most of the major headache syndromes are covered and descriptions adequate for diagnostic purposes are provided. The advice about how to treat the patient is usually both detailed and explicit. It is easy to understand its popularity with general practitioners as a didactic text.

For the more critical there are areas where complex cocktails of drugs recommended will not find ready acceptance. The simplification of pathophysiology and the approaches to management would not be agreed in many neurological circles. Much attention is paid to "the somatization process," to biofeedback, relaxation training, aerobic conditioning and (no surprise) acupuncture is not forgotten. It may be that the British are too cautious, too conservative in our attempts to tackle what is often an intractable tangle of pain, invalidity and complex emotional and personality conflicts. The approach in this book is one of empiricism, backed one suspects by the sort of compelling urge to treat which patients of this type find irresistible.

The results are best judged by the preface "The reader may be assured that we and our colleagues have successfully treated many patients with headache. This is a book founded on clinical experience, for which there is no substitute."

JMS PEARCE

Manual of Nerve Conduction Velocity and Somatosensory Evoked Potentials. 2nd ed. By Joel A DeLisa, Keith Mackenzie, Ernest M Baran. (Pp 210; \$25.50.) New York: Raven Press, 1986.

The second edition of this manual of test-

J. Neurology
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