

## Book Reviews

**Molecular Pharmacology of Neurotransmitter Receptors.** Advance in Biochemical Psychopharmacology Volume 36. Edited by Tomio Segawa, Henry I Yamamura, Kinya Kuriyama. (Pp 320; \$54.56.) New York: Haven Press, 1983.

The concept of drugs acting by an interaction with specific receptors was put forward by Langley in 1905. Since that time this classical pharmacological concept has received uninterrupted attention. The advent of ligand binding techniques for the identification of receptors over the past ten years has caused an explosion in the amount of literature published on this topic. It is, however, unfortunate that while such ligand binding experiments are readily carried out their interpretation is fraught with difficulties which has led to much confusion in this area.

The present volume emphasises a number of the advances which are being made in the area of neurotransmitter receptors. Clearly, much of the research effort is based on the concept of multiple sub-types of receptors. If distinct molecular entities are not found for a receptor class then different affinity forms of a single class of receptors can be demonstrated. However, one wonders how much of the classification of receptors relates to the experimental conditions under which such studies are carried out and how much represents what is truly physiological. In my own area of interest we have seen the classification of dopamine receptors expand from a single class to five "clearly distinct" sub-types and then recede to a more modest two receptor population.

More recently, purification of receptors has become a more crucial issue with the emphasis being placed on the molecular nature of the receptors. In the studies of acetylcholine receptors described advances are being made which cannot yet be applied to other areas of receptor studies.

The chapters of this volume deal with acetylcholine, adrenergic, 5HT, dopamine, benzodia zepine and amino acid receptors. One notable omission is the lack of information on GABA receptors. A whole variety of approaches to studying receptors are described but there appears to be no consistent theme between the chapters. The state of the art varies from the sophistication of cholinergic receptor purification and the classification of the benzodiazepine receptor complex to the problems of even trying to identify receptors for excitatory amino acids.

As part of a series, this book will no doubt be bought by libraries. Otherwise, it would seem, on the one hand, not to be of sufficient general interest to warrant purchase by those with a passing interest in the nature of receptors and on the other, to be too diverse to be bought by the specialist.

P JENNER

**Neural Mechanisms of Pain.** (Advances in Pain Research and Therapy, Vol 6) Edited by Lawrence Kruger, John C Liebeskind, (Pp 384; \$61.00.) New York: Raven Press, 1983.

This is a very good book indeed. It contains the contributions delivered at a symposium on "Neural Mechanisms of Pain" of the Intra-Science Research Foundation held in February 1983. Its distinguished editors have indeed fulfilled the aims stated in the Preface: rather than attempt an all-embracing view of pain research, it was decided to select certain specific areas and invite experts to review those fields. The contributors are renowned for their own work on pain, the papers are well written, and the book is beautifully produced, as we have come to expect from Raven Press.

The range of topics is fairly wide within the areas selected for discussion. The 21 chapters include a consideration of peripheral nociceptors and nociceptor mechanisms and the effects of injury, neural circuitry and nociceptor inhibitory mechanisms in the spinal cord and brain, various chapters on spinothalamic tract function, opioid and non-opioid mechanisms, electric stimulation of the brain, and two chapters on neuropsychological aspects of pain and its mechanisms. The volume is dedicated to Dr John Bonica in recognition of his major contributions to the study of pain and the development of the subject, and he contributes an overview which adds an interesting and personal perspective on work in the field over the past 40 years. It is difficult to select individual chapters of special interest and every reader will find particular aspects they find valuable. Of particular personal interest were the chapters on neurotransmitters and neuronal markers at dorsal horn synapses (Jessell and colleagues), the role of paleospinothalamic projection areas in human deafferentation pain syndromes (Albe-Fessard and colleagues), and peripheral unmyelinated units in man (Ochoa).

In summary, this is a first-rate book and it can be highly recommended to anyone if not everyone with an interest in pain and

its mechanisms. Editors, contributors and publisher are to be congratulated.

GD SCHOTT

**Biopsy Pathology of Muscle.** Biopsy Pathology Series. By M Swash and MS Schwartz. (Pp 206; £20.00.) London: Chapman and Hall, 1984.

This work of 206 pages has been written with the needs of the young histopathologist in mind, and is certain to be welcomed. The growing importance of myopathology within morbid anatomy is now realised, not only as an examination subject but as a service to clinicians. Ever since the histochemistry and ultrastructure of muscle have been used in the study of muscle disease a number of specialists in different disciplines have interested themselves in every one of its aspects—clinical, histochemical and neurophysiological as well as structural. They have performed or at least read their own biopsies and made notable contributions to the literature. It is fitting that two of them should write a concise book to help the histopathologist who wants to follow their example.

The book is the essence of a large experience of muscle biopsy pathology. It comprises a well illustrated account of the reactions of the muscle tissue in disease, the features diagnostic of neurogenic disease and of the now numerous myopathies and a mention of tumours of muscle. All are preceded by a description of biopsy and laboratory methods. It is disappointing here to find advocacy of the needle biopsy technique, limited in value when used as the sole biopsy examination, and safe only when confined to the vastus lateralis. When examination of a second site is necessary, a biopsy taken under vision through a small incision is more satisfactory and is unrestricted in site. The authors have virtually abandoned paraffin embedding, admittedly much inferior to the transverse frozen section but to omit it rules out the information that can only be given by longitudinal sections which are almost impossible to obtain from frozen tissue.

The examination of the motor nerve supply is mentioned, but its advantages especially in distinguishing neurogenic disease from primary muscle disease in difficult cases not recorded. On the other hand the pathology of the muscle spindle, seldom examined, is beautifully illustrated. The authors of course are well known for their contributions to research in this field.

The description of the disorders covered

are sound and instructive. Segmental regeneration is especially well described. The few inadequacies can easily be rectified in the future, such as the replacement of the illustration of polyarteritis nodosa and the definition of type 2 fibre atrophy as 2b when appropriate.

All considered, it is safe to predict a bright future for this work.

DGF HARRIMAN

**Cerebrovascular Disorders.** 3rd ed. By James F Toole, with additional chapters by HJM Barnett, Vladimir Hachinski, Mark Mumenthaler, J Stanwood Till. (Pp 446; \$72.70.) New York: Raven Press, 1984.

A photograph of Churchill, Roosevelt and Stalin at Yalta in 1945 prefaces this book with the suggestion that had not all three been suffering from cerebrovascular disease the history of the post-war years might have been different.

The book is a straight-forward text of cerebrovascular disease covering anatomy, physiology, pathology, clinical features and management. It is clear, easy to read and extremely well illustrated. Enumeration and tabulation of important points makes the book a good practical guide. Each section ends with a discriminating bibliography. On controversial issues such as the role of anticoagulants, the author reviews the evidence impartially but rather sits on the fence as to what should be done, though if the decision is made to use anticoagulants, instruction in their use is clear.

One unusual feature is the order of chapters, the medical and surgical management of TIAs being dealt with before chapters on bruits and special investigations. However as the table of contents and index are good, it is not too difficult to find one's way around.

This is a book to be highly recommended.

JOHN MARSHALL

**Epilepsy: 100 Elementary Principles.** Vol 12 of Major Problems in Neurology series. By Roger J Porter. (Pp 162; £9.95.) London: WB Saunders, 1984.

This is a well written and entertaining book, lightweight but packed with useful clinical points. The text comprises "100 principles", or short pieces dealing with various clinical aspects of epilepsy. The "principles" have often intriguing titles, for example "assume that every patient with epilepsy wants to get well" (no. 2), "psychic phenomena may not be helpful in

the diagnosis of epilepsy" (no. 22), "lip smacking does not always mean partial seizures" (no. 25), or "watch out for saturation kinetics with phenytoin" (no. 64). The principles are then elaborated upon in a few short paragraphs, written in a lively discursive style. The book has no pretensions to be comprehensive or in any sense a reference work, but rather a series of discussion points in the form of short seminar topics. Taken as such, it is highly successful. The information is consistently accurate, authoritative and highly practical. A soufflé rather than a stew, but filling for all that and highly digestible.

SIMON SHORVON

**Intracranial Pressure V.** Edited by S Ishii, H Nagai and M Brock. (Pp 914; \$52.80.) Heidelberg: Springer-Verlag, 1983.

This volume comprises abstracts of 121 oral and 46 poster presentations at the Vth International Symposium on Intracranial Pressure held in Tokyo in 1982. A welcome innovation in this latest volume in the series is the addition of six review papers by leading authorities in this and closely related fields, such as the sympathetic control of CSF production and the analysis of experimental brain oedema. The papers are grouped under the headings methodology, ICP pulse-wave analysis, pressure-volume studies, cerebro-vascular aspects of ICP oscillation, blood brain barrier and brain oedema, brain stem dysfunction, head injury, hydrocephalus, cerebrovascular disease, and drugs and anaesthetics. A move to formal type setting has greatly improved the appearance of the papers in comparison with previous volumes, and the quality of reproduction of the electron micrographs, CT scans and autoradiograms is good. The average length of the papers is some 4½ pages, and most but not all of them contain descriptions of methods and results in reasonable detail. Many of the papers concentrate on theoretical and computer-based derivatives of the primary ICP wave forms, although the reliability of ICP measurement systems in clinical use may not always justify such an approach. Other papers address pathophysiological processes such as oedema and ischaemia.

The book provides a comprehensive general survey of the "state of the art", but must be read selectively as the conclusions in some of the papers are somewhat sweeping. The section on head injury is perhaps the most valuable. At approximately £40 this book may not rate high as a priority for

purchase in departments not involved in the field, but it is a useful and important further volume in a well established series.

AJ STRON

**Brain Tumours in Childhood: Principles of Diagnosis and Treatment** (The International Review of Child Neurology). By Michael E Cohen and Patricia Kreszler Duffner. (Pp 390; \$56.00.) New York: Raven Press.

In my opinion authors and editors of medical books should be obliged to define as clearly as possible the readership for which the work has been designed. The intended readership of this book was by no means clear to this reviewer, particularly when it was found that only 11 pages out of over 300 were written by a neurosurgeon. Certainly a neurosurgeon, paediatric or adult would not find sufficient guidance here for his day-to-day management of a child with a brain tumour. A clue to the answer comes in the Foreword which notes that this is the second volume of the International Review of Child Neurology series which is the official publication of the International Child Neurology Association. It is a book for neurologists and succeeds in providing an overview of the subject aided considerably by information obtained from the SECC registries (Surveillance, Epidemiology, and Result) compiled by the National Cancer Institute. While, therefore, the figures for incidence, age at diagnosis etc. are probably the best that are available in the western world and can be compared with the more complete Japanese studies, the sections on treatment are less helpful. The reader (neurologist?) is certainly provided with an excellent review of possible methods of management; help in making decisions at the bedside must be sought elsewhere.

KENNETH TILL

**Stroke and the Extracranial Vessels.** Editor: Robert R Smith. Assoc. Editors: Steven C Boone, Robert M Crowell, Arthur L Day, John R Little, David G Piepgras (Pp 415; \$98.00.) New York: Raven Press, 1984.

This very expensive but elegantly produced monograph contains 31 contributions, basically all on the subject of the role of vascular surgery in the treatment of cerebrovascular disease. The early part of

J Neurology 1984; 233: 1364-1365. Downloaded from http://jnn.bmj.com/ on September 30, 2023 by