

ters on neural tube defects, holoprosencephaly, neuroblast migratory disorders, and "crossing the midline". Other chapters are based upon anatomical localization, such as "Abnormalities of the spinal cord, brainstem and cerebellum" and "Abnormalities of the skull, meninges, choroid plexus and blood vessels", and one based upon a clinical presentation, "Hydrocephalus". The final chapters deal with destructive or encephaloclastic conditions such as hypoxic/ischemic encephalopathy in the fetus and their role in inducing developmental defects.

This monograph is so comprehensive and thorough that one has to look hard to find items to criticize. I was disappointed to find little discussion of the role of the fetal ependyma in brain development, such as in guiding axonal growth cones and participating in the arrest of neurogenesis in the neuroepithelium and, in fact, "ependyma" is not even listed in the index. The chapter on hydrocephalus is brief and does not address the new genetic information on X-linked recessive aqueductal stenosis and certain other specific disorders leading to developmental obstructions of CSF pathways. Granuloprival cerebellar hypoplasia as a distinct entity and the embryological basis and experimental teratology of this condition in animals are not discussed.

Extensive references are listed at the ends of each of the chapters. Illustrations are well chosen and well demonstrate the findings described in the text. Most of the figures are of gross and microscopic pathology, but there are also some CT and MR images, a few pictures of fetuses or infants, diagrams of chromosomal karyotypes and genetic pedigrees. Several tabular summaries appear, such as "Ectomesodermal syndromes" and "Syndromes associated with agenesis of the corpus callosum".

In conclusion, I would strongly recommend this book for the personal library of all pediatric neuropathologists, pediatric neurologists, and neuroradiologists. It is an authoritative reference and well enough written to be read as a textbook. I am hopeful that it will become a "classic" and be republished as new and updated editions every few years.

Harvey B. Sarnat  
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**ETIOLOGY OF PARKINSON'S DISEASE. 1ST EDITION.** 1995. Edited by Jonas H. Ellenberg, William C. Koller, J. Langston. Published by Marcel Dekker, Inc. 600 pages. \$C254.00

The editors are to be congratulated for producing this outstanding monograph. The goal of this book is to review in one single volume all pertinent information and available literature on the etiology of Parkinsonism. As such it is an ambitious book (560 pages), with 2413 references in the bibliography and many more found at the end of each chapter. The chapters are a collection of 14 reviews by experts, presenting the most up-to-date information available on the basic sciences of the etiology of Parkinson's disease. As a consequence, there are differences in writing style, and some of the reviews include the author's personal bias of his/her particular area of research. Throughout the book there are many tables, figures and diagrams enhancing the quality of each chapter. The print and quality of the paper is very good.

The book is divided into five sections covering clinical aspects of Parkinsonism, followed by the epidemiology of Parkinson's disease, hereditary factors, and concluding with an in-depth discussion of the putative exogenous agents that have been linked as

possible causes of Parkinsonism. I particularly like the chapter written by Drs. Pahwa and Koller introducing the reader to a discussion of Parkinson's disease and the differential diagnosis of other akinetic-rigid syndromes. It is a very well written chapter reflecting the clinical expertise and breath of knowledge of the authors. It provides the reader with a "clinician's view" of the spectrum of Parkinsonism offering helpful clinical hints on how to differentiate these disorders. However, I was surprised to find an error on Table 2, page 12 where progressive supranuclear palsy (PSP) is included into the category of the multiple system atrophies with Parkinsonian features. Currently, most movement disorders experts will agree that the multiple system atrophies (MSA) include three main conditions: sporadic olivopontocerebellar atrophies, striatonigral degeneration and Shy-Drager syndrome. These three disorders have a common neuropathological marker, namely oligodendroglial neuronal inclusion bodies, and it is believed that these three conditions are part of the spectrum of MSA. PSP so far has not been found to have these pathological markers and most authorities would rather consider PSP apart from the multiple system atrophies. The term multiple system degeneration has been proposed as an all inclusive term for all these conditions including PSP, MSA and other neurodegenerative diseases.

Drs. Zack and Langston provide an interesting discussion on the evidence to support the contention that, after excluding all causes of Parkinsonism, idiopathic Parkinson's disease may include a heterogenous group of disorders. The authors warn that those involved in Parkinson's disease research should be aware of this possibility. The reader may find Dr. Fornos' chapter on the pathology of Parkinson's disease and its relevance to unravelling the pathogenesis of this condition very useful.

The section I found most important is the one containing the last three chapters. These chapters summarize the role of exogenous agents in the pathogenesis of Parkinson's disease together with a collection of 2413 references relating to the etiology of Parkinson's disease. It is a gem of information that should be kept at hand for future reference. Unfortunately, as with any publication of this sort, the references can only be kept up-to-date to the moment of publication.

The book is intended for the neuroscientist and neurologist with an interest in Parkinson's disease and as such it is indeed a welcome addition to the Movement Disorders literature. This book is too specialized for a general audience and I believe neither the neurology nor neurosurgical resident would like the book much.

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**LACUNAR AND OTHER SUBCORTICAL INFARCTIONS.** 1995. Edited by G.A. Donnan, B. Norrving, J.M. Bamford, J. Bogousslavsky. Published by Oxford University Press. 281 pages. \$C125.00

Although their pathology was recognized by Pierre Marie, it was Dr. Walter Alvarez who recognized first the clinical importance of "little strokes", under which heading he included both TIAs and the lacunar stroke syndromes which are the subject of this book. After Miller Fishers initial pathophysiological *rapprochements* allowed definition of the commoner three or four syndromes, many others contributed small series

or single case reports, so that now over 60 lacunar "syndromes" have been described, with varying authority. Thus a book surveying the confused terminology of the subject, defining the pathology and clinical presentations of all the recognized small deep infarcts of the brain white matter, and discussing the natural history of the condition, is timely; and we are fortunate that here it is done so well.

Dr. C. Miller Fisher contributes the second chapter – a personal view of lacunar infarcts – in which he provides his present view of their commoner pathologies. As is characteristic in larger minds, his opinions have changed over the years. It is unfortunate and quite unnecessary in an academic work that bald refutations should have been allowed to remain in the texts of subsequent authors. Academic disagreement is appropriate and stimulating but better writers eschew rudeness.

Small, deep infarcts also lead to clinical syndromes which, though reasonably characteristic, are less-well recognized than the pure motor, pure sensory or sensorimotor strokes, or the ataxic-hemiparesis/dysarthria-clumsy hand syndrome(s). Single chapters in this book review the presentations and pathology of striatocapsular, caudate, thalamic, centrum ovale, internal watershed and deep cerebellar infarcts and delineate also those resulting from anterior choroidal occlusion. Certainly not all of these are lacunar syndromes, but they warrant and receive appropriate attention, given the title of the work.

Is it a paradox that the whirlwind speed of CD-ROM should, but does not, allow the most efficient access to specific data contained within a data-mass? The fable of the hare and the tortoise trudges to mind. This book would probably cost less on a platter, but the speed of the processor always overwhelms the orderly progression of logical human thought and inhibits memorization. The reader who spends rather a lot of money on this useful book will possess a complete reference source to consult when a patient with a deep white matter infarct is seen, and will enjoy browsing – but the similarities between the features of lacunar and major occlusive strokes and the present deficiencies in therapy for each do rather remind one of the letter sent by a child to her aunt thanking her for the present of a book about elephants ". . . which tells me more about elephants than I wanted to know." Experts allowing free flow to their knowledge may dissect the anatomy of a disease more minutely than the condition warrants. Does it really help to define *classical*, *partial*, *extended*, *occasional* and *multiple* lacunar syndromes? And if so, how?

Neurologists with a special interest in stroke will certainly want to own this book; but for the majority I suggest that they recommend it – quite strongly – to their medical librarian as a worthy acquisition; and they should be the first to read it, for at the least the information gleaned will let them give a more sapient prognosis; the chapters on MRI and on striatocapsular infarcts are superb; and the sometimes sloppy grammar and spelling are minor irritants.

William Pryse-Phillips  
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EPILEPTIC SEIZURES AND SYNDROMES. 1994. Edited by P. Wolf. Published by John Libbey and Company. 678 pages. \$C140.00.

Despite a huge cast of authors, this book is easy to read and

admirably combines clinical themes with reviews of clinical, laboratory and animal research.

The book is divided into seven well organized sections. Section 1 addresses important issues in the classification and terminology of both seizures and epileptic syndromes. The second section deals with some of the less well recognized syndromes, such as the reflex epilepsies, and effectively uses clinical illustrations. Within this section are chapters which deal with the presently recognized absence syndromes and an additional new syndrome with perioral myoclonia and absences. The book is enhanced by chapters, which express the opinions of experts, such as Dr. Andermann who argues that absences are non-specific symptoms of a variety of etiologically and anatomically diverse processes.

Section 3 reviews the idiopathic epileptic syndromes. The genetics of epilepsy and gene mapping are discussed. Benign neonatal convulsions, West syndrome, "grand-mal on awakening" and numerous other syndromes are covered. There is an excellent chapter on the extent of our knowledge of benign epilepsy with centrotemporal spikes. Other chapters deal with other well recognized syndromes and syndromes which are either less well known or newly described. There is also an excellent discussion of the generalized epilepsies and idiopathic localization related epilepsies as part of a continuum.

The fourth section: "symptomatic and cryptogenic epilepsy syndromes" has chapters on the Lennox-Gastaut syndrome, Rasmussen's encephalitis and seizures from each of the cortical lobes. Section 5 is entitled "epileptogenesis and ictogenesis: epilepsy as a dynamic process". Among the best chapters in this section is one which deals with the potential association between febrile seizures and mesial temporal sclerosis.

Section 6 addresses intractability and some of the newer therapeutic strategies. The final section is devoted to psychogenic seizures and psychotherapy.

Overall this book is well written and provides insights into the limits of our knowledge of important topics which we encounter daily. This book deserves a place on the shelves of all who care for patients with epilepsy.

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MOLECULAR NEUROPATHOLOGY. 1995. Edited by Gareth W. Roberts and Julia M. Polak. Published by Cambridge University Press. 189 pages. C\$49.00.

This relatively short publication aims to provide an introduction to the essential techniques required to study the molecular biology of human brain diseases. The book is multiauthored and divided in two sections. The first is devoted to basic techniques and the second to applications. The technique section opens with a short chapter which presents the general principles of brain banking; it is superficial and not very informative. Possible contacts and resources in Europe, the U.K. and North America are omitted. The chapter on RNA isolation and analysis is very good but becomes quite technical at times. The segments on the polymerase chain reaction, in situ hybridization, immunohistochemistry and autoradiography are well written and fulfill very well the stated aim of the editors. Part 2 includes excellent short chapters on transgenic mice, cerebral transplants and image analysis. Two review chapters are also included, one