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Fundamentals of Neurology: An Illustrated Guide

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features, pathology, therapy, and MRI. In total, there are 647 figures in this book, providing excellent examples of many leukoencephalopathies. T1-weighted and T2-weighted images, as well as FLAIR images in multiple planes, are shown. Tables are provided in many of the chapters. For example, in the chapter on multiple sclerosis (MS), a table is included on the criteria for diagnosis of MS. Another table is provided that depicts MR sequences that may be included in a protocol, including an indication of the MS features in which they are effective.

The next 3 chapters deal with imaging techniques such as diffusion-weighted imaging, magnetization transfer (MT) imaging, and MR spectroscopy (MRS). The chapters not only explain the techniques in very understandable language, but they also show multiple examples of technical applications in particular leukoencephalopathies. For example, DWI and DTI have been applied extensively in MS. Fractional anisotropy and apparent diffusion coefficient values are used to compare different tissue components of MS such as plaques, white matter, and enhancing versus nonenhancing lesions. The authors demonstrate that background reduction as produced by MT pulses can be applied to improve the effect of contrast enhancement in the search for the number of enhancing MS lesions, including a second application of MT, which gives a quantitative impression of the structural integrity of the brain tissue. Also described are the 2 types of spectroscopic abnormalities seen in white matter disorders: process-specific spectroscopic abnormalities related to delayed maturation and tissue damage, and disease-specific spectroscopic changes directly related to the particular disorder under investigation.

Finally, the last chapter deals with pattern recognition in white matter disorders. This chapter provides 13 examples of leukoencephalopathies, including those linked to chromosomal abnormalities. This is a very good chapter for review and for practical tips.

The reference section made up of 168 pages is the most extensive I have seen in any textbook. References are grouped into their respective chapter. Any reader wanting further reading on any of the leukoencephalopathies has plenty of sources to investigate. Overall, this book is well written and covers an important area of neuroradiology in a very extensive fashion. The book is extremely well referenced and well illustrated. It is highly recommended.

BOOKS BRIEFLY NOTED

Fundamentals of Neurology: An Illustrated Guide

Mark Mumenthaler, Henrich Mattle, Ethan Taub, eds. New York: Thieme; 2006, 304 pages, 396 illustrations, $59.95.

In a 304-page softcover book, Drs. Mumenthaler, Mattle, and Taub describe key topics in neurology. The first 80 pages of the book deal with the fundamentals of neurology, neurologic examination, ancillary tests, and differential diagnosis in neurologic syndromes. The remainder of the book is devoted to specific diseases according to location and/or disease entity. Although this book is said to be aimed at the medical student, those in radiology who deal daily with their neurology colleagues may find this to be a useful reference. Presented in a highly readable format, the essentials of neurology are supplemented with extensive tabular material, highlighted fundamentals, appropriate imaging, and pictures of pertinent patients.

What would appeal most to trainees in neuroradiology and to those engaged in a large-volume neuroradiology practice are the sections on diseases of the cranial nerves, particularly where there are reviews of oculomotor disturbances, diagrams of the segmental lesions of the facial nerve, and abnormalities of hearing and balance. The descriptions of epilepsy, where there is a brief overview of seizure types and electroencephalogram findings, and sections of the book where there are descriptions of motor and sensory dysfunctions are good reviews. The various eye findings and descriptions of disturbance in oculomotor function, papillary mobility, and supranuclear abnormalities are particularly well done.

The format of the book is very pleasing with excellent drawings, crisp charts, and easy-to-read summary charts. Although clearly not intended to be a challenge to formidable multivolume texts such as *Neurology in Clinical Practice* by Bradley, Daroff, Fenichel, and Jarkovic, this short text provides an excellent synopsis for those wanting a review of neurology.

Pediatric Ophthalmology, Neuro-Ophthalmology, Genetics Series: Essentials in Ophthalmology

B. Loren and A.T. Moore, eds. New York: Springer; 2006, 240 pages, 89 illustrations, $119.

This monograph, which is part of a series in *Essentials in Ophthalmology*, is edited by Drs. Bright Lorenz and Anthony Moore, both of whom are well-known pediatric ophthalmologists. This 240-page book has a number of chapters that may be of general interest to neuroradiologists, particularly for those in children's hospitals who are involved in pediatric head-and-neck imaging. One section with the greatest applicability to imaging involves pediatric ocular oncology. This 20-page chapter has excellent color plates of children and infants with a wide range of tumors, including eyelid, conjunctival, intra-ocular, and orbital tumors. For those who would like to know what the optic discs look like in various diseases such as retinoblastomas, capillary hemangiomas, and melanocytomas, this book provides such images. Although this is not a publication that neuroradiologists would purchase, it may be a volume to recommend to a hospital or medical school library for ready reference.

Spine Surgery Tricks of the Trade

Alexander R. Vaccaro and Todd J. Albert, eds. New York: Thieme Medical Publishers; 2003, 212 pages, 302 illustrations, $149.95.

This book is divided into sections and chapters that are organized by region according to spinal level and procedure type. There are 13 sections and 86 chapters in total. Each chapter consists of a description of a separate operative procedure in spinal surgery. The authors of each chapter are experts in their respective fields of spine surgery and consist of orthope-