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BOOK REVIEWS

New Trends in Nuclear Neurology and Psychiatry. Edited by D C COSTA, G F MORGAN and N A LASSEN. (Pp 180; Illustrated; Price: £24.00 (US\$36)). 1993. London, John Libbey and Co. ISBN 0-86196-401-2

This small and readable book is effectively the proceedings of a post-congress meeting held in Funchol, Madeira after the 1992 Annual Congress of the European Association of Nuclear Medicine. It is an expression of the fact that at any nuclear medicine conference these days, a significant number of papers cover the application of radionuclide imaging to the neuropsychiatric disorders. The lectures presented commence with the historical background and proceed to a discussion of the physiological basis for brain imaging with radionuclides, the radiopharmaceuticals available and the use of SPET in dementia. The book terminates with a discussion of clinical applications.

All readers will find the historical discussion by Niels Lassen, the doyen of brain imaging from Denmark, absolutely fascinating as he describes the mapping of regional cerebral perfusion with Xenon-133 and, more recently, with Technetium-99m HMPAO. The chapter dealing with the physiological background by the principal author, Durval Costa, is equally fascinating and makes the point that clinical interpretation is impossible without an understanding of the basic processes. Of equal importance is an appreciation of neuroreceptors. A comprehensive review of SPET instrumentation is of course necessary to complete the review, but is largely of interest to the physicists. Much the same can be said for the discussion of pharmaceuticals, which covers the properties of the perfusion tracers Iodine-123 amphetamine and Technetium-99m HMPAO and the D₂ receptor-specific ligand, Iodine-123 Iodobenzamide (IBZM).

Of principal interest to the clinician are the three chapters dealing with clinical applications. The first of these, written from the point of view of the neurologist, reviews the use of SPET in stroke, dementia and epilepsy, which are amongst the most devel-

oped areas of clinical application. The following chapter is devoted more specifically to radionuclide imaging in psychiatry with special emphasis placed upon resting and activation studies following specific behaviour patterns or tasks set the patient. The clinical discussions end with a comprehensive review by a group of workers from Milan, who discuss the correlation of these studies with magnetic resonance imaging and spectroscopy. Such studies provide the anatomical substructure on which the PET or SPET studies can be superimposed. The appendix might arguably be considered the most valuable section of the book as it is virtually an atlas of normal and abnormal cerebral perfusion and neuroreceptor SPET studies. The section ends with several D₂ neuroreceptor maps as well as one or two multiple-tracer studies of both cerebral perfusion and neuroreceptor distribution, notably in Wilson's disease. The coloured illustrations and line drawings are of the highest quality.

All the chapters are well-written in a clear lucid style and, apart from slight aberrations in continuity which is the inevitable result of a multi-authored volume, cover the field comprehensively. Also, although each author obviously writes on the topic on which he and his team are expert, there is little trace of any attempt to ride personal research bandwagons. In only 150 pages of text the editors and authors have succeeded in generating a highly readable book which brings much of the data together for specialists and provides a comprehensive overview for interested clinical colleagues and is a must for registrars in training to enable them to gain an insight into the objective diagnosis of many important neuropsychiatric disorders.

BJ SHEPSTONE

Stereotactic Radiosurgery. Edited by E ALEXANDER III, J S LOEFFLER and L D LUNSFORD. (Pp 254; Illustrated; Price: £75.00). 1993. Oxford, Blackwell Scientific Publications Ltd. ISBN 0-07-001020-X.

Stereotactic Radiosurgery has had an unexpectedly large influence on neurosurgical practice as Charles Wilson points out in his foreword to this excellent book on this subject. As Radiosurgery in its various forms is used in many centres by doctors of widely differing experiences and training it becomes more and more crucial that its use is securely based on sound principles of radiobiology and physics as well as of stereotaxy and neurosurgical practice. Its distinguished panel of authors are respected exponents of the technique and well placed to give this volume authoritative accounts of the different characteristics of Gamma Knife, Linac, and Heavy Particle therapy, the principles involved as well as the results that can be achieved and pitfalls to be avoided. The range of conditions that have been treated by radiosurgery is wide but it is no panacea and its proper application requires careful selection and disciplined execution. This book offers a valuable survey of the present situation as well as some provocative thoughts about what the future may hold for the method.

DMC FORSTER

Sleep. Edited by ROSEMARY COOPER. Published by Chapman and Hall, London 1993. (Pp 702; Price: £79.00) ISBN 0-412-39150-3.

This substantial text is a multi-author volume which comprehensively reviews the subject in all its facets. The first third discusses normal sleep followed by an equally large section devoted to sleep disorders, the remainder considering psychiatric and social aspects of sleep disorders and the technical aspects of sleep recording.

There is therefore something here for everyone, physiologist, clinician or general interested reader. Speculative chapters on dreams and the function of sleep contrast with complex discussions of neurochemistry and circadian rhythms. A sensible chapter on the investigation of the sleepy patient points out the need for multiple sleep latency and polysomnographic facilities. Unfortunately it is the reviewer's experience that access to these facilities is distinctly patchy in the United Kingdom. A similarly brief and practical chapter on insomnia can be recommended to general practitioners who usually have to deal with this very common complaint. Politicians, industrialists and hospital managers should be made to read the chapter on "Sleep and Catastrophe".

The editor acknowledges the tendency to overlap, common to all multi-author texts but not in general tiresome here for the overall standard of contributions is high. This is however a fat volume and some trimming should be possible for the next edition. Coverage of common clinical problems is good though I could not find any reference to adult somnambulism and conversely five pages of general description of headache with little relevance to sleep seemed unnecessary.

In conclusion, a useful contribution which should find a place in all hospital and many departmental libraries.

R A METCALFE

Cambridge Medical Reviews—Neurobiology and Psychiatry (Volume 2). Edited by ROBERT KERWIN, DAVID DAWBARN and JAMES MCCULLOCH. (Pp 223; Price: £40.00). 1993. Cambridge University Press. ISBN 0-521-43483-1

This is the second volume in a series which describes itself as a regular forum for the evaluation and dissemination of information in rapidly developing fields at the interface of clinical psychiatry and basic neurosciences. Given the limitations of the medium, I have enjoyed reading this volume and found the reviews on the whole well chosen and well written by researchers who are active in their fields.

At one end of the range of topics, John Hardy's review of the molecular pathology of the amyloid precursor protein in early onset Alzheimer's disease is refreshingly brief, to the point, and forward looking in a way that conveys the excitement of the discovery and urges the reader to watch this space. At the other end, Tony Holland was given the more diffuse brief of covering the whole of mental handicap from a biological

perspective. I am glad to see mental handicap given some space, but surely some aspects of mental handicap deserve much more detailed coverage than this, particularly the Fragile X syndrome. It is time biological psychiatrists and neuroscientists gave more attention to the neglected but scientifically enormously rich field of mental retardation.

Other topics covered in this volume include the oft-reviewed molecular genetics with relation to the major psychoses, tau protein phosphorylation in Alzheimer's disease, cytoarchitectonic and developmental studies of schizophrenia, the use of antibodies to detect protein differences between normal and schizophrenic brains, neurotrophins and neurodegenerative diseases, neuroendocrine testing, clinicopathological aspects of HIV, and the applications of magnetic resonance spectroscopy in psychiatry.

I have enjoyed this book and yet I have reservations about the whole series in terms of its aims and targeted audience. However good they are, books such as this have serious limitations: in fast moving areas of science, reviews are out of date before the book comes off the press. An expert reader will know that a particular hard copy text has a very short shelf life, but the average psychiatrist, both trainee and trainer, will be misled by a cover note that promises comprehensive and up-to-date reviews. The latter readership will also find the technical language very hard going and will probably give up. Digestible information for non-experts needs another style, and I doubt that it is realistic to expect one format to double for experts and non-experts alike. Active researchers, on the other hand, might refer to a volume like this for a key reference, but will really get their information from journals, the scientific grapevine and, where available, rapidly updated electronic online databases. The time has come for publishers who aim to serve the scientific community to follow the example of their authors by exploiting the new technologies and develop networked electronic publishing.

ELEANOR FELDMAN

Handbook for Dementing Illnesses. Edited by JOHN C MORRIS. (Pp 688; Illustrated; Price: \$175.00). 1993. New York, Marcel Dekker Inc, ISBN 0-8247-8837-0.

With an ever ageing population, dementing illness continues to expand as a neurological subspecialty. Although treatable causes of dementia have long been recognised, drug treatments for major neurodegenerative illness such as Alzheimer's disease are imminent. Thus classifying the type of dementia is no longer of merely academic interest, but is of clinical and therapeutic importance. This multi-author American text aims to present a comprehensive account of the field.

The initial section is an overview of the dementias in general. There are good introductory chapters on the role of epidemiology, neuropsychology, structural and functional imaging, and pathology in

dementia research. The chapter on evaluating the demented patient will be of practical use to the neurologist.

The bulk of the text addresses the various diseases which cause dementia. For most conditions, pathology, clinical features, investigation and treatment are addressed, as in the chapter on AIDS dementia. However, there is some variability in this approach; the hydrocephalus chapter addresses clinical issues, while the non-Alzheimer degenerative dementia chapter is largely neuropathological. The section on Alzheimer's disease is disappointingly brief, shorter than that on dementia in Down syndrome for example. However, the chapters on extrapyramidal dementias, ischaemic vascular dementia and the infectious cerebral amyloidoses are particularly good, and the overall standard is very high.

Advice on management of the demented patient concludes the book. Behavioural problems are well covered, and there is a comprehensive account of potential pharmacological means of treating dementias, such as tacrine for Alzheimer's disease. A final chapter on future developments concentrates on genetics, pathogenesis, diagnostic methods and pharmacotherapy.

The text is comprehensively referenced, with plentiful pathological illustrations. Basic science and clinical features are well blended, although a minor carp might be that clinical aspects are not covered quite as extensively as pathology. That aside, the neurologist or psychiatrist with an interest in dementia will find much of value in this book.

JOHN GREENE

Unilateral Neglect: Clinical and Experimental Studies. Edited by I H ROBERTSON AND JOHN C MARSHALL (Pp 351; Price: £29.95). 1993. Hove, Lawrence Erlbaum Associates. ISBN 0-86377-208-0.

This is a timely book. Neglect was first definitely described by Brain in 1941, preceded by sporadic, unsystematised references to it from the 1890s onwards. In the subsequent 40 years, however, nothing much was added to the core knowledge that neglect was usually for the left field of vision and due to right hemisphere damage.

This book demonstrates that neglect is much more mysterious and complex than hitherto appreciated. In the past fifteen years, a whole host of observations have been published, showing that "there is no such entity as neglect, although many patients with right hemisphere lesions have perceptual, attentional, representational or intentional problems in dealing with 'left space'". Just as "aphasia" is shorthand for a number of language problems in someone with a left hemisphere lesion, they argue that neglect is an umbrella term for numerous disparate spatial disorders.

Some of the more curious facts about neglect to be uncovered are the following. If a native of Milan, with neglect, is asked to imagine himself standing at the southern end of the Piazza del Duomo, and asked to list the buildings to either side of him, he will omit those to the west. If he is then asked to imagine himself at the northern

end, facing south, he will omit those to the east. If someone with neglect is shown a picture of a normal house in his right field and a picture of a house, the left half of which is in flames, in his left field, he will say that the two houses are identical; if asked to say which house he would rather live in, however, he will choose the house in his right field.

The various contributors mostly try to explain the new knowledge by one of a handful of theories, each with a different emphasis on the way spatial attention is distributed in normals. The most plausible of these is outlined by Kinsbourne. He believes that there is a normal attentional bias to the extreme right of the right visual field. In a subject with neglect this bias is accentuated with the result that objects become attenuated and then obliterated as gaze moves leftwards. There are problems with this explanation, notably its failure to account for imagery effects such as the Piazza del Duomo phenomenon, and that neglect can occur for the left half of an object in the right visual field, even though things further to the left are still recognised.

Altogether this is a fascinating book of which I have no criticisms. It is relatively cheap for a hardback, and well edited.

JOHN CUTTING

Neurological Rehabilitation. Edited by R GREENWOOD, MP BARNES, TM MCMILLAN AND CD WARD. (Pp 640; Illustrated; Price: £89.50). 1993. Edinburgh, Churchill Livingstone. ISBN 0-443-04287-X.

Despite the development of rehabilitation medicine as a speciality in itself, much of the on-going care of neurological disability is provided by the neurologist, neurosurgeon or general medical colleagues. These providers of chronic long-term care are generally untrained in this discipline. They have little or no concept of such fundamentals as the measurement of disability, the proper usage of therapists, the behavioural and cognitive disturbances of chronic illness and the management of specific problems such as pain, bladder and sexual dysfunction. It is to these clinicians that this excellent and long overdue textbook is directed.

In the foreword and preface, it is stated that some two percent of the population are handicapped or disabled through neurological disease and that increasingly neurological specialists, whose traditional role is one of diagnosis and immediate management, are expected to advise and care for such persons. This book provides an outstanding reference text for such purposes. The editors have drawn about them a diverse, distinguished, multi-disciplinary group of contributors from throughout the United Kingdom. The text is divided into three sections. The first deals with the principles of neurological rehabilitation dealing with the epidemiology of disease, the organisation of rehabilitation services, social and ethical implications and mechanisms of restorative and adaptive recovery. The second section deals with the measurement and assessment of disability embracing not just physical but also cognitive and behav-