

an aid in the diagnosis, understanding and management of common disorders. Examiners also support this method. This monograph is designed to help the house officer with common neurological problems.

Fifty two brief case histories are given, some illustrated with an anatomical, radiological or histological clue. After each, there are some questions on diagnosis and management and then the answers. These are followed by brief paragraphs entitled "pearls" and "pitfalls" emphasising important points in relation to each study. There are also a few important references for the topic. Twelve very brief case histories entitled "clinical problems" are given at the end.

This little book contains a wealth of useful information although by its nature it has to be sought out. It makes easy reading and if all the facts given were retained by the readers, they would enlarge their knowledge of neurology. It is produced as a paperback at reasonable cost and clearly type-written. Some of the CT scan pictures, as in study 45, have lost definition. Better use of tables could perhaps have been made in drawing attention to common causes. Not all UK neurologists would believe necessary non-invasive investigation of the carotid arteries and CSF examination in a man of 65 presenting with a single generalised seizure. Botulism is certainly a most rare condition in the United Kingdom. I should also query an incidence figure of 40–50% given for seizures in patients with head injury and loss of consciousness for more than 24 hours.

These are minor criticisms and overall I commend the authors on this study. For those who like to learn in this way, this will prove a useful work, offering much information that is easily assimilated.

T FOWLER

Positron Emission Tomography and Autoradiography: principles and applications for the brain and heart. Edited by Michael E Phelps, John C Mazziotta and Henrich R Schelbert. (Pp 704; \$98.50.) New York: Raven Press, 1985.

This volume fills very adequately a growing need in the field of positron tomography (PET). It takes stock of the work of the last six to eight years, reviews achievements and brings together didactic descriptions of the contributions of the various scientific disciplines which participate in making regional measurements of function *in vivo* in man. To the readers of this journal, suffice it

to say that only three of the 11 chapters are not directly related to the study of the brain. The reader is taken through from physiology to consideration of the principles of measurement of such functions using tracer methods. Receptor assays are also excellently covered. The similarity in principle and mutual support of autoradiography and PET are next dealt with in a technical chapter on the principles of single and multiple radionuclide autoradiography. This, like all the technical chapters is written in understandable, conceptual terms which, though maybe less sophisticated to the professional, conveys all the ideas and a not inconsiderable number of the nuances and limitations of the discipline described. This means that a clinician can get a first hand feeling for the principles of the basic science contributions to successful PET, and also appreciate the respective contributions of each component of the multidisciplinary expertise necessary to bring tracer methods into clinical measurement in practice. It is in this endeavour that the book is most successful, placing PET in the context of scientific and clinical measurement. The book firmly dispels the misconceptions that PET is an imaging modality comparable to the visualisation of structure by other tomographic methods. The idea that one can "see" dysfunction in a manner analogous to seeing a glioma on a CT scan is naive, and the reasons for that become quite obvious on reading this book.

The authors are mostly from the UCLA school which has pioneered many technical and methodological innovations in PET. This homogeneity of purpose gives the book a feeling of coherence and integrity based on experience, which makes it the more enjoyable to read. The review of clinical applications on the brain is exhaustive though a slightly surprising deficiency is the little text spent on studies of neurotransmitter storage and uptake especially in relation to the dopaminergic system. The chapters are all very up to date, with obvious additions of references and text in proof stage to incorporate recent exciting advances such as the measurement of neuroreceptor numbers and affinities in the basal ganglia using the D2 receptor ligand raclopride by the group from the Karolinska. Referencing is generally excellent and illustrations have been drawn from most of the major centres studying cerebral function with PET. Some of the most dramatic illustrations relate to the advances in resolution that have resulted from technical progress in camera design over the last five years.

I would recommend the book to anyone

interested in PET and the measurement of cerebral function in man. It is indispensable to anyone contemplating working directly or indirectly with PET techniques, for an appreciation of the great variety of functions which can be studied, as well as an understanding of practical problems and limitations essential to formulating reasonable clinical research questions amenable to study. The authors have succeeded in making available to a general audience the principles and ideas of what might at first glance be considered an esoteric endeavour. It is in reality an exciting and rapidly advancing multidisciplinary field in neuroscience yielding many opportunities for the investigation of the function of the normal and diseased human brain.

RSJ FRACKOWIAK

The Brain, Biochemistry and Behavior. Proceedings of the Sixth Arnold O Beckman Conference in Clinical Chemistry. Edited by Robert L Habig. (Pp 360; \$48.) Salem: American Association for Clinical Chemistry Non-USA Distributors: Raven Press, New York, 1984.

Most of the 14 chapters cover pharmacological topics in relation to depression there are also chapters on clinical and endocrine aspects of depression. The chapters are written clearly and as such are accessible to non-specialists. Unfortunately their simplicity is achieved by a selective presentation of evidence in support of the views of several of the authors. There are better books on the subject.

STUART CHECKLEY

Cerebral Blood Flow and Metabolism Measurement. Edited by A Hartmann and S Hoyer. (Pp 640; DM188.00.) Heidelberg: Springer-Verlag, 1985.

This is very much a book for the specialist. Through 600 pages almost 300 contributors with the aid of 320 figures give an exhaustive account of the methodology of measurement of regional cerebral blood flow (rCBF) and metabolism. The book is planned historically, beginning with contributions on the original intra-arterial xenon 133 technique introduced in the 1960s by Lassen and Ingvar. This is succeeded by papers on non-invasive two-dimensional rCBF techniques