Book reviews

Brain Peptides. Edited by Dorothy T Krieger, Michael J Brownstein and Joseph B Martin. (Pp 1032; £79.95.) Chichester: John Wiley & Sons, 1984.

With a volume uncompromisingly entitled "Brain Peptides" one expects something of textbook status. While the size is certainly substantial the book is, however, essentially a compendium of facts, a rather predictable collection of chapters written by a large number of different authors and which in many cases are to be found in other volumes. This is perhaps not surprising as at present we have only very vague ideas concerning the mode of action and function of brain peptides and any clinical relevance for the majority of these substances is far from clear. The discovery almost ten years ago of the enkephalins has not been followed by the development of more effective or less addictive analgesics. Similarly the treatment of basal ganglia disease has not been revolutionised by the knowledge that the levels of peptides such as substance P, enkephalin and cholecystokinin can be radically altered in diseased states.

The popular success of peptide research is to a large part due to the introduction of a number of immunological and molecular biological techniques which are fast becoming standard laboratory tools in the search for more and more peptides. This book acknowledges the importance of technical innovation by setting aside one of its four sections (of five chapters) for the description of the various methodologies. These include receptor binding, immunocytochemistry, neuroanatomical techniques, electrophysiology and second messenger systems. These chapters are not step by step accounts of how to perform various techniques. Rather they are critical assessments coupled with a brief description of the different ways the methodologies have been used. There was here a noticeable exception in the omission of any mention of the peptide stimulated hydrolysis of inositol phospholipids which may well play a critical intracellular role in many neuronal (and non-neuronal) cells.

The first sections of the book deal with the currently fashionable molecular biological aspects of brain peptides. An introductory chapter by the editors is followed by chapters on the evolution, molecular biology, synthesis, and degradation of peptides as well as certain aspects of the

development of peptidergic neurons and their presence in various invertebrate phyla. The second section attempts to assess the role of peptides in particular functions. It is undoubtedly the most controversial area, particularly in the psychiatric field and in the general area of memory research. Other chapters cover feeding, glucoregulation, thermoregulation, nociception, salt and water regulation and various aspects of reproduction. A chapter on retinal neuropeptides is also included. The final section takes a number of the more popular peptides and devotes a chapter to each. Old favourites such as oxytocin vasopressin and substance P and the enkephalins are joined by scholarly chapters on the cholecystokinin, bombesin and corticotropin releasing factor although almost as a justification of continual reference to a "rapidly expanding" field there are the notable omissions of the recently described pancreatic polypeptides and calcitonin related peptides. The section is completed by chapters on somatostatin, insulin, vasoactive intestinal polypeptide, LHRH and GHRH.

Overall this is a passable standard work on peptides. Obviously some chapters are more concisely and clearly written than others but the editors have provided at least a veneer of continuity to a vast number of disparate chapters. How well the book will survive the rapid advance of peptide research is, of course, a limiting factor, as is the enormous cost of the volume. Presumably the publishers assumed that for the price of ten milligrams of substance P a thousand pages on peptides was very good value indeed.

STEPHEN P HUNT

Treatment of the DSM-III Psychiatric Disorders. By William H Reid, George U Balis and John Y Donaldson. (Pp 192; \$34.00.) New York: Brunner/Mazel, 1983.

As its title suggests, this book is an approach to psychiatric treatment based on the categories of the third edition of the *Diagnostic and Statistical Manual of the American Psychiatric Association*. The success of the authors in their tasks depends to a large extent on the validity of their approach. Is DSM III a reasonable basis for treatments; can psychiatric treatments be designed from a consideration of diagnosis alone; can such information be appropriately applied in the management of psychiatric cases by likely readers of the book? The short answer to each of these questions is No! DSM III was designed more for epidemiological research and for

heuristic reasons than as a guide to treatments; it is simply the latest of a series of attempts to classify psychiatric disturbances, and is not yet based on a sound conceptual understanding of the nature of psychiatric disorder. Diagnosis in psychiatric disorder may be a guide to treatment, but does not allow for the individual design of treatment programmes which is necessary, and which must be based on the circumstances of the individual case. Possibly the most misleading aspect of the book is that it adopts a "cookery book" approach to a series of disorders which can only be handled by practitioners who are thoroughly versed in the methods of clinical psychiatry. Individuals of such experience would find the book banal in its simplistic approach. The less experienced would have insufficient knowledge of assessment and diagnosis to put it into practice. Viewed in this way the task the authors have set themselves is just not sensible.

Within these important reservations the book is well produced, well documented and gives useful references to the citations on psychiatric treatment. Unfortunately, most British psychiatrists will find this book quite incompatible with clinical methods in the UK. In my view, such an approach to treatment is simply not valid and the book cannot be recommended to any group, and is especially unsuitable for medical students.

RHS MINDHAM

Alcoholism in the Elderly: Social and Biomedical Issues. (Aging Series Vol 25). Edited by James T Hartford and T Samorajski. (Pp 335; \$61.00.) New York: Raven Press, 1983.

This multiauthor book is the 25th volume of the Aging Series since publication started in 1975. The topic is of considerable interest as the numbers of alcoholics and elderly subjects in our society are on the increase and new problems are likely to arise from the interaction of alcohol abuse and aging. However, the available knowledge is so limited that the choice of topic appears premature, unless the aim of the book was to highlight our ignorance.

The book is divided into three parts, dealing with sociology, biology and biochemistry, and diagnosis and treatment. A final chapter deals with future directions for research in the field. The best part, in my opinion, is the one concerning the biological and biochemical aspects, in which at least the experimental work goes

some way towards looking at the specific interaction of aging and alcoholism. In particular, I found the chapters dealing with the biology of alcoholism and aging in rodents, neurotransmitter function, changes in biogenic amines, and tolerance and dependence to be useful.

The rest of the book has little to offer and it was all too easy to forget that the topic was alcoholism in the elderly rather than alcoholism in general, as most chapters only paid lip service to this issue. Perhaps we can look forward to a future volume in the series when our knowledge of the field has advanced substantially.

MARIA RON

Progress in Migraine Research 2: Progress in Neurology Series. Edited by F Clifford Rose. (Pp 292; £35.00.) London: Pitman Publishing Ltd, 1984.

This up-date on migraine covers clinical aspects, pathogenesis, neurochemistry and therapeutics. The 31 chapters provide a very satisfactory survey of the field. Bickerstaff's Sandoz foundation lecture on complicated migraine is an outstanding contribution. There is a refreshing clinical orientation in many of the papers. It is interesting to learn that in most patients oral ergotamine produces almost no detectable level in the blood and that better levels are provided by rectal administration and by inhalation, though there is much variation in all subjects.

Topical issues relating to dietary precipitation, opioids, peptides and autonomic function provide useful appraisals of recent advances.

This is in no sense a textbook on migraine, but is an invaluable compilation of recent experimental work which should be of interest to neurologists and physicians confronted by the continuing enigma of migraine sufferers.

JMS PEARCE

Brain Protection: Morphological, Pathophysiological and Clinical Aspects. Edited by K Wiedemann and S Hoyer. (Pp 168; \$33.40.) Berlin: Springer-Verlag, 1983.

The proceedings of a conference held at Hirschhorn Castle, West Germany in this book cover morphological, pathophysiological and clinical aspects of cerebral protection. The majority of the contributions are from Europe. The pre-

face refreshingly lacks the self-praise of many published symposium proceedings. Despite considerable advances in the field of brain protection, few conclusions have been reached. With regard to the outcome of the conference the editors admit that "it cannot be claimed with certainty that firm ground has been reached in even some of these fields". However, they have succeeded in their aim of producing a useful volume for those engaged in research and clinical application of cerebral protection, particularly for those new to the subject. Although the discussion after each paper has not been published the final chapter tries to summarise the opinions shared by the participants.

There is considerable variation in the quality of individual contributions and sadly some of the clinical papers are most open to criticism. In this and many similar publications, it is apparent that having been asked to present a paper the authors are prepared to present results from half completed trials and not surprisingly reach little or no conclusion. The concept of false negative results to clinical trials is well known. To conclude that "data so far available do thus not fully support the working hypothesis" is perhaps not surprising following an open uncontrolled study of 31 patients. All such sinners should read Miller's chapter on Clinical Trials of Brain Protection. Several papers are essentially brief reviews of work published elsewhere and the necessary detail for critical analysis is absent.

Barbiturates have long been used in experimental and clinical studies and their serious side effects are well known. Interest is now being expressed in non-barbiturate hypnotics and also in calcium channel blockers and these are extensively discussed. The attenuation of free fatty acid release by these drugs after ischaemic damage may be a measure of their efficacy but it seems unlikely, in view of the numerous complex changes that take place, to be a unique monitor for the success of therapy.

It is appropriate that the best chapter in the book is also the first. Kalimo *et al* have produced a clear and readable account of Structural Aspects of Energy Failure States. They comment upon the deleterious effects of excessive lactate accumulation, but note that the mechanism that causes cell damage is unclear.

This book is worth referring to on the library shelf but too expensive to merit a place on one's own.

D HILTON-JONES

Vertebrobasilar Arterial Occlusive Disease: Medical and Surgical Management. Edited by Ramon Berguer and Raymond B Bauer. (Pp 352; \$56.00.) New York: Raven Press, 1983.

Doctors Bauer and Berguer rightly felt that carotid vascular disease has received enough attention and that it is time to think harder about the more difficult area of vertebrobasilar disease. Vertebrobasilar arterial disease certainly is difficult to deal with for all concerned—neurologists, radiologists and vascular surgeons—and any gain in knowledge in this field would be very welcome. The editors organised a conference in Detroit in 1982 to discuss all aspects of the problem, and this book contains all the papers presented. The material is a mixture of reviews and original research by mainly North American authors, and tends to reflect a generally more aggressive approach to cerebrovascular disease than is fashionable in Europe. The delay in publication has inevitably rendered some of the chapters on the "growing points" of cerebrovascular research such as Nuclear Magnetic Resonance Imaging, Position Emission Tomography and Digital subtraction a little dated.

The main criticism of this work is that the editors and authors have not reached a consensus about what they mean by vertebrobasilar arterial disease. The clinicians name various different constellations of symptoms as diagnostic, whereas the surgeons and radiologists base their definitions more on angiographic or CT appearances. Several of the authors point out that the lack of an agreed definition of vertebrobasilar insufficiency has made it very difficult to interpret the reports of the pathogenesis, natural history and management that have appeared in the literature over the years. Perhaps the next Detroit conference on Vertebrobasilar Arterial Disease will provide a satisfactory consensus definition.

Despite the serious drawback of an agreed definition, there is some interesting reading in this book for those who specialise in cerebrovascular disease. Dr Caplan reviews clinical and pathological features, and rightly highlights the many different causes of cerebral infarction; small vessel disease, haemodynamic problems, thrombo-embolism from atheromatous ulcers and embolism from the heart, among others.

Dr Heyman's chapter on epidemiologic aspects is perhaps misnamed, since the data are drawn from a hospital-based series of