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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