

**PARKINSON'S DISEASE: A COMPLETE GUIDE FOR PATIENTS & FAMILIES. SECOND EDITION.** 2007. By William J. Weiner, Lisa M. Shulman, Anthony E. Lang. Published by Johns Hopkins University Press. 278 pages. Price C\$20.

This book is written for Parkinson's disease (PD) patients and their families. The language is straightforward and the topics are broached in a direct manner. The authors admit to some redundancy to allow chapters to be read out of order as one would a reference book. Using plain language and a caring tone, the book is hopeful yet realistic. The book covers all aspects of PD but contains appropriate warnings such as one that the chapter on advanced disease will cover issues that many patients and families will never have to deal with.

I was impressed with the depth and breadth of knowledge covered in a guide directed at patients and families. Discussions of research include placebo controlled trials, the DATATOP study and survival studies. Supplementary material includes photos of typical assessments such as the postural challenge test; tables of differential diagnoses, drugs that may induce a Parkinson-like state, drugs used to treat PD; and graphics of the brain including a figure showing the site of a deep brain stimulator electrode and stimulating box. Handwriting samples of both Parkinson's disease and essential tremor patients have been included. Surgery including sham surgery is discussed as is the potential drug interaction between SSRI's and selegiline.

The book is well organized and has a natural flow to it. Each chapter starts with a handful of questions which are fully answered within the chapter. The authors reinforce that there is no "magic" involved in diagnosing PD - the clinician must review the history and physical exam to make the diagnosis and that diagnosis may change over time.

Practical aspects of the illness such as speech, swallowing, bowel/ bladder function, and sexual function are discussed; other non-motor features including dementia, psychiatric and behavioural aspects of Parkinson's disease have also been included. Medical and surgical therapies are discussed in appropriate detail. A chapter on diet, exercise, complementary and alternative strategies is provided with a balanced view and the warning that more work needs to be done to validate or refute the benefits of non-traditional therapy. The penultimate chapter discusses research in PD including basic science and clinical research, animal testing, the importance of research and why it takes so long for the latest discovery to be tried in people. The final chapter is "Questions and Answers" that the authors' have selected from questions commonly asked by patients including defining symptomatic vs. neuroprotective therapies, prognosis, food and alcohol, work and leisure, and other practical issues. Resources are listed at the back with contact information including websites of the main organizations involved with Parkinson's disease research and education. As this text was printed in the US, most information is on American-based organizations although they do include the Parkinson Society Canada.

This book may be too much for some patients and families given its length and scope of content. I found its clarity superb and one can imagine eavesdropping on conversations between physician and patient. Given its target audience this book certainly hits the mark and is modestly priced. For non-movement disorder physicians who

deal with Parkinson's patients this is a worthwhile reference. I plan to provide a copy for the nurses who work in my clinic to enhance their knowledge of PD.

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**DIGITAL NEUROANATOMY - AN INTERACTIVE CD ATLAS WITH TEXT.** 2006. By George R. Leichnetz. Published by John Wiley & Sons, Inc. 92 pages plus CD. Price C\$90.

The author is an anatomist who works in the department of anatomy and neurobiology in The School of Medicine at Virginia Commonwealth University. The book and interactive CD are primarily aimed at students in their first year in medical neurosciences. The book consists of 6 chapters:

- Chapter 1 - Light Microscopic Neurohistology
- Chapter 2 - Electron Microscopic Neurohistology
- Chapter 3 - Skull Meninges and Spinal Cord
- Chapter 4 - Gross Anatomy of the Brain
- Chapter 5 - Sectional Anatomy of the Brain
- Chapter 6 - Introduction to Brain Images/MRI's

The chapters are well illustrated and in general the illustrations are well labeled. The information in chapters 1-5 is accurate except for a few areas noted below.

The images in the book are black and white as opposed to color as in the CD. Thus the choice of gray lines on a mainly gray background is a poor one since the lines extending from the labels to the object of interest are barely visible on some images. The labeling of the illustrations contains a number of errors or omissions. The labels themselves are sometimes missing letters or completely absent.

Chapter 6 titled Introduction to Brain Images/MRIs presents a major problem.

First the quality of the images and pulse sequences (e.g. spin echo imaging) does not reflect current MRI imaging. These images are probably at least 10 years old. The major fault however is in the numerous errors in this section. Arteries outlined due to their flow voids are incorrectly called contrast enhanced.

Axial horizontal images are displayed on their sides in both the book and CD, not vertically as is the standard for displaying and interpreting MRI studies. There is no label as to right or left side on the images.

The term "cerebrovascular accident CVA" is a meaningless term and should not be used for a specific entity such as infarct or hemorrhage. Unfortunately the errors mentioned above are also found on the CD and more errors are made e.g. an astrocytoma is referred to as a "benign" neoplasm. "Temporal lobe" meningioma does not originate in the temporal lobe as stated but in the dura and it compresses the temporal lobe. T1 weighted images with gadolinium enhancement are not labeled as such.

The CD interactive program is well designed and organized with a quiz contained in each section. The sections on light microscopy, electron microscopy, skull meninges and spinal cord and gross and sectional anatomy of the brain are very easy to use. One can study a whole section or go to a specific topic. The anatomic specimens, photographs of the skull, brain and spinal cord, histological light and EM slides are sharp, clear and detailed. Letters either overlie or

point to specific anatomic or histological findings. A click on the letter results in the printed answer. Under each illustration is a short description which may include details such as function, physiology, neuro transmitters, anatomic relations etc.

There is a multiple choice quiz for each chapter (e.g. the chapter 5 quiz consists of 67 questions). Clicking on one of the answers produces a “correct” or “wrong” reply.

Each chapter has its own title list which can be searched. All of the illustrations in that chapter are listed by number and title. A click on the title will bring up illustration.

There is a “search” feature which is chapter specific. Type in the name and click enter and a title list appears which contains all slides in that chapter which illustrate the structure.

It is unfortunate that so much effort went into this book and CD and no review was made by a neurosurgeon or neurologist and particularly a neuroradiologist prior to its publication. Although the first five chapters in the book are good except for some of the errors already described, the last chapter and corresponding section on the CD are littered with errors. I cannot recommend this book as is because of the multiplicity of errors.

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**LANGUAGE: NORMAL AND PATHOLOGICAL DEVELOPMENT. MARIANI FOUNDATION PEDIATRIC NEUROLOGY. VOLUME SIXTEEN. 2006.** Edited by Dania Riva, Isabelle Rapin, Giovanna Zardini. Published by John Libbey Eurotext Limited. 265 pages. Price C\$94.

This is the second book published in the Mariani Foundation Pediatric Neurology Series dedicated to Developmental Cognitive Neurosciences. It is edited by three well-respected authors in this field, Dr. D. Riva, Dr. I. Rapin and Dr. G. Zardini and is subdivided into four major sections.

The first section, which is focused on “Normal Language Development”, provides a very in-depth review on acquisition of normal language in the early childhood years, starting with the relationship between gesturing and first words, lexical content and development of grammar and pragmatics. This section is written from the perspective of a developmental psychologist. The authors have been very involved in research in this area.

The second section, “Language and Neurofunctional Correlates” focuses on recent functional MRI work in this area, and is of greater clinical relevance to the child neurologist, given the potential of this tool as a non-invasive means of localizing language function. The MRI studies in young infants have shown that they have a lateralized network sensitive for listening to linguistic information. The evolution of functional MRI over time to involve activation of the left inferior and midfrontal and the left temporal regions are reviewed. The brain regions activated with lexical association tasks are compared between children and young adults, demonstrating that with age, there are certain brain regions which show decreased activity (mostly bilateral and diffuse in location), and others which show increased activity (mostly frontal and parietal). This section ends with an informative chapter on “Functional MRI in normal and pathological language development” which addresses the important

issue of language reorganization. Data from epilepsy, stroke, cortical dysplasia and dyslexia are included. The authors note that language can reorganize, usually to the homologous, non-dominant hemisphere rather than other brain regions, suggesting that only evolutionarily defined brain regions have the capacity to process language. Language recovery is dependent on a critical period for language acquisition in the right hemisphere, being much less complete after 6 years of age.

The third section, on “Language in Congenital and Acquired Brain Lesions/Maldevelopment” is the most relevant to the child neurologist. This section begins with a well-written chapter by Dr. Rapin on language in children with autistic spectrum disorders. A practical classification of developmental language disorders, with clearly identified, salient features of each subtype is outlined in a table. A second table provides key clinical points to differentiate autistic spectrum disorders from developmental language disorders – identifying the importance of assessing pragmatics, prosody and abnormal features such as echolalia. This section addresses some clinically important, but still poorly understood concepts regarding language, including the possible pathogenesis of language regression, the complicated relationship of seizures and epileptiform discharge, and the role of the cerebellum in language processing. Specific data are also provided on a small cohort of children with perisylvian polymicrogyria and a cohort with Williams syndrome, which challenges the view that linguistic ability in these children is ahead of their mental age.

The fourth section, “Developmental Language Disorders” summarizes diagnostic criteria for specific language impairment, and also provides some follow-up data regarding language function as well as academic and behavioral concerns in these children.

This book provides a detailed review of language and its associated disorders. Each chapter begins with a helpful summary paragraph which orients the reader to its contents. Some excellent summary tables are also provided in Section 3.

Although a potentially interesting read, the detail given in the first section would be excessive for many neurologists, and these chapters are better aimed at clinicians with particular interest in this area. This section would also benefit from a brief introduction, defining the various aspects of language subdivided into lexicon, grammar, pragmatics, syntax, etc. However, for child neurologists, Sections 2 and 3 (and particularly the chapters on functional MRI in various pathologies, and language in autistic spectrum disorders) are very relevant and readable. These chapters are “must-reads” for pediatricians and child neurologists, providing a number of clinical pearls. The final section would be more relevant for pediatricians, as these disorders would be less commonly followed by child neurology.

Overall, I would recommend this book for most pediatricians, and for any child neurologist who has a large developmental pediatric component to his/her practice.

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