

organs, proceeding on with discussions of neuropathy, muscle disease, tumors, headaches, epilepsy, eclampsia, peripartum convulsions, and concluding with the psychiatric aspects of pregnancy. In general, the author opens with a concise pithy summary of the disease under review followed by an examination of the impact of pregnancy on the disorder and the disorder on pregnancy. Illustrations are clear and frequent. References are listed at the end of each chapter together with a selected bibliography. The index is logical and detailed. Frequently, the disorder is described through reference to the original published case history which adds greatly to the richness of the work.

The particular strength of this work lies in its collection together of the many disparate pieces of information related to this topic between the covers of one relatively short book.

Although all the chapters are graced by the author's concise thorough and perceptive writing style, the reviews of epilepsy, eclampsia, and cerebrovascular disease are particularly useful. Donaldson does not hesitate to take a stand in controversial areas such as the use of anticonvulsants during pregnancy or the use of magnesium sulphate in the treatment of eclampsia, but is careful to indicate that his views are not necessarily dogma.

In what amounts to a brief focussed text book of neurology, there are bound to be omissions or areas of emphasis that the reader may take issue with. The chapter on infections covers disorders ranging from kuru to lyme disease, but makes no mention of AIDS. The chapter on neuropathy does not refer to the possibility of epidural anesthesia induced radiculopathy. Moreover, the terms axonotmesis and neurotmesis are used interchangeably on page 48. The definition of "complicated migraine" on page 222, "classic migraine in which the arteriospasm affects the middle cerebral artery or basilar artery" is atypical to say the least. Moreover, if for no other reason than lack of space, much is written here without referenced attribution.

Nonetheless, the author has produced, again, a readily accessible and relatively inexpensive work which will undoubtedly remain the most important reference on this subject for some time to come. This is an invaluable reference work strongly recommended for all practicing adult neurologists and neurosurgeons.

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**MRI ATLAS OF THE BRAIN.** By William G. Bradley and Graeme Bydder. Published by Martin Dunitz Ltd. (U.K.) North American Distributors — Raven Press. 363 pages. \$147.50 Cdn. approx.

"Atlas: A collection of illustrations on one subject" (Dorlands Illustrated Medical Dictionary). By this definition, this text is something more than an atlas. Each chapter begins with a brief textual introduction to a broad topic in magnetic resonance imaging, followed by a collection of images covering some of the commoner disorders encountered in brain imaging.

Both authors are prominent radiologists with many publications in the field of MRI and both are past presidents of the Society of Magnetic Resonance in Medicine. In the preface, they state that the text is designed for radiologists "participating

in MRI less than once a week". Presumably, it should then also be a suitable primer for neurosciences physicians in clinical practice. It is thus not intended to provide exhaustive coverage.

The text begins with a brief but fairly complete discussion of essentials of MRI physics, including the basics of creation of the MR signal, image production and artifacts. The next chapter is a very short and sketchy coverage of "new techniques" which is needlessly complex in some respects, while omitting some important details regarding the physics and application of new fast scanning techniques. Also, the nature of the most commonly used sequence, the spin echo, is only very superficially covered.

The third chapter discusses flow phenomena, an important topic well-covered by Dr. Bradley. Although he has used this material with slight modifications in several publications, it is worthwhile to read through it again.

The remaining seven chapters deal with major disease groups, including tumors, vascular disease and hemorrhage, demyelinating disease, infection, hydrocephalus, and pediatric brain disorders, with a chapter on MR contrast agents. Again, the text is sparse (under ten pages in all chapters) and sometimes almost nonexistent. For example, infections, multiple sclerosis and all other disorders of myelination are covered together in five pages. The images are primarily in the axial plane, familiar to clinicians and radiologists accustomed to CT images. They are of reasonable (not outstanding) quality overall, and cover the commonest neurological diseases fairly well. There are many blank spaces between images.

The number of MR textbooks on the market is rapidly increasing, and there are now many choices available, of varying length and complexity. This text might be suitable as a basic primer for a physician wishing to acquire a superficial understanding of MR imaging, but it is rather expensive considering its sketchiness, and better basic texts are available.

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**HANDBOOK OF NEUROLOGICAL INVESTIGATIONS IN CHILDREN.** 1989. 1st Edition. By J.B.P. Stephenson and M.D. King. Published by Butterworths. 244 pages. \$82 Cdn. approx.

The "Handbook of Neurological Investigations in Children" takes on the difficult task of describing diagnostic approaches to a myriad of paediatric neurological conditions. The book is divided into two sections; the first provides a description of specific tests including their uses, abuses and contraindications and the second presents a problem-oriented approach to a variety of conditions, concentrating upon neurodegenerative disorders. The Handbook is not meant to be a clinical compendium, but rather a guideline to the laboratory investigation of children with neurological disorders. Most chapters contain useful tables which summarize the organization of test and their application to the clinical presentation. The reproduction of the CT and MRI images is poor in some instances (e.g., Fig. 3.2, 7.3), especially for a book priced at \$82 Canadian.

It is easy to nitpick over such a book, as there is no one way to tackle a problem. However, a few specific comments are warranted. Chapter 1 may have indicated the common pitfalls of

EEG, for example, the interictal recording is normal in approximately 40% of children with seizures. The use of the EEG in diagnosing pseudoseizures would have been a helpful addition. The chapter on evoked potentials (3) might have indicated that VEP's, using patterned stimuli, are useful in the assessment of visual function in the at risk infant and that BAEP's are abnormal in tumors of the cerebellopontine angle and are useful in the assessment of brainstem function in the comatose patient, as the recording is unaffected by level of consciousness or drugs. Finally, recent data suggest serial SEP's are the most reliable indicator of neurological outcome following neonatal hypoxic ischemic encephalopathy. Chapter 4 suggests that skull x-rays may be helpful in assessing trauma in child abuse when in fact the radiograph may be normal with a severe underlying brain injury. MRI is suggested for the investigation of tuberous sclerosis, but as correctly pointed out in a later chapter, the technique is not capable of imaging parenchymal calcification. Arachnoiditis although rare, should have been listed as a complication of myelography. Table 4.2 might have listed tuberous sclerosis along with Friedreich's ataxia as a condition diagnosed by echocardiography, especially in the fetus at risk and the young infant. Many would take issue with the author's almost exclusive use of needle biopsy (see Chapter 7), as that technique is more likely than an open biopsy to produce insufficient tissue for the many histological and structural studies that are usually required. In addition to the indications for the anticonvulsant drug monitoring in Chapter 11, it would have been interesting to learn the author's approach to routine screening for adverse reactions to antiepileptics. Chapter 23 might have suggested the indications for performing a CT in a child with headaches. For example, I worry when headaches awaken a youngster during sleep! Finally, the diagnostic approach to Lyme disease and multiple sclerosis would add to the comprehensiveness of the book.

The handbook is concise and well-written. There are many useful "pearls" throughout. For example, the authors indicate that if an obtunded child flexes to a painful stimulus, rather than localizing the source of pain, the intracranial pressure will likely be increased and a lumbar puncture may be hazardous. The handbook will be particularly useful for the work-up of a child with a "diagnostic dilemma" as it provides a rational investigative approach to the difficult neurological problem.

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DISORDERS OF MOVEMENT. CLINICAL, PHARMACOLOGICAL AND PHYSIOLOGICAL ASPECTS. 1989. Edited by N.P. Quinn and P.G. Jenner. Published by Harcourt, Brace, Jovanovich (Academic Press). 567 pages. \$70 Cdn. approx.

This book was compiled as a tribute to David Marsden marking his appointment to the Chair at the Institute of Neurology, Queen Square. It is a presentation of present day concepts of clinical and treatment approaches to movement disorders based on the remarkable advances which are being made in understanding their pathophysiology, neurochemistry and pharmacology. The authors, based in clinical and neuroscience centres around the world, have virtually all been skilled in their approach to movement disorders by David Marsden, or have collaborated with him in research enterprises. The editors have done a remarkable job in integrating their contributions into an attractive, readable and instructive volume.

The first and largest section of the book deals with Parkinson's disease. Each of the 16 chapters are well written and interesting with very little overlap of information. The section opens with a brief but provocative article by Duvoisin entitled "Is there a Parkinson's Disease?" and then proceeds to review current concepts of the pathology, pathophysiology and etiologies of Parkinsonian syndromes. These are followed by several chapters which evaluate the various pharmacological and other current or potential treatment approaches, including neural transplantation.

The second section deals with the pathophysiology and management of dystonia syndromes. Particular attention is paid to the cranial dystonias and spasmodic torticollis. These chapters are informative though perhaps less well interpreted than those concerning Parkinsonianism.

The brief third and fourth sections concern neuroleptic-induced movement disorders and other movement disorders including myoclonus, chorea, tics and tremors.

Overall, this is an excellent book to update clinicians on an important field of neurology. In accomplishing this the editors have more than achieved their goal of underlying the important contributions which Marsden and his colleagues have made to our present understanding of movement disorders.

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