Book reviews

The Cerebral Venous System and its Disorders. Edited by John P Kapp & Henry H Schmidek. (Pp 637; £28.50.) London/New York: Grune & Stratton Inc, 1984.

When one considers the number of books that are available on "cerebro-vascular disease" one realises that this term is regarded by many people as almost synonymous with disease of the cerebral arteries. The cerebral venous system has received comparatively scant attention, at any rate in the UK, and this is perhaps illustrated by the fact that in this impressive multi-authorship volume devoted to the venous side of the cerebral circulation, only one British author is amongst the contributors. But what a fascinating book this is; even the anatomy, clearly and succinctly described, makes absorbing reading. I have always felt one enjoys reading anatomy very much more when one already has had some practical experience of using it clinically, rather than when it was merely the introduction to a subject. Cerebral venous anatomy is known in detail to relatively few, and the first five chapters give an exciting account of gross and microscopic morphology, the embryology, and those variations from the average that are so much a feature of venous anatomy as opposed to arterial. Three chapters then deal with matters physiological, and these are followed by the main part of the book dealing first with clinical features produced by lesions of specific venous pathways, and going on through neuro-ophthalmological aspects, to the effects of lesions of the venous sinuses, the cortical veins, and the deep cerebral veins. Venous anomalies are much less familiar to the clinician than arterial, and these are described in detail and illustrated beautifully, and to keep one's interest from flagging there is an absorbing review of the results of separating craniophagus twins. Clearly arterio-venous fistulae have an important place in this book, and this includes an excellent account of carotico-cavernous fistulae, where again the important variations in anatomy are stressed to show how these correlate with the interesting variations in the clinical presentation of this condition—something other publications so rarely seem to attempt. The effects of arterial anomalies upon venous behaviour is well illustrated both in this context and in a chapter on the intracavernous aneurysms. The book ends with a discussion of the surgical problems and potential related to the intracranial

venous system.

I have rarely seen so profusely illustrated a book which is not just an "atlas." On a rough count approximately 550-575 photographs are reproduced, many of which are full page, in which definition is excellent on the high quality paper that is used. One would expect the cost of this to be prohibitive, yet the price of the book is only £28.50 which in these days for a publication of this length and quality is remarkable.

My only major criticism is that some authors appear still to look upon benign intracranial hypertension, otitic hydrocephalus and transverse sinus thrombosis as the same condition. Our sole British contributor deals firmly with this muddle, but it is a little confusing in some other chapters.

This is an almost unique publication and of inestimable value to neurologists, neurosurgeons and neuroradiologists. The authors, the editors, and certainly the publishers are to be warmly congratulated.

EDWIN BICKERSTAFF

Excitotoxins. (Wenner-Gren International Symposium Series; Vol 39.) Edited by Kjell Fuxe, Peter Roberts & Robert Schwartz. (Pp 362; £40.00.) Basingstoke: Macmillan Press, 1984.

It is now some 20 years since the excitatory effects of glutamate on neurons was first demonstrated. Since that time it has proved exceptionally difficult to show unequivocally its role as a true brain neurotransmitter substance. A major problem has been the involvement of glutamate in many other processes in brain including energy metabolism and fatty acid synthesis. However, despite these difficulties it has become accepted that many brain regions contain glutamate-utilising neurons and that glutamate plays a major role in neuronal transmission.

This volume contains the proceedings of a Wenner-Gren International Symposium on Excitotoxins held in 1982. The heterogeneous collection of papers contained in the volume emphasises the wide interest which exists in the area of excitatory amino acids. The initial chapters emphasise the wide distribution of glutamate-containing pathways in brain and the apparent existence of multiple types of excitatory amino acids receptors. Major advances have been in the synthesis of excitatory amino acid analogues and this

has led to a degree of pharmacological specificity of action which was not previously available. This has led to many of the major advances which are described in the volume.

As the title suggests many of the excitatory amino acid analogues cause cell death. The mechanism underlying such effects are of interest in relation to disease states and ample space is given to reports of such investigations. Similarly, these neurotoxic agents are useful in themselves as tools for investigating brain function in a variety of research areas and later chapters provide examples of their use. Finally, the volume deals with the potential role of excitatory amino acids in disease states underlying epilepsy, Huntington's chorea and dementia.

An interesting volume for those concerned with this area of research. Although the reports date from 1982 it still provides an adequate summary of current thinking in the field of excitatory amino acids.

PETER JENNER

Life Support Systems in Intensive Care.

Editors: Robert H Bartlett, Walter M Whitehouse, Jeremiah Turcotte, Mary M Harper. (Pp 614; £47.50.) Chicago: Year Book Medical Publishers Inc; UK Distributors: Oxford: Blackwell Scientific Publications, 1984.

This book is rather disappointing in that it is larger than necessary, is extremely uneven in the presentation of the material and at no stage seems quite clear as to the audience for which it is designed. It is a multiple author product, which tries to cater for all levels, from the medical student to the specialist and deals with various concepts of intensive care, starting at an elementary level and sometimes unfortunately pursuing a rather qualitative format in the style of a standard textbook, rather than a specialist publication.

The book is set out in terms of general physiological considerations in relation to management covering measurement and monitoring and the support of individual failing organs and the all important concept of protecting healthy organs at the same time. Quite specifically, it excludes chronic organ failure, neonatal and paediatric intensive care, with the interesting omission also of burns and not surprisingly, not touching on artificial organs in chronic care. The individual chapters on measuring and monitoring attempt to cover the principles from an elementary standpoint and

certainly give sufficient detail of the techniques to guide the new user. There is not a great deal of discussion on the philosophy and advantages of such techniques, however. The chapters on electrolyte balance could well have been written rather a long time ago and the companion chapter on recent advances tends to pick up any new concepts in a rather random fashion, without putting them into context or subjecting them to any realistic discussion. This tendency also seems to pervade the chapters on energy and metabolism and host defences, with the chapter relating to infections set out rather like a seed catalogue and dismissing infections of the central nervous system in a matter of about 33 lines. Most institutions have carefully evaluated and derived their own antibiotic policies, so that the time for generalistic advice, as opposed to more specific discussion of the underlying problems, has long past.

The extensive chapters on involvement of the central nervous system are again set at a variable but relatively elementary level, if it is assumed that the book is designed for an audience familiar with some of the elements of intensive care. The practical applications of the physiological background are not always made sufficiently clear to allow the book alternatively to cater for the new entrant to life support systems.

The bibliography attaching to some of the chapters is useful but one already has a very large number of reference manuals available for this purpose and therefore access to this information does not really justify the purchase of the book.

ALAN E RICHARDSON

Cluster Headache. Edited by Ninan T Mathew. (Pp 156; £23.50.) Lancaster: MTP Press Ltd, 1984.

This is a compilation of the latest advances in the management of cluster headaches. It is the first of a new series of monographs promoted by the American Association for the Study of Headache.

Historical aspects are reviewed by William Speed, revealing the difficulties in deciding who provided the first authentic description: the British favour Benjamin Hutchinson's 1822 report of 28 cases, but Speed thinks this is a sketchy reference to earlier German writers. Romberg's account in his *Manual* (1840) describes paroxysms with weeping and redness of the eye, but he stresses extreme photophobia,

an uncommon accompaniment. The claims of Eulenburg and Sluder are well described, as are the better known accounts of Wilfred Harris, Dandy and Horton.

John Graham compares cluster headache with migraine and Kunkel gives an excellent account of acute cluster headache and the classification, though many would have doubts about the entities "Cluster-tic, Cluster-migraine and Cluster-vertigo". If the collection of a miscellany of somatic and personality traits said to characterise the "cluster patient" are less than wholly convincing, the sections on autonomic abnormalities (Vijayan and Watson) and pathophysiologic aspects (Edmeads) are detailed and informative.

Treatment is dealt with in two main chapters: one on acute cases which favours sublingual ergotamine, and discusses oxygen, steroids and intranasal cocaine; the other on prophylactic pharmacotherapy which reviews in detail all the standard drugs and includes a comprehensive if disproportionately long account of lithium. Campbell rightly denounces histamine desensitisation, but proceeds with a full and probably unnecessary review. Dalessio's chapter on surgical therapy is aptly brief.

Overall this is a satisfactory account of an intriguing disorder. There is perhaps, too little known of basic mechanisms, but a more comprehensive essay on recent experimental work would have made this book more useful to those with a special interest. The editing is unfortunately unsatisfactory and has overlooked numerous spelling errors and grammatical gobbledegook. Even by 1984 standards £23.50 will deter some enthusiasts, though it deserves a place on certain library shelves.

IRIS PEARCE

Sleep, Benzodiazepines and Performance. (Psychopharmacology Supplementum 1) Experimental Methodologies and Research Prospects. Edited by I Hindmarch, H Ott and T Roth. (Pp 250; \$36.60.) Heidelberg: Springer-Verlag, 1984.

Since their synthesis by Leo Sternbach in 1933, benzodiazepines have been one of the success stories of modern pharmacology. Chlordiazepoxide was first used clinically in 1960 and spawned a whole new series of drugs useful in the management of

anxiety, epilepsy and muscle spasm as well as of insomnia. The mode of action remained unknown for almost two decades but there have been many exciting recent developments. GABA-chloride channel-benzodiazepine receptor activation may not be the entire explanation for the clinical effects of these drugs. A number of different kinds of benzodiazepine receptor have been recognised both inside and outside the brain including the basal ganglia and lamina 4 of the cortex. This may be an important site for sensory deafferentation during sleep and many other hypnotics have binding sites here. Endogenous ligands for benzodiazepine receptors, including melatonin, have been sought for, although as yet with little success. Pharmacologically similar drugs but with a non-benzodiazepine structure have been synthesised. The new field of benzodiazepine antagonists promises to be a rich field for anxiety as well as for sleep research.

This published symposium proceedings describes all these topics, but in particular, the morning-after effects of benzodiazepines. Despite a vast amount of work it is still not clear whether a 55-year-old subject taking flunitrazepam 30 mg at night for some weeks is a fit person to drive a motor car early in the morning. Many of the scientific, as well as the clinical aspects of benzodiazepine therapy remain controversial. Doctors working in the British National Health Service might be envious of the advice from Stanford that detailed polysomnogram studies should always be done before starting benzodiazepines; but are unlikely ever to emulate it. Changes in metabolism and growth during sleep are a difficult field to study. These topics have been reviewed recently by both Horne, and Adam and Oswald (*Clinical Science*, 1983; 65:569-78; and 561-7). Hindmarch gives an excellent review of the effects of hypnotic drugs on waking performance, and Dorow describes the benzodiazepine radio-receptor assay, which is a valuable contribution to the correlation of pharmacokinetic with clinical effects in drugs with a multitude of active metabolites.

This is an unusually well produced book. It is well edited, with good illustrations and a good index. The first 10 index headings referred to in another recent Springer-Verlag book (*Sleep Mechanisms*; Borbély and Valatx, eds, 1984) were all paginated incorrectly. Is this a record? Altogether this is an excellent symposium proceedings although of highly specialist interest only.

JD PARKES